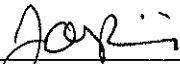


**Remedial Action Progress  
Report — January 2010  
through December 2010**

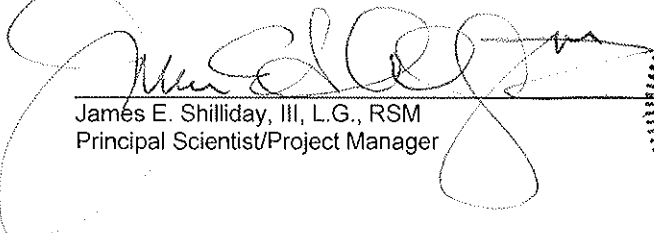
UNC Chapel Hill  
Airport Road Waste Disposal Area  
Chapel Hill, North Carolina

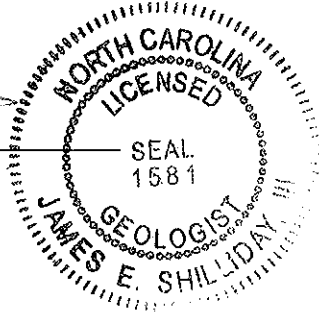
June 2011

Remedial Action Progress  
Report — January 2010  
through December 2010

  
\_\_\_\_\_  
J. Alan Pinnix, L.G.  
Senior Scientist

UNC Chapel Hill  
Airport Road Waste Disposal  
Area, Chapel Hill, North  
Carolina

  
\_\_\_\_\_  
James E. Shilliday, III, L.G., RSM  
Principal Scientist/Project Manager



Prepared for:  
The University of North Carolina at  
Chapel Hill

Prepared by:  
ARCADIS G&M of North Carolina, Inc.  
801 Corporate Center Drive,  
Suite 300  
Raleigh  
North Carolina 27607  
Tel 919 854 1282  
Fax 919 854 5448

Our Ref.:  
NC000239.0018

Date:  
June 2011

IHSB SITE NAME The UNC Airport Road Waste Disposal Area

DATE & NAME OF DOCUMENT June 2011, Remedial Action Progress Report - Jan 2010 thru Dec 2010

TYPE OF SUBMITTAL (circle all that apply): Report, Workplan, Work Phase Comp. Statement, Schedule Change

**REMEDIATING PARTY DOCUMENT CERTIFICATION STATEMENT (.0306(B)(2))**

"I certify under penalty of law that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this certification, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

Mary Beth Koza  
Name of Remediating Party

Mary Beth Koza  
Signature of Remediating Party

6-14-2011  
Date

**NOTARIZATION**

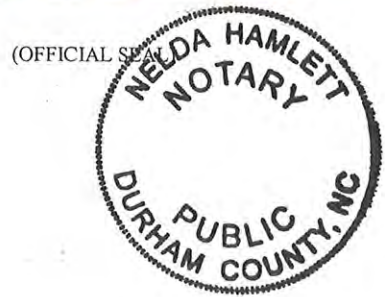
North Carolina (Enter State)

Orange COUNTY

I, Nelda Hamlett, a Notary Public of said County and State, do hereby certify that Mary Beth Koza did personally appear and sign before me this day, produced proper identification in the form of license, was duly sworn or affirmed, and declared that, he or she is the duly authorized environmental consultant of the remediating party of the property referenced above and that, to the best of his or her knowledge and belief, after thorough investigation, the information contained in the above certifications is true and accurate, and he or she then signed these Certifications in my presence.

WITNESS my hand and official seal this 14 day of June, 2011.

Nelda Hamlett  
Notary Public (signature)



My commission expires: Jan 8, 2013

IHSB SITE NAME \_\_\_\_\_

DATE & NAME OF DOCUMENT \_\_\_\_\_

TYPE OF SUBMITTAL (circle all that apply): Report, Workplan, Work Phase Comp. Statement, Schedule Change

**REGISTERED SITE MANAGER CERTIFICATION OF SIGNATURES**

As the Registered Environmental Consultant for the Site for which this filing is made, I certify that the signatures included herewith are genuine and authentic original handwritten signatures and/or true, accurate, and complete copies of the genuine and authentic original handwritten signatures of the persons who purport to sign for this filing. I further certify that I have collected through reliable means the originals and/or copies of said signatures from the persons authorized to sign for this filing who, in fact, signed the originals thereof. Those persons and I understand and agree that any copies of signatures have the same legally binding effect as original handwritten signatures, and I certify that any person for whom I am submitting a copy of their signature has provided me with their express consent to submit said copy. Additionally, I certify that I am authorized to attest to the genuineness and authenticity of the signatures, both originals and any copies, being submitted herewith and that by signing below, I do in fact attest to the genuineness and authenticity of all the signatures, both originals and copies, being submitted for this filing.

JAMES E. SHILLIDAY III  
Name of Registered Site Manager

[Signature]  
Signature of Registered Site Manager

6/23/11  
Date

**REGISTERED SITE MANAGER DOCUMENT CERTIFICATION STATEMENT (.0306(b)(1))**

"I certify under penalty of law that I am personally familiar with the information contained in this submittal, including any and all supporting documents accompanying this certification, and that the material and information contained herein is, to the best of my knowledge and belief, true, accurate and complete and complies with the Inactive Hazardous Sites Response Act G.S. 130A-310, et seq, and the remedial action program Rules 15A NCAC 13C .0300. I am aware that there are significant penalties for willfully submitting false, inaccurate or incomplete information."

JAMES E. SHILLIDAY III  
Name of Registered Site Manager

[Signature]  
Signature of Registered Site Manager

6/23/11  
Date

**NOTARIZATION**  
North Carolina (Enter State)  
Wake COUNTY

I, JOYCE A. ROGERS, a Notary Public of said County and State, do hereby certify that JAMES E. SHILLIDAY III did personally appear and sign before me this day, produced proper identification in the form of personal knowledge was duly sworn or affirmed, and declared that, he or she is the duly authorized environmental consultant of the remediating party of the property referenced above and that, to the best of his or her knowledge and belief, after thorough investigation, the information contained in the above certifications is true and accurate, and he or she then signed these Certifications in my presence.

WITNESS my hand and official seal this 23 day of JUNE, 2011.

[Signature]  
Notary Public (signature) JOYCE A. ROGERS (OFFICIAL SEAL)

My commission expires: 8/25/14



<b>1. Introduction</b>	<b>1-1</b>
<b>2. Groundwater Remediation System</b>	<b>2-1</b>
2.1 Treatment System Operation and Maintenance	2-1
2.2 Treatment System Sampling	2-2
2.2.1 Monthly OWASA Discharge Permit Sampling	2-2
2.2.2 Air Discharge Effluent Sampling	2-3
<b>3. Annual Groundwater and Surface Water Sampling Event</b>	<b>3-1</b>
3.1 Groundwater Flow Direction	3-1
3.2 Groundwater Parameters	3-2
3.3 Groundwater Sample Analytical Results	3-2
3.4 Historical Groundwater Analytical Trends	3-3
3.5 Surface Water Analytical Results	3-3
<b>4. Infiltration Gallery Injection Event</b>	<b>4-1</b>
4.1 Infiltration Gallery Construction	4-1
4.2 Injection Chemical Selection	4-1
4.3 Permitting	4-1
4.4 October 2010 Injection Event	4-2
4.5 Post Injection Monitoring	4-3
<b>5. Summary</b>	<b>5-1</b>
5.1 Groundwater Remediation System O&M	5-1
5.2 Groundwater Remediation System Monthly OWASA Sampling	5-1

<b>5.3</b>	<b>Air Discharge Effluent Sampling</b>	5-2
<b>5.4</b>	<b>Groundwater Sampling</b>	5-2
<b>5.5</b>	<b>Surface Water Sampling</b>	5-2
<b>5.6</b>	<b>Infiltration Gallery</b>	5-3
<b>5.7</b>	<b>Conclusions</b>	5-3

**Tables**

1	Groundwater Remediation System Sampling and Operation and Maintenance Record, January 2010 through December 2010
2	Summary of Groundwater Treatment System Effluent Sample Results
3	Summary of Air Stripper Discharge Sample Results
4	Summary of VER Discharge Sample Results
5	Summary of Monitor Well and Recovery Well Construction Details
6	Water-Level Elevations in Monitor Wells and Recovery Wells, November 2, 2010
7	Historical Groundwater Elevation Data
8	Groundwater Sampling Data for Samples Collected from Monitor Wells in November 2010
9	Summary of Analytical Results for Groundwater Samples Collected in November 2010
10	Historical Groundwater Analytical Data
11	Summary of Analytical Results for Surface Water Samples Collected in November 2010
12	Infiltration Gallery Monitoring Data Collected in October 2010

**Figures**

1	Site Location
2	Monitor Well and Recovery Well Location Map

3	Groundwater Potentiometric Surface of the Shallow Aquifer - November 2010
4	Groundwater Potentiometric Surface of the Bedrock Aquifer - November 2010
5	Benzene Isoconcentration Contour Map of the Shallow Aquifer - November 2010
6	Chloroform Isoconcentration Contour Map of the Shallow Aquifer - November 2010
7	Methylene Chloride Isoconcentration Contour Map of the Shallow Aquifer - November 2010
8	Diethyl Ether Isoconcentration Contour Map of the Shallow Aquifer - November 2010
9	Benzene Isoconcentration Contour Map of the Bedrock Aquifer - November 2010
10	Chloroform Isoconcentration Contour Map of the Bedrock Aquifer - November 2010
11	Diethyl Ether Isoconcentration Contour Map of the Bedrock Aquifer - November 2010
12	Benzene Isoconcentration Cross Section - November 2010
13	Diethyl Ether Isoconcentration Cross Section - November 2010
14	Infiltration Gallery Layout

**Appendices**

- A Discharge Monitoring Reports
- B Laboratory Analytical Data Reports for Groundwater Samples
- C Laboratory Analytical Data Reports for Air Discharge Samples

## 1. Introduction

ARCADIS G&M of North Carolina, Inc. (ARCADIS) prepared this report on behalf of the University of North Carolina at Chapel Hill (UNC) to document remedial action progress and performance of the groundwater remediation system at the UNC Airport Road Waste Disposal Area (the site). The site is located near the intersection of Municipal Drive and Animal Shelter Road and is shown on **Figure 1**.

This site is being remediated under the Registered Environmental Consultant (REC) Program. As required by the REC program implementation guidance, this report is the seventh Remedial Action Progress Report submitted since certification of the Groundwater Remediation System Construction Completion Report on October 25, 2006. As four consecutive quarterly reports were submitted in 2007, REC program guidelines allows for submittal of a single annual report detailing all groundwater remedial activities over the past year. This report is the third annual report and covers the reporting period of January 2010 through December 2010.

This report discusses the operation and maintenance (O&M) of the groundwater remediation system for the period, along with results of the required groundwater effluent sampling and air discharge sampling. The selected remedial option for the site consists of groundwater extraction using electric submersible pumps and dual phase (groundwater/soil vapor) recovery utilizing vacuum-enhanced recovery (VER). Treated groundwater is discharged to the Orange Water and Sewer Authority (OWASA) sewer system under OWASA discharge permit #010. The groundwater remediation system became fully operational on October 5, 2006.

This report also contains the results of the November 2010 annual groundwater and surface water monitoring event. The samples were collected from 28 monitor wells, 4 vapor extraction and recovery wells, 6 recovery wells, and 5 surface water sample locations to evaluate overall effectiveness of the groundwater remediation efforts.

Additionally, during 2010, enhancement of the remedial system was conducted by use of an infiltration gallery. The gallery was installed during removal of the source material conducted in 2008. One injection event utilizing sodium persulfate and associated monitoring was conducted in October 2010. Additional injection events are planned in 2011.



## 2. Groundwater Remediation System

The groundwater remediation system was installed at the site in the summer of 2006, and the system became fully operational on October 5, 2006. The groundwater remediation system consists of four vapor extraction and recovery (VER) wells (designated VER-1 through VER-4), three shallow recovery wells (designated as SRW-1 through SRW-3) and three deep recovery wells (designated as DRW-1 through DRW-3) as shown on **Figure 2**. Groundwater from the VER wells and shallow recovery wells is pumped into a settling tank, followed by bag filtration. This flow then joins groundwater pumped from the deep recovery wells and the combined flow enters the air stripper. Following treatment by the air stripper, the water is pumped to OWASA Manhole 47C4001 where it is discharged into the OWASA sewer system.

### 2.1 Treatment System Operation and Maintenance

The groundwater remediation system is inspected by ARCADIS personnel on a monthly basis. System operational information recorded during the site checks includes readings from the various pressure and flow gauges located on the bag filter, influent flow meters, air stripper, VER system, effluent pump, and effluent totalizer. Minor adjustments are made to keep the system operating as efficiently as possible. Maintenance activities include changing of the cloth bag filter. Monthly O&M activities include collecting readings from the various flow meters and pressure gauges at each well head, as well as cleaning of the air stripper and removal of accumulated sediment from the settling tank.

A record of system O&M activities conducted from January 2010, through December 2010 is included in **Table 1**. The information presented on **Table 1** includes descriptions of the activities and the dates on which the activities were performed.

The groundwater remediation system and recovery wells were generally operational between January 2010 and December 2010. There were no major repairs performed during this period beyond normal cleaning.

Based on the totalizer reading recorded at the treatment system on December 16, 2010, approximately 27,972,470 gallons of impacted groundwater have been extracted from the site and treated and discharged since the system was first activated on October 5, 2006.

## 2.2 Treatment System Sampling

Treatment system sampling consists of collection of groundwater effluent samples to monitor the quality of water entering the OWASA system and also collection of air discharge samples from the air stripper and VER system. The following sections describe the sampling in greater detail.

### 2.2.1 Monthly OWASA Discharge Permit Sampling

Following start up of the groundwater remediation system, monthly collection of treated groundwater samples was performed as per the requirements of the OWASA discharge permit #010, which became effective on June 1, 2006. The permit requires monthly discharge sampling and monthly reporting for the first year of system operation followed by monthly sampling and quarterly reporting for subsequent years. The first year of operation was completed as of October 2007 and as such the reporting frequency was adjusted to quarterly. Monthly effluent sampling will continue for the duration of the permit.

The treatment system effluent samples were analyzed for volatile organic compounds (VOCs) and arsenic, chromium, copper, lead, zinc and mercury. Samples designated for analysis of VOCs, arsenic, chromium, copper, lead, and zinc were submitted to TestAmerica in Savannah, Georgia for analysis. Samples designated for analysis of mercury were submitted to TestAmerica in Pensacola, Florida for analysis.

System effluent samples were collected on January 11, 2010, February 10, 2010, March 12, 2010, April 19, 2010, May 24, 2010, June 14, 2010, July 27, 2010, August 18, 2010, September 12, 2010, October 1, 2010, November 5, 2010, and December 14, 2010, for reporting to OWASA.

The analytical results from all effluent monitoring events (**Table 2**) indicate the groundwater treatment system is effectively treating the extracted groundwater. In 2010, all parameters were in compliance with OWASA discharge limits for the respective monitoring period.

Quarterly discharge monitoring reports (DMR) were generated for the January to March 2010 monitoring period, April to June 2010 monitoring period, July to September 2010 monitoring period and October to December 2010 monitoring period. Copies of the DMRs are included in Appendix A. The laboratory analytical reports

associated with the groundwater treatment system effluent samples are included in Appendix B.

#### 2.2.2 Air Discharge Effluent Sampling

In addition to the OWASA effluent sampling, air discharge samples were collected from the air stripper and VER system on a regular basis upon commencement of system operations. Samples were collected during the monitoring period on February 11, 2010 and again on July 27, 2010.

Air samples collected in the field remained in the custody of an ARCADIS employee until hand delivered to the laboratory. Air sample analytical services were provided by Research Triangle Park Laboratories. All air samples were analyzed for VOCs by EPA Method TO-15.

The analytical results from the air discharge sampling events associated with the air stripper and the VER system are presented in **Table 3** and **Table 4**, respectively. The analytical data were converted to daily mass flow in pounds per day using the raw data and the air flow information collected during each monitoring event. The converted data indicates a total average of 0.2 pounds per day of volatile organics for the combined discharge from both the air stripper and VER system for the period of January 2010 through December 2010. Extrapolated for a year, this average would be 73 pounds per year or approximately 0.04 tons. This volume is well below the 5 tons per year required for an air quality permit.

Monitoring of air quality from the air stripper and VER system will continue on a semi-annual basis through the next reporting period as per the monitoring schedule contained in the Construction Completion Report: Groundwater Remediation System dated October 2006. Copies of the air quality laboratory reports are included in Appendix C.

### 3. Annual Groundwater and Surface Water Sampling Event

The results of the field measurements collected from the site monitor wells are presented in this section along with the analytical results for the November 2010 groundwater and surface water sampling event. The locations of the site monitor wells, recovery wells, and surface water sample points are shown on **Figure 2**. The construction details for site monitor wells and recovery wells are listed on **Table 5**.

#### 3.1 Groundwater Flow Direction

Water-level measurements from tops of casings were collected from the site wells on November 2, 2010, to determine the groundwater flow direction at the site. The water-level measurements were converted to water-level elevations using existing monitor well top of casing elevation data. The depth-to-water measurements and the converted water-level elevations for the November 2010 gauging event are listed on **Table 6**.

The water-level elevations in the shallow monitor wells ranged from 447.41 feet above mean sea level (ft msl) in downgradient well MW-25 to 478.81 ft msl in upgradient well MW-3, located near the source area. In the bedrock aquifer, water-level elevations ranged from 383.85 ft msl in downgradient monitor well MW-35 to 473.57 in monitor well MW-28 which is located upgradient of the source area.

The water-level elevations in the monitor wells adjacent to, or near, recovery wells are most directly affected by the active pumping of the recovery wells. Since the activation of the recovery wells in October 2006, water-level elevations in site monitor wells located near the recovery wells have decreased slightly to significantly depending on the proximity of the monitor well relative to the recovery wells. Historical depth-to-water measurements and groundwater elevation data for the site monitor wells are presented in **Table 7**.

Water-level contour maps for the November 2010 sampling event were prepared for the surficial and bedrock aquifers using the water-level elevation data from the wells (**Figures 3 and 4**, respectively). Based on the information presented on **Figures 3 and 4**, the overall groundwater flow direction in the surficial and bedrock aquifers is generally towards the north and northeast. In comparing the groundwater flow map created with the November 2010 water-level elevation data to the numerous historic potentiometric surface maps that have been created for the site, it is apparent that the groundwater recovery system has altered the groundwater flow pattern at the site.

Based on the November 2010 water level data, the capture zone created by the groundwater extraction wells extends from the VER wells north/northwest to the SRW series of recovery wells and northeast toward deep recovery wells DRW-2 and DRW-3.

### 3.2 Groundwater Parameters

The field groundwater parameters for temperature, pH, and specific conductance were measured for samples collected from monitor wells during the November 2010 sampling event. The last set of temperature, pH, and specific conductance measurements that were recorded prior to sampling the monitor wells are presented in **Table 8**. The temperature, pH, and specific conductance ranges for the monitoring wells were as follows: 14.23 to 18.62 (degrees Celsius), 5.30 to 7.88 (standard units), and 163 to 2,507 ( $\mu\text{mhos}$ ), respectively. The temperature, pH, and specific conductance measurements collected during the November 2010 sampling event are consistent with the measurements collected during previous monitor well sampling events.

### 3.3 Groundwater Sample Analytical Results

Groundwater samples were collected from 25 monitor wells, 4 vapor extraction and recovery wells, and 6 recovery wells during the November 2010 groundwater sampling event. The analytical results for the November 2010 groundwater sampling event are summarized in **Table 9**. A copy of the laboratory analytical data report associated with this sampling event is included in Appendix B.

Based on the laboratory data report for the November 2010 sampling event, benzene, chloroform, 1,2-dichloroethane, diethyl ether, methylene chloride, methyl tert-butyl ether (MTBE), 1,1,2,2-tetrachloroethene, trichloroethene, vinyl chloride, and xylene were reported at concentrations above North Carolina Groundwater Standards. The highest concentrations of these compounds were seen in monitor wells MW-1 and MW-2, located immediately downgradient of the source area, with decreasing concentrations further downgradient. The one exception was MTBE which was only detected in one monitor well (bedrock well MW-36) which is located approximately 1,000 feet lateral gradient of the waste disposal area and within approximately 100 feet of Martin Luther King, Jr. Boulevard (formerly Airport Road). Based on the fact that MTBE has never been detected at the site in any other wells, and that the timeframe for use of MTBE began in the 1980s (well after burial activities were suspended at the waste disposal area), it appears that the detection of MTBE in well

MW-36 is likely related to an offsite release of gasoline. It is possible that a gasoline release on or near Martin Luther King Jr. Boulevard (formerly Airport Road) is the cause of the MTBE detections in well MW-36.

Contaminant isoconcentration contour maps for benzene, chloroform, methylene chloride, and diethyl ether are presented for the shallow unconsolidated aquifer in **Figures 5, 6, 7, and 8**, respectively. Isoconcentration contour maps for benzene, chloroform, and diethyl ether are presented for the bedrock aquifer in **Figures 9, 10, and 11**, respectively. The maps were created using the data from the November 2009 sampling event, and historical data was also considered in the placement of the contours. Isoconcentration contour cross section maps for benzene and diethyl ether have been prepared and are included as **Figures 12 and 13**, respectively. Historical groundwater analytical data for site monitor wells are presented in **Table 10**.

Overall the groundwater analytical data from the November 2010 groundwater sampling event indicates that the existing monitor well network has defined the extent of impacted groundwater at the site.

### 3.4 Historical Groundwater Analytical Trends

The groundwater analytical data obtained during the November 2010 sampling event indicate localized decreases in specific VOC concentrations since activation of the groundwater remediation system. VOC concentration reductions have been observed primarily in the shallow monitor wells MW-1, MW-2, MW-6 and MW-12, and the bedrock monitor wells MW-11, MW-15 and MW-31. Monitor wells MW-1 and MW-2 are located in close proximity to the VER wells, downgradient of the source area, while monitor well MW-12 is located between SRW-2 and SRW-3. Monitor wells MW-11 and MW-15 are adjacent to DRW-2 and DRW-1 respectively. The general decrease in VOC concentrations, especially in monitor wells located in the vicinity of recovery wells, suggests the groundwater remediation system is effectively reducing groundwater contaminant concentrations at the site. The analytical results for these wells will be further evaluated during future monitoring events to determine if these trends continue. In addition, the groundwater at well MW-36 will continue to be monitored for the presence of MTBE.

### 3.5 Surface Water Analytical Results

Surface water samples were collected from sample locations SW-2, SW-3, SW-4, SW-5, and SW-6 and analyzed for VOCs during the November 2010 monitoring

event. Surface water sample locations are shown on **Figure 2** and tabulated analytical results are displayed on **Table 11**. Analytical results indicate that no VOCs were detected above laboratory reporting limits in any of the surface water samples collected.

**4. Infiltration Gallery Injection Event**

**4.1 Infiltration Gallery Construction**

Following the excavation and off-site disposal of the source material in 2008 at the UNC Airport Road Waste Disposal Area, an infiltration gallery was installed in the excavation base. The gallery was designed to allow the future application of remedial amendments to supplement groundwater recovery efforts. The infiltration gallery was constructed as three individual cells as shown on **Figure 14**. The bottom of each cell is approximately 13 feet below land surface at elevations ranging from 472 to 474 ft amsl with the higher elevations near Cell 3. Eighteen inch high clay berms separate each cell from each other. The cells are filled to a depth of approximately 18 inches with number 4 sized crushed stone. Within each cell, two north to south oriented 4-inch diameter horizontal slotted pipes were installed at the approximate midpoint of the stone. The horizontal pipes are connected to the land surface via 4-inch diameter Schedule 40 PVC pipes. The dimensions and approximate capacity of each cell and the total infiltration gallery are shown in the following table:

	Area (ft <sup>2</sup> )	Depth (ft)	Volume (ft <sup>3</sup> )	Est. Porosity	Capacity (ft <sup>3</sup> )	Capacity (gal)
Cell 1	1,575	1.5	2,363	30%	709	5,301
Cell 2	1,950	1.5	2,925	30%	878	6,564
Cell 3	4,212	1.5	6,318	30%	1,895	14,178
Total	7,737	1.5	11,606	30%	3,482	26,043

**4.2 Injection Chemical Selection**

An evaluation was conducted on the mixture of chemicals known to be present at the site. The mixture includes aromatics (benzene, toluene, ethylbenzene and xylenes), ketones (acetone), diethyl ether, chlorinated methanes (carbon tetrachloride and chloroform), chlorinated ethenes (trichloroethene – TCE) and chlorinated ethanes (dichloroethane– DCA). Based on the site specific mix, it was determined that sodium persulfate would likely provide the best treatment approach for the broadest range of chemicals. In addition, activation via sodium hydroxide was selected as the best way to treat the typically more resistant chlorinated methanes.

**4.3 Permitting**

An Underground Injection Control (UIC) permit was issued to UNC on April 15, 2010 to cover the injection gallery. The permit was issued by the NCDENR Division of



Water Quality. The site is permitted to perform up to 12 quarterly injection events. Each individual event is permitted for injection of up to 15,000 gallons of sodium persulfate at a concentration of 5 grams per liter (g/L). Activation may be through the use of up to 15,000 gallons of sodium hydroxide at a concentration of 5 g/L. Post injection monitoring consists of monitor wells MW-1, MW-2, MW-3, MW-38, MW-39 and bedrock well MW-14.

#### 4.4 October 2010 Injection Event

Baseline groundwater sampling was conducted prior to the initial injection event on October 1, 2010. Baseline groundwater sampling was conducted on wells MW-1, MW-2, MW-3, MW-14, MW-38, and MW-39 on September 29 and 30, 2010. Each well was purged prior to sampling and field parameters including temperature, pH, dissolved oxygen, conductivity, turbidity, and oxidation-reduction potential were measured with a calibrated multi-parameter meter and recorded. Samples were collected and submitted to TestAmerica Laboratories in Savannah, Georgia for analysis of VOCs, RCRA metals, sodium, iron, and sulfate. Field parameters were also measured and record at injection monitoring wells IGMW-1 and IGMW-2.

ARCADIS utilized Garco, to perform the injection. ARCADIS and Garco mobilized to the site on October 1, 2010. Water levels were measured and recorded at injection wells IW-1, IW-2, IW-3, IW-4, IW-5, and IW-6.

An injectant solution was prepared in a decontaminated stainless steel mobile tanker by combining approximately 240 pounds of sodium persulfate and 5,000 gallons of potable water. The solution was recirculated using a pneumatic diaphragm pump to ensure dissolution and mixing of the persulfate. The injectant solution was gravity drained into IW-1. Water levels in the injection wells were monitored throughout the injection. The injection was stopped after injecting approximately 800 gallons to prevent rising water levels in injection wells IW-1 and IW-2 from overflowing.

Due to elevated water levels in the infiltration gallery following a heavy rain event on September 30, 2010 an injectant solution with a higher concentration of sodium persulfate was prepared by adding an additional approximately 240 pounds of sodium persulfate to the remaining 4,200 gallons of injectant solution in the tanker. The injectant was again recirculated in the tanker. Approximately 2,000 gallons of resulting solution were injected into each IW-5 and IW-6. 300 gallons of solution were injected into IW-4.

Due to rising water levels during the first injection attempt in IW-1 and IW-4, a more concentrated injectant solution was prepared for additional injections in IW-2 and IW-3. Approximately 220 pounds of sodium persulfate were mixed with 1,000 gallons of potable water and recirculated in the tanker. Approximately 400 gallons of the resulting solution were gravity drained into injection well IW-2 and approximately 250 gallons were injected into injection well IW-3. Rising water levels in injection wells IW-1, IW-2, IW-3, and IW-4 prevented additional injections into these wells. The remaining approximately 350 gallons of solution were gravity drained into injection well IW-5. The final injection gallery concentration was calculated to be 4 g/L, which is within the injection permit limits.

#### 4.5 Post Injection Monitoring

Post-injection groundwater monitoring was conducted on October 4, 2010, October 8, 2010, and October 18, 2010. During each sampling event MW-1, MW-2, MW-3, MW-14, MW-38, and MW-39 were purged prior to sampling and field parameters including temperature, pH, dissolved oxygen, conductivity, turbidity, and oxidation-reduction potential were measured with a calibrated multi-parameter meter and recorded. Each well was sampled for VOCs, RCRA metals, iron, sodium, and sulfate. Samples were submitted to Test America, an environmental analytical laboratory, for analysis.

The pre-injection and post-injection data are summarized on **Table 12**. The data are similar for both pre-injection and post-injection; however, both are slightly lower than historic concentrations seen in these wells. Additional monitoring and injections are needed to further evaluate the effectiveness of the persulfate.

## 5. Summary

This section provides a summary of the groundwater remediation system O&M activities and system sampling activities conducted for the performance monitoring period of January 2010 through December 2010. This section also provides a summary of the analytical results for the groundwater and surface water sampling event conducted at the site in November 2010 and a summary of the infiltration gallery injection event. The data collected during the performance monitoring period documented in this report indicate that the groundwater remediation system is effectively extracting and treating impacted groundwater, and that the impacted groundwater plume at the site is adequately defined by the existing monitor well network.

### 5.1 Groundwater Remediation System O&M

The groundwater remediation system is inspected by ARCADIS personnel on a regular basis. System operational information recorded during the site checks includes readings from the various pressure and flow gauges located on the bag filter, influent flow meters, air stripper, VER system, effluent pump, and effluent totalizer. Minor adjustments are made to keep the system operating as efficiently as possible. Regular maintenance activities include changing of the cloth bag filter. Monthly O&M activities include collecting readings from the various flow meters and pressure gauges at each well head, as well as cleaning of the air stripper and effluent transfer pump.

Based on the totalizer reading at the treatment system on December 16, 2010, approximately 27,972,470 gallons of impacted groundwater have been pumped from the site recovery wells and treated and discharged since the system was activated on October 5, 2006.

### 5.2 Groundwater Remediation System Monthly OWASA Sampling

The sampling of the effluent entering the OWASA system was conducted on a monthly basis. The analytical data from the monthly sampling events indicate the groundwater treatment system is sufficiently removing the constituents of concern from the discharge. In 2010, all parameters were in compliance with the OWASA discharge limits.

### 5.3 Air Discharge Effluent Sampling

The air discharge sampling performed on the effluent discharge of the air stripper and the VER system during the operational period indicated that on average, 0.02 pounds per day of VOCs are being generated from the groundwater remediation system. This value extrapolated over a period of a year indicates the total VOC discharge will be approximately 0.04 tons which is well below the 5 tons per year limit for an air discharge permit.

### 5.4 Groundwater Sampling

Water-level measurements were collected from site monitor wells and recovery wells during the November 2010 monitor well sampling event. The depth-to-water measurements and the converted water-level elevation data for the shallow and bedrock monitor wells indicate that groundwater is flowing north and northeast across the site.

The groundwater flow pattern derived using the November 2010 water level elevation data indicates that the groundwater recovery system has altered groundwater flow at the site in comparison to previous static water-level elevation measurement events. The groundwater extraction system has created a capture zone that extends from the VER wells north/northwest to the SRW series of recovery wells and northeast toward deep recovery wells DRW-2 and DRW-3.

Groundwater samples were collected from 25 monitor wells, 4 vapor extraction and recovery wells, and 6 recovery wells during the November 2010 annual sampling event and the samples were analyzed for VOCs. The analytical results from the November 2010 groundwater sampling event indicate that benzene, chloroform, 1,2-dichloroethane, diethyl ether, methylene chloride, MTBE, 1,1,2,2-tetrachloroethene, trichloroethene, vinyl chloride, and xylene were reported at concentrations above North Carolina Groundwater Standards. The concentrations of some of these constituents have been reduced at specific well locations. The detection of MTBE in well MW-36 will continue to be monitored.

### 5.5 Surface Water Sampling

Surface water samples were collected from sample locations SW-2, SW-3, SW-4, SW-5, and SW-6 and analyzed for VOCs during the November 2010 sampling event. Analytical results indicate that no VOCs were detected above laboratory reporting limits in any of the surface water samples collected.

### 5.6 Infiltration Gallery

The initial injection of the infiltration gallery was conducted on October 1, 2010. Monitoring data for the initial event indicated no significant change in concentrations within downgradient monitor wells. Additional events will be conducted in 2011 at which time the use of persulfate can be better evaluated.

### 5.7 Conclusions

The data generated for the UNC Airport Road Waste Disposal Area during 2010 continues to indicate that the extent of impacted groundwater is well understood, and that the impacted groundwater plume is contained onsite. Furthermore, the active groundwater remediation system appears to be effective at containing and recovering the impacted groundwater and reduced contaminant concentrations have been observed at several monitor well locations. Operation of the groundwater remediation system will continue through 2011 with the next Remedial Action Progress Report being submitted in the first quarter of 2012.

**ARCADIS**

**Remedial Action  
Progress Report —  
January 2010 through  
December 2010**

Tables

Table 1. Groundwater Remediation System Sampling and Operation and Maintenance Record January 2010 through December 2010, UNC Airport Road Waste Disposal Area, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Date	Personnel On-Site	Maintenance Activity/Comments	System Status	Samples Collected	System Totalizer Reading (gallons)	Gallons Pumped During Period (gallons)	OWASA Totalizer Reading	Average Daily Flow for Period (gallons)	Period Start	Period End
12/21/2009	D. Twamley	On-site to collect monthly effluent samples. Remediation system check.	Running	Effluent (VOCs, RCRA metals and LL Mercury)	19,397,452	789,332	2,629,315	25,462	11/20/2009	12/21/2009
1/11/2010	D. Twamley	On-site to collect monthly effluent samples. Remediation system inspected.	Running	Effluent (VOCs, RCRA metals and LL Mercury)	19,950,791	553,339	2920975	26,349	12/21/2009	1/11/2010
1/13/2010	<b>SAEDACCO</b>	On-site for monthly system cleaning and O&M. AS trays descaled and recovery well pumps cleaned.	Running	None	NR		NR			
2/10/2010	D. Twamley	On-site to collect monthly effluent samples. Remediation system inspected.	Running	Effluent (VOCs, RCRA metals and Mercury), AS Vapors, SVE Vapors	20,720,708	769,917	3,358,100	25,664	1/11/2010	2/10/2010
3/12/2010	D. Twamley	On-site to collect monthly effluent samples. Remediation system inspected.	Running	Effluent (VOCs, RCRA metals and LL Mercury)	21,502,485	781,777	3,785,350	26,059	2/10/2010	3/12/2010
3/26/2010	<b>OWASA</b>	OWASA performed annual totalizer change out. The final reading for the 1 1/2" on Municipal Dr. Serial#00512859 was 03976400. The new serial # is 10901811. Initial reading is 00000000.	Running	None	NR					
4/6/2010	<b>SAEDACCO</b>	On-site for monthly system cleaning and O&M. AS trays descaled.	Running	None	NR		NR			
4/19/2010	D. Twamley	On-site to collect monthly effluent samples. Remediation system inspected.	Running	Effluent (VOCs, RCRA metals and LL Mercury)	22,480,900	978,415	4,118,215	25,748	3/12/2010	4/19/2010
5/24/2010	D. Twamley	On-site to collect monthly effluent samples. Remediation system inspected.	Running	Effluent (VOCs, RCRA metals and LL Mercury)	23,358,049	877,149	4,572,291	25,061	4/19/2010	5/24/2010
5/27/2010	<b>SAEDACCO</b>	On-site for monthly system cleaning and O&M. AS trays descaled.	Running	None	NR		NR			
6/14/2010	D. Twamley	On-site to collect monthly effluent samples. Remediation system inspected.	Running	Effluent (VOCs, RCRA metals and LL Mercury)	23,669,300	311,251	4,855,305	14,821	5/24/2010	6/14/2010
6/30/2010	<b>SAEDACCO</b>	On-site for monthly system cleaning and O&M. AS trays descaled.	Running	None	NR		NR			
7/27/2010	D. Twamley	On-site to collect monthly effluent samples. Remediation system inspected.	Running	Effluent (VOCs, RCRA metals and Mercury), AS Vapors, SVE Vapors	24,236,386	567,086	5,341,300	13,188	6/14/2010	7/27/2010
8/12/2010	D. Twamley and <b>SAEDACCO</b>	On-site for monthly system cleaning and O&M. AS trays descaled.	Running	None	24,567,040	330,654	1,698,450	20,666	7/27/2010	8/12/2010
8/18/2010	D. Twamley	On-site to collect monthly effluent samples. Remediation system inspected.	Running	Effluent (VOCs, RCRA metals and LL Mercury)	24,759,489	192,449	5,561,965	32,075	8/12/2010	8/18/2010
9/8/2010	<b>SAEDACCO</b>	On-site for monthly system cleaning and O&M. AS trays descaled.	Running	None	NR		NR			
9/12/2010	D. Twamley	On-site to collect monthly effluent samples. Remediation system inspected.	Running	Effluent (VOCs, RCRA metals and LL Mercury)	25,321,415	561,926	5,791,935	22,477	8/18/2010	9/12/2010
10/1/2010	A.Pinnix and J.Frizzell	On-site to collect monthly effluent samples. Remediation system inspected.	Running	Effluent (VOCs, RCRA metals and LL Mercury)	25,729,500	408,085	NR	21,478	9/12/2010	10/1/2010

Table 1. Groundwater Remediation System Sampling and Operation and Maintenance Record January 2010 through December 2010, UNC Airport Road Waste Disposal Area, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Date	Personnel On-Site	Maintenance Activity/Comments	System Status	Samples Collected	System Totalizer Reading (gallons)	Gallons Pumped During Period (gallons)	OWASA Totalizer Reading	Average Daily Flow for Period (gallons)	Period Start	Period End
10/19/2010	<b>SAEDACCO</b>	On-site for monthly system cleaning and O&M. AS trays descaled.	Running	None	NR		NR			
11/5/2010	D. Twamley	On-site to collect monthly effluent samples. Remediation system inspected.	Running	Effluent (VOCs, RCRA metals and LL Mercury)	26,783,129	1,053,629	2,592,920	30,104	10/1/2010	11/5/2010
11/11/2010	<b>SAEDACCO</b>	On-site for monthly system cleaning and O&M. AS trays descaled.	Running	None	NR		NR			
12/14/2010	D. Twamley	On-site to collect monthly effluent samples. Remediation system inspected.	Running	Effluent (VOCs, RCRA metals and LL Mercury)	27,972,470	1,189,341	3,040,485	30,496	11/5/2010	12/14/2010
12/16/2010	<b>SAEDACCO</b>	On-site for monthly system cleaning and O&M. AS trays descaled.	Running	None	NR		NR			



Table 2. Summary of Groundwater Treatment System Effluent Sample Results, UNC Airport Road Waste Disposal Area, The University of North Carolina at Chapel Hill,

Parameter	OWASA Maximum Allowable Discharge Concentration	Groundwater Treatment System Effluent Samples						
		12/21/2009	1/11/2010	2/10/2010	3/12/2010	4/19/2010	5/24/2010	6/14/2010
<b>Benzene (µg/L)</b>	100	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
<b>Chloroform (µg/L)</b>	100	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
<b>1,2-Dichloroethane (µg/L)</b>	71	1.6	1.5	< 2.0	4.7	1.7	8.4	3.4
<b>Methylene Chloride (µg/L)</b>	930	< 5.0	< 5	<10	< 5.0	< 5.0	< 5.0	< 5.0
<b>1,1,2,2-Tetrachloroethane (µg/L)</b>	30	< 1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0
<b>Arsenic (µg/L)</b>	16	< 20	< 20	< 20	< 20	< 20	< 20	< 20
<b>Chromium (µg/L)</b>	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10
<b>Copper (µg/L)</b>	60	< 20	< 20	< 20	< 20	23	< 20	< 20
<b>Lead (µg/L)</b>	49	< 10	< 10	< 10	< 10	< 10	< 10	< 10
<b>Zinc (µg/L)</b>	535	< 20	< 20	22	22	97	< 100	< 100
<b>Mercury (ng/L)</b>	50	0.67	< 0.50	0.55	< 0.50	< 0.50	1.2	< 0.50

µg/L Micrograms per liter

ng/L Nanograms per liter

Table 2. Summary of Groundwater Treatment System Effluent Sample Results, UNC Airport Road Waste Disposal Area, The University of North Carolina at Chapel Hill,

Parameter	OWASA Maximum Allowable Discharge Concentration	Groundwater Treatment System Effluent Samples					
		7/27/2010	8/18/2010	9/12/2010	10/1/2010	11/5/2010	12/14/2010
<b>Benzene (µg/L)</b>	100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
<b>Chloroform (µg/L)</b>	100	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
<b>1,2-Dichloroethane (µg/L)</b>	71	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
<b>Methylene Chloride (µg/L)</b>	930	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
<b>1,1,2,2-Tetrachloroethane (µg/L)</b>	30	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
<b>Arsenic (µg/L)</b>	16	< 20	< 20	< 20	< 20	< 20	< 20
<b>Chromium (µg/L)</b>	50	< 10	< 10	< 10	< 10	< 10	< 10
<b>Copper (µg/L)</b>	60	< 20	< 20	< 20	< 20	< 20	< 20
<b>Lead (µg/L)</b>	49	< 10	< 10	< 10	< 10	< 10	< 10
<b>Zinc (µg/L)</b>	535	< 100	< 100	< 100	< 20	< 20	< 100
<b>Mercury (ng/L)</b>	50	< 0.50	< 0.50	0.74	< 0.50	0.68	0.71

µg/L Micrograms per liter

ng/L Nanograms per liter

Table 3. Summary of Air Stripper Discharge Sample Results, UNC Airport Road Waste Disposal Area, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Sample ID:	Air Stripper Discharge	Air Stripper Discharge				
Constituents	Date Sampled:	2/11/2010	7/27/2010			
Air Stripper Discharge Pipe (6 inch diameter)						
Vapor Flow Rate (cfm)	320	320				
Vapor Temperature (degrees celcius)	20	20				
Vapor Flow Rate (m3/day)	13824	13824				
Discharge Velocity (ft/sec)	6.79	6.79				
<u>Volatle Organics (ppbv)</u>	<u>Air Concentration ppbv</u>	<u>Converted Concentration mg/m3</u>	<u>Daily Mass Flow Rate lbs/day</u>	<u>Air Concentration ppbv</u>	<u>Converted Concentration mg/m3</u>	<u>Daily Mass Flow Rate lbs/day</u>
<i>(USEPA Method TO-15 GC/MS)</i>	<i>Molecular Weight (g/mol)</i>					
Dichlorodifluoromethane (Freon 12)	120.91					
1,2-Chloro-1,1,2,2-Tetrafluorethane	170.92					
Chloromethane	50.49					
Vinyl chloride	62.50					
1,3-Butadiene	54.09					
Bromomethane	94.94					
Cloroethane	64.51					
Trichloromonofluoromethane	137.37	0.6	0.00	0.00		
1,1-Dichloroethene	96.94					
1,1,2-Trichloro-1,2,2-trifluoroethane	187.38					
Ethanol	46.07					
Carbon Disulfide	76.14					
Isopropyl alcohol	60.10	2.72	0.01	0.00	28.8	0.07
Methylene Chloride	84.93	2.53	0.01	0.00	10.12	0.04
Acetone	58.08	2.86	0.01	0.00	110.32	0.26
t-1,2-dichloroethene	96.94					
Hexane	86.18				9.51	0.03
Methyl-t-butyl ether (MTBE)	88.15					0.00
1,1-Dichloroethane	98.96					
Vinyl acetate	86.09	2.4	0.01	0.00		
cis-1,2-dichloroethene	96.94					
Cyclohexane	84.18	0.81	0.00	0.00	2.69	0.01
Chloroform	119.38	4.07	0.02	0.00	2.28	0.01
Ethyl Acetate	88.10					0.00
Tetrahydrofuran	72.11	6.12	0.02	0.00	4.84	0.01
1,1,1-Trichloroethane	133.40					
Carbon Tetrachloride	153.82	0.55	0.00	0.00		
2-Butanone	72.11					
Heptane	100.2	1.28	0.01	0.00		
Benzene	78.11	2.61	0.01	0.00	2.63	0.01
1,2-Dichloroethane	98.96					
Trichloroethylene	131.39					
1,2-Dichloropropane	112.99					
Bromodichloromethane	163.83					
1,4-Dioxane	88.11	1.61	0.01	0.00	3.72	0.01
Cis-1,3-Dichloropropene	110.97					
Toluene	92.14				1.98	0.01
4-Methyl-2-pentanone (MIBK)	100.16	61.88	0.25	0.01		
t-1,2-dichloropropene	110.97					
Tetrachloroethylene	165.83					
1,1,2-Trichloroethane	133.40					
Dibromochloromethane	208.28					
1,2-Dibromoethane	187.86					
2-Hexanone	100.16					
Ethylbenzene	106.17	0.77	0.00	0.00		
Chlorobenzene	112.56					
m/p-Xylene	106.17				1.48	0.01
o-Xylene	106.17					0.00
Styrene	104.15					
Tribromomethane	252.73					
1,1,2,2-Tetrachloroethane	167.85					
1-Ethyl-4-Methylbenzene	120.19					
1,3,5-Trimethylbenzene	120.19					
1,2,4-Trimethylbenzene	120.19					
1,3-Dichlorobenzene	147.01					
1,4-Dichlorobenzene	147.01					
Benzyl Chloride	126.59					
1,2-Dichlorobenzene	147.01					
1,1,2,3,4,4-hexachloro-1,2-butadiene	260.76					
1,2,4-Trichlorobenzene	181.45					
Total lbs/day			0.01		0.01	

Calculated values  
 \*Conversion from ppbv to mg/m3:  $mg/m^3 = (ppbv/1000)*(MW)/24.45$   
 mg/m<sup>3</sup> milligrams per cubic meter  
 lbs/day pounds per day  
 cfm cubic feet per minute  
 m<sup>3</sup>/day cubic meters per day  
 ft/sec feet per second  
 ppbv parts per billion by volume

Table 4. Summary of VER Discharge Sample Results, UNC Airport Road Waste Disposal Area, The University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

		Sample ID.: VER Discharge	VER Discharge				
Constituents		Date Sampled: 2/11/2010	7/27/2010				
VER Discharge Pipe Dia. (4 inch diameter)							
Vapor Flow Rate (cfm)		90	90				
Vapor Temperature (degrees fahrenheit)		152	152				
Vapor flow Rate (m3/day)		3,888	3,888				
Discharge Velocity (ft/sec)		4.3	4.3				
Volatiles Organics (ppbv)* (USEPA Method TO-15 GC/MS)	Molecular Weight (g/mol)		Converted Concentration mg/m3	Daily Mass Flow Rate lbs/day		Converted Concentration mg/m3	Daily Mass Flow Rate lbs/day
Dichlorodifluoromethane (Freon 12)	120.91						
1,2-Chloro-1,1,2,2-Tetrafluoroethane	170.92						
Chloromethane	50.49				8.22	0.0	0.0
Vinyl chloride	62.50						
1,3-Butadiene	54.09						
Bromomethane	94.94				33.64	0.1	0.0
Chloroethane	64.51						
Trichloromonofluoromethane	137.37	0.93	0.0	0.0			
1,1-Dichloroethene	96.94						
1,1,2-trichloro-1,2,2-trifluoroethane	187.38						
Ethanol	46.07	4.49	0.0	0.0			
Carbon Disulfide	76.14						
Isopropyl alcohol	60.10				11.90	0.0	0.0
Methylene Chloride	84.93	3.48	0.0	0.0	11.88	0.0	0.0
Acetone	58.08				42.45	0.1	0.0
t-1,2-dichloroethene	96.94						
Hexane	86.18						
MTBE	88.15						
1,1-Dichloroethane	98.96						
Vinyl acetate	86.09	1.89	0.0	0.0			
cis-1,2-dichloroethene	96.94						
Cyclohexane	84.18	0.91	0.0	0.0	2.72	0.0	0.0
Chloroform	119.38	17.42	0.1	0.0	28.58	0.1	0.0
Ethyl Acetate	88.10						
Tetrahydrofuran	72.11	31.35	0.1	0.0	7.18	0.0	0.0
1,1,1-Trichloroethane	133.40						
Carbon Tetrachloride	153.82	0.55	0.0	0.0			
2-Butanone	72.11						
Heptane	100.2	1.01	0.0	0.0			
Benzene	78.11	19.33	0.1	0.0	34.48	0.1	0.0
1,2-Dichloroethane	98.96						
Trichloroethylene	131.39	6.97	0.0	0.0	1.40	0.0	0.0
1,2-Dichloropropane	112.99						
Bromodichloromethane	163.83						
1,4-Dioxane	88.11	11.90	0.0	0.0	3.90	0.0	0.0
Cis-1,3-Dichloropropene	110.97						
Toluene	92.14	8.27	0.0	0.0	1.18	0.0	0.0
4-Methyl-2-pentanone (MIBK)	100.16	136.56	0.6	0.0			
t-1,2-dichloropropene	110.97						
Tetrachloroethylene	165.83						
1,1,2-Trichloroethane	133.40						
Dibromochloromethane	208.28						
1,2-Dibromoethane	187.86						
2-Hexanone	100.16						
Ethylbenzene	106.17	1.49	0.0	0.0			
Chlorobenzene	112.56						
m/p-Xylene	106.17						
o-Xylene	106.17	1.00	0.0	0.0			
Styrene	104.15						
Tribromomethane	252.73	8.56	0.1	0.0			
1,1,2,2-Tetrachloroethane	167.85				3.46	0.0	0.0
1-Ethyl-4-Methylbenzene	120.19						
1,3,5-Trimethylbenzene	120.19						
1,2,4-Trimethylbenzene	120.19	0.87	0.0	0.0			
1,3-Dichlorobenzene	147.01						
1,4-Dichlorobenzene	147.01						
Benzyl Chloride	126.59						
1,2-Dichlorobenzene	147.01						
1,1,2,3,4,4-hexachloro-1,2-butadiene	260.76						
1,2,4-Trichlorobenzene	181.45						
Total lbs/day			0.01		0.01		

Calculated values  
 \*Conversion from ppbv to mg/m3: mg/m3 = (ppbv/1000)\*(MW)/24.45  
 mg/m<sup>3</sup> milligrams per cubic meter  
 lbs/day pounds per day  
 cfm cubic feet per minute  
 m<sup>3</sup>/day cubic meters per day  
 ft/sec feet per second  
 ppbv parts per billion by volume

Table 5. Summary of Monitor Well and Recovery Well Construction Details, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Monitor Well Identification	Date of Installation	Measuring Point Elevation (Top of Casing) (ft msl)	Depth of Surface Casing (ft bls)	Total Drilled Depth (ft bls)	Screened Interval (ft bls)
MW-1	INA	483.11	NA	28.3	INA
MW-2	INA	484.30	NA	29	INA
MW-3	INA	483.34	NA	20	INA
MW-4	INA	472.18	NA	24.6	INA
MW-5	INA	454.62	NA	15	INA
MW-6	4/11/1995	472.55	NA	22	12.0-22.0
* MW-7	4/21/1995	475.01	22	48	38.0-48.0
* MW-9	4/21/1995	476.25	NA	43.5	20.0-35.0
* MW-11	4/18/1995	472.78	NA	36	26.0-36.0
MW-12	4/13/1995	464.21	NA	22	12.0-22.0
* MW-13	4/19/1995	467.60	NA	23	13.0-23.0
* MW-14	8/11/1995	481.67	29	175	165.0-175.0
* MW-15	7/20/1995	465.04	40	60.5	50.0-60.0
* MW-16	7/21/1995	467.14	16	82	22.0-42.0
* MW-17	7/24/1995	478.99	26	71	60.0-70.0
MW-18	7/19/1995	467.96	NA	16	5.0-15.0
MW-19	7/19/1995	473.90	NA	10	5.0-10.0
MW-20	7/27/1995	475.03	NA	25	14.0-24.0
* MW-21	7/21/1995	463.28	NA	22	11.0-21.0
MW-22	7/26/1995	460.78	NA	10	5.0-10.0
* MW-23	8/17/1995	458.92	17	89	78.0-88.0
* MW-24	1/19/1996	465.32	105	200	175.0-195.0
MW-25	1/23/1996	458.74	NA	15	5.0-15.0
* MW-26	2/5/1996	458.79	20	180	75.0-95.0
* MW-28	1/15/1996	480.40	NA	46	36.0-46.0
* MW-29	11/14/1996	480.73	55	170	160.0-170.0
* MW-30	11/12/1996	468.57	NA	40	25.0-40.0
* MW-31	11/13/1996	468.45	50	90	75.0-90.0
* MW-32	11/12/1996	462.06	NA	43	28.0-43.0
* MW-33	11/13/1996	461.46	50	85	70.0-85.0
* MW-34	7/6/2004	464.65	NA	85	70.0-85.0
* MW-35	7/6/2004	452.45	NA	75	60.0-75.0
* MW-36	7/7/2004	466.90	NA	84	69.0-84.0
* MW-37	7/6/2004	460.29	100	125	115.0-125.0
MW-38	9/10/2010	484.85	NA	20	10.0-20.0
MW-39	9/10/2010	478.20	NA	20	10.0-20.0
SRW-1	4/4/2006	460.98	NA	25	10.0-25.0
SRW-2	4/13/2006	464.20	NA	35	20.0-35.0
SRW-3	4/4/2006	462.76	NA	35	20.0-35.0
* DRW-1	4/2/1998	466.11	20	80	Open Borehole
* DRW-2	4/7/2006	461.90	20	80	Open Borehole
* DRW-3	4/7/2006	459.20	20	150	Open Borehole
VER-1	4/4/2006	483.08	NA	25	5.0-25.0
VER-2	3/26/1998	482.20	NA	25	5.0-25.0
VER-3	4/4/2006	480.11	NA	25	5.0-25.0
VER-4	4/4/2006	478.83	NA	25	5.0-25.0

\* Bedrock wells - This designation indicates that the entire screened interval or open borehole interval is in bedrock.

ft msl Feet above mean sea level.

NA Not Applicable.

ft bls Feet below land surface.

INA Information not available.

Note: Monitor Wells MW-8, MW-10, and MW-27 were not installed.

Table 6. Water Level Elevations in Monitor Wells and Recovery Wells, November 2, 2010, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Monitor Well Identification	Measuring Point Elevation (ft msl)	Depth to Water (ft toc)	Groundwater Elevation (ft msl)
MW-1	483.11	16.40	466.71
MW-2	484.30	18.71	465.59
MW-3	483.34	4.53	478.81
MW-4	472.18	19.08	453.10
MW-5	454.62	5.18	449.44
MW-6	472.55	18.35	454.20
*MW-7	475.01	23.33	451.68
*MW-9	476.25	15.58	460.67
*MW-11	472.78	34.40	438.38
MW-12	464.21	14.02	450.19
*MW-13	467.60	15.52	452.08
*MW-14	481.67	27.26	454.41
*MW-15	465.04	22.95	442.09
*MW-16	467.14	5.85	461.29
*MW-17	478.99	16.22	462.77
MW-18	467.96	4.13	463.83
MW-19	473.90	4.21	469.69
MW-20	475.03	Dry	--
*MW-21	463.28	12.21	451.07
MW-22	460.78	4.71	456.07
*MW-23	458.92	11.56	447.36
*MW-24	465.32	17.53	447.79
MW-25	458.74	11.33	447.41
*MW-26	458.79	26.60	432.19
*MW-28	480.4	6.83	473.57
*MW-29	480.73	14.46	466.27
*MW-30	468.57	32.54	436.03
*MW-31	468.45	33.06	435.39
*MW-32	462.06	23.34	438.72
*MW-33	461.46	27.07	434.39
*MW-34	464.65	24.63	440.02
*MW-35	452.45	68.60	383.85
*MW-36	466.90	20.99	445.91
*MW-37	460.29	22.19	438.10
MW-38	484.85	16.16	468.69
MW-39	478.20	3.86	474.34
VER-1	483.08	14.39	468.69
VER-2	482.20	21.15	461.05
VER-3	480.11	23.53	456.58
VER-4	478.83	4.11	474.72
SRW-1	460.98	Dry	--
SRW-2	464.20	26.43	437.77
SRW-3	462.76	22.52	440.24
*DRW-1	466.11	19.53	446.58
*DRW-2	461.90	46.43	415.47
*DRW-3	459.20	34.54	424.66

ft toc Feet below top of casing.

ft msl Feet above mean sea level.

\* Bedrock Wells - This designation indicates that the entire screened interval or open borehole interval is in bedrock.

Dry Well dry at time of gauging

NA Not available.

NM Not measured.

Table 7. Historical Groundwater Elevation Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Date Measured:		1/10/07		4/16/07		7/11/07		10/1/07		10/20/08		11/2/09		11/2/10	
Monitor Well ID	TOC (ft msl)	Depth to WL (ft toc)	GW Elevation (ft msl)	Depth to WL (ft toc)	GW Elevation (ft msl)	Depth to WL (ft toc)	GW Elevation (ft msl)	Depth to WL (ft toc)	GW Elevation (ft msl)	Depth to WL (ft toc)	GW Elevation (ft msl)	Depth to WL (ft toc)	GW Elevation (ft msl)	Depth to WL (ft toc)	GW Elevation (ft msl)
MW-1	483.11	20.17	462.94	19.08	464.03	19.57	463.54	21.20	461.91	18.79	464.32	18.20	464.91	16.40	466.71
MW-2	484.30	21.10	463.20	20.60	463.70	21.58	462.72	24.24	460.06	20.25	464.05	20.35	463.95	18.71	465.59
MW-3	483.34	3.37	479.97	3.79	479.55	8.22	475.12	12.42	470.92	6.01	477.33	4.16	479.18	4.53	478.81
MW-4	472.18	11.58	460.6	9.88	462.3	15.29	456.89	20.21	451.97	14.88	457.30	18.27	453.91	19.08	453.10
MW-5	454.62	1.84	452.78	1.71	452.91	14.83	439.79	Dry	<439.62	6.50	448.12	5.40	449.22	5.18	449.44
MW-6	472.55	9.04	463.51	10.34	462.21	14.55	458.00	18.03	454.52	14.74	457.81	18.02	454.53	18.35	454.20
*MW-7	475.01	13.41	461.6	19.40	455.61	22.93	452.08	24.50	450.51	21.80	453.21	23.34	451.67	23.33	451.68
*MW-9	476.25	10.97	465.28	11.24	465.01	12.60	463.65	16.95	459.30	13.38	462.87	15.25	461.00	15.58	460.67
*MW-11	472.78	32.94	439.84	33.38	439.4	34.96	437.82	35.60	437.18	34.01	438.77	34.88	437.90	34.40	438.38
MW-12	464.21	9.74	454.47	14.45	449.76	18.62	445.59	24.43	439.78	12.65	451.56	12.20	452.01	14.02	450.19
*MW-13	467.60	9.18	458.42	9.08	458.52	22.95	444.65	Dry	<444.60	19.10	448.50	8.20	459.40	15.52	452.08
*MW-14	481.67	23.60	458.07	27.06	454.61	29.02	452.65	30.38	451.29	27.18	454.49	28.62	453.05	27.26	454.41
*MW-15	465.04	10.95	454.09	20.33	444.71	23.37	441.67	23.41	441.63	21.13	443.91	22.90	442.14	22.95	442.09
*MW-16	467.14	4.72	462.42	4.93	462.21	7.09	460.05	8.69	458.45	6.40	460.74	7.12	460.02	5.85	461.29
*MW-17	478.99	15.52	463.47	17.54	461.45	19.28	459.71	20.88	458.11	17.06	461.93	18.47	460.52	16.22	462.77
MW-18	467.96	2.90	465.06	2.95	465.01	4.80	463.16	6.41	461.55	4.37	463.59	4.79	463.17	4.13	463.83
MW-19	473.90	NM	NM	NM	NM	4.74	469.16	6.97	466.93	3.84	470.06	4.63	469.27	4.21	469.69
MW-20	475.03	16.36	458.67	10.44	464.59	18.85	456.18	Dry	<450.03	20.30	454.73	Dry	--	Dry	--
*MW-21	463.28	8.31	454.97	8.23	455.05	13.84	449.44	16.86	446.42	11.30	451.98	16.00	447.28	12.21	451.07
MW-22	460.78	3.47	457.31	3.23	457.55	7.60	453.18	10.32	450.46	5.06	455.72	5.18	455.60	4.71	456.07
*MW-23	458.92	13.32	445.60	13.33	445.59	12.61	446.31	24.34	434.58	13.39	445.53	17.99	440.93	11.56	447.36
*MW-24	465.32	9.62	455.70	12.29	453.03	13.65	451.67	14.85	450.47	10.62	454.70	13.37	451.95	17.53	447.79
MW-25	458.74	4.32	454.42	3.31	455.43	11.69	447.05	Dry	<443.74	11.22	447.52	10.10	448.64	11.33	447.41
*MW-26	458.79	27.55	431.24	37.63	421.16	48.86	409.93	53.78	405.01	21.66	437.13	28.04	430.75	26.60	432.19
*MW-28	480.40	4.88	475.52	4.67	475.73	7.69	472.71	10.57	469.83	6.48	473.92	6.30	474.10	6.83	473.57
*MW-29	480.73	13.57	467.16	12.80	467.93	15.15	465.58	18.92	461.81	14.23	466.50	15.01	465.72	14.46	466.27
*MW-30	468.57	32.18	436.39	30.45	438.12	32.11	436.46	35.84	432.73	30.33	438.24	32.50	436.07	32.54	436.03
*MW-31	468.45	35.63	432.82	35.13	433.32	38.46	429.99	41.31	427.14	34.19	434.26	34.58	433.87	33.06	435.39
*MW-32	462.06	18.12	443.94	15.81	446.25	22.61	439.45	28.59	433.47	21.19	440.87	24.97	437.09	23.34	438.72
*MW-33	461.46	24.39	437.07	23.18	438.28	27.35	434.11	30.01	431.45	26.60	434.86	27.98	433.48	27.07	434.39
*MW-34	464.65	19.49	445.16	17.61	447.04	22.91	441.74	28.35	436.30	22.41	442.24	26.21	438.44	24.63	440.02
*MW-35	452.45	58.12	394.33	55.78	396.67	53.97	398.48	52.42	400.03	56.67	395.78	65.76	386.69	68.60	383.85
*MW-36	466.90	17.69	449.21	16.28	450.62	20.44	446.46	23.66	443.24	20.40	446.50	20.86	446.04	20.99	445.91
*MW-37	460.29	18.95	441.34	17.26	443.03	21.61	438.68	31.14	429.15	21.07	439.22	24.07	436.22	22.19	438.10
MW-38	484.85	--	--	--	--	--	--	--	--	--	--	--	--	16.16	468.69
MW-39	478.20	--	--	--	--	--	--	--	--	--	--	--	--	3.86	474.34
VER-1	483.08	NM	--	NM	--	NM	--	NM	--	NM	--	8.48	474.60	14.39	468.69
VER-2	482.20	NM	--	NM	--	NM	--	NM	--	NM	--	17.64	464.56	21.15	461.05
VER-3	480.11	NM	--	NM	--	NM	--	NM	--	NM	--	15.67	464.44	23.53	456.58
VER-4	478.83	NM	--	NM	--	NM	--	NM	--	NM	--	6.80	472.03	4.11	474.72
SRW-1	460.98	NM	--	NM	--	NM	--	NM	--	NM	--	13.55	447.43	Dry	--
SRW-2	464.20	NM	--	NM	--	NM	--	NM	--	NM	--	25.70	438.50	26.43	437.77
SRW-3	462.76	NM	--	NM	--	NM	--	NM	--	NM	--	23.65	439.11	22.52	440.24
*DRW-1	466.11	NM	--	NM	--	NM	--	NM	--	NM	--	21.00	445.11	19.53	446.58
*DRW-2	461.90	NM	--	NM	--	NM	--	NM	--	NM	--	44.30	417.60	46.43	415.47
*DRW-3	459.20	NM	--	NM	--	NM	--	NM	--	NM	--	35.20	424.00	34.54	424.66

TOC Top of Casing  
 WL Water Level  
 GW Groundwater  
 NM Not measured.  
 ft toc Feet below top of casing.  
 ft msl Feet above mean sea level.  
 \* Bedrock Wells - This designation indicates that the entire screened interval or open borehole interval is in bedrock.  
 Dry Well dry at time of gauging

Table 8. Groundwater Sampling Data for Samples Collected from Monitor Wells and Recovery Wells in November 2010, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Well No.	Date Sampled	Gallons per Well Volume	Gallons Purged	Temperature (Degrees Celsius)	pH (Standard Units)	Specific Conductance (µmhos/cm)	Sampling Method
MW-1	11/4/2010	1.9	5.7	16.74	6.82	1,967	Peristaltic Pump
MW-2	11/4/2010	1.6	5.0	16.50	6.55	1,970	Peristaltic Pump
MW-3	11/4/2010	2.5	7.4	18.62	6.11	742	Bailer
MW-4	11/2/2010	0.9	2.7	15.55	5.38	320	Bailer
MW-5	11/2/2010	1.6	4.8	16.75	5.63	163	Bailer
MW-6	11/3/2010	0.6	1.8	15.49	5.30	289	Peristaltic Pump
MW-7	11/3/2010	4.3	12.9	15.46	6.95	1,001	Bailer
MW-9	11/3/2010	3.1	9.3	15.05	5.95	423	Bailer
MW-11	11/3/2010	0.3	0.8	14.60	6.50	465	Bailer
MW-12	11/4/2010	1.0	3.0	16.57	5.64	249	Bailer
MW-14	11/5/2010	24.0	72.0	16.32	7.15	668	Submersible Pump
MW-15	11/4/2010	6.0	18.0	15.15	6.70	989	Submersible Pump
MW-16	11/5/2010	5.8	17.4	16.35	6.77	800	Submersible Pump
MW-17	11/5/2010	8.6	26.0	15.92	6.24	2,013	Submersible Pump
MW-22	11/4/2010	0.9	2.5	17.23	6.80	1,078	Bailer
MW-23	11/5/2010	11.5	36.7	15.30	7.40	361	Submersible Pump
MW-25	11/3/2010	0.6	1.8	15.87	5.76	196	Bailer
MW-26	11/3/2010	10.9	32.8	15.12	7.26	465	Submersible Pump
MW-28	11/4/2010	6.2	18.6	18.36	7.12	556	Submersible Pump
MW-30	11/2/2010	1.2	3.6	14.35	7.30	469	Bailer
MW-31	11/2/2010	9.1	27.4	14.93	6.80	368	Submersible Pump
MW-32	11/2/2010	3.2	9.6	15.41	6.72	309	Submersible Pump
MW-33	11/2/2010	9.3	27.9	15.37	7.88	412	Submersible Pump
MW-35	11/2/2010	1.0	3.0	14.23	7.23	1,200	Bailer
MW-36	11/2/2010	10.0	30.0	15.79	7.12	450	Submersible Pump
SRW-1	11/3/2010	NA	NA	16.15	6.78	786	Sample Port
SRW-2	11/3/2010	NA	NA	16.97	6.74	967	Sample Port
SRW-3	11/3/2010	NA	NA	17.40	6.73	453	Sample Port
DRW-1	11/3/2010	NA	NA	15.76	6.65	947	Sample Port
DRW-2	11/3/2010	NA	NA	15.66	7.06	461	Sample Port
DRW-3	11/3/2010	NA	NA	15.53	6.92	446	Sample Port
VER-1	11/5/2010	NA	NA	16.90	6.50	1425	Peristaltic Pump
VER-2	11/5/2010	NA	NA	16.30	6.24	2507	Peristaltic Pump
VER-3	11/5/2010	NA	NA	16.03	5.64	1053	Peristaltic Pump
VER-4	11/5/2010	NA	NA	16.10	7.58	296	Peristaltic Pump

Notes:

- µmhos/cm micromhos per centimeter.
- mV millivolts
- NM not measured
- NA Not applicable as active recovery well



Table 9. Summary of Analytical Results for Groundwater Samples Collected in November 2010, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID: Date Sampled	MW-1	DUP-1 (MW-1)	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-9	MW-11	MW-12	MW-14
		11/4/2010	11/4/2010	11/4/2010	11/4/2010	11/2/2010	11/2/2010	11/3/2010	11/3/2010	11/3/2010	11/3/2010	11/4/2010	11/5/2010
NCAC 2L GW Standard													
Volatile Organics (USEPA Method 8260) µg/L													
Acetone	6000	2,500 U	2,500 U	5,000 U	25 U	25 U	25 U	1,300 U	1,300 U	25 U	25 U	25 U	500 U
Benzene	1	<b>1,000</b>	<b>990</b>	<b>5,900</b>	1 U	1 U	1 U	50 U	50 U	1 U	1 U	1 U	<b>36</b>
Chlorobenzene	50	100 U	100 U	<b>220</b>	1 U	1 U	1 U	50 U	50 U	1 U	1 U	1 U	20 U
Chloroform	70	<b>3,400</b>	<b>3,500</b>	<b>800</b>	1 U	1 U	1 U	50 U	50 U	1 U	1 U	1 U	20 U
Chloromethane	3	100 U	100 U	200 U	1 U	1 U	1 U	50 U	50 U	1 U	1 U	1 U	20 U
1,4-Dichlorobenzene	6	100 U	100 U	200 U	1 U	1 U	1 U	50 U	50 U	1 U	1 U	1 U	20 U
1,1-Dichloroethane	6	100 U	100 U	200 U	1 U	1 U	1 U	50 U	50 U	1 U	1 U	1 U	20 U
1,2-Dichloroethane	0.4	<b>360</b>	<b>340</b>	<b>970</b>	1 U	1 U	1 U	50 U	50 U	1 U	<b>3</b>	1 U	20 U
cis-1,2-Dichloroethene	70	100 U	100 U	200 U	1 U	1 U	1 U	50 U	50 U	1 U	1 U	1 U	20 U
trans-1,2-Dichloroethene	100	100 U	100 U	200 U	1 U	1 U	1 U	50 U	50 U	1 U	1 U	1 U	20 U
Diethyl ether	7300*	<b>5,200</b>	<b>4,900</b>	<b>13,000</b>	10 U	10 U	10 U	<b>2,400</b>	<b>3,300</b>	<b>65</b>	<b>100 D</b>	10 U	<b>650</b>
Ethylbenzene	600	100 U	100 U	<b>340</b>	1 U	1 U	1 U	50 U	50 U	1 U	1 U	1 U	20 U
Methyl tert-butyl ether	20	1,000 U	1,000 U	2,000 U	10 U	10 U	10 U	500 U	500 U	10 U	10 U	10 U	200 U
Methylene Chloride	5	500 U	500 U	1,000 U	5 U	5 U	5 U	250 U	250 U	5 U	5 U	5 U	100 U
1,1,2,2-Tetrachloroethane	0.2	<b>390</b>	<b>380</b>	200 U	1 U	1 U	1 U	50 U	50 U	1 U	1 U	1 U	20 U
Tetrachloroethene	0.7	100 U	100 U	200 U	1 U	1 U	1 U	50 U	50 U	1 U	1 U	1 U	20 U
Toluene	600	100 U	100 U	200 U	1 U	1 U	1 U	50 U	50 U	1 U	1 U	1 U	20 U
Trichloroethene	3	<b>140</b>	<b>140</b>	200 U	1 U	1 U	1 U	50 U	50 U	1 U	1 U	1 U	20 U
Trichlorofluoromethane	2000	100 U	100 U*	200 U*	1 U*	1 U	1 U	50 U	50 U	1 U	1 U	1 U*	20 U*
Vinyl chloride	0.03	100 U	100 U	200 U	1 U	1 U	1 U	50 U	50 U	1 U	1 U	1 U	20 U
Xylenes, Total	500	200 U	200 U	<b>920</b>	2 U	2 U	2 U	100 U	100 U	2 U	2 U	2 U	40 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard

ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

**Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.**

Table 9. Summary of Analytical Results for Groundwater Samples Collected in November 2010, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID: Date Sampled	MW-15 11/4/2010	MW-16 11/5/2010	MW-17 11/5/2010	MW-22 11/4/2010	MW-23 11/5/2010	MW-25 11/3/2010	MW-26 11/3/2010	MW-28 11/4/2010	MW-30 11/2/2010	MW-31 11/2/2010	MW-32 11/2/2010	MW-33 11/2/2010
	NCAC 2L GW Standard												
Volatile Organics (USEPA Method 8260) µg/L													
Acetone	6000	2,500 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	1	100 U	1 U	2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	50	100 U	1 U	2	3.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	70	100 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane	3	100 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	6	100 U	1 U	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	6	100 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.4	100 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	100 U	1 U	6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	100	100 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diethyl ether	7300*	3,000	10 U	46	10 U	10 U	10 U	10 U	10 U	10 U	10	10 U	10 U
Ethylbenzene	600	100 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether	20	1,000 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	500 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	0.2	100 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	0.7	100 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	100 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	3	100 U	1 U	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	2000	100 U*	1 U*	1 U*	1 U*	1 U*	1 U	1 U	1 U*	1 U	1 U	1 U	1 U
Vinyl chloride	0.03	100 U	1 U	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	500	200 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard

ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.

Table 9. Summary of Analytical Results for Groundwater Samples Collected in November 2010, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID: Date Sampled	MW-35 11/2/2010	MW-36 11/2/2010	VER-1 11/5/2010	VER-2 11/5/2010	VER-3 11/5/2010	VER-4 11/5/2010	SRW-1 11/3/2010	SRW-2 11/3/2010	SRW-3 11/3/2010	DRW-1 11/3/2010	DRW-2 11/3/2010	DRW-3 11/3/2010
Volatile Organics (USEPA Method 8260) µg/L	NCAC 2L GW Standard												
Acetone	6000	25 U	25 U	630 U	25,000 U	6,300 U	25 U	25 U	500 U	250 U	2,500 U	25 U	25 U
Benzene	1	1 U	1 U	460	14,000	510	1 U	1 U	20 U	10 U	100 U	1 U	1 U
Chlorobenzene	50	1 U	1 U	54	1,000 U	250 U	1 U	6.5	20 U	10 U	100 U	1 U	1 U
Chloroform	70	1 U	1 U	25 U	21,000	250	1 U	1 U	20 U	10 U	100 U	1 U	1 U
Chloromethane	3	1 U	1 U	25 U	1,000 U	250 U	1 U	1 U	20 U	10 U	100 U	1 U	1 U
1,4-Dichlorobenzene	6	1 U	1 U	25 U	1,000 U	250 U	1 U	1.5	20 U	10 U	100 U	1 U	1 U
1,1-Dichloroethane	6	1 U	1 U	25 U	1,000 U	250 U	1 U	1 U	20 U	10 U	100 U	1 U	1 U
1,2-Dichloroethane	0.4	1 U	1 U	150	1,700	250 U	1 U	1 U	45	10 U	100 U	1 U	1 U
cis-1,2-Dichloroethene	70	1 U	1 U	25 U	1,000 U	250 U	1 U	1 U	20 U	10 U	100 U	1 U	1 U
trans-1,2-Dichloroethene	100	1 U	1 U	25 U	1,000 U	250 U	1 U	1 U	20 U	10 U	100 U	1 U	1 U
Diethyl ether	7300*	10 U	10 U	2,400	43,000	10,000	10 U	50	1,000	440	3,900	40	10 U
Ethylbenzene	600	1 U	1 U	35	1,000 U	250 U	1 U	1 U	20 U	10 U	100 U	1 U	1 U
Methyl tert-butyl ether	20	10 U	61	250 U	10,000 U	2,500 U	10 U	10 U	200 U	100 U	1,000 U	10 U	10 U
Methylene Chloride	5	5 U	5 U	130 U	12,000	1,300 U	5 U	5 U	100 U	50 U	500 U	5 U	5 U
1,1,2,2-Tetrachloroethane	0.2	1 U	1 U	25 U	1,000 U	250 U	1 U	1 U	20 U	10 U	100 U	1 U	1 U
Tetrachloroethene	0.7	1 U	1 U	25 U	1,000 U	250 U	1 U	1 U	20 U	10 U	100 U	1 U	1 U
Toluene	600	1 U	1 U	25 U	1,000 U	250 U	1 U	1 U	20 U	10 U	100 U	1 U	1 U
Trichloroethene	3	1 U	1 U	25 U	1,000 U	250 U	1 U	1 U	20 U	10 U	100 U	1 U	1 U
Trichlorofluoromethane	2000	1 U	1 U	25 U	1,000 U	250 U *	1 U *	1 U	20 U	10 U	100 U	1 U	1 U
Vinyl chloride	0.03	1 U	1 U	25 U	1,000 U	250 U	1 U	1 U	20 U	10 U	100 U	1 U	1 U
Xylenes, Total	500	2 U	2 U	50 U	2,000 U	500 U	2 U	2 U	40 U	20 U	200 U	2 U	2 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard

ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.

Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID: Date Sampled:	MW-1 07/22/04	MW-1 01/11/07	MW-1 04/18/07	MW-1 07/11/07	MW-1 10/03/07	MW-1 10/22/08	MW-1 11/05/09	MW-1 11/4/10	MW-2 07/21/04	MW-2 01/11/07	MW-2 04/18/07	MW-2 07/11/07	MW-2 10/03/07	MW-2 10/22/08	MW-2 11/04/09	MW-2 11/4/10
<b>Volatile Organics</b> (USEPA Method 8260) ug/L	NCAC 2L GW Standard																
Acetone	6,000	260,000	20,000	50,000 U	10,000 U	5,000 U	25,000 U	25,000 U	2500 U	50,000 U	39,000	50,000 U	98,000	60,000	25,000 U	25,000 U	5000 U
Benzene	1	100,000	27,000 D	26,000	19,000	31,000	25,000	14,000	1000	25,000	27,000 D	23,000	28,000	32,000	16,000	15,000	5900
Chlorobenzene	50	1,000 U	330	2,000 U	400 U	560	1,000 U	1,000 U	100 U	2,000 U	380	2,000 U	1,000 U	630	1,000 U	1,000 U	220
Chloroform	70	190,000	55,000 D	49,000	37,000	51,000 D	28,000	28,000	3400	130,000	120,000 D	94,000	110,000	110,000 D	47,000	49,000	800
1,4-Dichlorobenzene	6	1,000 U	100 U	2,000 U	400 U	200 U	1,000 U	1,000 U	100 U	2,000 U	100 U	2,000 U	1,000 U	500 U	1,000 U	1,000 U	200 U
1,1-Dichloroethane	6	1,000 U	100 U	2,000 U	400 U	200 U	1,000 U	1,000 U	100 U	2,000 U	100 U	2,000 U	1,000 U	500 U	1,000 U	1,000 U	200 U
1,2-Dichloroethane	0.4	9,900	100 U	2,000 U	1,800	200 U	1,000 U	1,400	360	2,000 U	4,900	4,700	4,300	5,700	1,000 U	2,700	970
Cis-1,2-Dichloroethene	70	1000 U <sup>1</sup>	100 U	2,000 U	400 U	200 U	1,000 U	1,000 U	100 U	4,000 U <sup>1</sup>	100 U	2,000 U	1,000 U	500 U	1,000 U	1,000 U	200 U
Trans-1,2-Dichloroethene	100	NA	100 U	2,000 U	400 U	200 U	1,000 U	1,000 U	100 U	NA	100 U	2,000 U	1,000 U	500 U	1,000 U	1,000 U	200 U
Diethyl ether	7,300*	290,000	85,000 D	110,000	40,000	53,000 D	39,000	44,000	5,200	130,000	96,000 D	130,000	72,000	64,000 D	42,000	54,000	13000
Ethylbenzene	600	140,000	2,600	2,000 U	1,100	1,700	1,000 U	1,000 U	100 U	58,000	2,400	2,000 U	2,400	3,400	1,100	1,000 U	340
Methyl tert-butyl ether	20	NA	NA	NA	NA	NA	10,000 U	1,000 U	1000 U	NA	NA	NA	NA	NA	10,000 U	10,000 U	2000 U
Methylene chloride	5	8,000	36,000 D	41,000	29,000	27,000	18,000	19,000	500 U	2,000 U	48,000 D	52,000	55,000	39,000	19,000	37,000	1000 U
1,1,2,2-Tetrachloroethane	0.2	1,000 U	4,300	3,600	3,300	3,400	1,000 U	1,000 U	390	2,000 U	190	2,000 U	1,000 U	500 U	1,000 U	1,000 U	200 U
Tetrachloroethene	0.7	1,000 U	140	2,000 U	400 U	200 U	1,000 U	1,000 U	100 U	2,000 U	100 U	2,000 U	1,000 U	500 U	1,000 U	1,000 U	200 U
Toluene	600	1,000 U	100 U	2,000 U	400 U	200 U	1,000 U	1,000 U	100 U	2,000 U	2,600	2,000 U	4,800	6,400	1,000 U	1,000 U	200 U
Trichloroethene	3	14,000	5,300	3,700	2,900	3,200	1,200	1,000 U	140	2,000 U	490	2,000 U	1,000 U	630	1,000 U	1,000 U	200 U
Trichlorofluoromethane	2,000	1,000 U	100 U	2,000 U	400 U	200 U	1,000 U	1,000 U	100 U	2,000 U	100 U	2,000 U	1,000 U	500 U	1,900	1,000 U	200 U
Vinyl chloride	0.03	1,000 U	100 U	2,000 U	400 U	200 U	1,000 U	1,000 U	100 U	2,000 U	100 U	2,000 U	1,000 U	500 U	1,000 U	1,000 U	200 U
Xylenes, Total	500	2,300	1,700	4,000 U	1,100	2,400	2,000 U	2,000 U	200 U	4,000 U	12,000	54,000	13,000	18,000	3,900	2,200	920

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.

Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID:	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-4	MW-4	MW-4	MW-4	MW-4	MW-5	MW-5
	Date Sampled:	07/21/04	01/11/07	04/18/07	07/11/07	10/03/07	10/22/08	11/04/09	11/4/10	07/20/04	10/01/07	10/20/08	11/03/09	11/2/2010	11/03/09	11/2/10
<u>Volatile Organics</u> (USEPA Method 8260) ug/L	NCAC 2L GW Standard															
Acetone	6,000	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	70	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethene	70	2.0 U <sup>1</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.0 U <sup>1</sup>	1 U	1 U	1 U	1 U	1 U	1 U
Trans-1,2-Dichloroethene	100	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Diethyl ether	7,300*	16 U	2 U	10 U	10 U	10 U	10 U	10 U	10 U	2 U	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	600	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether	20	NA	NA	NA	NA	NA	10 U	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U	10 U
Methylene chloride	5	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	0.2	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	0.7	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	2,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	0.03	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	500	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

  Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.

Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID: Date Sampled:	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	MW-7	
		07/21/04	02/06/07	04/18/07	07/12/07	10/02/07	10/21/08	11/04/09	11/3/10	07/21/04	01/11/07	04/18/07	07/12/07	10/02/07	10/21/08	11/04/09	11/3/10	
<b>Volatile Organics</b> (USEPA Method 8260) ug/L	NCAC 2L GW Standard																	
Acetone	6,000	1,200 U	500 U	2,500 U	2,500 U	130 U	1,200 U	25 U	1300 U	5 U	250 U	6,300 U	2,500 U	25 U	1,200 U	2,500 U	1300 U	
Benzene	1	910	920	690	960	790	170	200	50 U	2.7 U	10 U	250 U	100 U	2.5	50 U	100 U	50 U	
Chlorobenzene	50	50 U	20 U	100 U	100 U	5 U	50 U	1	50 U	8.3	14	250 U	100 U	5.6	50 U	100 U	50 U	
Chloroform	70	470	510	370	250	20	50 U	39	50 U	6.9 U	10 U	250 U	100 U	1.2	50 U	100 U	50 U	
1,4-Dichlorobenzene	6	50 U	20 U	100 U	100 U	5 U	50 U	1 U	50 U	1 U	10 U	250 U	100 U	1 U	50 U	100 U	50 U	
1,1-Dichloroethane	6	50 U	20 U	100 U	100 U	5 U	50 U	1 U	50 U	1 U	10 U	250 U	100 U	1 U	50 U	100 U	50 U	
1,2-Dichloroethane	0.4	50 U	42	100 U	100 U	5 U	50 U	18	50 U	49	52	250 U	100 U	38	50 U	100 U	50 U	
Cis-1,2-Dichloroethene	70	200 U <sup>1</sup>	20 U	100 U	100 U	13	50 U	1.8	50 U	2.0 U <sup>1</sup>	10 U	250 U	100 U	7.9	50 U	100 U	50 U	
Trans-1,2-Dichloroethene	100	NA	20 U	100 U	100 U	12	50 U	3.3	50 U	NA	10 U	250 U	100 U	12	50 U	100 U	50 U	
Diethyl ether	7,300*	12,000	10,000 D	20,000 D	8,400	20,000 D	2,700	4,700 D	2,400	2,300	3,400 D	19,000	8,200	10,000 D	3,300	4,300	3,300	
Ethylbenzene	600	390	20 U	100 U	100 U	5 U	50 U	1 U	50 U	5 U	10 U	250 U	100 U	1 U	50 U	100 U	50 U	
Methyl tert-butyl ether	20	NA	NA	NA	NA	NA	500 U	10 U	500 U	NA	NA	NA	NA	NA	500 U	1,000 U	500 U	
Methylene chloride	5	50 U	490	500 U	500 U	25 U	250 U	25	250 U	1 U	50 U	1,300 U	500 U	5 U	250 U	500 U	250 U	
1,1,1,2-Tetrachloroethane	0.2	50 U	20 U	100 U	100 U	5 U	50 U	1 U	50 U	1 U	10 U	250 U	100 U	1 U	50 U	100 U	50 U	
Tetrachloroethene	0.7	50 U	20 U	100 U	100 U	5 U	50 U	1 U	50 U	1 U	10 U	250 U	100 U	1 U	50 U	100 U	50 U	
Toluene	600	50 U	20 U	100 U	100 U	5 U	50 U	1 U	50 U	1 U	10 U	250 U	100 U	1 U	50 U	100 U	50 U	
Trichloroethene	3	28 J	25	100 U	100 U	18	50 U	6.5	50 U	4.2	10 U	250 U	100 U	18	50 U	100 U	50 U	
Trichlorofluoromethane	2,000	50 U	20 U	100 U	100 U	5 U	50 U	1.3	50 U	1 U	10 U	250 U	100 U	1 U	50 U	100 U	50 U	
Vinyl chloride	0.03	50 U	20 U	100 U	100 U	5 U	50 U	1 U	50 U	5.5	10 U	250 U	100 U	5.9	50 U	100 U	50 U	
Xylenes, Total	500	100 U	40 U	200 U	200 U	10 U	100 U	2 U	100 U	2 U	20 U	500 U	200 U	2 U	100 U	200 U	100 U	

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.

Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID:	MW-9	MW-9	MW-9	MW-9	MW-9	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11	MW-11
	Date Sampled:	07/22/04	10/03/07	10/21/08	11/04/09	11/03/10	07/22/04	01/11/07	04/17/07	07/12/07	10/03/07	10/21/08	11/02/09	11/05/10
<u>Volatile Organics</u> (USEPA Method 8260) ug/L	NCAC 2L GW Standard													
Acetone	6,000	25 U	25 U	50 U	25 U	25 U	1,200 U	130 U	630 U	250 U	25 U	250 U	25 U	25 U
Benzene	1	1 U	1 U	2 U	1 U	1 U	50 U	5 U	25 U	10 U	1 U	10 U	1 U	1 U
Chlorobenzene	50	1 U	1 U	2 U	1 U	1 U	50 U	5 U	25 U	10 U	<b>2.8</b>	10 U	<b>1.5</b>	1 U
Chloroform	70	1 U	1 U	2 U	1 U	1 U	50 U	<b>5.1</b>	25 U	10 U	<b>4.8</b>	10 U	<b>1.9</b>	1 U
1,4-Dichlorobenzene	6	1 U	1 U	2 U	1 U	1 U	50 U	5 U	25 U	10 U	1 U	10 U	1 U	1 U
1,1-Dichloroethane	6	1 U	1 U	2 U	1 U	1 U	50 U	5 U	25 U	10 U	1 U	10 U	1 U	1 U
1,2-Dichloroethane	0.4	<b>1.2</b>	1 U	2 U	1 U	1 U	<b>56</b>	<b>26</b>	25 U	<b>10</b>	<b>17</b>	10 U	<b>8.3</b>	<b>3.0</b>
Cis-1,2-Dichloroethene	70	2.0 U <sup>1</sup>	1 U	2 U	1 U	1 U	100 U <sup>1</sup>	5 U	25 U	10 U	<b>1.1</b>	10 U	1 U	1 U
Trans-1,2-Dichloroethene	100	NA	1 U	2 U	1 U	1 U	NA	5 U	25 U	10 U	1 U	10 U	1 U	1 U
Diethyl ether	7,300*	<b>140</b>	<b>110 D</b>	<b>110</b>	<b>95 D</b>	<b>65</b>	<b>3,100</b>	<b>1,300 D</b>	<b>1,100</b>	<b>420</b>	<b>610 D</b>	<b>340</b>	<b>290 D</b>	<b>100</b>
Ethylbenzene	600	5 U	1 U	2 U	1 U	1 U	250 U	5 U	25 U	10 U	1 U	10 U	1 U	1 U
Methyl tert-butyl ether	20	NA	NA	20 U	10 U	10 U	NA	NA	NA	NA	NA	10 U	10 U	10 U
Methylene chloride	5	1 U	5 U	10 U	5 U	5 U	50 U	25 U	130 U	50 U	5 U	50 U	5 U	5 U
1,1,1,2-Tetrachloroethane	0.2	1 U	1 U	2 U	1 U	1 U	50 U	5 U	25 U	10 U	1 U	10 U	1 U	1 U
Tetrachloroethene	0.7	1 U	1 U	2 U	1 U	1 U	50 U	5 U	25 U	10 U	1 U	10 U	1 U	1 U
Toluene	600	1 U	1 U	2 U	1 U	1 U	50 U	5 U	25 U	10 U	1 U	10 U	1 U	1 U
Trichloroethene	3	1 U	1 U	2 U	1 U	1 U	50 U	5 U	25 U	10 U	<b>4.0</b>	10 U	<b>1.9</b>	1 U
Trichlorofluoromethane	2,000	1 U	1 U	2 U	1 U	1 U	50 U	5 U	25 U	10 U	1 U	10 U	<b>1.3</b>	1 U
Vinyl chloride	0.03	1 U	1 U	2 U	1 U	1 U	50 U	5 U	25 U	10 U	<b>2.2</b>	10 U	<b>1.4</b>	1 U
Xylenes, Total	500	2 U	2 U	4 U	2 U	2 U	100 U	10 U	50 U	20 U	2 U	20 U	2 U	2 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

**Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.**

Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID:	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12	MW-13	MW-13	MW-13	MW-13
	Date Sampled:	07/21/04	01/11/07	04/18/07	07/11/07	10/02/07	10/21/08	11/03/09	11/04/10	07/21/04	01/10/07	04/17/07	07/12/07
<u>Volatile Organics</u> (USEPA Method 8260) ug/L	NCAC 2L GW Standard												
Acetone	6,000	500 U	130 U	130 U	25 U	25 U	25 U	25 U	25 U	120 U	25 U	130 U	500 U
Benzene	1	470	5 U	5 U	1 U	1.5	1 U	1 U	1 U	22	16	6.8	20 U
Chlorobenzene	50	23	5 U	5 U	1 U	1 U	1 U	1 U	1 U	8.2	1 U	5 U	20 U
Chloroform	70	21	5 U	5 U	1 U	3.4	1 U	1 U	1 U	5 U	1.9	5 U	20 U
1,4-Dichlorobenzene	6	20 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	5 U	20 U
1,1-Dichloroethane	6	20 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	5 U	20 U
1,2-Dichloroethane	0.4	360	19	5 U	3.6	14	1.6	1 U	1 U	96	3.2	5 U	20 U
Cis-1,2-Dichloroethene	70	40 U <sup>1</sup>	5 U	5 U	1 U	1 U	1 U	1 U	1 U	10 U <sup>1</sup>	1 U	5 U	20 U
Trans-1,2-Dichloroethene	100	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	5 U	20 U
Diethyl ether	7,300*	13,000	720 D	300	150	360 D	94	10 U	10 U	4,200	330 D	450	990
Ethylbenzene	600	100 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	25 U	1 U	5 U	20 U
Methyl tert-butyl ether	20	NA	NA	NA	NA	NA	10 U	10 U	10 U	NA	NA	NA	NA
Methylene chloride	5	20 U	25 U	25 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	25 U	100 U
1,1,2,2-Tetrachloroethane	0.2	20 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	5 U	20 U
Tetrachloroethene	0.7	20 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	5 U	20 U
Toluene	600	20 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	5 U	20 U
Trichloroethene	3	35	5 U	5 U	3.1	4.4	1 U	1 U	1 U	5 U	1.1	5 U	20 U
Trichlorofluoromethane	2,000	20 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	5 U	20 U
Vinyl chloride	0.03	20 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	5 U	20 U
Xylenes, Total	500	40 U	10 U	10 U	2 U	2 U	2 U	2 U	2 U	10 U	2 U	10 U	40 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.



Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID: Date Sampled:	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-14	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	MW-15	
		07/21/04	01/11/07	04/18/07	07/11/07	10/03/07	10/22/08	11/05/09	11/05/10	07/21/04	01/11/07	04/18/07	07/11/07	10/02/07	10/21/08	11/05/09	11/04/10	
<b>NCAC 2L GW Standard</b>																		
<b>Volatile Organics (USEPA Method 8260) ug/L</b>																		
Acetone	6,000	170	130 U	2,500 U	1,300 U	1,300 U	500 U	500 U	500 U	1,600	250 U	5,000 U	2,500 U	25 U	2,500 U	2,500 U	2,500 U	
Benzene	1	190	190	230	260	210	59	54	36	930	10 U	200 U	150	130	100 U	100 U	100 U	
Chlorobenzene	50	5 U	5 U	100 U	50 U	50 U	20 U	20 U	20 U	50 U	10 U	200 U	100 U	15	100 U	100 U	100 U	
Chloroform	70	53	46	100 U	50 U	50 U	20 U	20 U	20 U	180	10 U	200 U	100 U	1.6	100 U	100 U	100 U	
1,4-Dichlorobenzene	6	5 U	5 U	100 U	50 U	50 U	20 U	20 U	20 U	50 U	10 U	200 U	100 U	1 U	100 U	100 U	100 U	
1,1-Dichloroethane	6	5 U	5 U	100 U	50 U	50 U	20 U	20 U	20 U	50 U	10 U	200 U	100 U	1.7	100 U	100 U	100 U	
1,2-Dichloroethane	0.4	50	42	100 U	50 U	50 U	20 U	27	20 U	380	190	200 U	110	120	100 U	150	100 U	
Cis-1,2-Dichloroethene	70	40 U <sup>1</sup>	5 U	100 U	50 U	50 U	20 U	20 U	20 U	100 U <sup>1</sup>	10 U	200 U	100 U	2.8	100 U	100 U	100 U	
Trans-1,2-Dichloroethene	100	NA	5 U	100 U	50 U	50 U	20 U	20 U	20 U	NA	10 U	200 U	100 U	3.2	100 U	100 U	100 U	
Diethyl ether	7,300*	1,800	3,100	5,400	2,500	1,800	800	880	650	14,000	9,800 D	10,000	5,300	4,700 D	4,200	4,400	3,000	
Ethylbenzene	600	25 U	5 U	100 U	50 U	50 U	20 U	20 U	20 U	250 U	10 U	200 U	100 U	1 U	100 U	100 U	100 U	
Methyl tert-butyl ether	20	NA	NA	NA	NA	NA	200 U	200 U	200 U	NA	NA	NA	NA	NA	1,000 U	1,000 U	1,000 U	
Methylene chloride	5	5 U	25 U	500 U	250 U	250 U	100 U	100 U	100 U	50 U	50 U	1,000 U	500 U	5 U	100 U	500 U	500 U	
1,1,1,2-Tetrachloroethane	0.2	5 U	5 U	100 U	50 U	50 U	20 U	20 U	20 U	50 U	10 U	200 U	100 U	1 U	100 U	100 U	100 U	
Tetrachloroethene	0.7	5 U	5 U	100 U	50 U	50 U	20 U	20 U	20 U	50 U	10 U	200 U	100 U	1 U	100 U	100 U	100 U	
Toluene	600	5 U	5 U	100 U	50 U	50 U	20 U	20 U	20 U	50 U	10 U	200 U	100 U	1 U	100 U	100 U	100 U	
Trichloroethene	3	10	9.3	100 U	50 U	50 U	20 U	20 U	20 U	50 U	24	200 U	100 U	15	100 U	100 U	100 U	
Trichlorofluoromethane	2,000	5 U	5 U	100 U	50 U	50 U	20 U	20 U	20 U	50 U	10 U	200 U	100 U	1 U	100 U	100 U	100 U	
Vinyl chloride	0.03	5 U	5 U	100 U	50 U	50 U	20 U	20 U	20 U	50 U	10 U	200 U	100 U	2.7	100 U	100 U	100 U	
Xylenes, Total	500	10 U	10 U	200 U	100 U	100 U	40 U	40 U	40 U	100 U	20 U	400 U	200 U	2 U	200 U	200 U	200 U	

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.

Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID: Date Sampled:	MW-16	MW-16	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-17	MW-17	MW-21	MW-21
		MW-16	MW-16	MW-16	MW-16	MW-16	MW-17	MW-17	MW-17	MW-17	MW-17	MW-21	MW-21
		07/22/04	10/02/07	10/21/08	11/05/09	11/05/10	07/20/04	10/02/07	10/22/08	11/02/09	11/05/10	07/19/04	11/05/09
	NCAC 2L GW Standard												
<b>Volatile Organics</b> (USEPA Method 8260) ug/L													
Acetone	6,000	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.2	1.3	2.0	1 U	1 U
Chlorobenzene	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.3	1.7	2.0	1 U	1 U
Chloroform	70	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.6	3.3	3.0	1 U	1 U
1,1-Dichloroethane	6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	7.3	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethene	70	2.0 U <sup>1</sup>	1 U	1 U	1 U	1 U	22 <sup>1</sup>	8.8	7.3	5.9	6.0	2 U <sup>1</sup>	1 U
Trans-1,2-Dichloroethene	100	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	NA	1 U
Diethyl ether	7,300*	3.5	10 U	10 U	10 U	10 U	110	39	43	37	46	2 U	10 U
Ethylbenzene	600	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether	20	NA	NA	10 U	10 U	10 U	NA	NA	10 U	10 U	10 U	NA	10 U
Methylene chloride	5	5 U	5 U	5 U	5 U	5 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,1,2-Tetrachloroethane	0.2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	0.7	1 U	1 U	1 U	1 U	1 U	1 U	1.3	1.3	1 U	1 U	1 U	1 U
Toluene	600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	3	1 U	1 U	1 U	1 U	1 U	1.3	2.5	2.0	1.5	1.0	1 U	1 U
Trichlorofluoromethane	2,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	0.03	1 U	1 U	1 U	1 U	1 U	20	5.1	5.7	4.6	7.0	1 U	1 U
Xylenes, Total	500	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.

Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID: Date Sampled:	MW-22	MW-22	MW-22	MW-22	MW-22	MW-23	MW-23	MW-23	MW-23	MW-23	MW-24	MW-24	MW-25	MW-25	MW-25	MW-25	MW-25	MW-25	
		07/21/04	10/02/07	10/21/08	11/03/09	11/04/10	07/20/04	10/01/07	10/20/08	11/02/09	11/05/10	07/22/04	11/03/09	07/21/04	01/10/07	04/17/07	07/12/07	11/02/09	11/03/10	
<b>Volatile Organics</b> (USEPA Method 8260) ug/L	NCAC 2L GW Standard																			
Acetone	6,000	50 U	25 U	25 U	25 U	25 U	50 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	1	5 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	50	5 U	<b>3.3</b>	<b>11</b>	<b>4.6</b>	<b>3.4</b>	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	70	5 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	6	5 U	1 U	<b>2.8</b>	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	6	5 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.4	5 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethene	70	5 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	2.0 U <sup>1</sup>	1 U	1 U	1 U	1 U	1 U	1 U
Trans-1,2-Dichloroethene	100	5 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U
Diethyl ether	7,300*	5 U	<b>26</b>	<b>12</b>	10 U	10 U	2 U	10 U	10 U	10 U	10 U	10 U	<b>6</b>	10 U	<b>45</b>	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	600	5 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether	20	NA	NA	10 U	10 U	10 U	NA	NA	10 U	10 U	10 U	NA	10 U	NA	NA	NA	NA	NA	10 U	10 U
Methylene chloride	5	5 U	5 U	5 U	5 U	5 U	2 U	5 U	5 U	5 U	5 U	5 U	5 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	0.2	5 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	0.7	5 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	5 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	3	5 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	2,000	5 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	0.03	10 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	500	5 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

**Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.**

Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID:	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	MW-28	MW-28	MW-28	MW-28	MW-29	MW-29
	Date Sampled:	07/22/04	01/10/07	04/17/07	07/12/07	10/02/07	10/23/08	11/02/09	11/03/10	10/02/07	10/22/08	11/04/09	11/04/10	07/21/04	11/04/09
	NCAC 2L GW Standard														
<u>Volatile Organics</u> (USEPA Method 8260) ug/L															
Acetone	6,000	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	70	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethene	70	2.0 U <sup>1</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.0 U <sup>1</sup>	1 U
Trans-1,2-Dichloroethene	100	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U
Diethyl ether	7,300*	2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2 U	10 U
Ethylbenzene	600	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether	20	NA	NA	NA	NA	NA	10 U	10 U	10 U	NA	10 U	10 U	10 U	NA	10 U
Methylene chloride	5	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	0.2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	0.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	3	1 U	1 U	1 U	1 U	1 U	<b>1.1</b>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	2,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	0.03	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	500	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

  Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.

Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID: Date Sampled:	MW-30	MW-30	MW-30	MW-30	MW-30	MW-30	MW-30	MW-30	MW-31	MW-31	MW-31	MW-31	MW-31	MW-31	MW-31	MW-31		
		07/20/04	01/10/07	04/17/07	07/11/07	10/01/07	10/20/08	11/03/09	11/02/10	07/20/04	01/10/07	04/17/07	07/11/07	10/01/07	10/20/08	11/03/09	11/02/10		
<b>NCAC 2L GW Standard</b>																			
<b>Volatile Organics (USEPA Method 8260) ug/L</b>																			
Acetone	6,000	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	250 U	50 U	25 U	25 U	25 U	25 U		
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	<b>1.3</b>	1 U	10 U	2 U	1 U	1 U	1 U	1 U
Chlorobenzene	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	<b>4.1</b>	<b>2.4</b>	10 U	2 U	1 U	1 U	1 U	1 U
Chloroform	70	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	<b>2.1</b>	<b>2.5</b>	10 U	2 U	<b>1.4</b>	<b>1.2</b>	1 U	1 U
1,4-Dichlorobenzene	6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	<b>25</b>	<b>14</b>	10 U	<b>4.5</b>	<b>3.7</b>	<b>1.6</b>	1 U	1 U
Cis-1,2-Dichloroethene	70	2.0 U <sup>1</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.0 U <sup>1</sup>	<b>1.0</b>	10 U	2 U	1 U	1 U	1 U	1 U
Trans-1,2-Dichloroethene	100	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	10 U	2 U	1 U	1 U	1 U	1 U
Diethyl ether	7,300*	2 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	<b>2,000</b>	<b>640 D</b>	<b>400</b>	<b>160</b>	<b>120 D</b>	<b>39</b>	<b>14</b>	<b>10</b>
Ethylbenzene	600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	10 U	2 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether	20	NA	NA	NA	NA	NA	10 U	10 U	10 U	10 U	10 U	NA	NA	NA	NA	10 U	10 U	10 U	10 U
Methylene chloride	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	1 U	5 U	50 U	20 U	5 U	5 U	5 U	5 U
1,1,1,2-Tetrachloroethane	0.2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	1 U
Tetrachloroethene	0.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	1 U
Toluene	600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	1 U	1 U	1 U
Trichloroethene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	<b>5.0</b>	<b>3.0</b>	10 U	2 U	<b>1.3</b>	<b>1.3</b>	1 U	1 U
Trichlorofluoromethane	2,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	2 U	1 U	<b>1.5</b>	1 U	1 U
Vinyl chloride	0.03	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	<b>5.4</b>	<b>2.4</b>	10 U	2 U	1 U	1 U	1 U	1 U
Xylenes, Total	500	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	20 U	4 U	2 U	2 U	2 U	2 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

**Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.**

Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID: Date Sampled:	MW-32 07/20/04	MW-32 01/10/07	MW-32 04/17/07	MW-32 07/11/07	MW-32 10/01/07	MW-32 10/20/08	MW-32 11/04/09	MW-32 11/02/10	MW-33 07/20/04	MW-33 01/10/07	MW-33 04/17/07	MW-33 07/11/07	MW-33 10/01/07	MW-33 10/20/08	MW-33 11/04/09	MW-33 11/02/10
<b>NCAC 2L GW Standard</b>																	
<b>Volatile Organics (USEPA Method 8260) ug/L</b>																	
Acetone	6,000	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	70	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethene	70	2.0 U <sup>1</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.0 U <sup>1</sup>	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trans-1,2-Dichloroethene	100	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diethyl ether	7,300*	2 U	<b>2.4</b>	10 U	10 U	10 U	10 U	10 U	10 U	<b>30</b>	<b>28</b>	<b>16</b>	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	600	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether	20	NA	NA	NA	NA	NA	10 U	10 U	10 U	NA	NA	NA	NA	NA	10 U	10 U	10 U
Methylene chloride	5	1 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	0.2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	0.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	2,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	0.03	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	500	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

  Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.

Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID: Date Sampled:	MW-35	MW-35	MW-35	MW-35	MW-35	MW-36	MW-36	MW-36	MW-36	MW-36
		MW-35 07/20/04	MW-35 10/01/07	MW-35 10/21/08	MW-35 11/04/09	MW-35 11/02/10	MW-36 07/20/04	MW-36 10/01/07	MW-36 10/20/08	MW-36 11/03/09	MW-36 11/02/10
<b>NCAC 2L GW Standard</b>											
<b>Volatile Organics (USEPA Method 8260) ug/L</b>											
Acetone	6,000	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	50	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroform	70	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	6	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Cis-1,2-Dichloroethene	70	2.0 U <sup>1</sup>	1 U	1 U	1 U	1 U	2.0 U <sup>1</sup>	1 U	1 U	1 U	1 U
Trans-1,2-Dichloroethene	100	NA	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U	1 U
Diethyl ether	7,300*	2 U	10 U	10 U	10 U	10 U	2 U	10 U	10 U	10 U	10 U
Ethylbenzene	600	5 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether	20	NA	NA	10 U	10 U	10 U	NA	NA	<b>45</b>	<b>120</b>	<b>61</b>
Methylene chloride	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,1,2-Tetrachloroethane	0.2	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	0.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	3	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	2,000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	0.03	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	500	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

**Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.**

Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID: Date Sampled:	VER-1 05/05/06	VER-1 10/22/08	VER-1 11/03/09	VER-1 11/05/10	VER-2 05/05/06	VER-2 10/22/08	VER-2 11/03/09	VER-2 11/05/10
<u>Volatile Organics</u> (USEPA Method 8260) ug/L	NCAC 2L GW Standard								
Acetone	6,000	12,000 U	1,200 U	25 U	630 U	50,000 U	50,000 U	2,500 U	25,000 U
Benzene	1	<b>7,600</b>	<b>4,800</b>	1 U	<b>460</b>	<b>19,000</b>	<b>18,000</b>	<b>750</b>	<b>14,000</b>
Chlorobenzene	50	1,200 U	50 U	1 U	<b>54</b>	5,000 U	2,000 U	100 U	1,000 U
Chloroform	70	<b>30,000</b>	<b>180</b>	<b>2</b>	25 U	<b>95,000</b>	<b>41,000</b>	<b>3,700</b>	<b>21,000</b>
1,4-Dichlorobenzene	6	NA	50 U	1 U	25 U	NA	2,000 U	100 U	1,000 U
1,1-Dichloroethane	6	1,200 U	50 U	1 U	25 U	5,000 U	2,000 U	100 U	1,000 U
1,2-Dichloroethane	0.4	1,200 U	50 U	1 U	<b>150</b>	5,000 U	2,000 U	<b>250</b>	<b>1,700</b>
Cis-1,2-Dichloroethene	70	1,200 U	50 U	1 U	25 U	5,000 U	2,000 U	100 U	1,000 U
Trans-1,2-Dichloroethene	100	1,200 U	50 U	1 U	25 U	5,000 U	2,000 U	100 U	1,000 U
Diethyl ether	7,300*	<b>29,000</b>	<b>1,800</b>	10 U	<b>2,400</b>	<b>110,000</b>	<b>77,000</b>	<b>3,500</b>	<b>43,000</b>
Ethylbenzene	600	1,200 U	50 U	1 U	<b>35</b>	5,000 U	2,000 U	100 U	1,000 U
Methyl tert-butyl ether	20	NA	500 U	10 U	250 U	NA	20,000 U	1,000 U	10,000 U
Methylene chloride	5	<b>15,000</b>	250 U	5 U	130 U	<b>57,000</b>	<b>27,000</b>	<b>1,500</b>	<b>12,000</b>
1,1,1,2-Tetrachloroethane	0.2	1,200 U	50 U	1 U	25 U	5,000 U	2,000 U	<b>110</b>	1,000 U
Tetrachloroethene	0.7	1,200 U	50 U	1 U	25 U	5,000 U	2,000 U	100 U	1,000 U
Toluene	600	1,200 U	50 U	1 U	25 U	5,000 U	2,000 U	100 U	1,000 U
Trichloroethene	3	1,200 U	50 U	1 U	25 U	5,000 U	2,000 U	<b>190</b>	1,000 U
Trichlorofluoromethane	2,000	NA	50 U	1 U	25 U	NA	2,000 U	100 U	1,000 U
Vinyl chloride	0.03	1,200 U	50 U	1 U	25 U	5,000 U	2,000 U	100 U	1,000 U
Xylenes, Total	500	2,500 U	100 U	2 U	50 U	10,000 U	4,000 U	200 U	2,000 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

**Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.**



Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID:	VER-3	VER-3	VER-3	VER-3	VER-4	VER-4	VER-4	VER-4
	Date Sampled:	05/05/06	10/22/08	11/03/09	11/05/10	05/04/06	10/22/08	11/03/09	11/05/10
<u>Volatile Organics</u> (USEPA Method 8260) ug/L	NCAC 2L GW Standard								
Acetone	6,000	20,000 U	25,000 U	6,200 U	6,300 U	10 U	500 U	25 U	25 U
Benzene	1	8,600	5,500	310	510	1 U	59	1 U	1 U
Chlorobenzene	50	2,000 U	1,000 U	250 U	250 U	1 U	20 U	1 U	1 U
Chloroform	70	4,800	11,000	250 U	250	5.5	46	1.8	1 U
1,4-Dichlorobenzene	6	NA	1,000 U	250 U	250 U	NA	20 U	1 U	1 U
1,1-Dichloroethane	6	2,000 U	1,000 U	250 U	250 U	1 U	20 U	1 U	1 U
1,2-Dichloroethane	0.4	2,000 U	1,000 U	250 U	250 U	1 U	20 U	1 U	1 U
Cis-1,2-Dichloroethene	70	2,000 U	1,000 U	250 U	250 U	1 U	20 U	1 U	1 U
Trans-1,2-Dichloroethene	100	2,000 U	1,000 U	250 U	250 U	1 U	20 U	1 U	1 U
Diethyl ether	7,300*	68,000	40,000	13,000	10,000	15	850	10 U	10 U
Ethylbenzene	600	2,000 U	1,000 U	250 U	250 U	1 U	20 U	1 U	1 U
Methyl tert-butyl ether	20	NA	10,000 U	2,500 U	2,500 U	NA	200 U	10 U	10 U
Methylene chloride	5	5,500	13,000	1,500	1,300 U	1 U	100 U	5 U	5 U
1,1,1,2-Tetrachloroethane	0.2	2,000 U	1,000 U	250 U	250 U	1 U	20 U	1 U	1 U
Tetrachloroethene	0.7	2,000 U	1,000 U	250 U	250 U	1 U	20 U	1 U	1 U
Toluene	600	2,000 U	1,000 U	250 U	250 U	1 U	20 U	1 U	1 U
Trichloroethene	3	2,000 U	1,000 U	250 U	250 U	1 U	20 U	1 U	1 U
Trichlorofluoromethane	2,000	NA	1,000 U	250 U	250 U	NA	20 U	1 U	1 U
Vinyl chloride	0.03	2,000 U	1,000 U	250 U	250 U	1 U	20 U	1 U	1 U
Xylenes, Total	500	4,000 U	2,000 U	500 U	500 U	2	40 U	2 U	2 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard

ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.

Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID:	SRW-1	SRW-1	SRW-1	SRW-1	SRW-1	SRW-2	SRW-2	SRW-2	SRW-2	SRW-2
	Date Sampled:	05/04/06	10/02/07	10/22/08	11/03/09	11/03/10	05/04/06	10/02/07	10/22/08	11/03/09	11/03/10
<u>Volatile Organics</u> (USEPA Method 8260) ug/L	NCAC 2L GW Standard										
Acetone	6,000	670 U	25 U	25 U	25 U	25 U	2,900 U	25 U	1,200 U	250 U	500 U
Benzene	1	67 U	1 U	1 U	1 U	1 U	290 U	<b>2.8</b>	50 U	10 U	20 U
Chlorobenzene	50	67 U	<b>11</b>	<b>9.1</b>	<b>6.5</b>	<b>6.5</b>	290 U	<b>11</b>	50 U	10 U	20 U
Chloroform	70	67 U	1 U	1 U	1 U	1 U	290 U	<b>2.1</b>	50 U	10 U	20 U
1,4-Dichlorobenzene	6	NA	NA	<b>3</b>	<b>2</b>	<b>1.5</b>	NA	NA	50 U	10 U	20 U
1,1-Dichloroethane	6	67 U	1 U	1 U	1 U	1 U	290 U	<b>1.2</b>	50 U	10 U	20 U
1,2-Dichloroethane	0.4	67 U	1 U	1 U	1 U	1 U	290 U	<b>75</b>	<b>55</b>	<b>55</b>	<b>45</b>
Cis-1,2-Dichloroethene	70	67 U	1 U	1 U	1 U	1 U	290 U	<b>1.6</b>	50 U	10 U	20 U
Trans-1,2-Dichloroethene	100	67 U	1 U	1 U	1 U	1 U	290 U	1 U	50 U	10 U	20 U
Diethyl ether	7,300*	<b>1,900</b>	<b>74</b>	<b>53</b>	<b>31</b>	<b>50</b>	<b>8,200</b>	<b>2,400</b>	<b>1,800</b>	<b>1,600</b>	<b>1,000</b>
Ethylbenzene	600	67 U	1 U	1 U	1 U	1 U	290 U	1 U	50 U	10 U	20 U
Methyl tert-butyl ether	20	NA	NA	10 U	10 U	10 U	NA	NA	500 U	100 U	200 U
Methylene chloride	5	67 U	5 U	5 U	5 U	5 U	290 U	5 U	250 U	50 U	100 U
1,1,2,2-Tetrachloroethane	0.2	67 U	1 U	1 U	1 U	1 U	290 U	1 U	50 U	10 U	20 U
Tetrachloroethene	0.7	67 U	1 U	1 U	1 U	1 U	290 U	1 U	50 U	10 U	20 U
Toluene	600	67 U	1 U	1 U	1 U	1 U	290 U	1 U	50 U	10 U	20 U
Trichloroethene	3	67 U	1 U	1 U	1 U	1 U	290 U	<b>8.4</b>	50 U	10 U	20 U
Trichlorofluoromethane	2,000	NA	NA	1 U	1 U	1 U	NA	NA	50 U	10 U	20 U
Vinyl chloride	0.03	67 U	1 U	1 U	1 U	1 U	290 U	<b>1.1</b>	50 U	10 U	20 U
Xylenes, Total	500	130 U	2 U	2 U	2 U	2 U	590 U	2 U	100 U	20 U	40 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

**Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.**

Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID:	SRW-3	SRW-3	SRW-3	SRW-3	SRW-3	DRW-1	DRW-1	DRW-1	DRW-1	DRW-1
	Date Sampled:	05/03/06	10/02/07	10/22/08	11/03/09	11/03/10	05/03/06	10/02/07	10/22/08	11/03/09	11/03/10
<u>Volatile Organics</u> (USEPA Method 8260) ug/L	NCAC 2L GW Standard										
Acetone	6,000	2,000 U	25 U	1,200 U	250 U	250 U	3,800 U	25 U	500 U	1,200 U	2,500 U
Benzene	1	200 U	11	50 U	10 U	10 U	380 U	160	20 U	50 U	100 U
Chlorobenzene	50	200 U	9	50 U	10 U	10 U	380 U	15	20 U	50 U	100 U
Chloroform	70	200 U	1.5	50 U	10 U	10 U	380 U	1.4	20 U	50 U	100 U
1,4-Dichlorobenzene	6	NA	NA	50 U	10 U	10 U	NA	NA	20 U	50 U	100 U
1,1-Dichloroethane	6	200 U	1 U	50 U	10 U	10 U	380 U	1.6	20 U	50 U	100 U
1,2-Dichloroethane	0.4	200 U	63	50 U	13	10 U	380 U	120	20 U	120	100 U
Cis-1,2-Dichloroethene	70	200 U	3.9	50 U	10 U	10 U	380 U	3.3	20 U	50 U	100 U
Trans-1,2-Dichloroethene	100	200 U	4.9	50 U	10 U	10 U	380 U	4	20 U	50 U	100 U
Diethyl ether	7,300*	6,200	4,900	2,100	860	440	11,000	6,900	610	3,800	3,900
Ethylbenzene	600	200 U	1 U	50 U	10 U	10 U	380 U	1 U	20 U	50 U	100 U
Methyl tert-butyl ether	20	NA	NA	500 U	100 U	100 U	NA	NA	200 U	500 U	1,000 U
Methylene chloride	5	200 U	5 U	250 U	50 U	50 U	380 U	5 U	20 U	250 U	500 U
1,1,2,2-Tetrachloroethane	0.2	200 U	1 U	50 U	10 U	10 U	380 U	1 U	20 U	50 U	100 U
Tetrachloroethene	0.7	200 U	1 U	50 U	10 U	10 U	380 U	1 U	20 U	50 U	100 U
Toluene	600	200 U	1 U	50 U	10 U	10 U	380 U	1 U	20 U	50 U	100 U
Trichloroethene	3	200 U	13	50 U	10 U	10 U	380 U	17	20 U	50 U	100 U
Trichlorofluoromethane	2,000	NA	NA	50 U	10 U	10 U	NA	NA	20 U	50 U	100 U
Vinyl chloride	0.03	200 U	3.6	50 U	10 U	10 U	380 U	3.5	20 U	50 U	100 U
Xylenes, Total	500	400 U	2 U	100 U	20 U	20 U	770 U	2 U	40 U	100 U	200 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.

Table 10. Historical Groundwater Analytical Data, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID:	DRW-2	DRW-2	DRW-2	DRW-2	DRW-2	DRW-3	DRW-3	DRW-3	DRW-3	DRW-3
	Date Sampled:	05/03/06	10/02/07	10/22/08	11/03/09	11/03/10	05/03/06	10/02/07	10/22/08	11/03/09	11/03/10
<u>Volatile Organics</u> (USEPA Method 8260) ug/L	NCAC 2L GW Standard										
Acetone	6,000	59 U	25 U	50 U	25 U	25 U	29 U	25 U	25 U	25 U	25 U
Benzene	1	5.9 U	1 U	2 U	1 U	1 U	2.9 U	1 U	1 U	1 U	1 U
Chlorobenzene	50	5.9 U	<b>1.3</b>	2 U	1 U	1 U	2.9 U	1 U	1 U	1 U	1 U
Chloroform	70	5.9 U	1 U	2 U	1 U	1 U	2.9 U	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	6	NA	NA	2 U	1 U	1 U	NA	NA	1 U	1 U	1 U
1,1-Dichloroethane	6	5.9 U	1 U	2 U	1 U	1 U	2.9 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.4	5.9 U	<b>9.3</b>	<b>3.2</b>	<b>1.7</b>	1 U	2.9 U	<b>1</b>	1 U	1 U	1 U
Cis-1,2-Dichloroethene	70	5.9 U	1 U	2 U	1 U	1 U	2.9 U	1 U	1 U	1 U	1 U
Trans-1,2-Dichloroethene	100	5.9 U	1 U	2 U	1 U	1 U	2.9 U	1 U	1 U	1 U	1 U
Diethyl ether	7,300*	<b>200</b>	<b>470</b>	<b>87</b>	<b>59</b>	<b>40</b>	<b>98</b>	<b>37</b>	10 U	<b>18</b>	10 U
Ethylbenzene	600	5.9 U	1 U	2 U	1 U	1 U	2.9 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether	20	NA	NA	20 U	10 U	10 U	NA	NA	10 U	10 U	10 U
Methylene chloride	5	5.9 U	5 U	10 U	5 U	5 U	2.9 U	1 U	5 U	5 U	5 U
1,1,1,2-Tetrachloroethane	0.2	5.9 U	1 U	2 U	1 U	1 U	2.9 U	1 U	1 U	1 U	1 U
Tetrachloroethene	0.7	5.9 U	1 U	2 U	1 U	1 U	2.9 U	1 U	1 U	1 U	1 U
Toluene	600	5.9 U	1 U	2 U	1 U	1 U	2.9 U	1 U	1 U	1 U	1 U
Trichloroethene	3	5.9 U	<b>1.5</b>	2 U	1 U	1 U	2.9 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	2,000	NA	NA	2 U	1 U	1 U	NA	NA	1 U	1 U	1 U
Vinyl chloride	0.03	5.9 U	1 U	2 U	1 U	1 U	2.9 U	1 U	1 U	1 U	1 U
Xylenes, Total	500	12 U	2 U	4 U	2 U	2 U	5.7 U	2 U	2 U	2 U	2 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
ug/L Micrograms per liter.

U Constituent was not detected above the reporting limit.

D Constituent concentration was quantitated using a secondary dilution.

NA Not analyzed.

<sup>1</sup> Cis-1,2-Dichloroethene & trans-1,2-Dichloroethene were analyzed as one constituent (Cis/Trans-1,2-Dichloroethene).

\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

**Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.**

Table 11. Summary of Analytical Results for Surface Water Samples Collected in November 2010, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID: Date Sampled:	SW-2 11/02/10	SW-3 11/02/10	SW-4 11/02/10	SW-5 11/02/10	SW-6 11/02/10
<u>Volatile Organics</u> (USEPA Method 8260) ug/L		ND	ND	ND	ND	ND

ug/L      Micrograms per liter.  
 ND        Constituent was not detected above the reporting limit.

Table 12. Infiltration Gallery Monitoring Data Collected in October 2010, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID: Date Sampled:	MW-1 9/30/2010	MW-1 10/4/2010	MW-1 10/8/2010	MW-1 10/18/2010	MW-2 9/30/2010	MW-2 10/4/2010	MW-2 10/8/2010	MW-2 10/18/2010	MW-3 9/30/2010	MW-3 10/4/2010	MW-3 10/8/2010	MW-3 10/18/2010
	NCAC 2L GW Standard	Pre- Injection	Post- Injection	Post- Injection	Post- Injection	Pre- Injection	Post- Injection	Post- Injection	Post- Injection	Pre- Injection	Post- Injection	Post- Injection	Post- Injection
Volatile Organics (USEPA Method 8260) µg/L													
Acetone		1,300 U	1,300 U	2,500 U	1,300 U	2,500 U	2,500 U	5,000 U	5,000 U	25 U	25 U	25 U	25 U
Benzene	1	620	910	800	720	6,800	7,200	7,600	7,100	1 U	1 U	1 U	1 U
Chlorobenzene	50	50 U	50 U	100 U	50 U	240	250	220	210	1 U	1 U	1 U	1 U
Chloroform	70	3,400	4,400	4,500	4,900	780	1,000	1,100	920	1 U	1 U	1 U	1 U
Chloromethane		50 U	50 U	100 U	50 U*	100 U	100 U	200 U	200 U*	1 U	1 U	1 U	1 U*
1,4-Dichlorobenzene		50 U	50 U	100 U	50 U	100 U	100 U	200 U	200 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	6	50	57	100 U	50 U	100 U	100 U	200 U	200 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.4	360	430	490	550	1,000	1,100	1,400	1,600	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene		50 U	50 U	100 U	50 U	100 U	100 U	200 U	200 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene		50 U	50 U	100 U	50 U	100 U	100 U	200 U	200 U	1 U	1 U	1 U	1 U
Diethyl ether	7,300*	4,300	5,300 E	5,000	3,900	13,000 E	16,000 E	14,000	13,000	10 U	10 U	10 U	10 U
Ethylbenzene	600	50 U	50 U	100 U	50 U	260	360	410	370	1 U	1 U	1 U	1 U
Methyl tert-butyl ether		500 U	500 U	1000 U	500 U	1000 U	1000 U	2000 U	2000 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	570	680	720	540	780	890	1300	1000	5 U	5 U	5 U	5 U
Naphthalene	6	5,900	250 U	500 U	250 U	1,500	500 U	1,000 U	1,000 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	0.2	530	570	620	620	100 U	100 U	200 U	200 U	1 U	1 U	1 U	1 U
Tetrachloroethene		50 U	50 U	100 U	50 U	100 U	100 U	200 U	200 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	70	50 U	50 U	100 U	88	100 U	100 U	200 U	350	1 U	1 U	1 U	1 U
Toluene		50 U	50 U	100 U	50 U	100 U	100 U	200 U	200 U	1 U	1 U	1 U	1 U
Trichloroethene	3	130	160	140	150	130	140	200 U	620	1 U	1 U	1 U	1 U
Trichlorofluoromethane		50 U	50 U	100 U	50 U	100 U	100 U	200 U	200 U	1 U	1 U	1 U	1 U
Vinyl chloride		50 U	50 U	100 U	50 U	100 U	100 U	200 U	200 U	1 U	1 U	1 U	1 U
Xylenes, Total	500	100 U	100 U	200 U	100 U	870	1,100	1,000	860	2 U	2 U	2 U	2 U
Sulfate (USEPA Method 9038 mg/L)													
Sulfate		260	260	290	310	310	280	270	270	61	NA	53	61
Metals (USEPA Method 6010/7470A) µg/L													
Arsenic		20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Barium	700	27	33	50 U	50 U	21	21	50 U	50 U	220	240	250	230
Cadmium		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chromium		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	150	170	140	33
Iron	300	5,100	8,200	6,100	4,700	5,900	6,000	7,600	8,200	980	1,000	300	110
Lead		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Selenium		20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Silver		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Sodium	NE	240,000	270,000	270,000	310,000	67,000	67,000	65,000	65,000	73,000	76,000	80,000	88,000
Mercury		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard  
 ug/L Micrograms per liter.  
 mg/L Milligrams per liter.  
 U Constituent was not detected above the reporting limit.  
 \* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).  
 Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.

Table 12. Infiltration Gallery Monitoring Data Collected in October 2010, UNC Airport Road Waste Disposal Area, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina.

Constituent	Sample ID: Date Sampled:	MW-14 9/30/2010	MW-14 10/4/2010	MW-14 10/18/2010	MW-38 9/30/2010	MW-38 10/4/2010	MW-38 10/8/2010	MW-38 10/18/2010	MW-39 9/30/2010	MW-39 10/4/2010	MW-39 10/8/2010	MW-39 10/18/2010
	NCAC 2L GW Standard	Pre- Injection	Post- Injection	Post- Injection	Pre- Injection	Post- Injection	Post- Injection	Post- Injection	Pre- Injection	Post- Injection	Post- Injection	Post- Injection
Volatile Organics (USEPA Method 8260) µg/L												
Acetone		25 U	25 U	500 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	1	<b>49</b>	<b>34</b>	<b>38</b>	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	50	1.1	1 U	20 U	1 U	<b>1.5</b>	<b>2.1</b>	1 U	1 U	1 U	1 U	1 U
Chloroform	70	1 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloromethane		1 U	1 U	20 U	1 U	1 U	1 U	1 U*	1 U	1 U	1 U	1 U*
1,4-Dichlorobenzene		1 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	6	1 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	0.4	<b>15</b>	<b>12</b>	20 U	<b>14</b>	<b>8.7</b>	<b>21</b>	<b>22</b>	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene		1 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene		1 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Diethyl ether	7,300*	<b>700 E</b>	<b>570 E *</b>	<b>770</b>	<b>220 E</b>	<b>140 E *</b>	<b>390 E</b>	<b>49</b>	10 U	10 U*	10 U	10 U
Ethylbenzene	600	1 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether		10 U	10 U	200 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methylene Chloride	5	5 U	5 U	100 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	6	5 U	5 U	100 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	0.2	1 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene		1 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	70	1 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene		1 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	3	<b>3.9</b>	<b>2.9</b>	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane		1 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride		1 U	1 U	20 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylenes, Total	500	2 U	2 U	40 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Sulfate (USEPA Method 9038 mg/L)												
Sulfate		<b>18</b>	<b>21</b>	<b>21</b>	<b>28</b>	<b>27</b>	<b>26</b>	<b>26</b>	<b>13</b>	<b>12</b>	<b>14</b>	<b>12</b>
Metals (USEPA Method 6010/7470A) µg/L												
Arsenic		20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Barium	700	<b>31</b>	<b>31</b>	50 U	<b>43</b>	<b>59</b>	50 U	50 U	<b>89</b>	<b>69</b>	<b>63</b>	<b>65</b>
Cadmium		5 U	5 U	5 U	5 U	5 U	5 U	5 U	<b>5.9</b>	5 U	5 U	5 U
Chromium		10 U	10 U	10 U	<b>15</b>	<b>18</b>	10 U	10 U	<b>13</b>	10 U	10 U	10 U
Iron	300	<b>340</b>	<b>140</b>	<b>150</b>	<b>11,000</b>	<b>16,000</b>	<b>260</b>	<b>140</b>	<b>2,000</b>	<b>71</b>	100 U	100 U
Lead		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Selenium		20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Silver		10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Sodium	NE	<b>19,000</b>	<b>19,000</b>	<b>19,000</b>	<b>41,000</b>	<b>41,000</b>	<b>42,000</b>	<b>43,000</b>	<b>25,000</b>	<b>23,000</b>	<b>23,000</b>	<b>21,000</b>
Mercury		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U

NCAC 2L North Carolina Administrative Code 2L Groundwater Standard

µg/L Micrograms per liter.

mg/L Milligrams per liter.

U Constituent was not detected above the reporting limit.

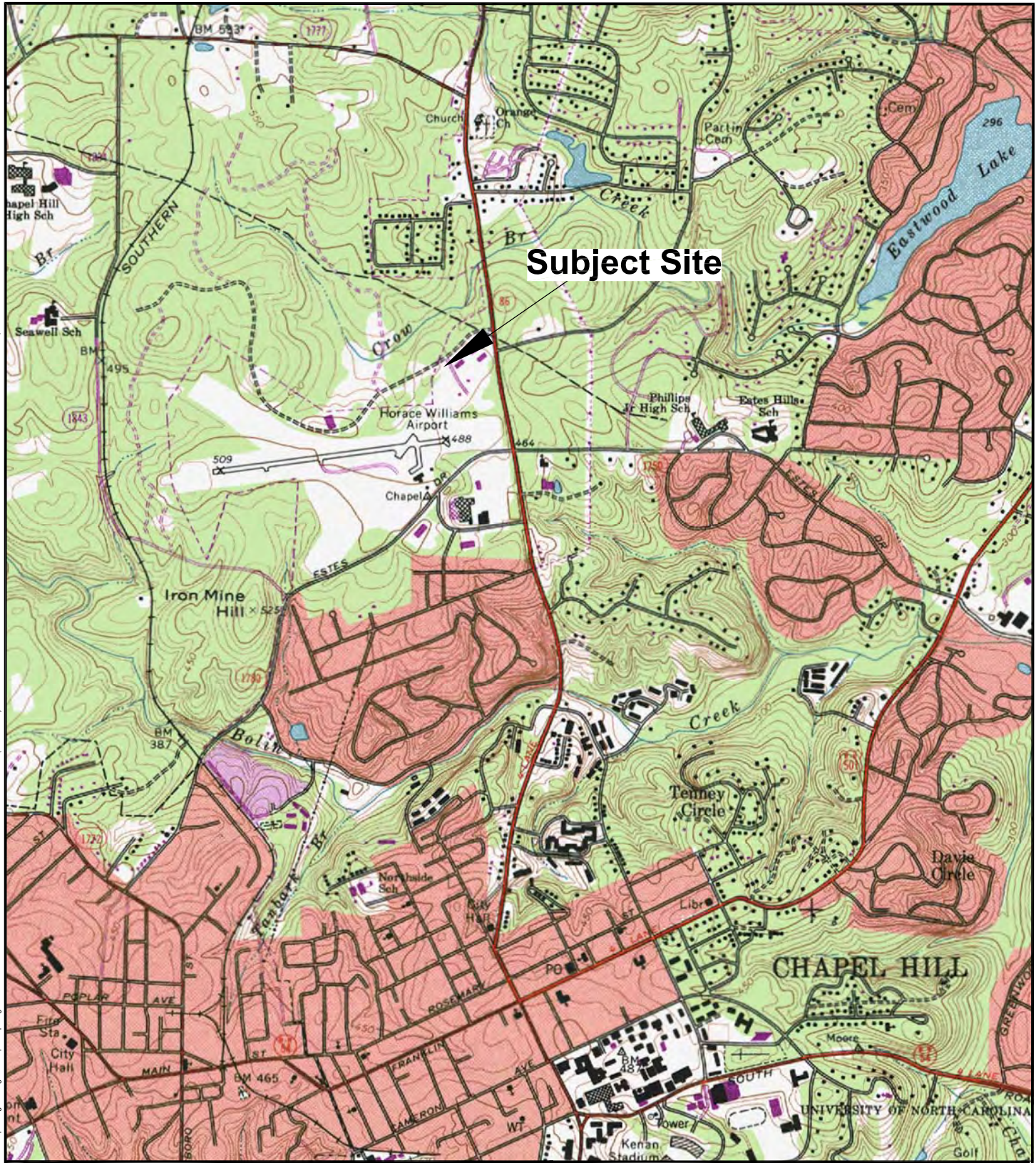
\* USEPA Risk-Based Concentration (RBC) for tap water (no NCAC 2L Groundwater Standard exists).

Indicates that the reported concentration exceeds the NCAC 2L Groundwater Standard or RBC.

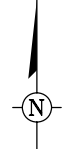
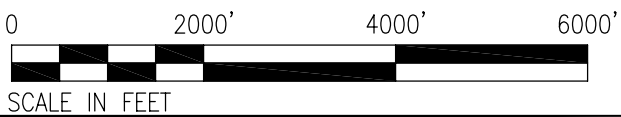
Figures



CITY: Raleigh, NC DWG GROUP: ENV DB: LD: PIC: PM: TM: LVR: G:\ENV\UNIV\Airport Road\10202020\2010 Remedial System Report\Figures\Figure 1 Topo Map.dwg LAYOUT: FIGURE 1 - SAVER: 11/19/2010 10:12 AM ACADVER: 17.05 (LMS TECH) PAGESETUP: - PLOTSTYLETABLE: ENV-STD.ACT PLOTTED: 11/20/11 5:33 PM BY: PINNIX, ALAN



CONTOUR INTERVAL 10-FOOT DATUM IS MEAN SEA LEVEL  
 SOURCE: TOPOGRAPHY TAKEN FROM USGS 7.5 MINUTE QUADRANGLE  
 CHAPEL HILL 1967 (PHOTOREVISED 1988), NC MAP



UNC AIRPORT ROAD WASTE DISPOSAL AREA  
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
 CHAPEL HILL, NORTH CAROLINA



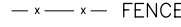





**SITE LOCATION**

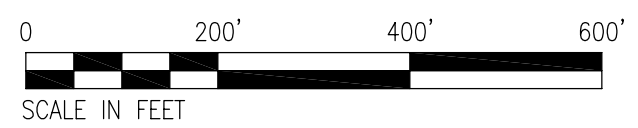
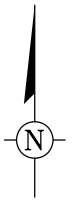
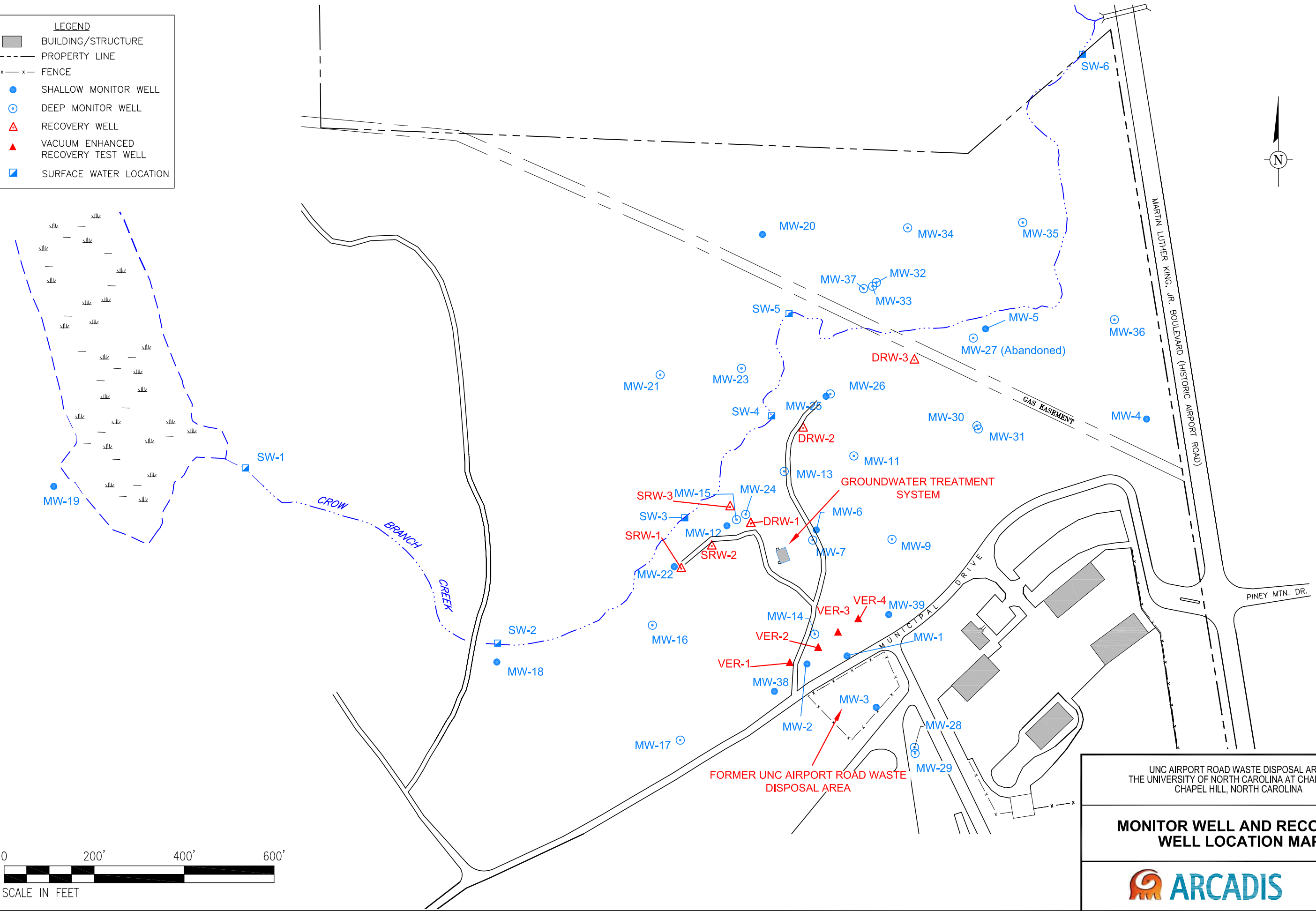


FIGURE  
**1**

CITY: Augusta, GA; DWG GROUP: ENV; DR: A. Warren; LD: PIC: PM: TM: LYR: 11/23/2010 3:52 PM; ACADVER: 17.05 (LIST TECH); PAGES: 17; PLOT: 17/2011 3:35 PM; BY: FINNIX, ALAN

**LEGEND**

-  BUILDING/STRUCTURE
-  PROPERTY LINE
-  FENCE
-  SHALLOW MONITOR WELL
-  DEEP MONITOR WELL
-  RECOVERY WELL
-  VACUUM ENHANCED RECOVERY TEST WELL
-  SURFACE WATER LOCATION



UNC AIRPORT ROAD WASTE DISPOSAL AREA  
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
CHAPEL HILL, NORTH CAROLINA

**MONITOR WELL AND RECOVERY WELL LOCATION MAP**











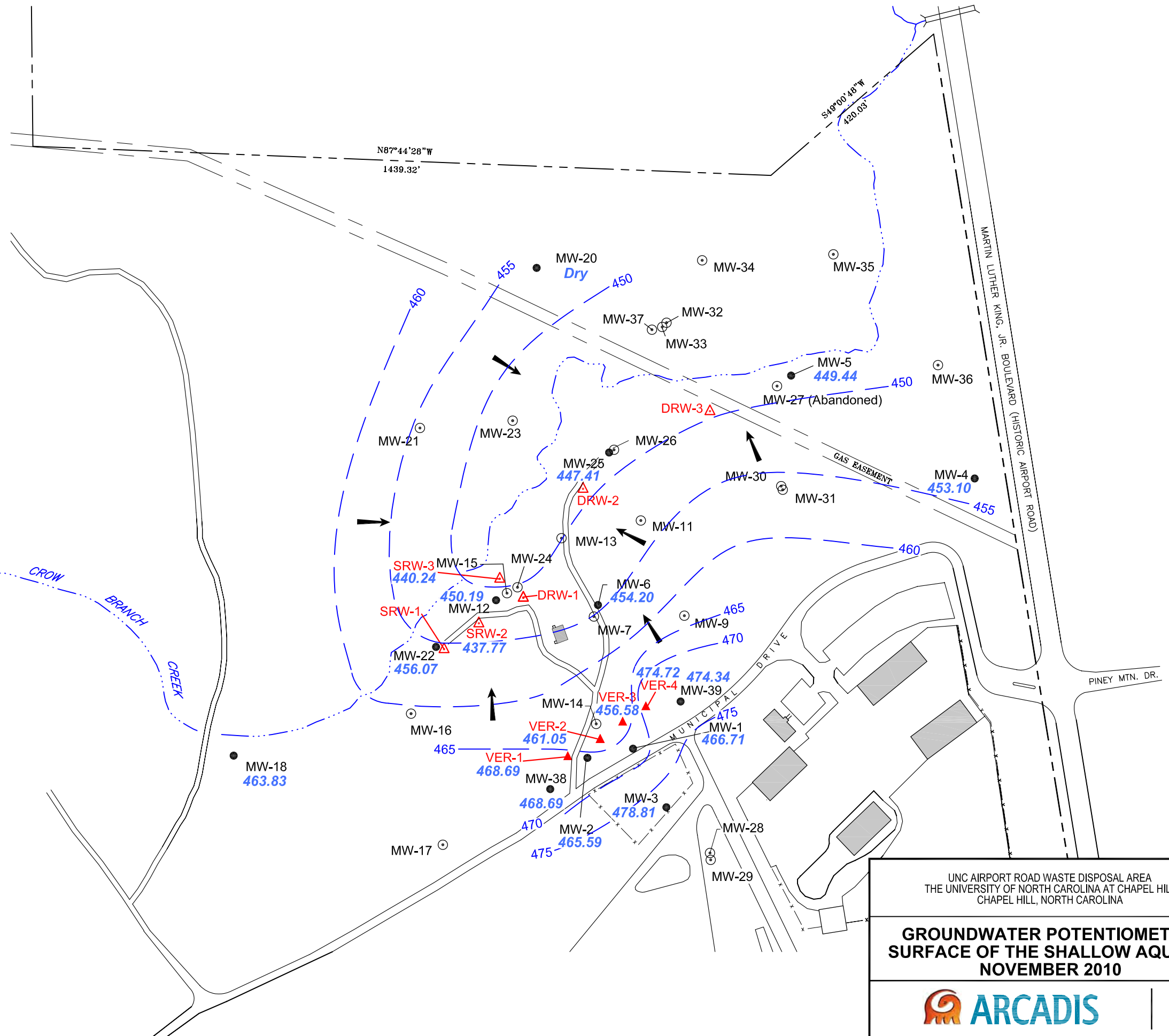


FIGURE **2**

**LEGEND**

-  BUILDING/STRUCTURE
-  PROPERTY LINE
-  FENCE
-  SHALLOW MONITOR WELL
-  DEEP MONITOR WELL
-  RECOVERY WELL
-  VACUUM ENHANCED RECOVERY WELL
-  SURFACE WATER LOCATION
- 452.14 WATER LEVEL ELEVATION (ft msl)
- 454 POTENTIOMETRIC CONTOUR
-  GROUNDWATER FLOW DIRECTION



UNC AIRPORT ROAD WASTE DISPOSAL AREA  
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
CHAPEL HILL, NORTH CAROLINA

**GROUNDWATER POTENTIOMETRIC SURFACE OF THE SHALLOW AQUIFER NOVEMBER 2010**











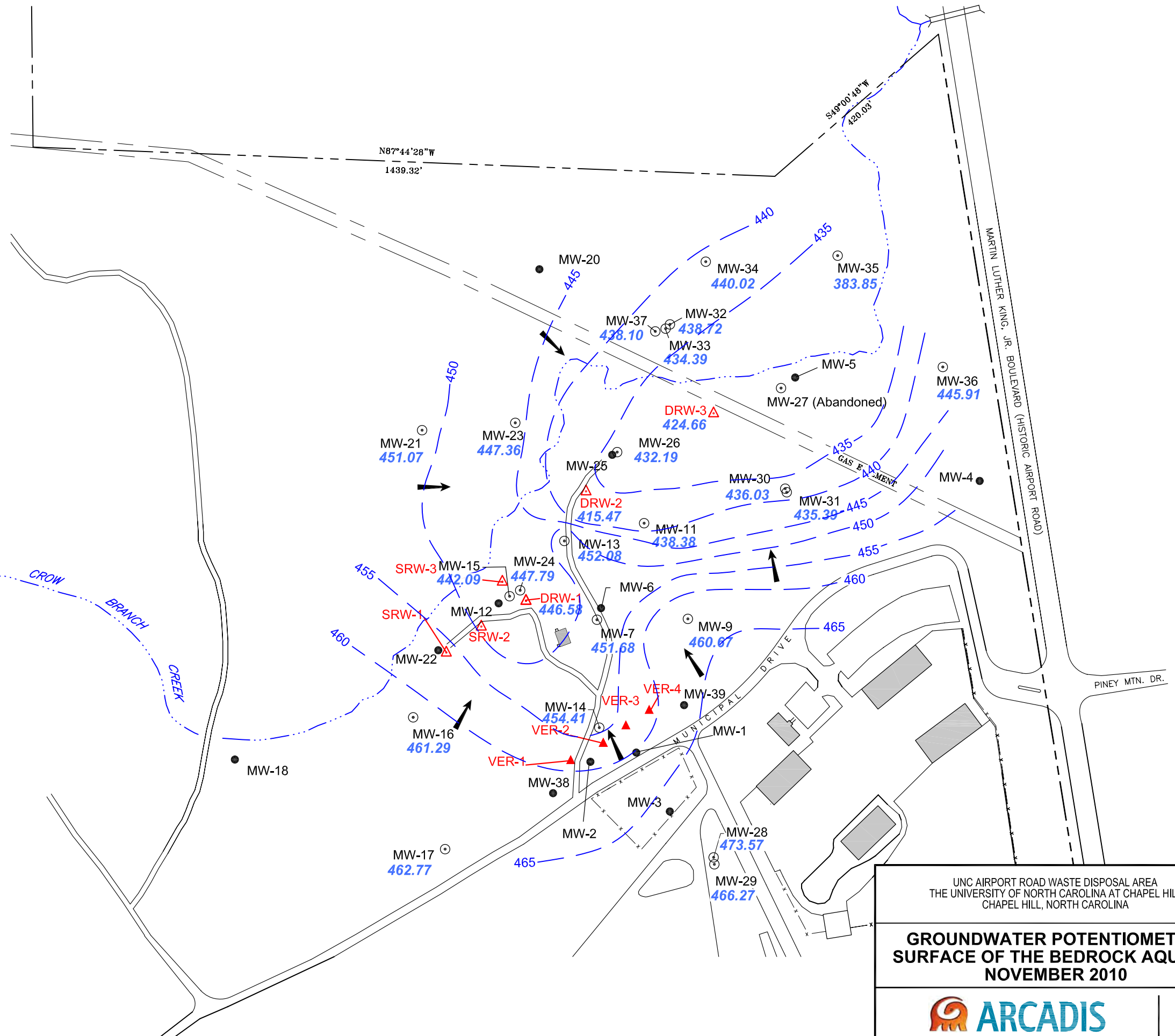


FIGURE **3**

**LEGEND**

-  BUILDING/STRUCTURE
-  PROPERTY LINE
-  FENCE
-  SHALLOW MONITOR WELL
-  DEEP MONITOR WELL
-  RECOVERY WELL
-  VACUUM ENHANCED RECOVERY WELL
-  SURFACE WATER LOCATION
- 452.14 WATER LEVEL ELEVATION (ft msl)
- 454 POTENTIOMETRIC CONTOUR
-  GROUNDWATER FLOW DIRECTION



UNC AIRPORT ROAD WASTE DISPOSAL AREA  
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
 CHAPEL HILL, NORTH CAROLINA

**GROUNDWATER POTENTIOMETRIC SURFACE OF THE BEDROCK AQUIFER NOVEMBER 2010**










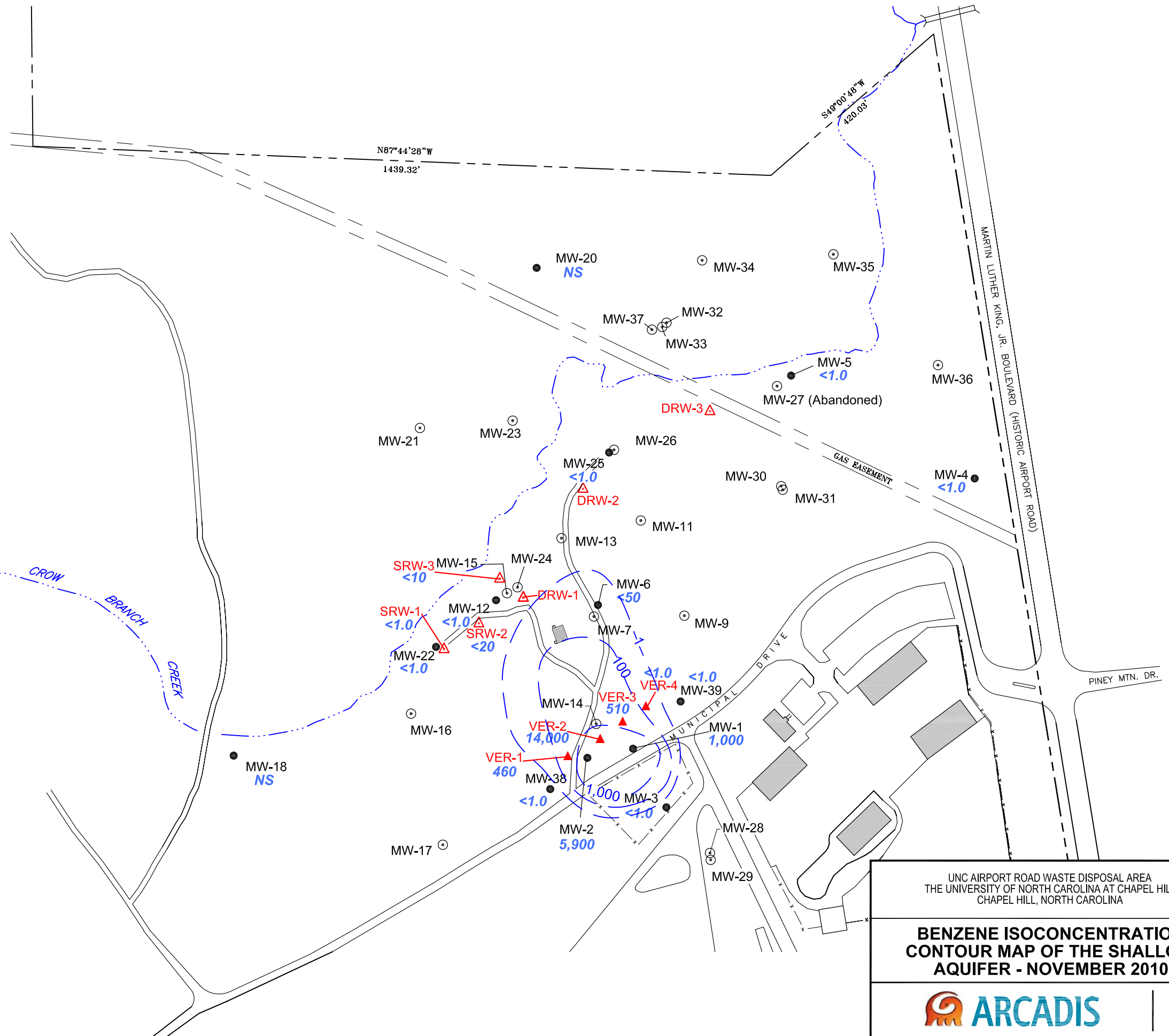


FIGURE **4**









**LEGEND**

-  BUILDING/STRUCTURE
-  PROPERTY LINE
-  FENCE
-  SHALLOW MONITOR WELL
-  DEEP MONITOR WELL
-  RECOVERY WELL
-  VACUUM ENHANCED RECOVERY WELL
-  SURFACE WATER LOCATION
- 920** BENZENE CONCENTRATION ( $\mu\text{g/L}$ )
- 100** ISOCENTRATION CONTOUR ( $\mu\text{g/L}$ )
- NS** NOT SAMPLED

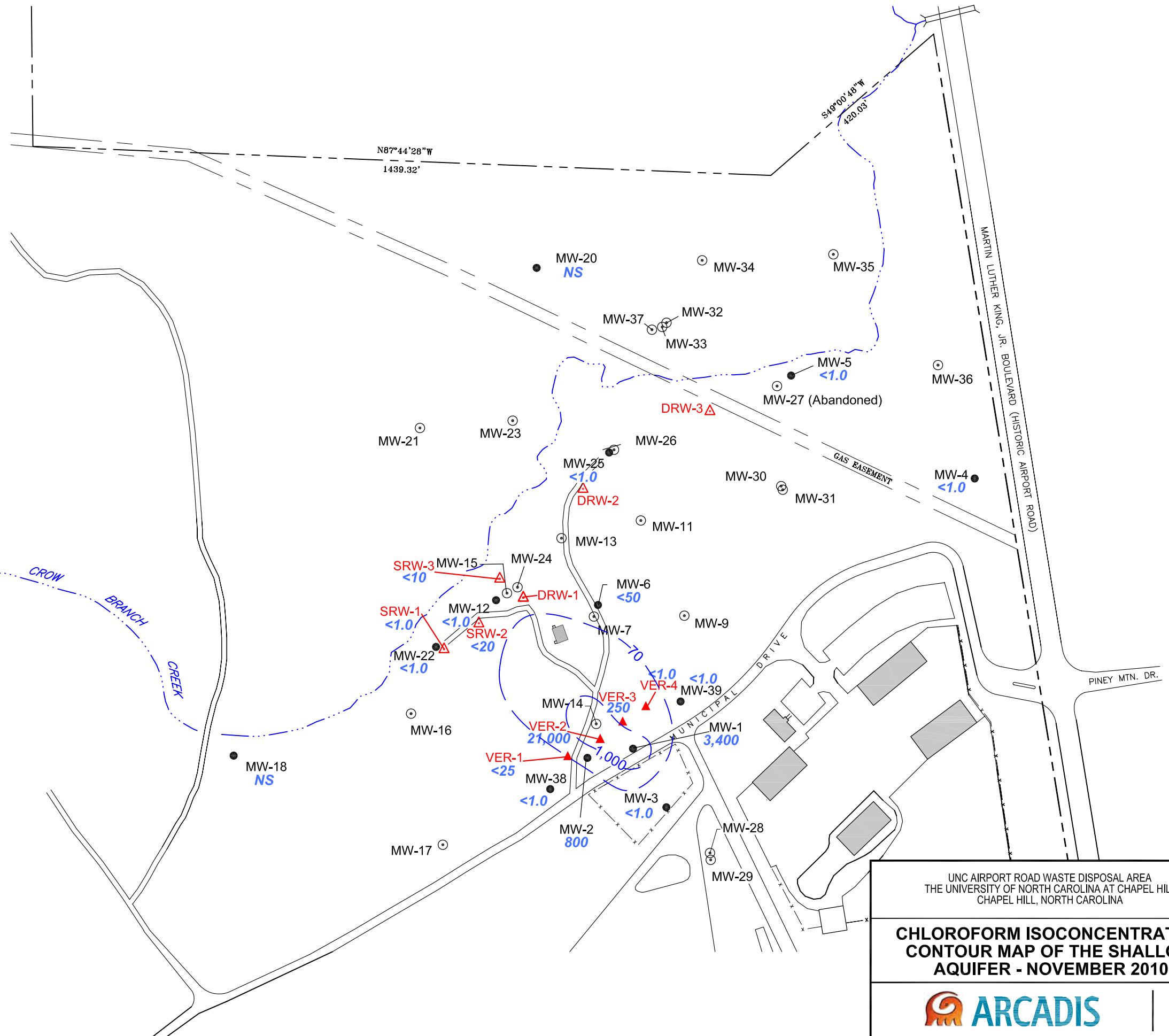
NCAC 2L STANDARD FOR BENZENE IS  $1 \mu\text{g/L}$



**LEGEND**

-  BUILDING/STRUCTURE
-  PROPERTY LINE
-  FENCE
-  SHALLOW MONITOR WELL
-  DEEP MONITOR WELL
-  RECOVERY WELL
-  VACUUM ENHANCED RECOVERY WELL
-  SURFACE WATER LOCATION
- 920 CHLOROFORM CONCENTRATION ( $\mu\text{g/L}$ )
- 100 ISOCOCONCENTRATION CONTOUR ( $\mu\text{g/L}$ )
- NS NOT SAMPLED

NCAC 2L STANDARD FOR CHLOROFORM IS  $70 \mu\text{g/L}$



UNC AIRPORT ROAD WASTE DISPOSAL AREA  
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
CHAPEL HILL, NORTH CAROLINA

**CHLOROFORM ISOCONCENTRATION  
CONTOUR MAP OF THE SHALLOW  
AQUIFER - NOVEMBER 2010**










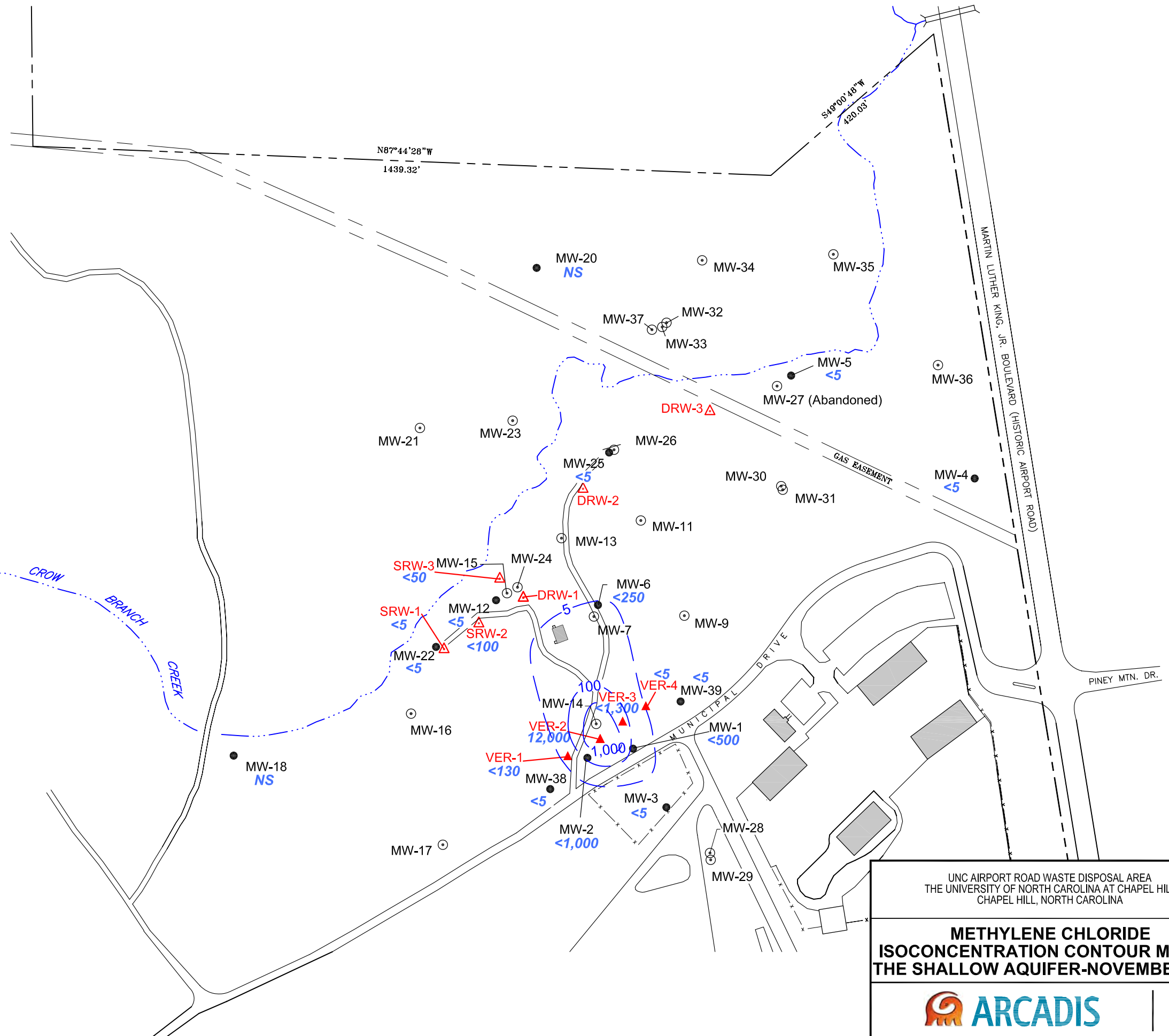


FIGURE  
**6**

**LEGEND**

-  BUILDING/STRUCTURE
-  PROPERTY LINE
-  FENCE
-  SHALLOW MONITOR WELL
-  DEEP MONITOR WELL
-  RECOVERY WELL
-  VACUUM ENHANCED RECOVERY WELL
-  SURFACE WATER LOCATION
- 920 METHYLENE CHLORIDE CONCENTRATION ( $\mu\text{g/L}$ )
- 100 — ISOCENTRATION CONTOUR ( $\mu\text{g/L}$ )
- NS NOT SAMPLED

NCAC 2L STANDARD FOR METHYLENE CHLORIDE IS 5  $\mu\text{g/L}$



UNC AIRPORT ROAD WASTE DISPOSAL AREA  
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
 CHAPEL HILL, NORTH CAROLINA

**METHYLENE CHLORIDE  
 ISOCONCENTRATION CONTOUR MAP OF  
 THE SHALLOW AQUIFER-NOVEMBER 2010**




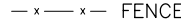





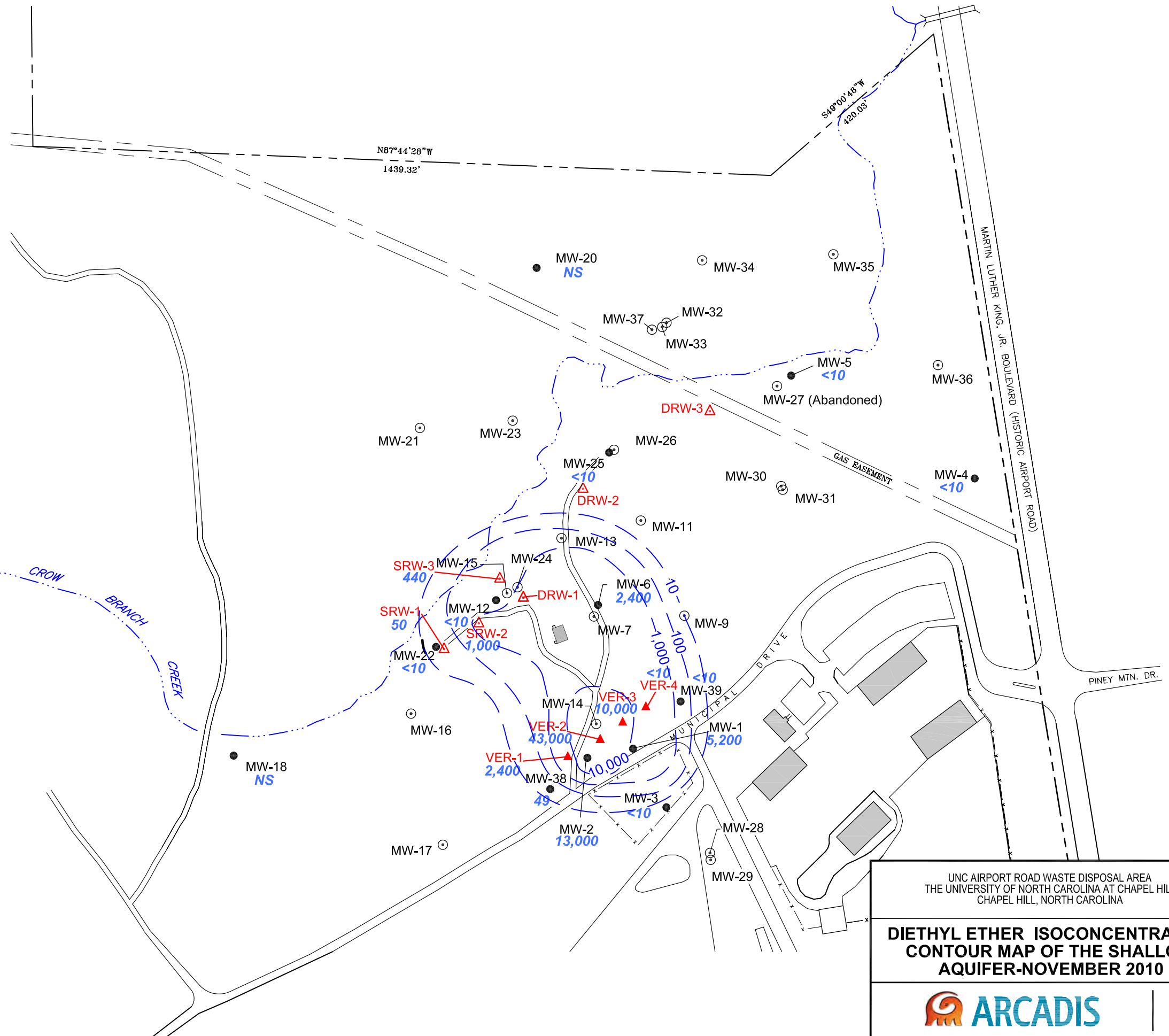
 **ARCADIS**

FIGURE **7**

**LEGEND**

-  BUILDING/STRUCTURE
-  PROPERTY LINE
-  FENCE
-  SHALLOW MONITOR WELL
-  DEEP MONITOR WELL
-  RECOVERY WELL
-  VACUUM ENHANCED RECOVERY WELL
-  SURFACE WATER LOCATION
- 920** DIETHYL ETHER CONCENTRATION ( $\mu\text{g/L}$ )
- 100** ISOCONCENTRATION CONTOUR ( $\mu\text{g/L}$ )
- NS** NOT SAMPLED

USEPA RISK BASED TAP WATER CONCENTRATION FOR DIETHYL ETHER IS 7,300  $\mu\text{g/L}$



UNC AIRPORT ROAD WASTE DISPOSAL AREA  
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
 CHAPEL HILL, NORTH CAROLINA

**DIETHYL ETHER ISOCONCENTRATION  
 CONTOUR MAP OF THE SHALLOW  
 AQUIFER-NOVEMBER 2010**










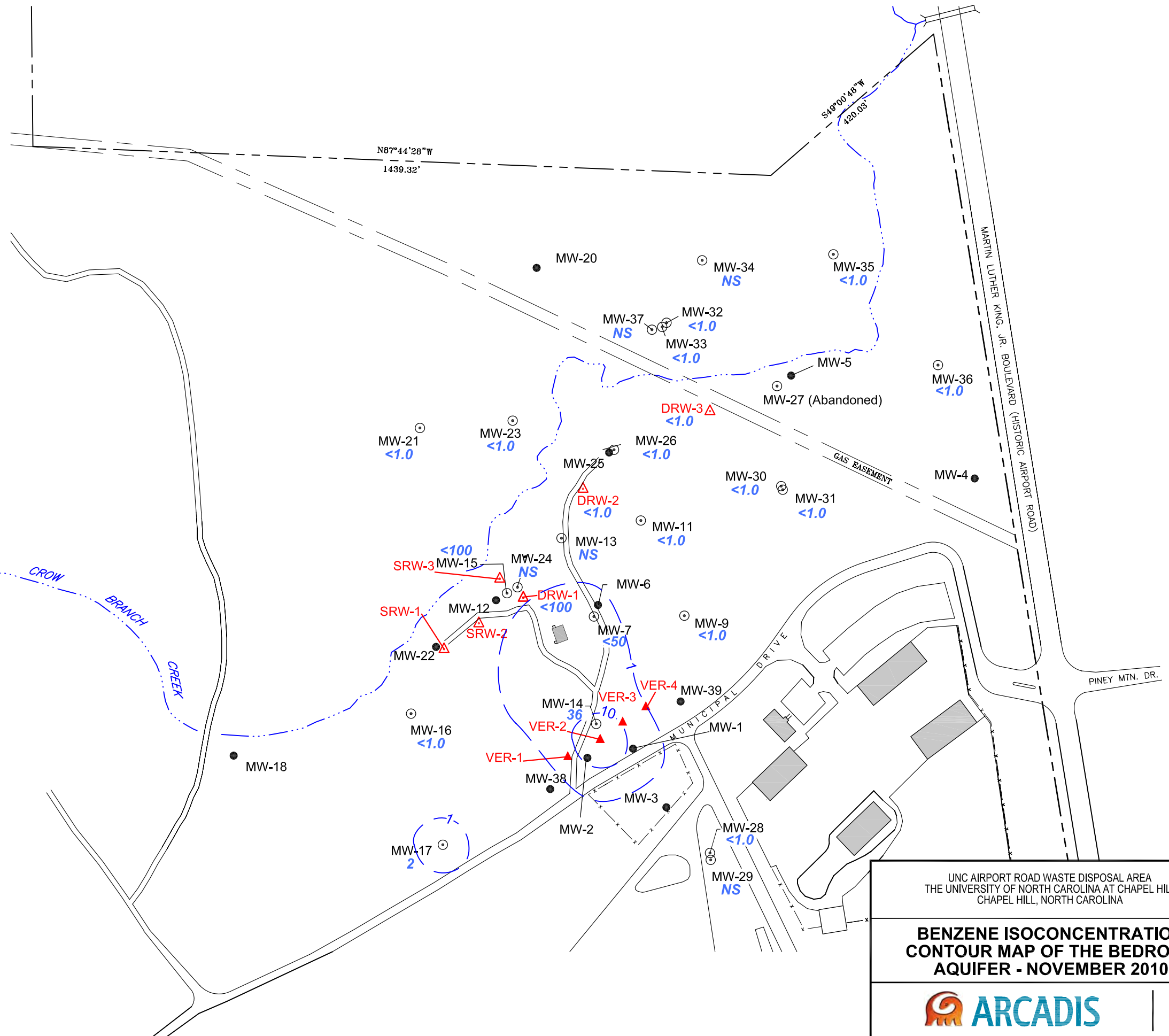
 **ARCADIS**

FIGURE **8**











**LEGEND**

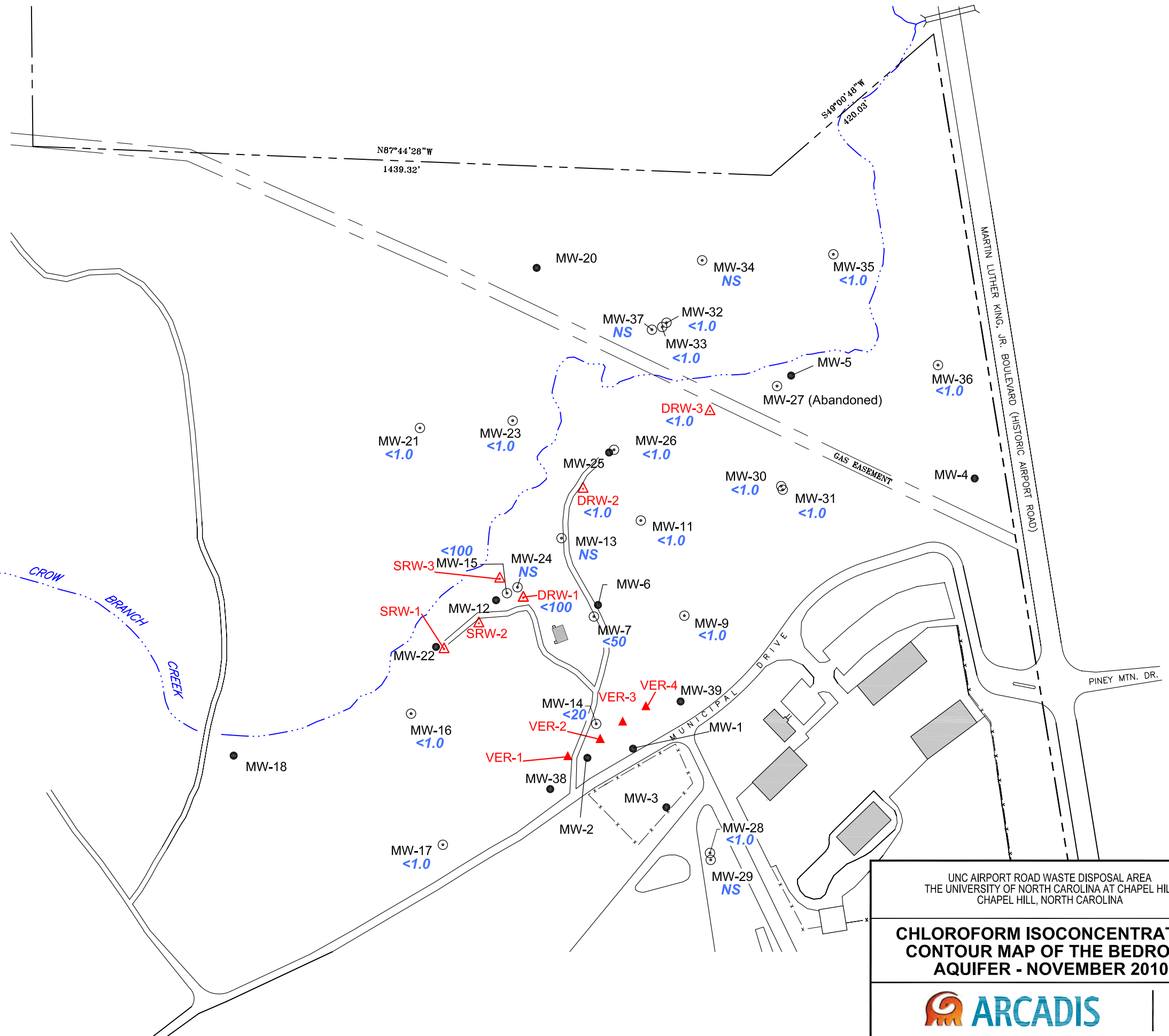
-  BUILDING/STRUCTURE
-  PROPERTY LINE
-  FENCE
-  SHALLOW MONITOR WELL
-  DEEP MONITOR WELL
-  RECOVERY WELL
-  VACUUM ENHANCED RECOVERY WELL
-  SURFACE WATER LOCATION
- 920** BENZENE CONCENTRATION ( $\mu\text{g/L}$ )
- 100** ISOCENTRATION CONTOUR ( $\mu\text{g/L}$ )
- NS** NOT SAMPLED
- NCAC 2L STANDARD FOR BENZENE IS  $1 \mu\text{g/L}$



**LEGEND**

-  BUILDING/STRUCTURE
-  PROPERTY LINE
-  FENCE
-  SHALLOW MONITOR WELL
-  DEEP MONITOR WELL
-  RECOVERY WELL
-  VACUUM ENHANCED RECOVERY WELL
-  SURFACE WATER LOCATION
- 920 CHLOROFORM CONCENTRATION ( $\mu\text{g/L}$ )
- 100 ISOCOCONCENTRATION CONTOUR ( $\mu\text{g/L}$ )
- NS NOT SAMPLED

NCAC 2L STANDARD FOR CHLOROFORM IS 70  $\mu\text{g/L}$



UNC AIRPORT ROAD WASTE DISPOSAL AREA  
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
 CHAPEL HILL, NORTH CAROLINA

**CHLOROFORM ISOCOCONCENTRATION  
 CONTOUR MAP OF THE BEDROCK  
 AQUIFER - NOVEMBER 2010**


 **ARCADIS**

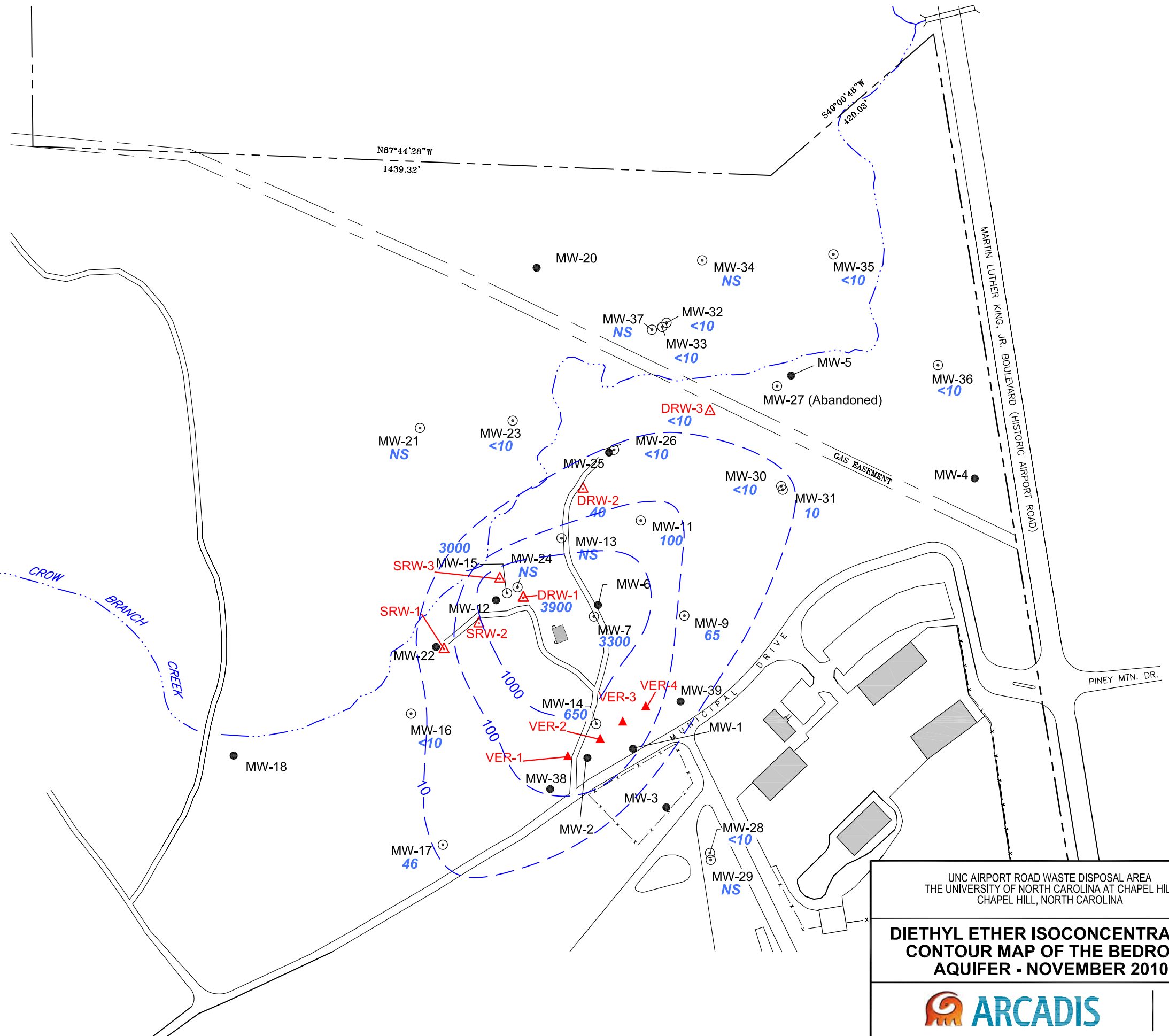
FIGURE **10**



**LEGEND**

- BUILDING/STRUCTURE
- PROPERTY LINE
- FENCE
- SHALLOW MONITOR WELL
- DEEP MONITOR WELL
- RECOVERY WELL
- VACUUM ENHANCED RECOVERY WELL
- SURFACE WATER LOCATION
- 920** DIETHYL ETHER CONCENTRATION ( $\mu\text{g/L}$ )
- 100** ISOCONCENTRATION CONTOUR ( $\mu\text{g/L}$ )
- NS** NOT SAMPLED

USEPA RISK BASED TAP WATER CONCENTRATION FOR DIETHYL ETHER IS 7,300  $\mu\text{g/L}$



UNC AIRPORT ROAD WASTE DISPOSAL AREA  
 THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
 CHAPEL HILL, NORTH CAROLINA

**DIETHYL ETHER ISOCONCENTRATION  
 CONTOUR MAP OF THE BEDROCK  
 AQUIFER - NOVEMBER 2010**

**ARCADIS**

FIGURE **11**

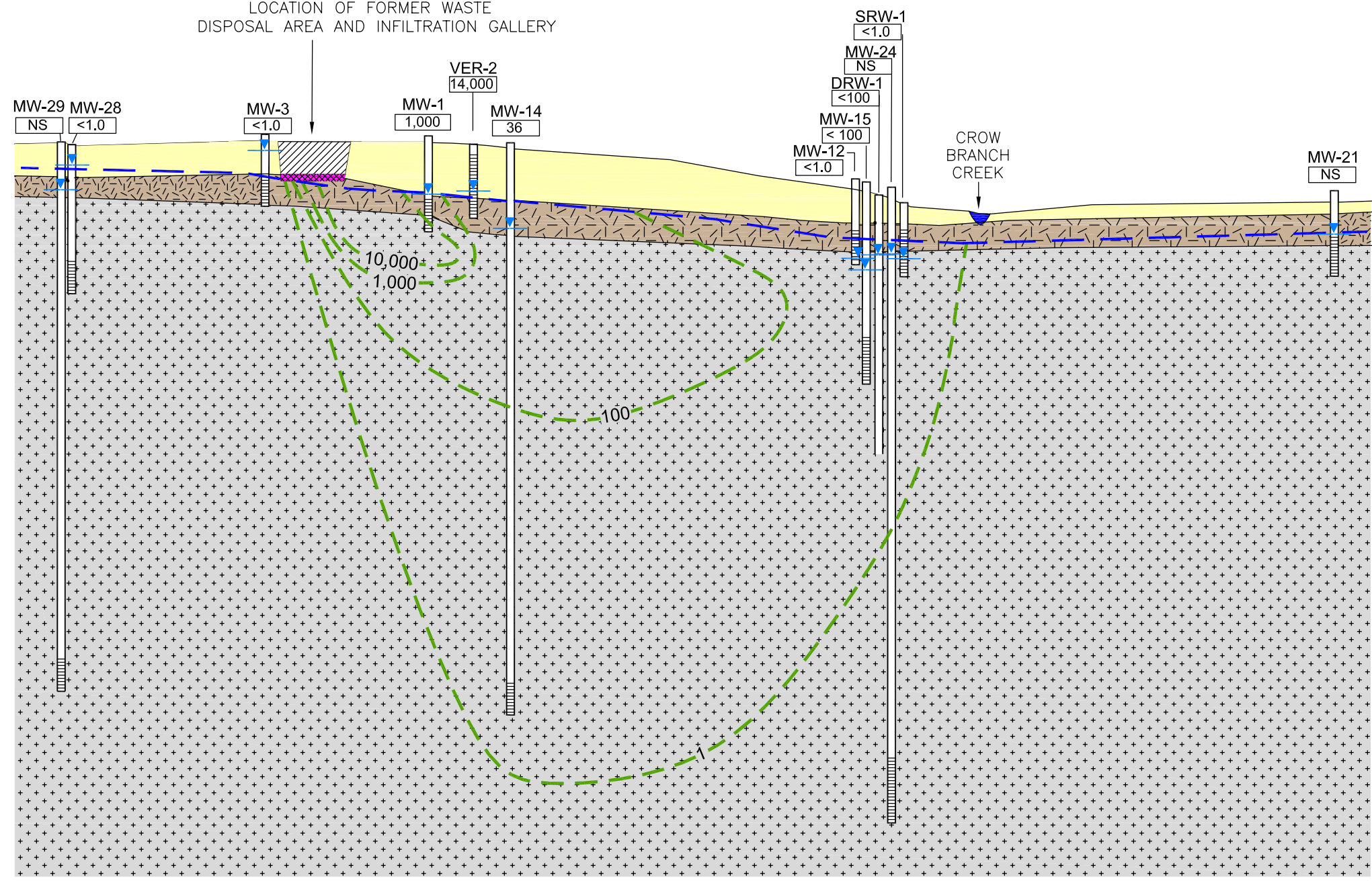
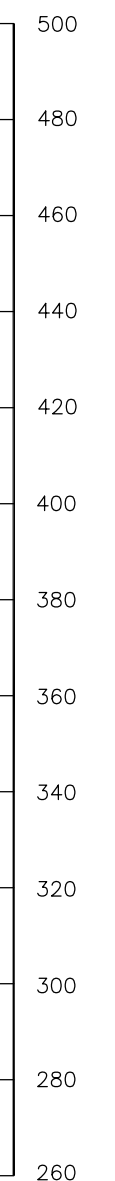
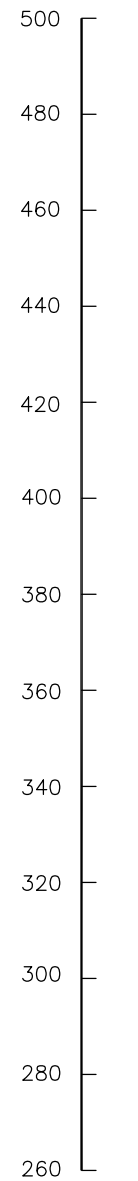
SOUTH

NORTH

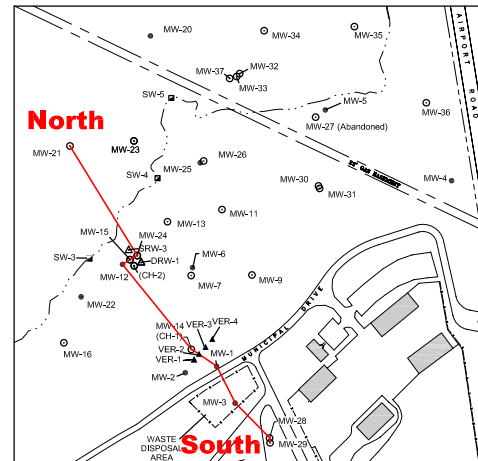
LOCATION OF FORMER WASTE DISPOSAL AREA AND INFILTRATION GALLERY

ELEVATION (FT.MSL)

ELEVATION (FT.MSL)



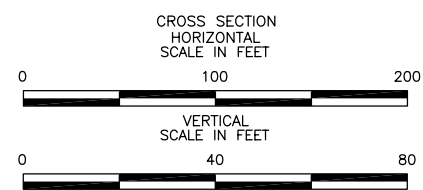
Cross Section Location



Not to Scale

LEGEND

- SOIL: SILTY CLAY AND SANDY CLAY
- BACKFILL
- WEATHERED ROCK/SAPROLITE
- INFILTRATION GALLERY
- COMPETENT ROCK (GRANODIORITE)
- WATER TABLE (SHALLOW AQUIFER)
- POTENTIOMETRIC SURFACE (BEDROCK AQUIFER)
- 190 BENZENE CONCENTRATION ( $\mu\text{g/L}$ )
- 100 BENZENE ISOCONCENTRATION ( $\mu\text{g/L}$ )
- SCREENED INTERVAL
- OPEN BOREHOLE



UNC AIRPORT ROAD WASTE DISPOSAL AREA  
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
CHAPEL HILL, NORTH CAROLINA

**BENZENE ISOCONCENTRATION CROSS SECTION - NOVEMBER 2010**

FIGURE  
**12**

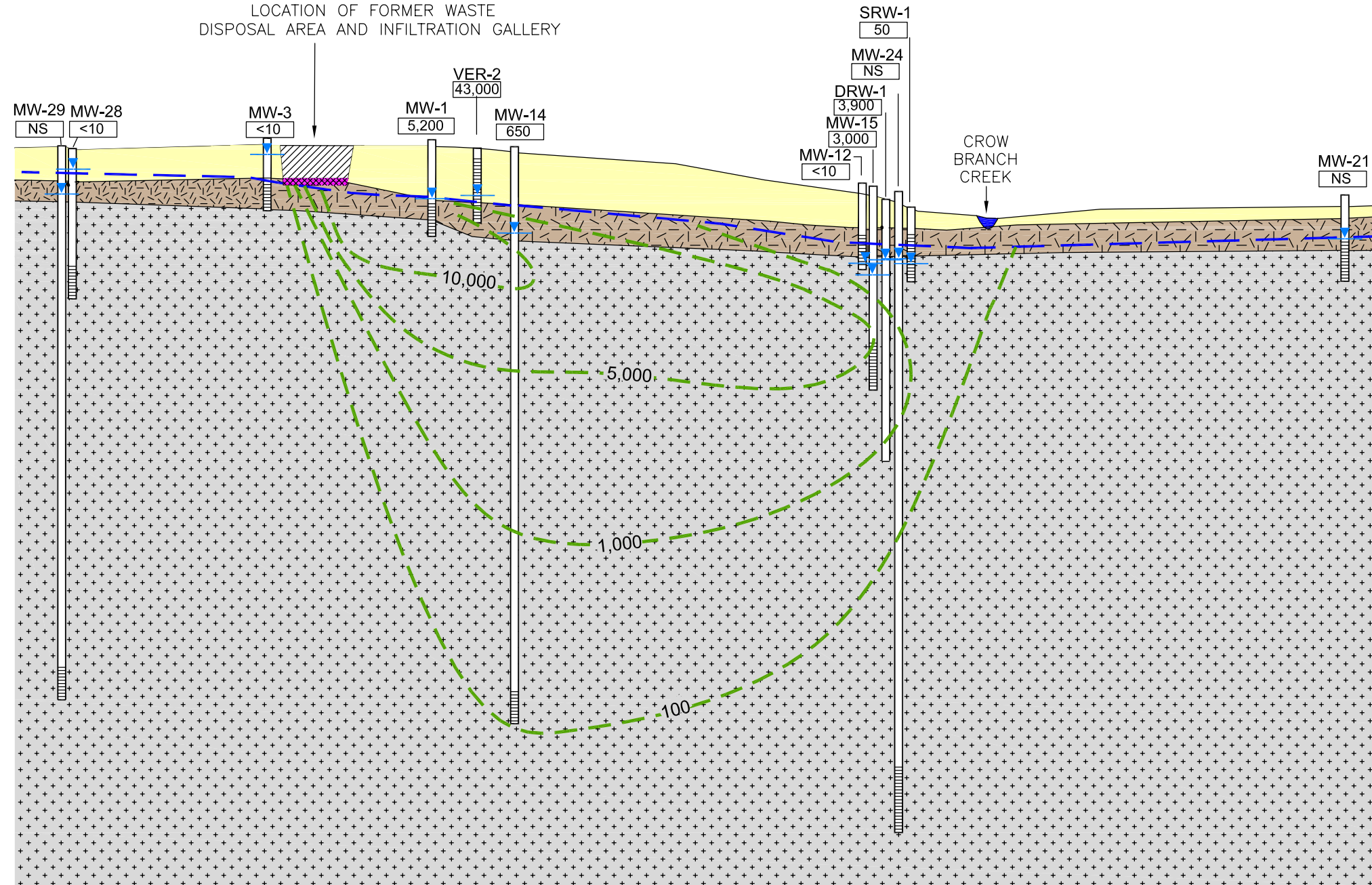
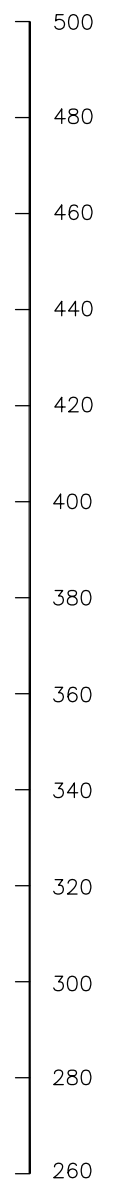
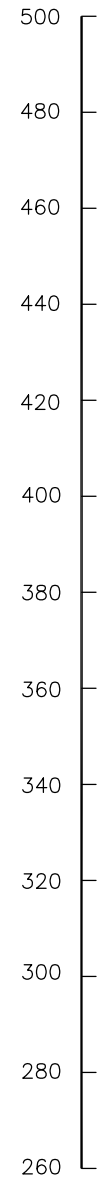
SOUTH

NORTH

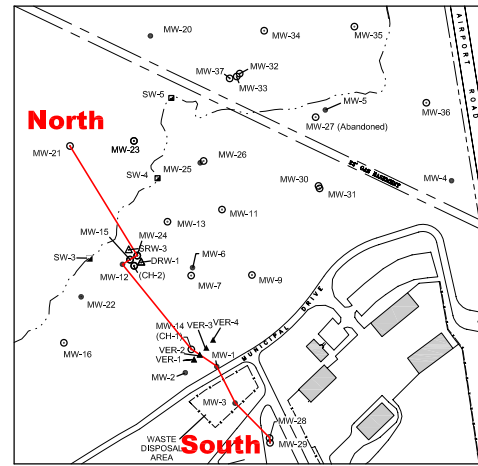
LOCATION OF FORMER WASTE DISPOSAL AREA AND INFILTRATION GALLERY

ELEVATION (FT.MSL)

ELEVATION (FT.MSL)



**Cross Section Location**

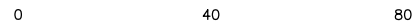


Not to Scale

CROSS SECTION HORIZONTAL SCALE IN FEET



VERTICAL SCALE IN FEET



LEGEND

- SOIL: SILTY CLAY AND SANDY CLAY
- BACKFILL
- DIETHYL ETHER CONCENTRATION ( $\mu\text{g/L}$ )
- WEATHERED ROCK/SAPROLITE
- INFILTRATION GALLERY
- DIETHYL ETHER ISOCONCENTRATION ( $\mu\text{g/L}$ )
- COMPETENT ROCK (GRANODIORITE)
- WATER TABLE (SHALLOW AQUIFER)
- SCREENED INTERVAL
- POTENTIOMETRIC SURFACE (BEDROCK AQUIFER)
- OPEN BOREHOLE





UNC AIRPORT ROAD WASTE DISPOSAL AREA  
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
CHAPEL HILL, NORTH CAROLINA

**DIETHYL ETHER ISOCONCENTRATION CROSS SECTION - NOVEMBER 2010**



CITY: Augusta, GA DIV/GROUP: ENV DB: A. Warren LD: PIC: PM: TM: LYR: G:\ENV\UN\NCAirport Road\NC000239.0018\2010 Remedial System Report\Figures\Figure 14 - Infiltration Gallery.dwg LAYOUT: FIGURE 11 SAVED: 2/15/2011 4:35 PM ACADVER: 17.05 (LMS TECH) PAGES: 11 PLOTSTYLETABLE: ARCADIS STANDARD-1.STB PLOTTED: 2/16/2011 8:53 AM BY: PINNIX, ALAN

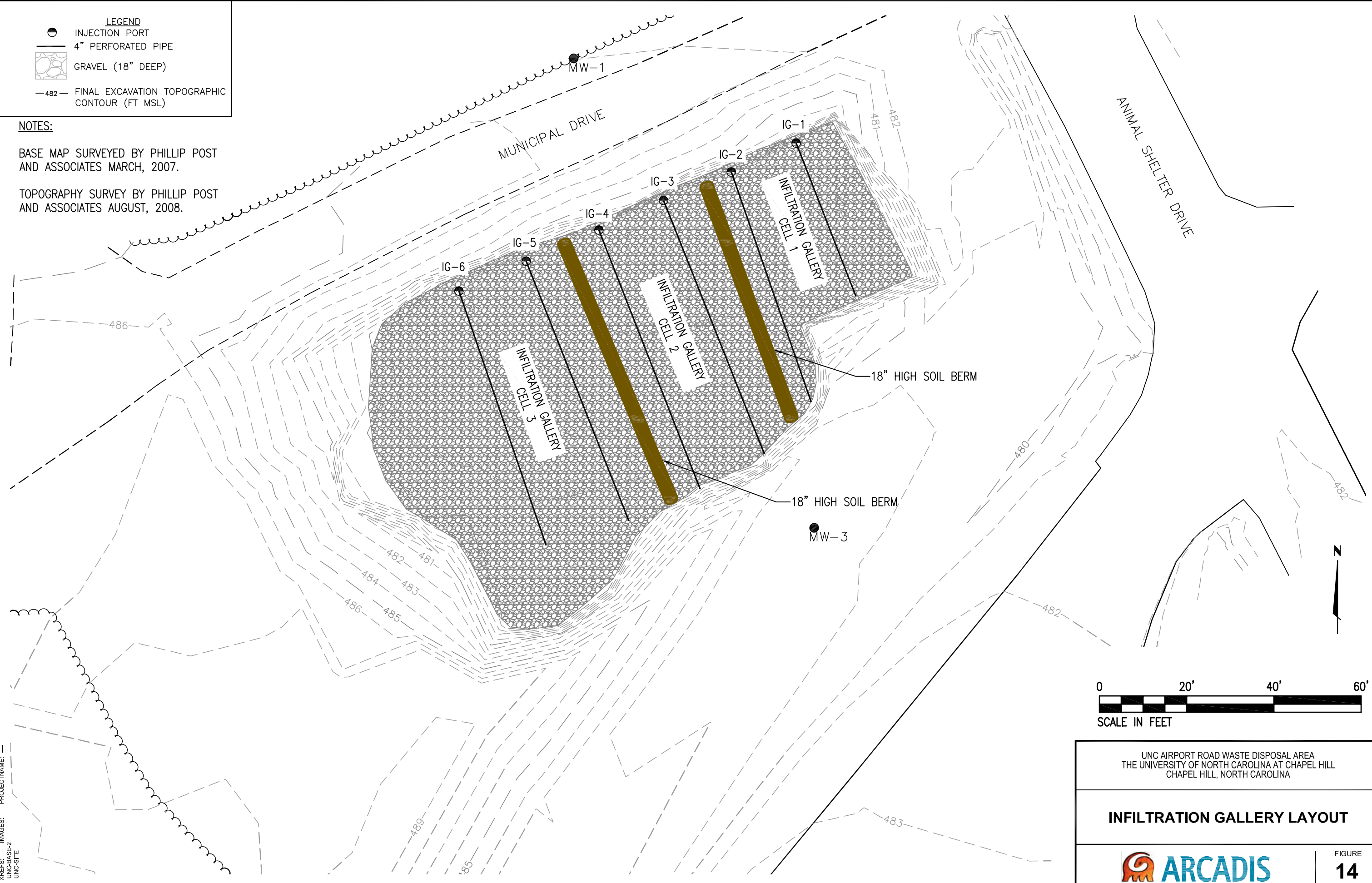
**LEGEND**

-  INJECTION PORT
-  4" PERFORATED PIPE
-  GRAVEL (18" DEEP)
-  -482- FINAL EXCAVATION TOPOGRAPHIC CONTOUR (FT MSL)

**NOTES:**

BASE MAP SURVEYED BY PHILLIP POST AND ASSOCIATES MARCH, 2007.

TOPOGRAPHY SURVEY BY PHILLIP POST AND ASSOCIATES AUGUST, 2008.



UNC AIRPORT ROAD WASTE DISPOSAL AREA  
THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL  
CHAPEL HILL, NORTH CAROLINA

**INFILTRATION GALLERY LAYOUT**




FIGURE  
**14**

ARCADIS

**Appendix A**

Discharge Monitoring Reports



Mr. J. Laurence Daw  
Geophysicist/Licensed Geologist  
The University of North Carolina at Chapel Hill  
Department of Environment, Health & Safety  
1120 Estes Drive Extension  
Campus Box 1650  
Chapel Hill, NC 27599-1650

Subject:

Monthly Monitoring Report (October 2010 to December 2010)  
OWASA Permit Number 0010  
The University of North Carolina at Chapel Hill, Airport Road Waste Disposal Area,  
Chapel Hill, North Carolina

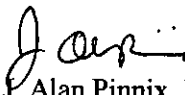
Dear Mr. Daw:

ARCADIS has prepared the October 2010 to December 2010 monitoring report for the Airport Road Waste Disposal Area located in Chapel Hill, North Carolina. This report is prepared in accordance with permit requirements for the discharge of treated groundwater at the above referenced site. As shown on the attached report (Table 1), the discharge did not exceed any maximum daily concentrations for the samples collected on October 1, 2010, November 5, 2010 or December 14, 2010.

The average daily flow rate was below the permitted average daily maximum during the period. Please feel free to contact me at (919) 854-1282 if you have any questions regarding this work.

Sincerely,

ARCADIS G&M of North Carolina, Inc.

  
J. Alan Pinnix, L.G.  
Senior Scientist

ARCADIS G&M of North Carolina,  
Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh,  
North Carolina 27607-5073  
Tel 919 854 1282  
Fax 919 854 5448  
[www.arcadis-us.com](http://www.arcadis-us.com)

ENVIRONMENTAL

Date:  
3 January 2011

Contact:  
Alan Pinnix

Phone:  
277

E-mail:  
[alan.pinnix@arcadis-us.com](mailto:alan.pinnix@arcadis-us.com)



Table 1. Groundwater Discharge Monitoring Report for October-December 2010

The University of North Carolina at Chapel Hill  
 Department of Environment, Health & Safety  
 1120 Estes Drive Extension, CB #1650  
 Chapel Hill, North Carolina 27599-1650

OWASA Permit Number 0010

UNC Airport Road Waste Disposal Area  
 Chapel Hill, North Carolina

Discharge to Manhole # 47C4001

Parameter	Maximum Allowable Daily Value	Date		
		10/1/2010	11/5/2010	12/14/2010
Average Flow (gallons per day)	43,200	21,478*	30,104**	30,946***
Temperature (degrees Celsius)	NA	NM	NM	NM
pH (Standard Units)	NA	NM	NM	NM
Benzene (micrograms per liter)	100	< 1.0	< 1.0	< 1.0
Chloroform (micrograms per liter)	100	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane (micrograms per liter)	71	< 1.0	< 1.0	< 1.0
Methylene Chloride (micrograms per liter)	930	< 5.0	< 5.0	< 5.0
1,1,1,2-Tetrachloroethane (micrograms per liter)	30	< 1.0	< 1.0	< 1.0
Arsenic (micrograms per liter)	16	< 20	< 20	< 20
Chromium (micrograms per liter)	50	< 10	< 10	< 10
Copper (micrograms per liter)	60	< 20	< 20	< 20
Lead (micrograms per liter)	49	< 10	< 10	< 10
Zinc (micrograms per liter)	535	< 20	< 20	< 100
Mercury (nanograms per liter)	50	< 0.50	0.68	0.71

NOTE : Discharge initiated on 10/05/2006

< 1.0 Not detected above reporting limit.

NA Not applicable to the permit conditions.

NM Not Measured

\* Flow reading based upon data collected between 9/13/2010 and 10/1/2010.

\*\* Flow reading based upon data collected between 10/2/2010 and 11/5/2010.

\*\*\* Flow reading based upon data collected between 11/6/2010 and 12/14/2010.

I hereby certify that I have examined and am familiar with the information submitted in this document and that the information is true, accurate and complete.

I am aware that there are significant penalties for submitting false information.

1/3/2011  
Date

  
Signature of Official



Mr. J. Laurence Daw  
Geophysicist/Licensed Geologist  
The University of North Carolina at Chapel Hill  
Department of Environment, Health & Safety  
1120 Estes Drive Extension  
Campus Box 1650  
Chapel Hill, NC 27599-1650

Subject:

Monthly Monitoring Report (July 2010 to September 2010)  
OWASA Permit Number 0010  
The University of North Carolina at Chapel Hill, Airport Road Waste Disposal Area,  
Chapel Hill, North Carolina

Dear Mr. Daw:

ARCADIS has prepared the July 2010 to September 2010 monitoring report for the Airport Road Waste Disposal Area located in Chapel Hill, North Carolina. This report is prepared in accordance with permit requirements for the discharge of treated groundwater at the above referenced site. As shown on the attached report (Table 1), the discharge did not exceed any maximum daily concentrations for the samples collected on July 27, 2010, August 18, 2010 or September 12, 2010.

The average daily flow rate was below the permitted average daily maximum during the period. Please feel free to contact me at (919) 854-1282 if you have any questions regarding this work.

Sincerely,

ARCADIS G&M of North Carolina, Inc.

J. Alan Pinnix, L.G.  
Senior Scientist

ARCADIS G&M of North Carolina,  
Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh,  
North Carolina 27607-5073  
Tel 919 854 1282  
Fax 919 854 5448  
[www.arcadis-us.com](http://www.arcadis-us.com)

ENVIRONMENTAL

Date:

29 September 2010

Contact:

Alan Pinnix

Phone:

277

E-mail:

[alan.pinnix@arcadis-us.com](mailto:alan.pinnix@arcadis-us.com)

**Table 1. Groundwater Discharge Monitoring Report for July-September 2010**

The University of North Carolina at Chapel Hill  
 Department of Environment, Health & Safety  
 1120 Estes Drive Extension, CB #1650  
 Chapel Hill, North Carolina 27599-1650

OWASA Permit Number 0010

UNC Airport Road Waste Disposal Area  
 Chapel Hill, North Carolina

Discharge to Manhole # 47C4001

Parameter	Maximum Allowable Daily Value	Date		
		7/27/2010	8/18/2010	9/12/2010
Average Flow (gallons per day)	43,200	13,188*	23,777**	22,477***
Temperature (degrees Celsius)	NA	NM	NM	NM
pH (Standard Units)	NA	NM	NM	NM
Benzene (micrograms per liter)	100	< 1.0	< 1.0	< 1.0
Chloroform (micrograms per liter)	100	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane (micrograms per liter)	71	< 1.0	< 1.0	< 1.0
Methylene Chloride (micrograms per liter)	930	< 5.0	< 5.0	< 5.0
1,1,1,2-Tetrachloroethane (micrograms per liter)	30	< 1.0	< 1.0	< 1.0
Arsenic (micrograms per liter)	16	< 20	< 20	< 20
Chromium (micrograms per liter)	50	< 10	< 10	< 10
Copper (micrograms per liter)	60	< 20	< 20	< 20
Lead (micrograms per liter)	49	< 10	< 10	< 10
Zinc (micrograms per liter)	535	< 100	< 100	< 100
Mercury (nanograms per liter)	50	< 0.50	< 0.50	0.74

NOTE : Discharge initiated on 10/05/2006

< 1.0 Not detected above reporting limit.

NA Not applicable to the permit conditions.

NM Not Measured

\* Flow reading based upon data collected between 6/15/2010 and 7/27/2010.


\*\* Flow reading based upon data collected between 7/28/2010 and 8/18/2010.

\*\*\* Flow reading based upon data collected between 8/19/2010 and 9/12/2010.

I hereby certify that I have examined and am familiar with the information submitted in this document and that the information is true, accurate and complete.

I am aware that there are significant penalties for submitting false information.

9/29/2010  
Date

  
Signature of Official



Infrastructure, environment, facilities

Mr. J. Laurence Daw  
Geophysicist/Licensed Geologist  
The University of North Carolina at Chapel Hill  
Department of Environment, Health & Safety  
1120 Estes Drive Extension  
Campus Box 1650  
Chapel Hill, NC 27599-1650

Subject:

Monthly Monitoring Report (January 2010 to March 2010)  
OWASA Permit Number 0010  
The University of North Carolina at Chapel Hill, Airport Road Waste Disposal Area,  
Chapel Hill, North Carolina

Dear Mr. Daw:

ARCADIS has prepared the January 2010 to March 2010 monitoring report for the Airport Road Waste Disposal Area located in Chapel Hill, North Carolina. This report is prepared in accordance with permit requirements for the discharge of treated groundwater at the above referenced site. As shown on the attached report (Table 1), the discharge did not exceed any maximum daily concentrations for the samples collected on January 11, 2010, February 10, 2010 or March 12, 2010.

The average daily flow rate was below the permitted average daily maximum during the period. Please feel free to contact me at (919) 854-1282 if you have any questions regarding this work.

Sincerely,

ARCADIS G&M of North Carolina, Inc.

J. Alan Pinnix, L.G.  
Senior Scientist

ARCADIS G&M of North Carolina,  
Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh,  
North Carolina 27607-5073  
Tel 919 854 1282  
Fax 919 854 5448  
www.arcadis-us.com

ENVIRONMENTAL

Date:  
2 April 2010

Contact:  
Alan Pinnix

Phone:  
277

E-mail:  
alan.pinnix@arcadis-  
us.com

Imagine the result

# ARCADIS

**Table 1. Groundwater Discharge Monitoring Report for January-March 2010**

The University of North Carolina at Chapel Hill  
 Department of Environment, Health & Safety  
 1120 Estes Drive Extension, CB #1650  
 Chapel Hill, North Carolina 27599-1650

OWASA Permit Number 0010

UNC Airport Road Waste Disposal Area  
 Chapel Hill, North Carolina

Discharge to Manhole # 47C4001

Parameter	Maximum Allowable Daily Value	Date		
		1/11/2010	2/10/2010	3/12/2010
Average Flow (gallons per day)	43,200	26,349*	25,664**	26,059***
Temperature (degrees Celsius)	NA	NM	NM	NM
pH (Standard Units)	NA	NM	NM	NM
Benzene (micrograms per liter)	100	< 1.0	< 2.0	< 1.0
Chloroform (micrograms per liter)	100	< 1.0	< 2.0	< 1.0
1,2-Dichloroethane (micrograms per liter)	71	1.5	< 2.0	4.7
Methylene Chloride (micrograms per liter)	930	< 5	< 10	< 5.0
1,1,2,2-Tetrachloroethane (micrograms per liter)	30	< 1.0	< 2.0	< 1.0
Arsenic (micrograms per liter)	16	< 20	< 20	< 20
Chromium (micrograms per liter)	50	< 10	< 10	< 10
Copper (micrograms per liter)	60	< 20	< 20	< 20
Lead (micrograms per liter)	49	< 10	< 10	< 10
Zinc (micrograms per liter)	535	< 20	22	22
Mercury (nanograms per liter)	50	< 0.50	0.55	< 0.50

NOTE : Discharge initiated on 10/05/2006

< 1.0 Not detected above reporting limit.

NA Not applicable to the permit conditions.

NM Not Measured

\* Flow reading based upon data collected between 12/22/2009 and 1/11/2010.

\*\* Flow reading based upon data collected between 1/12/2010 and 2/10/2010.

\*\*\* Flow reading based upon data collected between 2/11/2010 and 3/12/2009.

I hereby certify that I have examined and am familiar with the information submitted in this document and that the information is true, accurate and complete.

I am aware that there are significant penalties for submitting false information.

4/2/2010  
Date

*Jean P. ...*  
Signature of Official



Mr. J. Laurence Daw  
Geophysicist/Licensed Geologist  
The University of North Carolina at Chapel Hill  
Department of Environment, Health & Safety  
1120 Estes Drive Extension  
Campus Box 1650  
Chapel Hill, NC 27599-1650

Subject:

Monthly Monitoring Report (April 2010 to June 2010)  
OWASA Permit Number 0010  
The University of North Carolina at Chapel Hill, Airport Road Waste Disposal Area,  
Chapel Hill, North Carolina

Dear Mr. Daw:

ARCADIS has prepared the April 2010 to June 2010 monitoring report for the Airport Road Waste Disposal Area located in Chapel Hill, North Carolina. This report is prepared in accordance with permit requirements for the discharge of treated groundwater at the above referenced site. As shown on the attached report (Table 1), the discharge did not exceed any maximum daily concentrations for the samples collected on April 19, 2010, May 24, 2010 or June 14, 2010.

The average daily flow rate was below the permitted average daily maximum during the period. Please feel free to contact me at (919) 854-1282 if you have any questions regarding this work.

Sincerely,

ARCADIS G&M of North Carolina, Inc.

A. Alan Pinnix, L.G.  
Senior Scientist

ARCADIS G&M of North Carolina,  
Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh,  
North Carolina 27607-5073  
Tel 919 854 1282  
Fax 919 854 5448  
[www.arcadis-us.com](http://www.arcadis-us.com)

ENVIRONMENTAL

Date:

6 July 2010

Contact:

Alan Pinnix

Phone:

277

E-mail:

[alan.pinnix@arcadis-us.com](mailto:alan.pinnix@arcadis-us.com)

# ARCADIS

**Table 1. Groundwater Discharge Monitoring Report for April-June 2010**

The University of North Carolina at Chapel Hill  
 Department of Environment, Health & Safety  
 1120 Estes Drive Extension, CB #1650  
 Chapel Hill, North Carolina 27599-1650

OWASA Permit Number 0010

UNC Airport Road Waste Disposal Area  
 Chapel Hill, North Carolina

Discharge to Manhole # 47C4001

Parameter	Maximum Allowable Daily Value	Date		
		4/19/2010	5/24/2010	6/14/2010
Average Flow (gallons per day)	43,200	25,748*	25,061**	14,821***
Temperature (degrees Celsius)	NA	NM	NM	NM
pH (Standard Units)	NA	NM	NM	NM
Benzene (micrograms per liter)	100	< 1.0	< 1.0	< 1.0
Chloroform (micrograms per liter)	100	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane (micrograms per liter)	71	1.7	8.4	3.4
Methylene Chloride (micrograms per liter)	930	< 5.0	< 5.0	< 5.0
1,1,2,2-Tetrachloroethane (micrograms per liter)	30	< 1.0	< 1.0	< 1.0
Arsenic (micrograms per liter)	16	< 20	< 20	< 20
Chromium (micrograms per liter)	50	< 10	< 10	< 10
Copper (micrograms per liter)	60	23	< 20	< 20
Lead (micrograms per liter)	49	< 10	< 10	< 10
Zinc (micrograms per liter)	535	97	< 100	< 100
Mercury (nanograms per liter)	50	< 0.50	1.2	< 0.50

NOTE : Discharge initiated on 10/05/2006

< 1.0 Not detected above reporting limit.

NA Not applicable to the permit conditions.

NM Not Measured

\* Flow reading based upon data collected between 3/13/2010 and 4/19/2010.

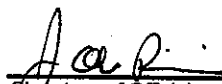
\*\* Flow reading based upon data collected between 4/20/2010 and 5/24/2010.

\*\*\* Flow reading based upon data collected between 5/25/2010 and 6/14/2010.

I hereby certify that I have examined and am familiar with the information submitted in this document and that the information is true, accurate and complete.

I am aware that there are significant penalties for submitting false information.

7/7/2010  
Date

  
Signature of Official

**Appendix B**

Laboratory Analytical Data Reports  
for Groundwater Samples



## ANALYTICAL REPORT

Job Number: 680-54137-1

Job Description: UNC Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
1/22/2010 11:06 AM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
01/22/2010

cc: Mr. Adam Tripp

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



## METHOD SUMMARY:

Client: ARCADIS U.S., Inc.

Job Number: 680-54137-1.

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: Water:</b>			
Volatile Organic Compounds (GC/MS).	TAL SAV.	SW846 8260B.	
Purge and Trap.	TAL SAV.		SW846 5030B.
Metals (ICP).	TAL SAV.	SW846 6010C.	
Preparation, Total Recoverable or Dissolved Metals.	TAL SAV.		SW846 3005A.

### Lab References:

TAL SAV = TestAmerica Savannah.

### Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its .  
Updates.

**METHOD / ANALYST SUMMARY**

Client: ARCADIS U.S., Inc.1

Job Number: 680-54137-1

<b>M:</b>	<b>Analyst</b>	<b>AnalystID:</b>
SW846 8260B1	Lanier, Carolyn1	CL1
SW846 6010C1	Bland, Brian1	BCB1

## SAMPLE SUMMARY2

Client: ARCADIS U.S., Inc.1

Job Number: 680-54137-1

<b>Lab : ample2D2</b>	<b>Client2 ample2D2</b>	<b>Client2Ma:rix2</b>	<b>Da: /Time : ampled2</b>	<b>Da: /Time : Received2</b>
680-54137-1U	entU	WaterU	01/11/2010 1640U	01/12/2010 0918U

# Analytical Data

Client: ARCADIS U.S., Inc.U

Job Number: 680-54137-1U

lient Sample ID:d      Effluentd  
 Lab Sample ID:R      680-54137-1R  
 lient Matrix:R      WaterR

Date Sampled: 01/11/2010 1640R  
 Date Received: 01/12/2010 0918R

## 8260B Volatile Organic Compounds (G: /MS):

ethod:R      8260BR      Analysis Batch: 680-158140R      Instrument ID:R      SPR  
 Preparation:R      5030BR      Lab File ID:R      p0160.dR  
 Dilution:R      1.0R      Initial Weight/Volume:R      5 mL  
 Date Analyzed:R      01/12/2010 1855R      Final Weight/Volume:R      5 mL  
 Date Prepared:R      01/12/2010 1855R

Analyte	Result (ug/L)R	Qualifier	RLR
AcetoneR	25R	UR	25R
BenzeneR	1.0R	UR	1.0R
BromoformR	1.0R	UR	1.0R
BromomethaneR	1.0R	UR	1.0R
arbon disulfideR	2.0R	UR	2.0R
arbon tetrachlorideR	1.0R	UR	1.0R
hlorobenzeneR	1.0R	UR	1.0R
hlorodibromomethaneR	1.0R	UR	1.0R
hloroethaneR	1.0R	UR	1.0R
hloroformR	1.0R	UR	1.0R
hloromethaneR	1.0R	UR	1.0R
cis-1,2-DichloroetheneR	1.0R	UR	1.0R
cis-1,3-DichloropropeneR	1.0R	UR	1.0R
DichlorobromomethaneR	1.0R	UR	1.0R
1,1-DichloroethaneR	1.0R	UR	1.0R
1,2-DichloroethaneR	1.5R		1.0R
1,1-DichloroetheneR	1.0R	UR	1.0R
1,2-DichloropropaneR	1.0R	UR	1.0R
Diethyl etherR	130R	ER	10R
EthylbenzeneR	1.0R	UR	1.0R
2-HexanoneR	10R	UR	10R
ethylene ChlorideR	5.0R	UR	5.0R
2-Butanone (MEK)R	10R	UR	10R
4-Methyl-2-pentanone (MIBK)R	10R	UR	10R
StyreneR	1.0R	UR	1.0R
1,1,2,2-TetrachloroethaneR	1.0R	UR	1.0R
TetrachloroetheneR	1.0R	UR	1.0R
TolueneR	1.0R	UR	1.0R
rans-1,2-DichloroetheneR	1.0R	UR	1.0R
rans-1,3-DichloropropeneR	1.0R	UR	1.0R
1,1,1-TrichloroethaneR	1.0R	UR	1.0R
1,1,2-TrichloroethaneR	1.0R	UR	1.0R
TrichloroetheneR	1.0R	UR	1.0R
Vinyl chlorideR	1.0R	UR	1.0R
Xylenes, TotalR	2.0R	UR	2.0R
SurrogateR	%RecR	QualifierR	Acceptance Limits
4-BromofluorobenzeneR	86R		75 - 120R
DibromofluoromethaneR	108R		75 - 121R
Toluene-d8 (Surr)R	96R		75 - 120R

**Analytical Data**

Client: ARCADIS U.S., Inc.R

Job Number: 680-54137-1R

Client Sample ID: 680-54137-1R  
 Effluent: WaterR

Date Sampled: 01/11/2010 1640R  
 Date Received: 01/12/2010 0918R

**8260B Volatile Organic Compounds (G: /MS):**

Method: 8260BR Analysis Batch: 680-158181R Instrument ID: SPR  
 Preparation: 5030BR Lab File ID: p0174.dR  
 Dilution: 2.0R Initial Weight/Volume: 5 mL  
 Date Analyzed: 01/13/2010 1650R Run Type: DLR Final Weight/Volume: 5 mL  
 Date Prepared: 01/13/2010 1650R

Analyte	Result (ug/L)R	Qualifier	RLR
AcetoneR	50R	UR	50R
BenzeneR	2.0R	UR	2.0R
BromoformR	2.0R	UR	2.0R
BromomethaneR	2.0R	UR	2.0R
Carbon disulfideR	4.0R	UR	4.0R
Carbon tetrachlorideR	2.0R	UR	2.0R
ChlorobenzeneR	2.0R	UR	2.0R
ChlorodibromomethaneR	2.0R	UR	2.0R
ChloroethaneR	2.0R	UR	2.0R
ChloroformR	2.0R	UR	2.0R
ChloromethaneR	2.0R	UR	2.0R
cis-1,2-DichloroetheneR	2.0R	UR	2.0R
cis-1,3-DichloropropeneR	2.0R	UR	2.0R
DichlorobromomethaneR	2.0R	UR	2.0R
1,1-DichloroethaneR	2.0R	UR	2.0R
1,2-DichloroethaneR	2.0R	UR	2.0R
1,1-DichloroetheneR	2.0R	UR	2.0R
1,2-DichloropropaneR	2.0R	UR	2.0R
Diethyl etherR	120R	DR	20R
EthylbenzeneR	2.0R	UR	2.0R
2-HexanoneR	20R	UR	20R
Ethylene ChlorideR	10R	UR	10R
2-Butanone (MEK)R	20R	UR	20R
4-Methyl-2-pentanone (MIBK)R	20R	UR	20R
StyreneR	2.0R	UR	2.0R
1,1,2,2-TetrachloroethaneR	2.0R	UR	2.0R
TetrachloroetheneR	2.0R	UR	2.0R
TolueneR	2.0R	UR	2.0R
trans-1,2-DichloroetheneR	2.0R	UR	2.0R
trans-1,3-DichloropropeneR	2.0R	UR	2.0R
1,1,1-TrichloroethaneR	2.0R	UR	2.0R
1,1,2-TrichloroethaneR	2.0R	UR	2.0R
TrichloroetheneR	2.0R	UR	2.0R
Vinyl chlorideR	2.0R	UR	2.0R
Xylenes, TotalR	4.0R	UR	4.0R
SurrogateR	%RecR	QualifierR	Acceptance Limits
4-BromofluorobenzeneR	84R		75 - 120R
DibromofluoromethaneR	108R		75 - 121R
Toluene-d8 (Surr)R	96R		75 - 120R

**Analytical Data**

Client: ARCADIS U.S., Inc.R

Job Number: 680-54137-1R

**Client Sample ID:**      **Effluent**  
Lab Sample ID:R      680-54137-1R  
Client Matrix:R      WaterR

Date Sampled: 01/11/2010 1640R  
Date Received: 01/12/2010 0918R

---

**6010C Metals (ICP)-Total Results**

Method:R	6010CR	Analysis Batch: 680-158713R	Instrument ID:R	ICPDR
Preparation:R	3005AR	Prep Batch: 680-158248R	Lab File ID:R	N/AR
Dilution:R	1.0R		Initial Weight/Volume:R	50 mL
Date Analyzed:R	01/19/2010 1832R		Final Weight/Volume:R	50 mL
Date Prepared:R	01/14/2010 1128R			

---

Analyte	Result (ug/L)R	Qualifier	LR
ArsenicR	20R	UR	20R
ChromiumR	10R	UR	10R
CopperR	20R	UR	20R
LeadR	10R	UR	10R
ZincR	20R	UR	20R

**DATA REPORT: QUALIFIERS**

Client: ARCADIS U.S., Inc.R

Job Number: 680-54137-1R

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
GC/MS VOA		
	Ux	Indicates the analyte was analyzed for but not detected.
	Ex	Result exceeded calibration range.
	Dx	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
Metals		
	Ux	Indicates the analyte was analyzed for but not detected.



## Quality Control ResultsP

Client: ARCADIS U.S., Inc.

Job Number: 680-54137-1.

**Method Blank - Batch: 680-158140P**

**Method: 8260B  
reparation: 5030BP**

Lab Sample ID.: MB 680-158140/16.  
Client Matrixx Water.  
Dilution.: 1.0.  
Date Analyzede 01/1./2010 143.  
Date . pae de 01/1./2010 143.

Analysè Batche 680-158140.  
p BatcheN/A.  
Unit. u./Le

In. trument ID.: GC/MS Volatile. - .  
Lab . ile ID.: pq1. 7.de  
Initial Wei.h t/Volume.: 5 mL  
inal Wei.h t/Volume.: 5 mL

Analyte.	Re. ult.	Qual.	RLe
Acetone.	5.	U.	5.
Benzene.	1.0.	U.	1.0.
Bromoform.	1.0.	U.	1.0.
Bromomethane	1.0.	U.	1.0.
Carbon di. sulfide	0.	U.	.0.
Carbon tetrachloride	1.0.	U.	1.0.
Chlorobenzene.	1.0.	U.	1.0.
Chlorodibromomethane.	1.0.	U.	1.0.
Chloroethane.	1.0.	U.	1.0.
Chloroform.	1.0.	U.	1.0.
Chloromethane.	1.0.	U.	1.0.
ci. -1,1-Dichloroethene.	1.0.	U.	1.0.
ci. -1,3-Dichloropropene.	1.0.	U.	1.0.
Dichlorobromomethane.	1.0.	U.	1.0.
1,1-Dichloroethane.	1.0.	U.	1.0.
1,2-Dichloroethane.	1.0.	U.	1.0.
1,1-Dichloroethene.	1.0.	U.	1.0.
1,2-Dichloropropene.	1.0.	U.	1.0.
Diethyl ether	10.	U.	10.
Ethylbenzene.	1.0.	U.	1.0.
-Hexanone.	10.	U.	10.
Methylene Chloride	5.0.	U.	5.0.
-Butanone (MEK)	10.	U.	10.
4-Methyl-2-pentanone (MIBK)	10.	U.	10.
Styrene.	1.0.	U.	1.0.
1,1,1,1-Tetrachloroethane.	1.0.	U.	1.0.
Tetrachloroethene.	1.0.	U.	1.0.
Toluene.	1.0.	U.	1.0.
tran. -1,2-Dichloroethene.	1.0.	U.	1.0.
tran. -1,3-Dichloropropene.	1.0.	U.	1.0.
1,1,1-Trichloroethane.	1.0.	U.	1.0.
1,1,2-Trichloroethane.	1.0.	U.	1.0.
Trichloroethene.	1.0.	U.	1.0.
Vinyl chlorid	1.0.	U.	1.0.
Xylene. , Total.	0.	U.	.0.

Surrogate.	% Rec.	Acceptance Limit.
4-Bromofluorobenzene.	7.	75 - 1. 0.
Dibromofluoromethane.	109e	75 - 1. 1.
Toluene-d8 (Surre)	9e	75 - 1. 0.

Calculation. are performed before rounding. to avoid round-off error. in calculated re. ult.

## Quality Control ResultsP

Client: ARCADIS U.S., Inc.

Job Number: 680-54137-1.

**Lab Control Sample/P**  
**Lab Control Sample Duplicate Recovery Report - Batch: 680-158140**

**Method: 8260BP**  
**reparation: 5030BP**

LCS Lab Sample ID.: LCS 680-158140/13.  
 Client Matrixe Water.  
 Dilution: 1.0.  
 Date Analyzede 01/1./2010 1303.  
 Date . pae de 01/1./2010 1303.

Analysè Batche 680-158140.  
 p BatcheN/A.  
 Unit. u./Le

In. trument ID.: GC/MS Volatile. - .  
 Lab . ile ID.: pq1. 3.de  
 Initial Wei.h t/Volume.: 5 mL  
 inal Wei.h t/Volume.: 5 mL

LCSD Lab Sample ID.: LCSD 680-158140/14.  
 Client Matrixe Water.  
 Dilution: 1.0.  
 Date Analyzede 01/1./2010 13. 7.  
 Date . pae de 01/1./2010 13. 7.

Analysè Batche 680-158140.  
 p BatcheN/A.  
 Unit. u./Le

In. trument ID.: GC/MS Volatile. - .  
 Lab . ile ID.: pq1. 4.de  
 Initial Wei.h t/Volume.: 5 mL  
 inal Wei.h t/Volume.: 5 mL

Analyte.	% Rec.		Limit.	R. D.	R. D Limit.	LCS Qual.	LCSD Qual.
	LCS.	LCSD.					
Acetone.	101.	105.	17 - 175.	4.	50.		
Benzene.	103.	104.	77 - 119e	1	30		
Bromoform.	11.	108.	- 133.	3.	30.		
Bromomethane.	133.	145.	1. - 184.	9e	50.		
Carbon disulfide	7.		55 - 131.	1.	30.		
Carbon tetrachloride	1. 0.	1. 4.	71 - 135.	3.	30.		
Chlorobenzene.	108.	106.	5 - 116.	3.	30.		
Chlorodibromomethane.	107.	105.	75 - 133.		30.		
Chloroethane.	1.9e	13.	40 - 165.	3.	50.		
Chloroform.	114.	114.	- 1. 0	1	30		
Chloromethane.	114.	116.	48 - 14.		50.		
ci. -1, -Dichloroethene.	104.	103.	9 - 134.	1.	30.		
ci. -1,3-Dichloropropene.	103.	10.	76 - 1.	1	30		
Dichlorobromomethane.	10.	101.	78 - 1. 7	1	30		
1,1-Dichloroethane.	106.	105.	74 - 1. 7	0	30		
1, -Dichloroethane.	97.	97.	- 13.	1	30		
1,1-Dichloroethene.	108.	107.	- 141.	1.	30.		
1, -Dichloropropene.	99e	99e	73 - 1. 4	0	30		
Ethylbenzene.	113.	110.	- 116.	3.	30.		
-Hexanone.	100.	97.	34 - 161.	3.	30.		
Methylene Chloride	107.	111.	70 - 1. 5	3	30		
-Butanone (MEK)e	91.	93.	33 - 157.	3.	30.		
4-Methyl- -pent anone (MIBK)e	4.	7.	40 - 151.	3.	30.		
Styrene.	110.	109e	- 1.	1	30		
1,1, - , -Tetrachloroethane.	906.		9 - 1.9e	4	30		
Tetrachloroethene.	104.	103.	76 - 1.	1	30		
Toluene.	10.	10.	1 - 117.	1.	30.		
tran. -1, -Dichloroethene.	105.	106.	7. - 131.	1.	30.		
tran. -1,3-Dichloropropene.	10.	10.	73 - 1.	1	30		
1,1,1-Trichloroethane.	100.	101.	76 - 1. 7	1	30		
1,1, -Trichloroethane.	91.	91.	75 - 1. 1	0	30		
Trichloroethene.	104.	106.	4 - 115.		30.		

Calculation. ae pe formed before roundin. to avoid round-off error. in calculated re. ult.

## Quality Control ResultsP

Client: ARCADIS U.S., Inc.

Job Number: 680-54137-1.

**Lab Control Sample/P**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-158140**

**Method: 8260BP**

**Preparation: 5030BP**

LCS Lab Sample ID.: LCS 680-158140/13.  
 Client Matrixe Water.  
 Dilution.: 1.0.  
 Date Analyzede 01/1./2010 1303.  
 Date . pae de 01/1./2010 1303.

Analysè Batche 680-158140.  
 p BatcheN/A.  
 Unit. u./Le

In. trument ID.: GC/MS Volatile. - .  
 Lab . ile ID.: pq1. 3.de  
 Initial Wei.h t/Volume.: 5 mL  
 inal Wei.h t/Volume.: 5 mL

LCSD Lab Sample ID.: LCSD 680-158140/14.  
 Client Matrixe Water.  
 Dilution.: 1.0.  
 Date Analyzede 01/1./2010 13. 7.  
 Date . pae de 01/1./2010 13. 7.

Analysè Batche 680-158140.  
 p BatcheN/A.  
 Unit. u./Le

In. trument ID.: GC/MS Volatile. - .  
 Lab . ile ID.: pq1. 4.de  
 Initial Wei.h t/Volume.: 5 mL  
 inal Wei.h t/Volume.: 5 mL

Analyte.	% Rec.		Limit.	R. D.	R. D Limit.	LCS Qual.	LCSD Qual.
	LCS.	LCSD.					
Vinyl chloride	103.	104.	59 - 144.		50.		
Xylene. , Total.	111.	109e	4 - 118.		30.		
Surro.a te.	LCS % Rec.		LCSD % Rec.		Acceptance Limit.		
4-Bromofluorobenzene.	97.		95.		75 - 1. 0.		
Dibromofluoromethane.	104.		105.		75 - 1. 1.		
Toluene-de (Surr)	99		100.		e 75 - 1. 0.		

Calculation. ae pe formed before roundin. to avoid round-off error. in calculated re. ult.

## Quality Control ResultsP

Client: ARCADIS U.S., Inc.

Job Number: 680-54137-1.

**Method Blank - Batch: 680-158181P**

**Method: 8260B**  
**reparation: 5030BP**

Lab Sample ID.: MB 680-158181/e  
Client Matrixe Water.  
Dilution.: 1.0.  
Date Analyzede 01/13/2010 1. 10.  
Date . pae de 01/13/2010 1. 10.

Analysè Batche 680-158181.  
p BatcheN/A.  
Unit. u./Le

In. trument ID.: GC/MS Volatile. - .  
Lab . ile ID.: pq134.de  
Initial Wei.h t/Volume.: 5 mL  
inal Wei.h t/Volume.: 5 mL

Analyte.	Re. ult.	Qual.	RLe
Acetone.	5.	U.	5.
Benzene.	1.0.	U.	1.0.
Bromoform.	1.0.	U.	1.0.
Bromomethane	1.0.	U.	1.0.
Carbon di. sulfide	0.	U.	.0.
Carbon tetrachloride	1.0.	U.	1.0.
Chlorobenzene.	1.0.	U.	1.0.
Chlorodibromomethane.	1.0.	U.	1.0.
Chloroethane.	1.0.	U.	1.0.
Chloroform.	1.0.	U.	1.0.
Chloromethane.	1.0.	U.	1.0.
ci. -1,1-Dichloroethene.	1.0.	U.	1.0.
ci. -1,3-Dichloropropene.	1.0.	U.	1.0.
Dichlorobromomethane.	1.0.	U.	1.0.
1,1-Dichloroethane.	1.0.	U.	1.0.
1,2-Dichloroethane.	1.0.	U.	1.0.
1,1-Dichloroethene.	1.0.	U.	1.0.
1,2-Dichloropropene.	1.0.	U.	1.0.
Diethyl ether	10.	U.	10.
Ethylbenzene.	1.0.	U.	1.0.
-Hexanone.	10.	U.	10.
Methylene Chloride	5.0.	U.	5.0.
-Butanone (MEK)	10.	U.	10.
4-Methyl-2-pentanone (MIBK)	10.	U.	10.
Styrene.	1.0.	U.	1.0.
1,1,1,2-Tetrachloroethane.	1.0.	U.	1.0.
Tetrachloroethene.	1.0.	U.	1.0.
Toluene.	1.0.	U.	1.0.
tran. -1,2-Dichloroethene.	1.0.	U.	1.0.
tran. -1,3-Dichloropropene.	1.0.	U.	1.0.
1,1,1-Trichloroethane.	1.0.	U.	1.0.
1,1,2-Trichloroethane.	1.0.	U.	1.0.
Trichloroethene.	1.0.	U.	1.0.
Vinyl chlorid	1.0.	U.	1.0.
Xylene. , Total.	0.	U.	.0.

Surrogate.	% Rec.	Acceptance Limit.
4-Bromofluorobenzene.	7.	75 - 1. 0.
Dibromofluoromethane.	108.	75 - 1. 1.
Toluene-d8 (Surr)	97.	75 - 1. 0.

Calculation. are performed before rounding. to avoid round-off error. in calculated re. ult.

## Quality Control ResultsP

Client: ARCADIS U.S., Inc.

Job Number: 680-54137-1.

**Lab Control Sample/P**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-158181P**

**Method: 8260B**

**Preparation: 5030BP**

LCS Lab Sample ID.: LCS 680-158181/5.  
 Client Matrixe Water.  
 Dilution: 1.0.  
 Date Analyzede 01/13/2010 1037.  
 Date . pae de 01/13/2010 1037.

Analysè Batche 680-158181.  
 p BatcheN/A.  
 Unit. u./Le

In. trument ID.: GC/MS Volatile. - .  
 Lab . ile ID.: pq130.de  
 Initial Wei.h t/Volume.: 5 mLe  
 inal Wei.h t/Volume.: 5 mLe

LCSD Lab Sample ID.: LCSD 680-158181/e  
 Client Matrixe Water.  
 Dilution: 1.0.  
 Date Analyzede 01/13/2010 1058.  
 Date . pae de 01/13/2010 1058.

Analysè Batche 680-158181.  
 p BatcheN/A.  
 Unit. u./Le

In. trument ID.: GC/MS Volatile. - .  
 Lab . ile ID.: pq131.de  
 Initial Wei.h t/Volume.: 5 mLe  
 inal Wei.h t/Volume.: 5 mLe

Analyte.	% Rec.		Limit.	R. D.	R. D Limit.	LCS Qual.	LCSD Qual.
	LCS.	LCSD.					
Acetone.	103.	103.	17 - 175.	0.	50.		
Benzene.	104.	104.	77 - 119e	1	30		
Bromoform.	105.	101.	- 133.	4.	30.		
Bromomethane.	136.	146.	1. - 184.	7.	50.		
Carbon disulfide	5.		55 - 131.	3.	30.		
Carbon tetrachloride	117.	116.	71 - 135.	1.	30.		
Chlorobenzene.	107.	106.	5 - 116.	1.	30.		
Chlorodibromomethane.	104.	10.	75 - 133.	1.	30.		
Chloroethane.	1. 4.	1. 5.	40 - 165.	1.	50.		
Chloroform.	111.	115.	- 1. 0	3	30		
Chloromethane.	11.	110.	48 - 14.		50.		
ci.-1,.-Dichloroethene.	103.	106.	9 - 134.	3.	30.		
ci.-1,3-Dichloropropene.	101.	100.	76 - 1.	1	30		
Dichlorobromomethane.	99e	100.	78 - 1. 7	1	30		
1,1-Dichloroethane.	10.	106.	74 - 1. 7	4	30		
1,.-Dichloroethane.	9e	9e	- 13.	0	30		
1,1-Dichloroethene.	10.	109e	- 141.		30.		
1,.-Dichloropropene.	9e	100.	73 - 1. 4.		30.		
Ethylbenzene.	113.	11.	- 116.	1.	30.		
-Hexanone.	9e	97.	34 - 161.	1.	30.		
Methylene Chloride	107.	108.	70 - 1. 5	1	30		
-Butanone (MEK)e	91.	97.	33 - 157.	7.	30.		
4-Methyl-2-pentanone (MIBK)e	5.	5.	40 - 151.	1.	30.		
Styrene.	110.	109e	- 1.	0	30		
1,1,1,1-Tetrachloroethane.	7.	7.	9 - 1.9e	0	30		
Tetrachloroethene.	105.	104.	76 - 1.	1	30		
Toluene.	101.	99e	1 - 117.		30.		
tran.-1,.-Dichloroethene.	10.	105.	7. - 131.	3.	30.		
tran.-1,3-Dichloropropene.	10.	99e	73 - 1.	3	30		
1,1,1-Trichloroethane.	99e	99e	76 - 1. 7	0	30		
1,1,.-Trichloroethane.	91.	7.	75 - 1. 1	4	30		
Trichloroethene.	103.	103.	4 - 115.	0.	30.		

Calculation. ae pe formed before roundin. to avoid round-off error. in calculated re. ult.

## Quality Control ResultsP

Client: ARCADIS U.S., Inc.

Job Number: 680-54137-1.

**Lab Control Sample/P**  
**Lab Control Sample Duplicate Recovery Report - Batch: 680-158181**

**Method: 8260BP**  
**Preparation: 5030BP**

LCS Lab Sample ID.: LCS 680-158181/5.  
 Client Matrixe Water.  
 Dilution.: 1.0.  
 Date Analyzede 01/13/2010 1037.  
 Date . pae de 01/13/2010 1037.

Analysè Batche 680-158181.  
 p BatcheN/A.  
 Unit. u./Le

In. trument ID.: GC/MS Volatile. - .  
 Lab . ile ID.: pq130.de  
 Initial Wei.h t/Volume.: 5 mL  
 inal Wei.h t/Volume.: 5 mL

LCSD Lab Sample ID.: LCSD 680-158181/e  
 Client Matrixe Water.  
 Dilution.: 1.0.  
 Date Analyzede 01/13/2010 1058.  
 Date . pae de 01/13/2010 1058.

Analysè Batche 680-158181.  
 p BatcheN/A.  
 Unit. u./Le

In. trument ID.: GC/MS Volatile. - .  
 Lab . ile ID.: pq131.de  
 Initial Wei.h t/Volume.: 5 mL  
 inal Wei.h t/Volume.: 5 mL

Analyte.	% Rec.		Limit.	R. D.	R. D Limit.	LCS Qual.	LCSD Qual.
	LCS.	LCSD.					
Vinyl chloride	99e	101.	59 - 144.		50.		
Xylene. , Total.	109e	109e	4 - 118.	0.	30.		
Surro.a te.	LCS % Rec.		LCSD % Rec.		Acceptance Limit.		
4-Bromofluorobenzene.	9e		9e		75 - 1. 0.		
Dibromofluoromethane.	10.		106.		75 - 1. 1.		
Toluene-de (Surr)	09		97.	e	75 - 1. 0.		

Calculation. ae pe formed before roundin. to avoid round-off error. in calculated re. ult.

**Quality Control ResultsP**

Client: ARCADIS U.S., Inc.

Job Number: 680-54137-1.

**Method Blank - Batch: 680-158248P**

Lab Sample ID.: MB 680-158. 48/14-A.  
 Client Matrixe Water.  
 Dilution.: 1.0.  
 Date Analyzede 01/19/2010 1605.  
 Date . pae de 01/14/2010 11.

Analysè Batche 680-158713.  
 p Batche 680-158. 48.  
 Unit. u./Le

**Method: 6010C  
 reparation: 3005AP  
 Total RecoverableP**

In. trument ID.: IC./ AES - D.  
 Lab . ile ID.: N/A.  
 Initial Wei.h t/Volume.: 50 mL  
 inal Wei.h t/Volume.: 50 mL

Analyte.	Re. ult.	Qual.	RLe
Ar. nic.	0.	U.	0.
Chœmium.	10.	U.	10.
Coppe	0.	U.	0.
Leade	10.	U.	10.
Zinc.	0.	U.	0.

**Lab Control Sample - Batch: 680-158248P**

Lab Sample ID.: LCS 680-158. 48/15-A.  
 Client Matrixe Water.  
 Dilution.: 1.0.  
 Date Analyzede 01/19/2010 1609e  
 Date . pae de 01/14/2010 11.

Analysè Batche 680-158713.  
 p Batche 680-158. 48.  
 Unit. u./Le

**Method: 6010C  
 reparation: 3005AP  
 Total RecoverableP**

In. trument ID.: IC./ AES - D.  
 Lab . ile ID.: N/A.  
 Initial Wei.h t/Volume.: 50 mL  
 inal Wei.h t/Volume.: 50 mL

Analyte.	Spike Amount.	Re. ult.	% Rec.	Limit.	Qual.
Ar. nic.	000.	000.	100.	75 - 1. 5.	
Chœmium.	00.	05.	10.	75 - 1. 5.	
Coppe	50.	46.	9e	75 - 1. 5.	
Leade	500.	509e	10.	75 - 1. 5.	
Zinc.	500.	507.	101.	75 - 1. 5.	

Calculation. ae pe formed before roundin. to avoid round-off error. in calculated re. ult.

Serial Number 026337

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404

Website: www.testamericainc.com  
Phone: (912) 354-7858  
Fax: (912) 352-0165

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Alternate Laboratory Name/Location

Phone:  
Fax:

PROJECT REFERENCE UNC - Airport Road		PROJECT NO. NC 000239-0018-00001	PROJECT LOCATION (STATE) NC	MATRIX TYPE	REQUIRED ANALYSIS	PAGE 1 OF 1
TAL (LAB) PROJECT MANAGER Kathy Smith		P.O. NUMBER	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE	STANDARD REPORT DELIVERY	
CLIENT (SITE) PM Alan Annix		CLIENT PHONE 919-854-1282	CLIENT FAX	ACQUEOUS (WATER)	DATE DUE	
CLIENT NAME ARCADIS		CLIENT E-MAIL apinnix@arcadis-us.com		SOLID OR SEMISOLID	EXPEDITED REPORT DELIVERY (SURCHARGE)	
CLIENT ADDRESS 801 Corporate Center Dr. Raleigh, NC 27607				NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	DATE DUE	
COMPANY CONTRACTING THIS WORK (if applicable)					NUMBER OF COOLERS SUBMITTED PER SHIPMENT: 1	
SAMPLE IDENTIFICATION		SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS SUBMITTED		REMARKS
DATE	TIME	DATE	TIME	DATE	TIME	
9/11/10	1640	9/11/10	1730	3	1	*Please report:
RELINQUISHED BY: (SIGNATURE) <i>Paul Annix</i>		RELINQUISHED BY: (SIGNATURE)		RELINQUISHED BY: (SIGNATURE)		
RECEIVED BY: (SIGNATURE)		RECEIVED BY: (SIGNATURE)		RECEIVED BY: (SIGNATURE)		
RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>Annix</i>		CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>		SAVANNAH LOG NO. 680-54137		LABORATORY REMARKS 2.4°C



## Login Sample Receipt Check ListT

Client: ARCADIS U.S., Inc.e

Job Number: 680-54137-1e

**Login Number: 54137T**

**List Source: TestAmerica SavannahT**

**Creator: Conner, KeatonT**

**List Number: 1T**

Question	T / F / NAT	CommentT
Radioactivity either was not measured or, if measured, is at or below S backgroundS	N/AS	
The cooler's custody seal, if present, is intact.S	TrueS	
The cooler or samples do not appear to have been compromised or S tampered with.S	True	
amples were received on ice.S	TrueS	
Cooler Temperature is acceptable.S	TrueS	
Cooler Temperature is recorded.S	TrueS	
COC is present.S	TrueS	
COC is filled out in ink and legible.S	TrueS	
COC is filled out with all pertinent information.S	TrueS	
There are no discrepancies between the sample IDs on the containers and S the COC.S	True	
amples are received within Holding Time.S	True	
Sample containers have legible labels.S	TrueS	
Containers are not broken or leaking.S	True	
Sample collection date/times are provided.S	TrueS	
Appropriate sample containers are used.S	True	
Sample bottles are completely filled.S	TrueS	
There is sufficient vol. for all requested analyses, incl. any requested S MS/MSDsS	TrueS	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in S diameter.S	TrueS	
If necessary, staff have been informed of any short hold time or quick TAT S needsS	TrueS	
Multiphasic samples are not present.S	N/A	
Samples do not require splitting or compositing.S	N/AS	
Is the Field Sampler's name present on COC?S	True	
Sample Preservation VerifiedS	True	

## ANALYTICAL REPORT

Job Number: 400-44939-1

Job Description: UNC-Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix



Approved for release.  
Marty Edwards  
Senior Project Manager  
1/14/2010 5:21 PM

---

Marty Edwards  
Senior Project Manager  
marty.edwards@testamericainc.com  
01/14/2010

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page.

TestAmerica Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250507), New Jersey (FL006), North Carolina (314), North Dakota (R-108), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-08-TX), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

**TestAmerica Laboratories, Inc.**

TestAmerica Pensacola 3355 McLemore Drive, Pensacola, FL 32514

Tel (850) 474-1001 Fax (850) 478-2671 [www.testamericainc.com](http://www.testamericainc.com)



**Job Narrative**  
**00-44939-1m**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**Metals**

Method 1631E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 400-102262\400-102290 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. Data was flagged and reported as is.

No other analytical or quality issues were noted.

## METHOD SUMMARY:

Client: RCADIS U.S., Inc.

Job Number: 400-44939-1F

Description:	Lab Location:	Method:	Preparation Method:
<b>Matrix: m Water:</b>			
MF cury, Low LFvF (CVAFS)F	TAL PEN.	EPA#631EF	
PF paFatiB., MF cury, Low LFvF	TAL PEN.		EPA#631EF

### Lab References: m

TAL PEN = TFstA#er.ca PF sac o.aF

### Method References: m

EPA# US EnviB. me. alFPB. ctiB. .gF cyF

**METHOD / A9AL9ST SUMMAR9**

Client: ARCADIS U.S., Inc.S

Job Number: 400-44939-1x

<b>M: th</b>	<b>Analyst</b>	<b>Analyst ID:</b>
EPA 1631E4	Jones, Randy	RJ

**AMPLE :U MMARY2**

Client: ARCADIS U.S., Inc.4

Job Number: 400-4 939-14

<b>Lab : ample ID2</b>	<b>li2P : ample ID2</b>	<b>li2P Ma:rTx2</b>	<b>Date/Time : ampled2</b>	<b>Date/Time : Received2</b>
1TB.	EFFLUENT.	Water.	01/11/2010 16404	01/12/2010 1015.

**SAMPLEc Sc LTSc**

Client: ARCADIS U.S., Inc.

Job Number: 400-44939-1.

Client Sample ID: EFFLUENTa

Lab Sample ID: 400-44939-1TBM  
Client Matrix: Mer

Date Sampled: 01/11/2010 1640M  
Date Received: 01/12/2010 1015M

---

1631E Mercury, Low Level (CVAFS)

Method:	631EM	Analysis Batch:	400-102290M	Instrument ID:	HYDRAM
Preparation:	631EM	Prep Batch:	400-102262M	Lab File ID:	N/AM
Dilution:	.0M			Initial Weight/Volume:	40 mL
Date Analyzed:	01/14/2010 1312M			Final Weight/Volume:	40 mL
Date Prepared:	01/13/2010 1530M				

---

Analyte	Result (ng/L)	Qualifier	RLM
Mercury	<0.50		0.50

---



# QUALITY CONTROL RESULTS<sub>p</sub>

Client: ARCADIS U.S., Inc.M

Job Number: 400-44939-1M

**QC Association Summary-**

Lab Sample ID-	Client Sample ID-	Report-Basis-	Client Matrix-	Method-	Prep Batch-
<b>Metals-</b>					
<b>Prep Batch- 400-102262-</b>					
LCS 400-102262/22-Ah	Lab Control SampleM	Th	WaterM	631Eh	
LCSD 400-102262/23-Ah	Lab Control Sample Duplicateh	Th	Waterh	1631Eh	
MB 400-102262/21-Ah	Method.Blankh	Th	Waterh	1631Eh	
939-1TBh	EFFLUENTh	Th	Waterh	1631Eh	
<b>Analysis Batch-400-102290-</b>					
LCS 400-102262/22-Ah	Lab Control Sampleh	Th	Waterh	1631Eh	102262h
LCSD 400-102262/23-Ah	Lab Control Sample Duplicateh	Th	Waterh	1631Eh	102262h
MB 400-102262/21-Ah	Method.Blankh	Th	Waterh	1631Eh	102262h
939-1TBh	EFFLUENTh	Th	Waterh	1631Eh	102262h

**Report Basis-**

T = Totalh

**Quality Control Results-**

Clh .RCADIS U.S., Inc.F

Job Number: 400-44939-1h

**MR hod: d631Ep  
Pre- aration: d631Ep**

Lab Sample IDB 400-102262/21-AB  
 Client MaterialB WatB  
 DilutionB  
 Date AnalyzedB /14/2010B .911B  
 Date PB paB dB /13/2010B .300B

Analysis BatchB 400-102290B  
 PB p BatchB 400-102262B  
 Units: ng/LB

Instrument IDB ATOMIC FLUORESCENCE .  
 Lab File IDB N/AB  
 Initial Weight/Volume: 40B mLB  
 Final Weight/Volume: 40B mLB

AnalyteB	ResultB	QualB	RLB
curyB	<0.50B		50B

**Lab Control Sample /p  
 Lab Control Sample Duplicate Recovery Report - Batch: c400-102262p**

**MR hod: d631Ep  
 Pre- aration: d631Ep**

LCS Lab Sample IDB LCS 400-102262/22-AB  
 Client MaterialB WatB  
 DilutionB  
 Date AnalyzedB /14/2010B .919B  
 Date PB paB dB /13/2010B .300B

Analysis BatchB 400-102290B  
 PB p BatchB 400-102262B  
 Units: ng/LB

Instrument IDB ATOMIC FLUORESCENCE .  
 Lab File IDB N/AB  
 Initial Weight/Volume: 40B mLB  
 Final Weight/Volume: 40B mLB

LCSD Lab Sample IDB LCSD 400-102262/23-AB  
 Client MaterialB WatB  
 DilutionB  
 Date AnalyzedB /14/2010B .927  
 Date PB paB dB /13/2010B .300B

Analysis BatchB 400-102290B  
 PB p BatchB 400-102262B  
 Units: ng/LB

Instrument IDB ATOMIC FLUORESCENCE .  
 Lab File IDB N/AB  
 Initial Weight/Volume: 40B mLB  
 Final Weight/Volume: 40B mLB

AnalyteB	% RCB		LimitB	RPDB	RPD LimitB	LCS QualB	LCSD QualB
	LCSB	LCSDB					
curyB	96B	96B	79 - .21B		2B		

Calculations are performed before rounding to avoid round-off errors in calculated results.

DATA REPORT: m ALIa RSh

Lab Section	u alifera	Description
-------------	-----------	-------------

---



# Login SampIT R- cTipt ChTck ListT

Client: ARCADIS U.S., Inc.M

Job Number: B 9 39-1h

**Login NumbTr: 44939b**

**List Source: TestAmerica Pensacolab**

**Creator: Hor, Komab**

**List Number: 1b**

Questionb	/ F/ NAb	Commentb
Radioactivity either was not measured or, if measured, is at or below C backg.oundC	N/AC	
The cooler's custody seal, if present, is intact.C	N/AC	
The cooler or samples do not appear to have been compromised or C tampered with.C	TrueC	
Samples were received on ice.C	True	
Cooler Temperature is acceptable.C	True	
Cooler Temperature is recorded.C	TrueC	0.2°C
OC is present.C	True	
COC is filled out in ink and legible.C	True	
COC is filled out with all pertinent information.C	TrueC	
There are no discrepancies between the sample IDs on the containers and C the COC.C	TrueC	
Samples are received within Holding.Time.C	TrueC	
Sample containers have legible labels.C	True	
Containers are not broken or leaking.C	TrueC	
Sample collection date/times are provided.C	TrueC	
Appropriate sample containers are used.C	TrueC	
Sample bottles are completely filled.C	TrueC	
There is sufficient vol. for all requested analyses, incl. any requested C MS/MSDsC	TrueC	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in C diameter.C	N/AC	
If necessary, staff have been informed of any short hold time or quick TAT C needsC	TrueC	
Multiphasic samples are not present.C	TrueC	
Samples do not require splitting.or compositing.C	TrueC	
Is the Field Sampler's name present on COC?C	TrueC	
Sample Preservation VerifiedC	TrueC	

## ANALYTICAL REPORT

Job Number: 680-55031-1

Job Description: UNC Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
2/22/2010 2:06 PM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
02/22/2010

cc: Mr. Adam Tripp

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



## METHOD SUMMARY:

Client: TARCADIST, Inc.

Job Number: 680-55031-1.

Description:	Lab Location:	Method:	Preparation Method:
<b>Matrix: Water:</b>			
Volatil Organic Compounds (GC/MS)	AL .AVT	WT 4T8.2D BT	
Purge and Trap	AL .AVT		WT 4T50 30B
Metals (ICP)	AL .AVT	WT 4T6010 CT	
Preparation, Total Recovery, Dissolved Metals	AL .AVT		WT 4T 3005A

### Lab References:

AL .AV = TestAmerica Savannah

### Method References:

WT 4T = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1997 And its updates.



**METHOD / ANALYST SUMMARY**

Client: ARCADIS U.S., Inc.

Job Number: 680-55031-1.

<b>M: thb</b>	<b>Analyst</b>	<b>Analyst ID:</b>
SW846 8260B.	Bearden, Robert.	B.
SW846 6010C.	Bland, Brian.	BCB.

## SAMPLESUMMARY2

Client: ARCADIS U.S., Inc.

Job Number: 680-55031-1.

<b>La: Sample ID2</b>	<b>Clc</b>	<b>Sample ID2</b>	<b>Clc</b>	<b>Ma:rbx2</b>	<b>Da: /Tim : Sampled2</b>	<b>Da: /Tim : R2 v2d2</b>
680-55031-1b	Effluentb		Waterb		02/10/2010 1600.	02/12/2010 0933.

Client: ARCADIS U.S., Inc.b

Job Number: 680-55031-1b

Client-Sample ID: Effluent-

Lab Sample ID: 680-55031-1o  
 Client Matrix: ero

Date Sampled: 02/10/2010 1600o  
 Date Received: 02/12/2010 0933o

8260B Volatile Organic Compounds (GC/MS):

Method: 8260Bo Analysis Batch: 680-161019o Instrument ID: MSOo  
 Preparation: 5030Bo Lab File ID: 0245.do  
 Dilution: 2.0o Initial Weight/Volume: 5 mLo  
 Date Analyzed: 02/16/2010 1655o Final Weight/Volume: 5 mLo  
 Date Prepared: 02/16/2010 1655o

Analyte	Result (ug/L)	Qualifier	RLo
Acetone	50o	Uo	50o
Benzene	2.0o	Uo	2.0o
Bromoform	2.0o	Uo	2.0o
Bromomethane	2.0o	Uo	2.0o
Carbon disulfide	4.0o	Uo	4.0o
Carbon tetrachloride	2.0o	Uo	2.0o
Chlorobenzene	2.0o	Uo	2.0o
Chlorodibromomethane	2.0o	Uo	2.0o
Chloroethane	2.0o	Uo	2.0o
Chloroform	2.0o	Uo	2.0o
Chloromethane	2.0o	Uo	2.0o
cis-1,2-Dichloroethene	2.0o	Uo	2.0o
cis-1,3-Dichloropropene	2.0o	Uo	2.0o
Dichlorobromomethane	2.0o	Uo	2.0o
,1-Dichloroethane	2.0o	Uo	2.0o
,2-Dichloroethane	2.0o	Uo	2.0o
,1-Dichloroethene	2.0o	Uo	2.0o
,2-Dichloropropane	2.0o	Uo	2.0o
Diethyl ether	0o		20o
Ethylbenzene	.8o		2.0o
2-Hexanone	20o	Uo	20o
Methylene Chloride	0o	Uo	0o
2-Butanone (MEK)	20o	Uo	20o
4-Methyl-2-pentanone (MIBK)	20o	Uo	20o
Styrene	2.0o	U *o	2.0o
,1,2,2-Tetrachloroethane	2.0o	Uo	2.0o
Tetrachloroethene	2.0o	Uo	2.0o
Toluene	2.2o		2.0o
rans-1,2-Dichloroethene	2.0o	Uo	2.0o
rans-1,3-Dichloropropene	2.0o	Uo	2.0o
,1,1-Trichloroethane	2.0o	Uo	2.0o
,1,2-Trichloroethane	2.0o	Uo	2.0o
Trichloroethene	2.0o	Uo	2.0o
Vinyl chloride	2.0o	Uo	2.0o
Xylenes, Total	9o		4.0o
Surrogate	%Reco	Qualifier	Acceptance Limit
4-Bromofluorobenzene	94o		75 - 120o
Dibromofluoromethane	00o		75 - 121o
Toluene-d8 (Surr)	03o		75 - 120o

Client: ARCADIS U.S., Inc.o

Job Number: 680-55031-1o

**Client-SampID:d Effluent-**

Lab Sample ID:o 680-55031-1o  
 Client Matrix:o ero

Date Sampled: 02/10/2010 1600o  
 Date Received: 02/12/2010 0933o

**6010C Metals(ICP)-Total-Recoverab:eb**

Method:o	6010Co	Analysis Batch: 680-161225o	Instrument ID:o	ICPDo
Preparation:o	005Ao	Prep Batch: 680-161109o	Lab File ID:o	N/Ao
Dilution:o	.0o		Initial Weight/Volume:o	50 mLo
Date Analyzed:o	02/18/2010 2032o		Final Weight/Volume:o	50 mLo
Date Prepared:o	02/18/2010 1225o			

Analyteo	Result (ug/L)o	Qualifiero	RLo
Arsenico	20o	Uo	20o
Chromiumo	0o	Uo	0o
Coppero	20o	Uo	20o
Leado	0	Uo	0o
Zinco	22o		20o

DATA REPORT: Number ALI# RSH

Client: ARCADIS U.S., Inc.

Job Number: 680-55031-10

Lab Section	Qualifier	Description
GC/MS VOA*		
	U*	Indicates the analyte was analyzed for but not detected.* LCS or LCSD exceeds the control limits*
Metals*		
	U*	Indicates the analyte was analyzed for but not detected.*

Quality Control Results-

Client: ARCADIS U.S., Inc.\*

Job Number: 680-55031-1.

Method: 8260Bu  
Preparation: 5030Bu

Lab Sample: MB 680-161019/4  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 0. 16. 010 1. 5.  
Date of Preparation: 0. 16. 010 1. 5.

Instrument: MSOU  
Lab File: oq1.3.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Quality	RLU
Acetone	5.		5.
Benzene	1.0.		1.0.
Bromoform	1.0.		1.0.
Bromomethane	1.0.		1.0.
Carbon disulfide	.0		2.0.
Carbon tetrachloride	1.0.		1.0.
Chlorobenzene	1.0.		1.0.
Chlorodibromomethane	1.0.		1.0.
Chloroethane	1.0.		1.0.
Chloroform	1.0.		1.0.
Chloromethane	1.0.		1.0.
cis-1,2-dichloroethane	1.0.		1.0.
cis-1,3-dichloropropane	1.0.		1.0.
dibromomethane	1.0.		1.0.
1,1-dichloroethane	1.0.		1.0.
1,2-dichloroethane	1.0.		1.0.
1,1-dichloroethane	1.0.		1.0.
1,2-dichloropropane	1.0.		1.0.
diethyl ether	10.		10.
Ethylbenzene	1.0.		1.0.
Hexane	10.		10.
Methyl Chloride	5.0.		5.0.
n-Butane (MEK)	10.		10.
4-Methyl-2-pentanone (MIBK)	10.		10.
Styrene	1.0.		1.0.
1,1,2,2-tetrachloroethane	1.0.		1.0.
Tetrachloroethane	1.0.		1.0.
Toluene	1.0.		1.0.
trans-1,2-dichloroethane	1.0.		1.0.
trans-1,3-dichloropropane	1.0.		1.0.
1,1,1-trichloroethane	1.0.		1.0.
1,1,2-trichloroethane	1.0.		1.0.
Trichloroethane	1.0.		1.0.
Vinyl chloride	1.0.		1.0.
Xylenes, Total	.0		2.0.
Surrogate	% RUC	Acceptance Limits	
4-Bromofluorobenzene	95.	5 - 1.0.	
isobromofluoromethane	111.	5 - 1.1.	
Toluene-d8 (Surr)	10.	5 - 1.0.	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 680-55031-1.

Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-161019u

Method: 8260Bu  
Preparation: 5030Bu

LCS Lab Sample	LCS 680-161019/4U	Analysis Batch	680-161019U	Instrument	MSOU
Client Material	Water	PU Batch	UN.AU	Lab File	oq165.dU
Dilution	1.0	Units	ug/LU	Initial Weight/Volume	5 mLU
Start Analyzed	0. 16. 010 1101.			Final Weight/Volume	5 mLU
Start Packed	0. 16. 010 1101.				

LCS Lab Sample	LCS 680-161019/5U	Analysis Batch	680-161019U	Instrument	MSOU
Client Material	Water	PU Batch	UN.AU	Lab File	oq16.dU
Dilution	1.0	Units	ug/LU	Initial Weight/Volume	5 mLU
Start Analyzed	0. 16. 010 1130.			Final Weight/Volume	5 mLU
Start Packed	0. 16. 010 1130.				

Analyte	% Recovery		Limit	RPD	RPD Limit	LCS Qual	LCS Qual
	LCS	LCS DU					
Acetone	104	108.	1. - 1. 5.	4	50.		
Benzene	1037	105.	- 1192		30.		
Bromoform	4		- 133	1.	30.		
Bromomethane		95.	1. - 184	8	50		
Carbon disulfide	100.	101.	55 - 131.	1.	30.		
Carbon tetrachloride		4	1 - 135.	4	30.		
Chlorobenzene	99	99	5 - 116.	0.	30.		
Chlorodibromomethane	97	9	5 - 133	1.	30.		
Chloroethane	106.		40 - 165.	1	50		
Chloroform	106.	106.	- 1. 0.	0.	30.		
Chloromethane	97	105.	4 - 142	8	50		
cis-1,2-dichloroethane	106.	10.	9 - 134	4	30.		
cis-1,3-dichloropropane	101.	101.	- 1.	0.	30.		
dichlorobromomethane			- 1.	0.	30.		
1,1-dichloroethane	106.	105.	4 - 1.	1.	30.		
1,2-dichloroethane	9	99	- 1 32	1.	30.		
1,1-dichloroethane	100.	105.	- 141.	5.	30.		
1,2-dichloropropane	100.	100.	3 - 1.4	0.	30.		
Ethylbenzene	105.	105.	- 116.	0.	30.		
n-Hexane	104	104	34 - 161.	0.	30.		
Methyl Chloride	10.	100.	0 - 1. 5.		3 0.		
n-Butane (MEK)	112	10.	33 - 15.	5.	30.		
4-Methyl-2-pentanone (MIBK)	109	113	40 - 151.	4	30.		
Styrene	1.		- 1.	0.	30.		*U
1,1,2,2-tetrachloroethane	101.	103	9 - 1.9		30.		
Tetrachloroethane	9	101.	- 1.	4	30.		
Toluene	10.	10.	1 - 11.	1.	30.		
trans-1,2-dichloroethane	105.	10.	- 131.	3	30.		
trans-1,3-dichloropropane	9	9	3 - 1.	1.	30.		
1,1,1-Trichloroethane	97	99	- 1.		30.		
1,1,2-Trichloroethane	1037	105.	5 - 1. 1.		3 0.		
Trichloroethane	100.	100.	4 - 115.	1.	30.		

Calculations are performed before rounding to avoid round-off errors in calculated results.

**Quality Control Results**

Client: ARCADIS U.S., Inc.

Job Number: 680-55031-1.

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-161019u**

**Method: 8260Bu  
Preparation: 5030Bu**

LCS Lab Sample	LCS 680-161019/4U	Analysis Batch	680-161019U	Instrument	MSOU
Client Material	Water	PU Batch	UN.AU	Lab File	oq165.dU
Dilution	1.0	Units	ug/LU	Initial Weight/Volume	5 mLU
at Analyzed	0. 16. 010 1101.			Final Weight/Volume	5 mLU
at PUA	0. 16. 010 1101.				

LCSD Lab Sample	LCSD 680-161019/5U	Analysis Batch	680-161019U	Instrument	MSOU
Client Material	Water	PU Batch	UN.AU	Lab File	oq16.dU
Dilution	1.0	Units	ug/LU	Initial Weight/Volume	5 mLU
at Analyzed	0. 16. 010 1130.			Final Weight/Volume	5 mLU
at PUA	0. 16. 010 1130.				

Analyte	% RLU		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Vinyl chloride	109	11	59 - 144		50		
Xylenes, Total	10	10	4 - 118	0	30		
Surrogate	LCS % RLU		LCSD % RLU		Acceptance Limits		
4-Bromofluorobenzene	93		9		5 - 1. 0.		
1-bromofluoromethane	104		105		5 - 1. 1.		
Toluene (Surrogate)	103		105		5 - 1. 0.		

Calculations are performed before rounding to avoid round-off errors in calculated results.



**Quality Control Results**

Client: ARCADIS U.S., Inc.

Job Number: 680-55031-1.

**Method Blank - Batch: 680-161109u**

Lab Sample: MB 680-161109/16-AU  
 Client Material: Water  
 Dilution: 1.0  
 Analyzed: 0.18.010.001  
 Date Prepared: 0.18.010.1.5.

Analysis Batch: 680-161.5  
 Pickup Batch: 680-161109U  
 Units: ug/LU

**Method: 6010Cu  
 Preparation: 3005Au  
 Total Recoverable**

Instrument: CPDU  
 Lab File: N.AU  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Analyte	Result	Quality	RLU
Aluminum	0.		0.
Chromium	10.		10.
Copper	0.		0.
Lead	10.		10.
Zinc	0.		0.

**Lab Control Sample - Batch: 680-161109u**

Lab Sample: LCS 680-161109/16-AU  
 Client Material: Water  
 Dilution: 1.0  
 Analyzed: 0.18.010.006  
 Date Prepared: 0.18.010.1.5.

Analysis Batch: 680-161.5  
 Pickup Batch: 680-161109U  
 Units: ug/LU

**Method: 6010Cu  
 Preparation: 3005Au  
 Total Recoverable**

Instrument: CPDU  
 Lab File: N.AU  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Quality
Aluminum	100.	193.	99	5 - 1.5	
Chromium	100.	197	99	5 - 1.5	
Copper	50.	49	99	5 - 1.5	
Lead	500.	499	99	5 - 1.5	
Zinc	500.	500.	100.	5 - 1.5	

Calculations are performed before rounding to avoid round-off errors in calculated results.



## LogT Sample Receipt Checklist

Client: ARCADIS U.S., Inc.U

Job Number: 680-55031-10

**LogT Number: 55031b**  
**Creator: Daughtry, Bethb**  
**List Number: 1b**

**List Source: TestAmerica Savannahb**

Questionb	F/ NAb	Commentb
Radioactivity either was not measured or, if measured, is at or below S background.S	N/AS	
The cooler's custody seal, if present, is intact.S	TrueS	
The cooler or samples do not appear to have been compromised or S tampered with.S	True	
mples were received on ice.S	TrueS	
Cooler Temperature is acceptable.S	TrueS	
Cooler Temperature is recorded.S	TrueS	
COC is present.S	TrueS	
COC is filled out in ink and legible.S	TrueS	
COC is filled out with all pertinent information.S	TrueS	
There are no discrepancies between the sample IDs on the containers and S the COC.S	True	
mples are received within Holding Time.S	True	
ample containers have legible labels.S	TrueS	
Containers are not broken or leaking.S	True	
ample collection date/times are provided.S	TrueS	
Appropriate sample containers are used.S	True	
ample bottles are completely filled.S	TrueS	
There is sufficient vol. for all requested analyses, incl. any requested S MS/MSDsS	TrueS	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in S diameter.S	TrueS	
If necessary, staff have been informed of any short hold time or quick TAT S eedsS	TrueS	
Multiphasic samples are not present.S	N/A	
amples do not require splitting or compositing.S	N/AS	
Is the Field Sampler's name present on COC?S	True	
ample Preservation VerifiedS	TrueS	

## ANALYTICAL REPORT

Job Number: 400-45588-1

Job Description: UNC-Airport Road

For:

ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix



Approved for release.  
Marty Edwards  
Senior Project Manager  
2/25/2010 2:56 PM

---

Marty Edwards  
Senior Project Manager  
marty.edwards@testamericainc.com  
02/25/2010

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page.

TestAmerica Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250507), New Jersey (FL006), North Carolina (314), North Dakota (R-108), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-08-TX), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

**TestAmerica Laboratories, Inc.**

TestAmerica Pensacola 3355 McLemore Drive, Pensacola, FL 32514

Tel (850) 474-1001 Fax (850) 478-2671 [www.testamericainc.com](http://www.testamericainc.com)



**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within the required time.

**Metals I**

Method 1631E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 400-10389\400-10382b were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. Data was flagged and reported as such.

No other analytical or quality issues were noted.

## METHOD SUMMARY:

Client: CADIS U.S., Inc.

Job Number: 400-45588-1T

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix:</b>			
<b>Water:</b>			
MT cury, Low LTVI (CVAFS)	L PEN.	EPA1631ET	
PT pation, MT cury, Low LTVIT	L PEN.		EPA1631E

### Lab References:

AL PEN = TestAmerica Pensacola

### Method References:

EPA US Environmental Protection Agency

**METHOD / ANALYST SUMMARY**

Client: ARCADIT U.S., Inc.S

Job Number: 40045588x1C

<b>M: thb</b>	<b>Analystb</b>	<b>Analyst ID:</b>
EPA 1331E.	Jones, RTndS	RJo

## SAMPLI SUMMARY2

Client: ARCADIT U.S., Inc.S

Job Number: 40045588x1C

<b>La: Samp e ID2</b>	<b>Caue Samp e ID2</b>	<b>Caue Ma rix2</b>	<b>Date/Time : Samp edb</b>	<b>Date/Time : Reueivedb</b>
400-45588-11	NTI	Waterl	02/10/2010 1600I	02/12/2010 0925I



**SAMPL : S L SI**

Client: ARCADIS U.S., Inc.

Job Number: 400-45588-11

Client Sample ID: EFFLUENTa

Lhb Sample ID: 400-45588-11

Date Sampled: 02/10/2010 1600n

Client Matrix: Water

Date Received: 02/12/2010 0925n

---

**1631E Mercury, low Level (CVAFS)**

Method:	1631En	Analysis Batch:	400-103827n	Instrument ID:	HYDRAn
Preparation:	1631En	Prep Batch:	400-103779n	Lab File ID:	N/An
Dilution:	1.0n			Initial Weight/Volume:	40 mLn
Date Analyzed:	02/15/2010 1406n			Final Weight/Volume:	40 mLn
Date Prepared:	02/12/2010 1500n				

---

Analyte	Result (ng/L)	Qualifier	RL
Mercury	0.55n		0.50n

# QUALITY CONTROL RESULTS

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 400-45588-1n

QC Association 8- mmaryu

Lau Saml le ID-	Client Saml le ID-	Reuortu Basisu	Client Matrix-	Method-	Preu Batch-
<b>Metalsu</b>					
<b>Preu Batch- 400-103779b</b>					
LCS 400-103779/26-Ac	Lab Control Samplen	Tc	Waterc	1631Ec	
LCSD 400-103779/27-Ac	Lab Control Sample Duplicatec	Tc	Waterc	1631Ec	
MB 400-103779/25-Ac	Method Blankc	Tc	Waterc	1631Ec	
5588-1c	EFFLUENTc	Tc	Waterc	1631Ec	
680-54863-B-17-B MSc	Matrix Spikec	Tc	Waterc	1631Ec	
680-54863-B-17-C MSDc	Matrix Spike Duplicatec	Tc	Waterc	1631Ec	
<b>Analysis Batch-400-103827c</b>					
LCS 400-103779/26-Ac	Lab Control Samplec	Tc	Waterc	1631Ec	103779c
LCSD 400-103779/27-Ac	Lab Control Sample Duplicatec	Tc	Waterc	1631Ec	103779c
MB 400-103779/25-Ac	Method Blankc	Tc	Waterc	1631Ec	103779c
5588-1c	EFFLUENTc	Tc	Waterc	1631Ec	103779c
680-54863-B-17-B MSc	Matrix Spikec	Tc	Waterc	1631Ec	103779c
680-54863-B-17-C MSDc	Matrix Spike Duplicatec	Tc	Waterc	1631Ec	103779c

**Reuort Basisu**

T = Totalc

**Quality Control Results**

CliTntT . CADIS U.S., .nc.T

Job Number: 400-45588-1c

**Method Blank - Batchb 400-103779R**

Lab Samplc. B 400-103779/25-AT  
 CliTntT acixc Wac  
 i lu.ionT 1.0  
 ac . n alyzB 02/15/2010 0919n  
 ac PI pac 02/12/2010 1130

n alysis Bachl 400-103827c  
 PI p Bachl 400-103779n  
 Unitl ng/L.

**Method: 1631ER  
 Preparation: 1631ER**

nsI umentT HYc  
 Lab Filc. N/I  
 nitial WBighl/Volume:. 40 mL.  
 Final WBighl/Volume:. 40 mL.

nalyS	sulc	Qualc	L.
curyS	<0.50		0.50

**Lab Control Sample/R  
 Lab Control Sample Duplicate Recovery Report - Batch: 400-103779R**

LCS Lab Samplc. LCS 400-103779/26-AT  
 CliTntT acixc Wac  
 i lu.ionT 1.0  
 ac . n alyzB 02/15/2010 0927c  
 ac PI pac 02/12/2010 1130

n alysis Bachl 400-103827c  
 PI p Bachl 400-103779n  
 Unitl ng/L.

**Method: 1631ER  
 Preparation: 1631ER**

nsI umentT HYc  
 Lab Filc. N/I  
 nitial WBighl/Volume:. 40 mL.  
 Final WBighl/Volume:. 40 mL.

LCSDT Lab Samplc. LCSDT 400-103779/27-AT  
 CliTntT acixc Wac  
 i lu.ionT 1.0  
 ac . n alyzB 02/15/2010 0935C  
 ac PI pac 02/12/2010 1130

n alysis Bachl 400-103827c  
 PI p Bachl 400-103779n  
 Unitl ng/L.

nsI umentT HYc  
 Lab Filc. N/I  
 nitial WBighl/Volume:. 40 mL.  
 Final WBighl/Volume:. 40 mL.

nalyS	% . c.T		LimitT	PI	PI LimitT	LCS Qualc	LCSDTQualc
	LCST	LCSDT					
curyS	101c	95C	79 - 121c	6c	20		

Calculadons ac p. forme. before rounTing .o avoiT rounT-off errors in calculac results.T

## Quality Control ResultsR

CliTntT . CADIS U.S., .nc.T

Job Number: 400-45588-1c

**Matrix Spike/R**

**Matrix Spike Duplicate Recovery Report - Batch: 400-103779R**

**Method: 1631ER**

**Preparation: 1631ER**

S Lab Samplc. 680-54863-B-17-B . ST n alysis Bacchl 400-103827c  
 CliTntT acixc Wac PI p Bacchl 400-103779n  
 i lu.ionT 1.0  
 ac . n alyzB 02/15/2010 1115C  
 ac PI pac 02/12/2010 1500

nsl umentT HYc  
 Lab Filc. N/I  
 nitial WBighl/Volume:. 40 mL.  
 Final WBighl/Volume:. 40 mL.

SDT Lab Samplc. 680-54863-B-17-C . SDT n alysis Bacchl 400-103827c  
 CliTntT acixc Wac PI p Bacchl 400-103779n  
 i lu.ionT 1.0  
 ac . n alyzB 02/15/2010 1123I  
 ac PI pac 02/12/2010 1500

nsl umentT HYc  
 Lab Filc. N/I  
 nitial WBighl/Volume:. 40 mL.  
 Final WBighl/Volume:. 40 mL.

nalyS	% . . c.T		LimitT	PI	PI LimitT	S Qualc	SDTQualc
	ST	SDT					
curyS	59n	58	71 - 125C	1c	24B	F	F

Calculadons ac p. forme. before rounTing .o avoiT rounT-off errors in calculac results.T

DATA REPORT: NI I ALI Fa RSh

Client: ARCADIS U.S., Inc.n

Job Number: 400-45588-1c

Lab Section	Qualifier	Description
Metals		
	Fu	MS or MSD exceeds the control limits



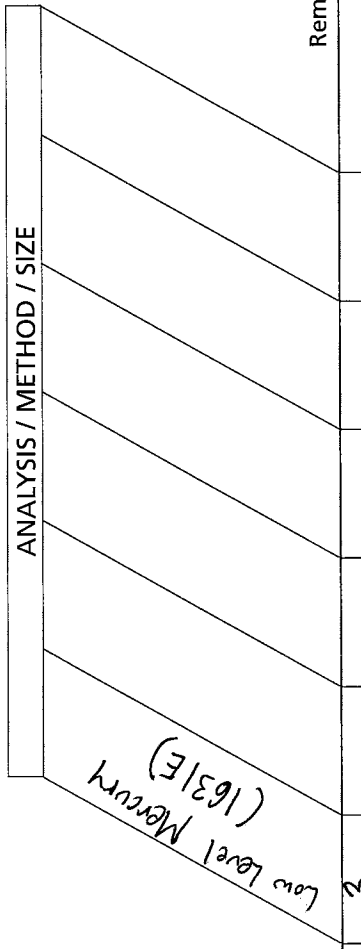
Laboratory Task Order No./P.O. No. \_\_\_\_\_

**CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

400-45588

Project Number/Name NC000239, 0018, 00001  
 Project Location UNC - Airport Road  
 Laboratory Test America (Pensacola)  
 Project Manager Alan Pinnix  
 Sampler(s)/Affiliation David Twambley



Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Remarks	Total
Effluent	L	2/10/10, 1600	3		

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: [Signature] Organization: ARCADIS Date: 2/11/10 Time: 1700 Seal Intact? Yes No N/A

Received by: [Signature] Organization: FA-Per A Date: 2/12/10 Time: 6:25 Seal Intact? Yes No N/A

Relinquished by: \_\_\_\_\_ Organization: \_\_\_\_\_ Date: / / Time: \_\_\_\_\_ Seal Intact? Yes No N/A

Received by: \_\_\_\_\_ Organization: \_\_\_\_\_ Date: / / Time: \_\_\_\_\_ Seal Intact? Yes No N/A

Special Instructions/Remarks: \_\_\_\_\_

Total No. of Bottles/Containers: \_\_\_\_\_

0.6 °C



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 400-45588-1u

Login Number: #55881

List Source: TestAmerica Pensacola1

Creator: Hor, Koma1

List Number:

Question1	/ F/ NA1	Comment1
Radioactivity either was not measured, if measured, is at or below background.	N/A	
The cooler's gasket, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6°C
COC is present.	True	
COC is filled with ink and legible.	True	
COC is filled with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/time is provided.	True	
Appropriate sample containers used.	True	
Sample bottles completely filled.	True	
There is sufficient volume for all requested analyses, including requested MS/MSD.	True	
VOA sample vials do not have headspace or bubble is <math>6\text{mm}</math> (1/4") in diameter.	True	
If necessary, staff have been informed and a shutdown or quick TAT is needed.	True	
Multiple samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the field sampler's name present on COC?	True	
Sample Preservation Verified	True	

## ANALYTICAL REPORT

Job Number: 680-55836-1

Job Description: UNC Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
3/24/2010 12:10 PM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
03/24/2010

cc: Mr. Adam Tripp

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



## METHOD SUMMARY:

Client: UARCADIS U.S., Inc.

Job Number: 680-5583U1.

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix:   Water:</b>			
VolatilU Organic Compounds (GC/MS).	TAL SAVT	SWU4T8.2D BT	
PurgT and Tøpu	TAL SAVT		SWU4T50 30BT
M tals (bCP).	TAL SAVT	SWU4T6010 CU	
Pn pation, Total RUcovl abUbr . i ssolvl d M talsl	TAL SAVT		SWU4T 3005AU

### Lab References:

TAL SAV = TbstAmerica Savannah

### Method References:

SWU4T = "Tbst M thods For Evaluating Solid WastU, Physical/ChIm ical M thods", Third Edition, November 1 9l And .ts . pdatUs.U

**METHOD / ANALYST SUMMARY**

Client: ARCADIS U.S., Inc.

Job Number: 680-55836-1S

<b>M: th1</b>	<b>Analyst1</b>	<b>Analyst ID:</b>
SW846S 8260B4	Lanier, CaUlu nu	CLo
SW846S 6010Cu	Bland, B4anu	BCB4

## SAMPLI SUMMARY2

Client: ARCADIS U.S., Inc.u

Job Number: 680-55836-1S

<u>Lab Sample ID2</u>	<u>Caer Sample ID2</u>	<u>Caer Mark2</u>	<u>Date/Time : Sampledb</u>	<u>Date/Time : ReReRedb</u>
680-55836-1,	ent,	Water,	03/12/2010 01:45,	03/13/2010 10:14,

Client: ARCADIS U.S., Inc.,

Job Number: 680-55836-1,

Client Sample ID: Effluent R

Lab Sample ID: 680-55836-1,  
Client Matrix: Water,Date Sampled: 03/12/2010 1345,  
Date Received: 03/13/2010 1014,

## 8260B Volatile Organic Compounds (GC/MS):

Method:	8260B,	Analysis Batch: 680-163780,	Instrument ID:	MSP
Preparation:	5030B,		Lab File ID:	p01113.d,
Dilution:	1.0,		Initial Weight/Volume:	5 mL
Date Analyzed:	03/23/2010 1511,		Final Weight/Volume:	5 mL
Date Prepared:	03/23/2010 1511,			

Analyte,	Result (ug/L),	Qualifier,	RLo
Acetone,	25,	U,	25,
Benzene,	1.0,	U,	1.0,
Bromoform,	1.0,	U,	1.0,
Bromomethane,	1.0,	U,	1.0,
Carbon disulfide,	2.0,	U,	2.0,
Carbon tetrachloride,	1.0,	U,	1.0,
Chlorobenzene,	1.0,	U,	1.0,
Chlorodibromomethane,	1.0,	U,	1.0,
Chloroethane,	1.0,	U,	1.0,
Chloroform,	1.0,	U,	1.0,
Chloromethane,	1.0,	U,	1.0,
cis-1,2-Dichloroethene,	1.0,	U,	1.0,
cis-1,3-Dichloropropene,	1.0,	U,	1.0,
Dichlorobromomethane,	1.0,	U,	1.0,
1,1-Dichloroethane,	1.0,	U,	1.0,
1,2-Dichloroethane,	4.7,		1.0,
1,1-Dichloroethene,	1.0,	U,	1.0,
1,2-Dichloropropane,	1.0,	U,	1.0,
Diethyl ether,	340,	E,	10,
Ethylbenzene,	1.0,	U,	1.0,
2-Hexanone,	10,	U,	10,
Methylene Chloride,	5.0,	U,	5.0,
2-Butanone (MEK),	10,	U,	10,
4-Methyl-2-pentanone (MIBK),	10,	U,	10,
Styrene,	1.0,	U,	1.0,
1,1,2,2-Tetrachloroethane,	1.0,	U,	1.0,
Tetrachloroethene,	1.0,	U,	1.0,
Toluene,	1.0,	U,	1.0,
trans-1,2-Dichloroethene,	1.0,	U,	1.0,
trans-1,3-Dichloropropene,	1.0,	U,	1.0,
1,1,1-Trichloroethane,	1.0,	U,	1.0,
1,1,2-Trichloroethane,	1.0,	U,	1.0,
Trichloroethene,	1.0,	U,	1.0,
Vinyl chloride,	1.0,	U,	1.0,
Xylenes, Total	2.0,	U,	2.0,

Surrogate,	%Rec,	Qualifier,	Acceptance Limits,
4-Bromofluorobenzene,	96,		75 - 120,
Dibromofluoromethane,	101,		75 - 121,
Toluene-d8 (Surr),	109,		75 - 120,

Client: ARCADIS U.S., Inc.,

Job Number: 680-55836-1,

## Client Sample ID: Effluent R

Lab Sample ID: 680-55836-1,  
Client Matrix: Water,Date Sampled: 03/12/2010 1345,  
Date Received: 03/13/2010 1014,

## 8260B Volatile Organic Compounds (GC/MS):

Method:	8260B,	Analysis Batch: 680-163780,	Instrument ID:	MSP
Preparation:	5030B,		Lab File ID:	p0123.d,
Dilution:	10,		Initial Weight/Volume:	5 mL
Date Analyzed:	03/23/2010 1739,	Run Type: DLo	Final Weight/Volume:	5 mL
Date Prepared:	03/23/2010 1739,			

Analyte,	Result (ug/L),	Qualifier,	RLo
Acetone,	250,	U,	250,
Benzene,	10,	U,	10,
Bromoform,	10,	U,	10,
Bromomethane,	10,	U,	10,
Carbon disulfide,	20,	U,	20,
Carbon tetrachloride,	10,	U,	10,
Chlorobenzene,	10,	U,	10,
Chlorodibromomethane,	10,	U,	10,
Chloroethane,	10,	U,	10,
Chloroform,	10,	U,	10,
Chloromethane,	10,	U,	10,
cis-1,2-Dichloroethene,	10,	U,	10,
cis-1,3-Dichloropropene,	10,	U,	10,
Dichlorobromomethane,	10,	U,	10,
1,1-Dichloroethane,	10,	U,	10,
1,2-Dichloroethane,	10,	U,	10,
1,1-Dichloroethene,	10,	U,	10,
1,2-Dichloropropane,	10,	U,	10,
Diethyl ether,	310,	D,	100,
Ethylbenzene,	10,	U,	10,
2-Hexanone,	100,	U,	100,
Methylene Chloride,	50,	U,	50,
2-Butanone (MEK),	100,	U,	100,
4-Methyl-2-pentanone (MIBK),	100,	U,	100,
Styrene,	10,	U,	10,
1,1,2,2-Tetrachloroethane,	10,	U,	10,
Tetrachloroethene,	10,	U,	10,
Toluene,	10,	U,	10,
trans-1,2-Dichloroethene,	10,	U,	10,
trans-1,3-Dichloropropene,	10,	U,	10,
1,1,1-Trichloroethane,	10,	U,	10,
1,1,2-Trichloroethane,	10,	U,	10,
Trichloroethene,	10,	U,	10,
Vinyl chloride,	10,	U,	10,
Xylenes, Total	20,	U,	20,
Surrogate,	%Rec,	Qualifier,	Acceptance Limits,
4-Bromofluorobenzene,	98,		75 - 120,
Dibromofluoromethane,	95,		75 - 121,
Toluene-d8 (Surr),	109,		75 - 120,

Client: ARCADIS U.S., Inc.,

Job Number: 680-55836-1,

Client Sample ID: Effluent

Lab Sample ID: 680-55836-1,  
Client Matrix: Water,

Date Sampled: 03/12/2010 1345,  
Date Received: 03/13/2010 1014,

6010C Metals (ICP)-Total Recoverable

Method:	6010C,	Analysis Batch: 680-163490,	Instrument ID:	ICPD,
Preparation:	3005A,	Prep Batch: 680-163399,	Lab File ID:	N/A,
Dilution:	1.0,		Initial Weight/Volume:	50 mL
Date Analyzed:	03/19/2010 0406,		Final Weight/Volume:	50 mL
Date Prepared:	03/18/2010 1201,			

Analyte	Result (ug/L)	Qualifier	RLo
Arsenic	20	U	20
Chromium	10	U	10
Copper	20	U	20
Lead	10	U	10
Zinc	22		20



DATA REPORT: N1 | ALI# RSh

Client: ARCADIS U.S., Inc.,

Job Number: 680-55836-1,

Lab Section	Qualifier	Description
GC/MS Y/OA,		
	U,	Indicate the analyte was analyzed, for but not detected, .,
	E	Result exceeds the calibration range.,
	D,	Surrogate or matrix spike recoveries were not obtained, because the extract was diluted for analysis; . No compound analyzed, as dilution may be affected with a.D.,
Meta.		
	U,	Indicate the analyte was analyzed, for but not detected, .,

## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 680-5583U1

**Method Blank - Batch: R0 -1687DU**

**Method: R20 BR**  
**Preparation: B030BR**

Lab Sample: MB 680-16370 /7c  
 Client Material: Water  
 Dilution: 1.0  
 Date Analyzed: 03/23/2010 1044.  
 Date Prepared: 03/23/2010 1044.

Analysis Batch: 680-16370.  
 Prep Batch: UN/AU  
 Units: ug/LU

Instrument: MSP  
 Lab File: pq155.d,  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Analyte	Result	Quality	RLU
Acetone	25.		25.
Benzene	1.0.		1.0.
Bromoform	1.0.		1.0.
Bromomethane	1.0.		1.0.
Carbon disulfide	2.0.		2.0.
Carbon tetrachloride	1.0.		1.0.
Chlorobenzene	1.0.		1.0.
Chlorodibromomethane	1.0.		1.0.
Chloroethane	1.0.		1.0.
Chloroform	1.0.		1.0.
Chloromethane	1.0.		1.0.
cis-1,2-dichloroethane	1.0.		1.0.
cis-1,3-dichloropropane	1.0.		1.0.
dichlorobromomethane	1.0.		1.0.
1,1-dichloroethane	1.0.		1.0.
1,2-dichloroethane	1.0.		1.0.
1,1-dichloroethane	1.0.		1.0.
1,2-dichloropropane	1.0.		1.0.
Diethyl ether	10.		10.
Ethylbenzene	1.0.		1.0.
2-Hexanone	10.		10.
Methylchloride	5.0.		5.0.
2-Butanone (MEK)	10.		10.
4-Methyl-2-pentanone (MIBK)	10.		10.
Styrene	1.0.		1.0.
1,1,2,2-Tetrachloroethane	1.0.		1.0.
Tetrachloroethane	1.0.		1.0.
Toluene	1.0.		1.0.
trans-1,2-dichloroethane	1.0.		1.0.
trans-1,3-dichloropropane	1.0.		1.0.
1,1,1-Trichloroethane	1.0.		1.0.
1,1,2-Trichloroethane	1.0.		1.0.
Trichloroethane	1.0.		1.0.
Vinyl chloride	1.0.		1.0.
Xylenes, Total	2.0.		2.0.
Surrogate	% Recovery	Acceptance Limits	
4-Bromofluorobenzene	102.	75 - 120.	
1-bromofluoromethane	101.	75 - 121.	
Toluene d, (Surr)	106.	75 - 120.	

Calculations performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 680-558301

Lab Control Sample 1

Lab Control Sample Duplicate Recovery Report - Batch: R0 -16870

Method: R20 BR

Preparation: B030BR

LCS Lab Sample: LCS 680-16370 /4. Analysis Batch: 680-16370. Instrument: MSP  
 Client Material: Water. Prep Batch: UN/AU. Lab File: pq149.d,  
 Dilution: 1.0. Units: ug/LU. Initial Weight/Volume: 5 mLU  
 Date Analyzed: 03/23/2010 0852. Final Weight/Volume: 5 mLU  
 Date Prepared: 03/23/2010 0852.

LCSD Lab Sample: LCSD 680-16370 /5. Analysis Batch: 680-16370. Instrument: MSP  
 Client Material: Water. Prep Batch: UN/AU. Lab File: pq151.d,  
 Dilution: 1.0. Units: ug/LU. Initial Weight/Volume: 5 mLU  
 Date Analyzed: 03/23/2010 0922. Final Weight/Volume: 5 mLU  
 Date Prepared: 03/23/2010 0922.

Analyte	% Recovery		Limit	RP	RP	Limit	LCS Qual	LCSD Qual
	LCS	LCSD						
Acetone	4.	5.	17 - 175	1.	50			
Benzene	108.	107c	77 - 119,	1.	30.			
Bromoform	97c	94.	2 - 133U	3U	30.			
Bromomethane	5.	92.	12 - 184.	8	50			
Carbon disulfide	102.	104.	55 - 131.	2.	30.			
Carbon tetrachloride	119,	117c	71 - 135.	2.	30.			
Chlorobenzene	105.	104.	5 - 116.	1.	30.			
Chlorodibromomethane	9,	99,	75 - 133U	1.	30.			
Chloroethane	97c	104.	40 - 165.	7c	50.			
Chloroform	104.	104.	2 - 120.	0.	30.			
Chloromethane	108.	108.	4 - 142.	0	50			
cis-1,2-dichloroethane	101.	103U	9 - 134.	2.	30.			
cis-1,3-dichloropropane	105.	105.	7c- 12.	1.	30.			
dichlorobromomethane	103U	104.	7c- 127c	1.	30.			
1,1-dichloroethane	102.	104.	74 - 127c	2.	30.			
1,2-dichloroethane	105.	102.	- 1 32.	3U	30.			
1,1-dichloroethane	103U	105.	2 - 141.	2.	30.			
1,2-dichloropropane	103U	106.	73 - 124.	2.	30.			
Ethylbenzene	107c	106.	- 116.	1.	30.			
2-Hexanone	9,	95.	34 - 161.	1.	30.			
Methyl Chloride	103U	103U	70 - 125.	0.	30.			
2-Butanone (MEK)	92.	91.	33 - 157c	1.	30.			
4-Methyl-2-pentanone (MIBK)	97c	100.	40 - 151.	3U	30.			
Styrene	107c	102.	2 - 122.	5.	30.			
1,1,2,2-Tetrachloroethane	97c	93U	9 - 129,	5.	30.			
Tetrachloroethane	102.	102.	7c- 12.	1.	30.			
Toluene	110.	110.	1 - 11 7c	0.	30.			
trans-1,2-dichloroethane	105.	104.	72 - 131.	1.	30.			
trans-1,3-dichloropropane	109,	110.	73 - 12.	0.	30.			
1,1,1-Trichloroethane	113U	112.	7c- 127c	1.	30.			
1,1,2-Trichloroethane	103U	103U	75 - 121.	1.	30.			
Trichloroethane	104.	104.	4 - 115.	1.	30.			

Calculations are performed before rounding to avoid round-off errors in calculated results.

**Quality Control Results**

Client: ARCADIS U.S., Inc.

Job Number: 680-5583U1

**Lab Control Sample 1**

**Lab Control Sample Duplicate Recovery Report - Batch: R0 -1687DU**

**Method: R20 BR**

**Preparation: B030BR**

LCS Lab Sample: LCS 680-1637d /4. Analysis Batch: 680-1637d. Instrument: MSP  
 Client Material: Water. Prep Batch: UN/AU. Lab File: pq149.d,  
 Dilution: 1.0. Units: ug/LU. Initial Weight/Volume: 5 mLU  
 Date Analyzed: 03/23/2010 0852. Final Weight/Volume: 5 mLU  
 Date Prepared: 03/23/2010 0852.

LCSD Lab Sample: LCSD 680-1637d /5. Analysis Batch: 680-1637d. Instrument: MSP  
 Client Material: Water. Prep Batch: UN/AU. Lab File: pq151.d,  
 Dilution: 1.0. Units: ug/LU. Initial Weight/Volume: 5 mLU  
 Date Analyzed: 03/23/2010 0922. Final Weight/Volume: 5 mLU  
 Date Prepared: 03/23/2010 0922.

Analyte	% Recovery		Limit	RP	RP	Limit	LCS Qual	LCSD Qual
	LCS	LCSD						
Vinyl chloride, Xylenes, Total	7c 108.	116. 106.	59 - 144. 4 - 118.	29, 2.	50. 30.			
Surrogate	LCS % Rec		LCSD % Rec	Acceptance Limits				
4-Bromofluorobenzene	106.		9,			75 - 120.		
1-bromofluoromethane	102.		102.			75 - 121.		
Toluene, (Surrogate)	108.		109,			75 - 120.		

Calculations performed before rounding to avoid round-off errors in calculated results.

**Quality Control ResultsR**

CliUntU ARCADIS U.S., .nc.U

Job Number: 680-5583U1.

**Method Blank - Batch: R0 -1603991**

Lab SamplU MB 680-163399/19-AU  
 CliUnt MatUkU WatU  
 il utionU 1.0.  
 atU AnalyzUd, 03/19/2010 014.  
 atU P paUd, 03/18/2010 1201.

Analysis BatchU 680-163490.  
 P p BatchU 680-163399,  
 nitsU ug/LU

**Method: R010 CR**  
**PreRaration: B005Au**  
**Total RecoverableR**  
 nstUment . CP  
 Lab FilU N/AU  
 nitial WUght/Volume:. 50 mL  
 Final WUght/Volume:. 50 mL

AnalytU	RUsltU	QualU	RLU
AlUhicU	20.		20.
ChUmium.	10.		10.
Coppu	20.		20.
LUad,	10.		10.
ZincU	20.		20.

**LabControl Samule - Batch: R0 -1603991**

Lab SamplU LCS 680-163399/20-AU  
 CliUnt MatUkU WatU  
 il utionU 1.0.  
 atU AnalyzUd, 03/19/2010 0151.  
 atU P paUd, 03/18/2010 1201.

Analysis BatchU 680-163490.  
 P p BatchU 680-163399,  
 nitsU ug/LU

**Method: R010 CR**  
**PreRaration: B005Au**  
**Total RecoverableR**  
 nstUment . CP  
 Lab FilU N/AU  
 nitial WUght/Volume:. 50 mL  
 Final WUght/Volume:. 50 mL

AnalytU	Spik, AmountU	RUsltU	% RUc.U	LimitU	QualU
AlUhicU	2000.	2020.	101.	75 - 125.	
ChUmium.	200.	207c	103U	75 - 125.	
Coppu	250.	259,	104.	75 - 125.	
LUad,	500.	509,	102.	75 - 125.	
ZincU	500.	524.	105.	75 - 125.	

Calculations aU pu formed before rounding to avoid round-off errors in calculatUd results.U



# Log Sample Receipt Checklist

Client: ARCADIS U.S., Inc.,

Job Number: 680-55836-1,

**Job Number: 558361**

**List Source: TestAmerica Savannah1**

**Creator: Conner, Keaton1**

**List Number: 1**

Question	Y/N/NA	Comment
Radioactivity either , au not measured, if measured i, at or below background	N/A,	
The cooler's , today's , , , , intact.,	True,	
The cooler or , amples, do not appear to have been compromised, tampered with.,	True,	
Sample, were received on ice.,	True,	
Cooler Temperature i, acceptable.,	True,	
Cooler Temperature i, recorded.,	True,	
COC i, present.,	True,	
COC i, filled out in ink and legible.,	True,	
COC i, filled out, with pertinent information.,	True,	
There are no discrepancies between the , amples ID, on the container, and the COC.,	True,	
Sample, are received within Holding Time.,	True,	
Sample container, have legible label.,	True,	
Container, are not broken or leaking.,	True,	
Sample collection date/time, are provided.,	True,	
Appropriate , amples container, are used.,	True,	
Sample bottle, are completely filled.,	True,	
There is sufficient vol. for analysis, including any sequential MS/MSD,	True,	
VOA , amples vials do not have headspace or bubble i, <6mm (1/4") in diameter.,	True,	
If necessary, staff have been informed of any short hold time or quick status needs	True,	
Multi-phase , amples, are not present.,	N/A,	
Sample, do not require , , , , ,	N/A,	
Is the Field Sample's name present on COC?	N/A,	
Sample Preservation Verified	True,	

## ANALYTICAL REPORT

Job Number: 400-46183-1

Job Description: UNC-Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix



Approved for release.  
Marty Edwards  
Senior Project Manager  
3/23/2010 5:16 PM

---

Marty Edwards  
Senior Project Manager  
marty.edwards@testamericainc.com  
03/23/2010

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page.

TestAmerica Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250507), New Jersey (FL006), North Carolina (314), North Dakota (R-108), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-08-TX), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

**TestAmerica Laboratories, Inc.**

TestAmerica Pensacola 3355 McLemore Drive, Pensacola, FL 32514

Tel (850) 474-1001 Fax (850) 478-2671 [www.testamericainc.com](http://www.testamericainc.com)





**Jrb Narrative1**  
**00-I 6183-1D**

**Comment:**

No additional comments.

**Receipt D**

All samples were received in good condition within the specified time period.

**Metals D**

Method 1631E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 400-105645\ 400-105673 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria. Data was flagged and reported as such.

No other analytical or quality issues were noted.

## METHOD SUMMARY:

Client: CADIS U.S., Inc.

Job Number: 400-46183-1T

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: Water:</b>			
MT cury, Low LTVTI (CVAFS)	L PEN.	EPA1631ET	
PT patiō., MT cury, Low LTVTIT	L PEN.		EPA1631E

### Lab References:

L PEN = . stAmer.ca PT sac olaT

### Method References:

EPA US Enviō. me. al Pō. ctiō. .gT cyT

## METHOD / ANALYST SUMMARY

Client: ARCADIS U.S., Inc.,

Job Number: 400-46183-1b

**M: th1**

**Analyst1**

**Analyst ID:**

EPA 1631Eb

Jones, Randyb

RJb

## SAMPLD SUMMARY2

Client: ARCADIS U.S., Inc.b

Job Number: 400-46183-1b

<b>Lab Sample I2</b>	<b>CIDR Sample I2</b>	<b>CIDR Mark2</b>	<b>a:e/Time : Sampledb</b>	<b>a:e/Time : ReReRedb</b>
00-46183-1.	EFFLUENT.	Water.	03/12/2010 1345.	03/13/2010 0930.

**SAMPL : S L SD**

Client: ARCADIS U.S., Inc.

Job Number: 400-46183-1.

Client Sample ID: EFFLUENTa

Lab Sample ID: 00-46183-1.  
Client Matrix: Water.

Date Sampled: 03/12/2010 1345b  
Date Received: 03/13/2010 0930.

---

**1631E Mercury, Low Level (CVAFS) D**

Method:	1631E.	Analysis Batch: 400-105b73.	Instrument ID:	HYDRA.
Preparation:	1631E.	Prep Batch: 400-105b 5b	Lab File ID:	/A.
Dilution:	1.0.		Initial Weight/Volume:	0 mL.
Date Analyzed:	03/22/2010 1113.		Final Weight/Volume:	0 mL.
Date Prepared:	03/15/2010 1200.			

---

Analyte.	Result (ng/L).	Qualifier.	RL.
Mercury.	<0.50.		0.50.

# QUALITY CONTROL RESULTS

## Quality Control ResultsR

Client: ARCADIS U.S., Inc.

Job Number: 400-46183-1.

### QC Association SummaryR

LaR Saml le ID-	Client Saml le ID-	eR ortR BasisR	Client Matrix-	Method-	PreR Batch
<b>MetalsR</b>					
<b>PreR Batch- 400-105645m</b>					
LCS 400-105645/2-A0	Lab Control Sample.	Water.		1631E.	
LCSD 40 -105645/3-A0	Control Sample Duplicate0	Water0		1631E0	
MB 40 -105645/1-A0	Method Blank0	Water0		1631E0	
40 -46183-10	EFFLUENT0	Water0		1631E0	
40 -46209-A-1-B MS0	Matrix Spike0	Water0		1631E0	
40 -46209-A-1-C MSD0	Matrix Spike Duplicate0	Water0		1631E0	
<b>Analysis Batch-400-105673D</b>					
LCS 40 -105645/2-A0	Control Sample0	Water0		1631E0	40 -1056450
LCSD 40 -105645/3-A0	Control Sample Duplicate0	Water0		1631E0	40 -1056450
MB 40 -105645/1-A0	Method Blank0	Water0		1631E0	40 -1056450
40 -46183-10	EFFLUENT0	Water0		1631E0	40 -1056450
40 -46209-A-1-B MS0	Matrix Spike0	Water0		1631E0	40 -1056450
40 -46209-A-1-C MSD	Matrix Spike Duplicate0	Water0		1631E0	40 -1056450

**eR ort BasisR**

= Total0



# Quality Control ResultsR

Client: CDIS U.S., Inc.T

Job Number: 400-46183-10

## Method Blank - Batch1 400-105645R

LUB STmpIT IDTMB 400-105645/1-AT  
 Client MT xU WU  
 Dilu. o. 1.0  
 DT . lyzUdb 03/22/2010 1049.  
 DT Pb pu db 03/15/2010 1200

lys s BaQhb 400-105673T  
 Pb p BaQhb 400-1056450  
 Unit\$ g/LU

## Method: 1631ER Preparation: 1631ER

In\$ ume. IDTHYDRAT  
 LUB F0TIDT N/u  
 InitiTI WUghbVolume:. 40 mLU  
 F0 I WUghbVolume:. 40 mLU

lyT	sultT	Qu. IRT	LU
MT curyT	<0.50		0.50

## Lab Control Sample/R Lab Control Sample Duplicate Recovery Report - Batch: 400-105645R

LCS LUB STmpIT IDTLCS 400-105645/2-AT  
 Client MT xU WU  
 Dilu. o. 1.0  
 DT . lyzUdb 03/22/2010 10570  
 DT Pb pu db 03/15/2010 1200

lys s BaQhb 400-105673T  
 Pb p BaQhb 400-1056450  
 Unit\$ g/LU

## Method: 1631ER Preparation: 1631ER

In\$ ume. IDT HYDRAT  
 LUB F0TIDT N/u  
 InitiTI WUghbVolume:. 40 mLU  
 F0 I WUghbVolume:. 40 mLU

LCSD LUB STmpIT IDTLCS 400-105645/3-AT  
 Client MT xU WU  
 Dilu. o. 1.0  
 DT . lyzUdb 03/22/2010 11050  
 DT Pb pu db 03/15/2010 1200

lys s BaQhb 400-105673T  
 Pb p BaQhb 400-1056450  
 Unit\$ g/LU

In\$ ume. IDT HYDRAT  
 LUB F0TIDT N/u  
 InitiTI WUghbVolume:. 40 mLU  
 F0 I WUghbVolume:. 40 mLU

lyT	% . c.T		Lth.	PDT	PD Lth.	LCS Qu. IT	LCSD Qu. IT
	LCST	LCSDT					
MT curyT	970	100	79 - 1210	3T	20		

Calculated results were formed before rounding. Avoid rounding off errors. Client results.

# Quality Control ResultsR

Client: CDIS U.S., Inc.T

Job Number: 400-46183-10

**Matrix Spike/R**  
**Matrix Spike Duplicate Recovery Report - Batch: 400-105645R**

**Method: 1631ER**  
**Preparation: 1631ER**

MS LU STmpIT IDT 400-46209-A-1-B MST lys s BaChb 400-105673T  
 ClIT MT xU WU Pb p BaChb 400-1056450  
 Dilu. o. 1.0  
 DT . lyzUdb 03/22/2010 12250  
 DT Pb pu db 03/17/2010 0930

Inš ume. IDT HYDRAT  
 LU F0T IDT N/u  
 InitiTI WUghbVolume:. 40 mL  
 F0 I WUghbVolume:. 40 mL

MSD LU STmpIT IDT 400-46209-A-1-C MSDT lys s BaChb 400-105673T  
 ClIT MT xU WU Pb p BaChb 400-1056450  
 Dilu. o. 1.0  
 DT . lyzUdb 03/22/2010 1233T  
 DT Pb pu db 03/17/2010 0930

Inš ume. IDTHYDRAT  
 LU F0T IDT N/u  
 InitiTI WUghbVolume:. 40 mL  
 F0 I WUghbVolume:. 40 mL

lyT	% . c.T		L m.	PDT	PD L m.	MS Qu. IT	MSD Qu. IT
	MST	MSDT					
MT curyT	14B	53T	71 - 1250	84B	24B	F0	F0

Calculations performed before rounding off errors. Calculated results.

**DATA REPORT:ND D ALI Fa RSh**

Client: ARCADIS U.S., Inc

Job Number: 40 -46183-10

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
Metals		
	Fb	MS or MSD exceeds the control limits
	Fb	RPD of the MS and MSD exceeds the control limits

SERIAL NUMBER: 09270



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica Pensacola  
3355 McLemore Drive  
Pensacola, FL 32514  
Phone: 850-474-1001  
Fax: 850-478-2671  
Website: www.testamericainc.com

QUOTE NO. BOTTLE ORDER NO.  
ORDER - LOG-IN NO. **C400-46183**

CLIENT: **ARCADIS** ADDRESS: **801 Corporate Center Dr. Raleigh, NC 27607**

PROJECT NAME: **UNC Airport Rd. N0000239.0018.0001** PROJECT NO.: **239.0018.0001** PROJECT LOC. (STATE): **NC**

SAMPLED BY: **Dave Twamley** CLIENT PROJECT MANAGER: **Alan Pinnix**

CLIENT PHONE: **919-854-1282** CLIENT E-MAIL OR FAX: **apinnix@arcadis-us.com**

LABORATORY USE ONLY  
 PREPARED FOR LABORATORY BY: **[Signature]** DATE: **03/13/10** TIME: **9:30**  
 CUSTODY SEAL NO. **270C**  
 CUSTODY INTACT? **Δ YES**  NO

DATE: **3/12/10** TIME: **1345** SAMPLE IDENTIFICATION: **Effluent**

RELINQUISHED BY: (SIGNATURE) **[Signature]** DATE: **3/12/10** TIME: **1700**  
 RECEIVED BY: (SIGNATURE) **[Signature]** DATE: **3/12/10** TIME: **1700**

RECEIVED FOR LABORATORY BY: **[Signature]** DATE: **03/13/10** TIME: **9:30**

REMARKS: **270C**

LAB USE ONLY - SAMPLE NUMBER

DATE	TIME	SAMPLE IDENTIFICATION	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
3/12/10	1345	Effluent	[Signature]	3/12/10	1700	[Signature]	3/12/10	1700

TESTAMERICA PRESERVATIVE MATRIX

No Preservative  
 HCL - Hydrochloric Acid  
 HNO3 - Nitric Acid  
 H2SO4 - Sulfuric Acid or H3PO4  
 NaOH - Sodium Hydroxide  
 CH3OH - Methanol  
 NAHSO4 - Sodium Bisulfate  
 NA2S2O3 - Sodium Thiosulfate  
 Other:

Drinking Water  
 Aqueous GW, SW, WW  
 Solid, Semisolid, Sediment  
 Air  
 NonAqueous (Oil, Solvent, etc.)

REQUESTED ANALYSIS

POSSIBLE HAZARD IDENTIFICATION

Δ NON-HAZARD  
 Δ FLAMMABLE  
 Δ RADIOACTIVE  
 Δ POISON B  
 Δ UNKNOWN  
 Δ OTHER:

NO. OF COOLERS PER SHIPMENT: **1**

SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT

NUMBER OF CONTAINERS SUBMITTED

# Logb Sam1 le 1 ecei1 Check List1

Client: ARCADIS U.S., Inc.b

Job Number: 400-46183-1b

**Logb Number: 46183P**  
**Creator: Chea, VandaP**  
**List Number: 1P**

**List Source: TestAmerica PensacolaP**

QuestionP	T / F / NAP	CommentP
Radiobctivity either wa not meauuredS , i fSneauured, ib at or belowT ackgroundS	N/Ab	
The cooler' cubtdy b eal, ifSre b e n t, ib intact.b	N/Ab	
The cooler or bamp le b dSnot b appeauto bave been compromibedS tamperedSwith.b	Trueb	
Sampleb were receivedSn ice.b	Trueb	
Cooler Temperat ure ib acceptable.b	Trueb	2.7°Cb
Cooler Temperat ure ib e corded.b	Trueb	
COC ib pre b e n t.b	Trueb	
COC ib filledSut in in kS andS e g i b l e .b	Trueb	
COC ib filledSut bwithuall pertinent infSm ation.b	Trueb	
There a e no dibcrepanci eb e t w e e n the bamp le IDb n t he containerb andS the COC.b	Trueb	
Sampleb a e receivedSwithin Holding Time.b	Trueb	
Sample containerb have legible labelb.b	Trueb	
Containerb a e not broken or leaking.b	Trueb	
Sample collection date/timeb a e provided.b	Trueb	
Appropriate bamp le containerb a e ubed.b	Trueb	
Sample bottleb a e completelyfilled.b	Trueb	
There ib ufficient bS. b f S all requebtedSanaly beb, incl. anybequebtedS MS/MSDb	Trueb	
VOA bamp le bial b dSnot thave beadsSace or bub le ib <6mm (1/4") in b diameter.b	Trueb	
IfSeceb ay, btaffS have been infSme dS fS any hut thudSime or quickSTAT b needsS	Trueb	
Multiphauc bamp le b a e not pre b e n t.b	Trueb	
Sampleb dSnot require b plitting or compobiting.b	Trueb	
Ib the FieldS Sampler' name pre b e n t on COC?b	Trueb	
Sample Pre b e r b a t i o n V e r i f i e d S	Trueb	

## ANALYTICAL REPORT

Job Number: 680-56888-1

Job Description: UNC Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
4/30/2010 10:17 AM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
04/30/2010

cc: Mr. Adam Tripp

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



## METHOD SUMMARY:

Client: CADIS U.S., Inc.

Job Number: 680-56888-1c

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: Water:</b>			
Volatil, . anic, Compou.ds (GC/MS), Pur. and T,ap,	TAL SAV, TAL SAV,	SWB4, 8.2,0 B,	SW, 4, 50 30B,
M, tals (ICP), P, pa,atip. Total R, ov, abl, or Dissolv, d M, tals,	TAL SAV, TAL SAV,	SW, 4, 60 10C,	SW, 4, 3005A,

### Lab References:

TAL SAV = TestAmerica Savannah,

### Method References:

SW, 4, = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition. November 19, 1996. And Its Updates,

**METHOD / ANALYST SUMMARY**

Client: ARCADIS U.S., Inc.,

Job Number: 680-56888-1u

<b>M: thP</b>	<b>Analyst1</b>	<b>Analyst ID:</b>
SW846 8260BN	Bearden, RobertN	BN
SW846 6010CN	Bland, BrianN	BCBN



## SAMPLD SUMMARY2

Client: ARCADIS U.S., Inc.N

Job Number: 680-56888-1N

<u>Lab Sample I2</u>	<u>CIDR Sample I2</u>	<u>CIDR Material</u>	<u>Time : Sampledb</u>	<u>Time : ReRedb</u>
680-56888-1U	luentU	WaterU	04/19/2010 0830U	04/20/2010 0915U

Client: ARCADIS U.S., Inc.

Job Number: 680-56888-1U

Client Sample ID: 680-56888-1U  
 Effluent: Water

Date Sampled: 04/19/2010 0830U  
 Date Received: 04/20/2010 0915U

## 8260B Volatile Organic Compounds (GC/MS):

Method: 260BU Analysis Batch: 680-166896U Instrument ID: MSP2U  
 Preparation: 030BU Lab File ID: p0296.dN  
 Dilution: 1.0U Initial Weight/Volume: m Lc  
 Date Analyzed: 04/27/2010 1750U Final Weight/Volume: m Lc  
 Date Prepared: 04/27/2010 1750U

Analyte	Result (ug/L)	Qualifier	RLc
Acetone	25	U	25U
Benzene	1.0	U	1.0U
Bromoform	1.0	U	1.0U
Bromomethane	1.0	U	1.0U
Carbon disulfide	2.0	U	2.0U
Carbon tetrachloride	1.0	U	1.0U
Chlorobenzene	1.0	U	1.0U
Chlorodibromomethane	1.0	U	1.0U
Chloroethane	1.0	U	1.0U
Chloroform	1.0	U	1.0U
Chloromethane	1.0	U	1.0U
cis-1,2-Dichloroethene	1.0	U	1.0U
cis-1,3-Dichloropropene	1.0	U	1.0U
Dichlorobromomethane	1.0	U	1.0U
1,1-Dichloroethane	1.0	U	1.0U
1,2-Dichloroethane	1.7U		1.0U
1,1-Dichloroethene	1.0	U	1.0U
1,2-Dichloropropane	1.0	U	1.0U
Diethyl ether	64N		10U
Ethylbenzene	1.0	U	1.0U
2-Heptanone	10	U	10U
Methylene Chloride		.0	5.0U
2-Butanone (MEK)	10	U	10U
4-Methyl-2-pentanone (MIBK)	10	U	10U
Styrene	1.0	U	1.0U
1,1,2,2-Tetrachloroethane	1.0	U	1.0U
Tetrachloroethene	1.0	U	1.0U
Toluene	1.0	U	1.0U
trans-1,2-Dichloroethene	1.0	U	1.0U
trans-1,3-Dichloropropene	1.0	U	1.0U
1,1,1-Trichloroethane	1.0	U	1.0U
1,1,2-Trichloroethane	1.0	U	1.0U
Trichloroethene	1.0	U	1.0U
Vinyl chloride	1.0	U	1.0U
Xylenes, Total	2.0	U	2.0U
Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	95U		75 - 120U
Dibromofluoromethane	9U		75 - 121U
Toluene-dN(Surr)	103U		75 - 120U

Client: ARCADIS U.S., Inc.

Job Number: 680-56888-1U

Client Sample ID: Effluent  
 Lab Sample ID: 680-56888-1U  
 Client Matrix: Water

Date Sampled: 04/19/2010 0830  
 Date Received: 04/20/2010 0915

6010C Metals (ICP)-Total Recoverable

Method: 6010CU	Analysis Batch: 680-166990U	Instrument ID: ICPDU
Preparation: 3005AU	Prep Batch: 680-166555U	Lab File ID: N/AU
Dilution: 1.0U		Initial Weight/Volume: 0 m Lc
Date Analyzed: 04/27/2010 1804N		Final Weight/Volume: 0 m Lc
Date Prepared: 04/23/2010 124N		

Analyte	Result (ug/L)	Qualifier	RLc
Arsenic	20		20U
Chromium	10		10U
Copper	23		20U
Lead	10		10U
Zinc	97		20U

DATA REPORT: NP D ALI Fa RSh

Client: ARCADIS U.S., Inc.U

Job Number: 680-56888-1U

Lab Section	Qualifier	Description
GC/MS VOA1		
	U1	icates the analyte was analyzed for but not detected.1
Metals1		
	U1	icates the analyte was analyzed for but not detected.1

Quality Control ResultsR

Cl1 t1 ARCADIS U.S., I1c.1

Job Number: 680-56888-

MethP Blank - Batc hP 0 -1P 96u

MethP 0 BR  
Preparation: 6030BR

Lab Sample ID, MB 680-. 91/7N  
Cl1 t Mat Wat1  
Dilutb. .0.  
Dat1 AnalyzBdN 04/27/20.0 . 50.  
Dat1 P1 paNdN 04/27/20.0 . 50.

Analysis Batch1 680-. 91  
P1 p Batch1N/A,  
U1 ts1 ug/L.

1stTime. t ID, MSP2N  
Lab F11 ID, pq17NdN  
11 t al W, ght/Volume:. 5 mL.  
F1 al W, ght/Volume:. 5 mL.

A, alyt1	R1sult1	Qual1	RL
Ac1to	25.	U1	25.
B1 z	.0.	U1	.0.
B1omoform	.0.	U1	.0.
B1omomethaN	.0.	U1	.0.
CaNo. dNulf1d	2.0.	U1	2.0.
CaNo. t1t1achlor.d	.0.	U1	.0.
Chlorobe. z	.0.	U1	.0.
Chlorod1romometha	.0.	U1	.0.
Chloroetha	.0.	U1	.0.
Chloroform	.0.	U1	.0.
Chlorometha	.0.	U1	.0.
c1s-1,2-Dichloroeth	.0.	U1	.0.
c1s-1,3-Dichlorop,op	.0.	U1	.0.
Dichlorobromometha	.0.	U1	.0.
1,1-Dichloroetha	.0.	U1	.0.
1,2-Dichloroetha	.0.	U1	.0.
1,1-Dichloroeth	.0.	U1	.0.
1,2-Dichlorop,opaN	.0.	U1	.0.
Di, thyl eth	0.	U1	0.
Ethylbe. zB	.0.	U1	.0.
2-H1 aNb.	0.	U1	0.
M1thyl1 Chlor.dN	5.0.	U1	5.0.
2-ButaNb. (MEK)1	0.	U1	0.
4-M1thyl-2-p, taNb. (MIBK)	0.	U1	0.
Sty	.0.	U1	.0.
1,1,2,2-Tet1achloroetha	.0.	U1	.0.
Tet1achloroeth	.0.	U1	.0.
Tolue	.0.	U1	.0.
t1aNs-1,2-Dichloroeth	.0.	U1	.0.
t1aNs-1,3-Dichlorop,op	.0.	U1	.0.
1,1,1-Tr.chloroetha	.0.	U1	.0.
1,1,2-Tr.chloroetha	.0.	U1	.0.
Tr.chloroeth	.0.	U1	.0.
V1 yl chlor.dN	.0.	U1	.0.
Xyl1 s, Total1	2.0.	U1	2.0.

Surrogat1	% R1c1	Acc1ptaNc1 L.m.ts1
4-B1omofluorobe. zB	91	75 - .20.
DipromofluoromethaN	95.	75 - .2N
Tolue. - dN(Surr)1	02N	75 - .20.

Quality Control ResultsR

Cl1 t1 ARCADIS U.S., I1c.1

Job Number: 680-56888-

Lab Control Sample/P  
 Lab Control Sample Duplicate Recovery Report - Batch P 0 -1P 96

MethP 0 BR  
 Preparation: 6030BR

LCS Lab Sample ID, LCS 680- 91/4N      Analysis Batch1 680- 91      1st Volume ID, MSP2N  
 Cl1 t Mat1      Wat1      P1 p Batch1N/A,      Lab F11 ID, pq1 .dN  
 Dilutb.      .0      U1 ts1 ug/L.      1 t al W, ght/Volume:. 5 mL.  
 Dat1 AnalyzBdN      04/27/20.0 .0.2N      F1 al W, ght/Volume:. 5 mL.  
 Dat1 P1 paNdN      04/27/20.0 .0.2N

LCSD Lab Sample ID, LCSD 680- 91/5.      Analysis Batch1 680- 91      1st Volume ID, MSP2N  
 Cl1 t Mat1      Wat1      P1 p Batch1N/A,      Lab F11 ID, pq170.dN  
 Dilutb.      .0.      U1 ts1 ug/L.      1 t al W, ght/Volume:. 5 mL.  
 Dat1 AnalyzBdN      04/27/20.0 .042N      F1 al W, ght/Volume:. 5 mL.  
 Dat1 P1 paNdN      04/27/20.0 .042N

A, alyt1	% R1c.1		L.m.t1	RPD,	RPD L.m.t1	LCS Qual1	LCSD Qual1
	LCS1	LCSD,					
Ac1to.	0.	77N	7 - . 75.	4N	50.		
B1 zB	95.	91	77 - 191	0.	30.		
B1omoform.	04N	08.	2 - 1331	4N	30.		
B1omomethaN	491	0.	2 - . 4N	8	50		
CaNo. dNsulf1dN	74N	74N	55 - 131		30.		
CaNo. t1t1achlor.dN	04N	031	7N - 135		130.		
Chlorobe. zB	91	04N	5 - .		30.		
ChlorodNsromomethaN	06.		75 - 1331	4N	30.		
ChloroethaN	75.	731	40 - . 5.	2N	50.		
Chloroform.	91	95.	2 - . 20		130.		
ChloromethaN		7N	4N - . 42N	2N	50.		
c1s-1,2-Dichloroeth1	4N	4N	9 - 134N	0.	30.		
c1s-1,3-Dichlorop,op	7N		7N - . 2		130.		
D1chlorobromomethaN	31		7N - . 27N	2N	30.		
,1 -DichloroethaN	90.	7N	74 - . 27N	4N	30		
1,2-DichloroethaN	091	07N	- 132N	2N	30		
1,1-Dichloroeth1	77N	77N	2 - . 4N	0.	30		
1,2-Dichlorop,opaN	091	05.	73 - . 24N	4N	30		
Ethylbe. zB	05.	07N	- .	2N	30.		
2-H1 aNb.	07N	2N	34 - .	4N	30.		
M1thyl1 Chlor.dN		791	70 - . 25.	2N	30.		
2-ButaNb. (MEK)1	92N	91	33 - . 57N	31	30.		
4-M1thyl-2-p, taNb. (MIBK)1	31	0	40 - . 5.	2N	30.		
Styb	0.	04N	2 - . 22N	31	30.		
,1, 2,2-Tet1achloroethaN	05.	08.	9 - . 291	2N	30		
Tet1achloroeth1	95.	991	7N - . 2N	4N	30.		
Tolue.	00.	00.	- . 7N	0.	30.		
t1aNb-1,2-Dichloroeth1	7N	791	72 - 131		30.		
t1aNb-1,3-Dichlorop,op,	24N		73 - . 2N	7N	30.		
,1,1 -Tr.chloroethaN	02N	04N	7N - . 27N	31	30		
1,1,2-Tr.chloroethaN	06.	05.	75 - . 2N		30		
Tr.chloroeth1	931	91	4 - . 5.	31	30.		
V1 yl chlor.dN	77N	74N	59 - . 44N	4N	50.		

**Quality Control ResultsR**

Cl1 t1 ARCADIS U.S., I1c.1

Job Number: 680-56888-

**Lab Control Sample/P**  
**Lab Control Sample Duplicate Recovery Report - Batch P 0 -1P 96u**

**MethP 0 BR**  
**Preparation: 6030BR**

LCS Lab Sample ID,	LCS 680- 91/4N	Analysis Batch1 680- 91	1st time. t ID,	MSP2N
Cl1 t Mat1	Wat1	P1 p Batch1N/A,	Lab F11 ID,	pq1 .dN
Dilutb	1.0.	U1 ts1 ug/L.	1 t'bl W, ght/Volume:.	5 mL.
Dat1 AnalyzBdN	04/27/20. 0 . 0. 2N		F1 al W, ght/Volume:.	5 mL.
Dat1 P1 paNdN	04/27/20. 0 . 0. 2N			

LCSD Lab Sample ID,	LCSD 680- 91/5.	Analysis Batch1 680- 91	1st time. t ID,	MSP2N
Cl1 t Mat1	Wat1	P1 p Batch1N/A,	Lab F11 ID,	pq170.dN
Dilutb	1.0.	U1 ts1 ug/L.	1 t'bl W, ght/Volume:.	5 mL.
Dat1 AnalyzBdN	04/27/20. 0 . 042N		F1 al W, ght/Volume:.	5 mL.
Dat1 P1 paNdN	04/27/20. 0 . 042N			

A, alyt1	% R1c.1		L.m.t1	RPD,	RPD L.m.t1	LCS Qual1	LCSD Qual1
	LCS1	LCSD,					
Xyl1 s, Total1	02N	06.	4 - .	4N	30.		
Surrogat1	LCS % R1c1		LCSD % R1c1	Acc1ptaNc1 L.m.ts1			
4-B1bmofluorobe. zB	031		06.			75 - . 20.	
D1promofluoromethaN	95.		94N			75 - . 2N	
Tolue. - dN(Surr)1	05.		02N			75 - . 20.	

**Quality Control ResultsR**

Cl1 t1 ARCADIS U.S., I1c.1

Job Number: 680-56888-

**MethP Blank - Batch hP 0 -1P555u**

Lab Sample ID, MB 680-. 555 /19-A,  
 Cl1 t Mat Wat1  
 Dilutb. . 0.  
 Dat1 AnalyzBdN 04/27/20. 0 . 754N  
 Dat1 P1 paNdN 04/23/20. 0 . 24N

Analysis Batch1 680-. 990.  
 P1 p Batch1 680-. 555.  
 U1 ts1 ug/L.

**MethP 0 10CR  
 Preparation: B005Au  
 Total RecoverableR**

1st1me. t ID, ICPD,  
 Lab F11 ID, N/A,  
 I1 t al W, ght/Volume:. 50 mL.  
 F1 al W, ght/Volume:. 50 mL.

A, alyt1	R1sult1	Qual1	RL
A,s1 c1	20.	U1	20.
Chrom.um.	0.	U1	0.
Copp,	20.	U1	20.
L. adN	0.	U1	0.
Z. c1	20.	U1	20.

**LabControl Sample - BatchP 0 -1P555u**

Lab Sample ID, LCS 680-. 555 /20-A,  
 Cl1 t Mat1 Wat  
 Dilutb. . 0.  
 Dat1 AnalyzBdN 04/27/20. 0 . 7591  
 Dat1 P1 paNdN 04/23/20. 0 . 24N

Analysis Batch1 680-. 990.  
 P1 p Batch1 680-. 555.  
 U1 ts1 ug/L.

**MethP 0 10CR  
 Preparation: B005Au  
 Total RecoverableR**

1st1me. t ID, ICPD,  
 Lab F11 ID, N/A,  
 I1 t al W, ght/Volume:. 50 mL.  
 F1 al W, ght/Volume:. 50 mL.

A, alyt1	Spik1 Amou. t1	R1sult1	% R1c.1	L.m.t1	Qual1
A,s1 c1	2000.	2060.	031	75 - . 25.	
Chrom.um.	31 200. 1	2	07N	75 - . 25.	
Copp,	250.	2N4N	05.	75 - . 25.	
L. adN	500.	52N	06.	75 - . 25.	
Z. c1	500.	531	07N	75 - . 25.	





## Log Sample Receipt Check List

Client: ARCADIS U.S., Inc.

Job Number: 680-56888-1U

Log Number: 568881

List Source: PestAmerica Savannah

Creator: Daughtry, Beth

List Number: 1c

Question	Y / N / NA	Comment
Radioactivity was not measured or, if measured, is at or below background.	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. as requested MS/MSDs.	True	
VO sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/.	
If necessary, staff have been informed of a short hold time or quick TAT.	True	
Multiple samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	N/.	
Sample Preservation Verified	N/.	

## ANALYTICAL REPORT

Job Number: 400-46949-1

Job Description: UNC-Airport Road

For:

ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix



Approved for release.  
Mark Swafford  
Project Mgmt. Assistant  
4/26/2010 4:38 PM

---

Designee for  
Marty Edwards  
Senior Project Manager  
marty.edwards@testamericainc.com  
04/26/2010

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page.

TestAmerica Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250507), New Jersey (FL006), North Carolina (314), North Dakota (R-108), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-08-TX), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

**TestAmerica Laboratories, Inc.**

TestAmerica Pensacola 3355 McLemore Drive, Pensacola, FL 32514

Tel (850) 474-1001 Fax (850) 478-2671 [www.testamericainc.com](http://www.testamericainc.com)



**CommentsL**

No additional co. n tS. k

**ceipt L**

All samples wekS rScSved in g ood condition within tSpek raturS rS quirS n tS.S

**Metals L**

Method 1631E: The matrix spike / matrix spike duplicatS (MS/MSD) rScovekies for batch 400-107595\400-107637 wekS outSde contro. k  
imitS. The associatS la boratory contro. sample (LCS) rScovekly mekaccS tancS critSria. Data was fugged and rS ortS as iskS

No othe analytical or quality issk1 wekrSn otS. S

## METHOD SUMMARY:

Client: CADIS U.S., Inc.)

Job Number: 400-46949-1)

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: Water:</b>			
M) mercury, Low Level (CVAFS)	TAL PEN.	EPA 1631E)	
P) particulate, M) mercury, Low Level (CVAFS)	TAL PEN.		EPA 1631E)

### Lab References:

TAL PEN = TestAmerica Pensacola)

### Method References:

EPA = US Environmental Protection Agency)

## METHOD / ANALYST SUMMARY

Client: ARCADIS U.S., Inc.1

Job Number: 400-46949-1c

<b>M: thP</b>	<b>Analyst1</b>	<b>Analyst ID:</b>
EPA 1631Ec	Jones, Randyc	Jc

## SAMPc SUMMARY2

Client: ARCADIS U.S., Inc.c

Job Number: 400-46949-1c

<b>ab Sample I2</b>	<b>CIDR Sample I2</b>	<b>CIDR Ma:rP2</b>	<b>a:e/Time : Sampledb</b>	<b>a:e/Time : ReReRedb</b>
400-46949-11	NTI	Waterl	04/19/2010 0830I	04/20/2010 1013I

**SAMP**

**SL**

**SL**



Client: ARCADIS U.S., Inc.

Job Number: 400-46949-11

Client Sample ID: EFFLUENTa

Lab Sample ID: 400-46949-11  
Client Material: Water

Date Sampled: 04/19/2010 0830  
Date Received: 04/20/2010 1013

---

**1631E Mercury, Low Level (CVAFS)**

Method:	1631E	Analysis Batch:	400-107637	Instrument ID:	HYDRAI
Preparation:	1631E	Prep Batch:	400-1075951	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	04/22/2010 1329			Final Weight/Volume:	40 mL
Date Prepared:	04/20/2010 1445				

---

Analyte	Result (ng/L)	Qualifier	RLC
Mercury	<0.50		0.50

# QUALITY CONTROL RESULTS

## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 400-46949-11

### QC Association Summary

LaR SamLe ID-	Client SamLe ID-	eR rtR BasisR	Client Matrix-	Meth- d-	PreR Batch
<b>Metals</b>					
<b>PreR Batch- 400-107595h</b>					
LCS 400-107595/26-A4	Lab Control Sample		Water	161 11	
CSD 400-107595/27-A4	Control Sample Duplicate		W.ter	1631E4	
MB 400-107595/25-A4	Method Blank		W.ter	1631E4	
00-46923-A-2-B MS	Matrix Spike		W.ter	1631E	
400-46923-A-2-C MSD	Matrix Spike Duplicate		W.ter	1631E	
400-46949-14	EFFLUENT		W.ter	1631E	
<b>Analysis Batch-400-107637d</b>					
CS 400-107595/26-A4	Control Sample		W.ter	1631E4	00-1075954
CSD 400-107595/27-A4	Control Sample Duplicate		W.ter	1631E4	00-1075954
MB 400-107595/25-A4	Method Blank		W.ter	1631E4	00-1075954
00-46923-A-2-B MS	Matrix Spike		W.ter	1631E	400-1075954
00-46923-A-2-C MSD	Matrix Spike Duplicate		W.ter	1631E	400-1075954
00-46949-1	EFFLUENT		W.ter	1631E	400-1075954

**eR rt Basis**  
= Total

**Quality Control ResultsR**

Cli) . CADIS U.S., Inc.)

Job Number: 400-46949-14

**MethP Blank - Batc hP 400-107595c**

**Method: 1631Ec**  
**Preparation: 1631Ec**

L. b S) mpl4 ID) MB 400-107595/25-A)  
Cli) M1 ix4 W,  
i lu.io. 1.04  
. I yzBdN04/22/2010 0947c  
Pc p, dN04/20/2010 14454

I ysis Bc chc 400-107637c  
Pc p Bc chc 400-1075954  
Unit\$ g/L.

In\$ ume. ID) HY4  
L. b Fil4 ID) N/c  
Initi)l W, ighdVolume:. 40 mL.  
Fin)l W, ighdVolume:. 40 mL.

I yt)	sul	Qual4	L.
M1 cury)	<0.504		0.504

**Lab Control Sample/c**  
**Lab Control Sample Duplicate Recovery Report - Batch: 400-107595c**

**Method: 1631Ec**  
**Preparation: 1631Ec**

LCS L. b S) mpl4 ID) LCS 400-107595/26-A)  
Cli) M1 ix4 W,  
i lu.io. 1.04  
. I yzBdN 04/22/2010 09554  
Pc p, dN 04/20/2010 14454

I ysis Bc chc 400-107637c  
Pc p Bc chc 400-1075954  
Unit\$ g/L.

In\$ ume. ID) HY4  
L. b Fil4 ID) N/c  
Initi)l W, ighdVolume:. 40 mL.  
Fin)l W, ighdVolume:. 40 mL.

LCSD)L. b S) mpl4 ID) LCSD)400-107595/27-A)  
Cli) M1 ix4 W,  
i lu.io. 1.04  
. I yzBdN 04/22/2010 10034  
Pc p, dN 04/20/2010 14454

I ysis Bc chc 400-107637c  
Pc p Bc chc 400-1075954  
Unit\$ g/L.

In\$ ume. ID) HY4  
L. b Fil4 ID) N/c  
Initi)l W, ighdVolume:. 40 mL.  
Fin)l W, ighdVolume:. 40 mL.

I yt)	LCS)	<u>% . c.)</u> LCSD)	Limit)	Pc	Pc Limit)	LCS Qu.I4	LCSD)Qu.I4
M1 cury)	84)	86)	79 - 1214	2c	204		

**Quality Control Results**

Cli) . CADIS U.S., Inc.)

Job Number: 400-46949-14

**Matrix Spike/c  
Matrix Spike Duplicate Recovery Report - Batch: 400-107595c**

**Method: 1631Ec  
Preparation: 1631Ec**

MS L. b S) mpl4 ID) 400-46923-A-2-B MS) l ysis Bc chc 400-107637c  
 Cli) M1 ix4 W, Pc p Bc chc 400-1075954  
 i lu.io. 1.04  
 . l yzBdN 04/22/2010 1116)  
 Pc p, dN 04/21/2010 15154

In\$ ume. ID) HY4  
 L. b Fil4 ID) N/c  
 Initi)l W, ighdVolume:. 40 mL.  
 Fin)l W, ighdVolume:. 40 mL.

MSD)L. b S) mpl4 ID) 400-46923-A-2-C MSD) l ysis Bc chc 400-107637c  
 Cli) M1 ix4 W, Pc p Bc chc 400-1075954  
 i lu.io. 1.04  
 . l yzBdN 04/22/2010 1124)  
 Pc p, dN 04/21/2010 15154

In\$ ume. ID) HY4  
 L. b Fil4 ID) N/c  
 Initi)l W, ighdVolume:.40 mL.  
 Fin)l W, ighdVolume:. 40 mL.

I yt)	% . . c.)		Limit)	Pc	Pc Limit)	MS Qu.l4	MSD)Qu.l4
	MS)	MSD)					
M1 cury)	9	-2c	71 - 1254	37c	24)	Fc	Fc

# DATA REPORT: NL L ALI Fa RSh

Client: ARCADIS U.S., Inc.

Job Number: 400-46949-14

<u>Lab Section</u>	<u>Qualifier</u>	<u>Description</u>
Metals		
	F.	MS or MSD exceeds the control limits
	Fb	RPD of the MS and MSD exceeds the control limits



# Log Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 400-46949-1b

**Log Number: 469491**

**List Source: TestAmerica Pensacola1**

**Creator: Hor, Koma1**

**List Number:**

Question	Y / N / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers are clearly labeled.	True	
Containers are not broken or leaking.	True	
Sample collection date/time is provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient volume for all requested analyses, including requested MS/MSDs.	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs.	True	
Multiple samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	True	



## ANALYTICAL REPORT

Job Number: 680-57949-1

Job Description: UNC Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
6/7/2010 3:25 PM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
06/07/2010

cc: Mr. Adam Tripp

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



## METHOD SUMMARY:

Client: ARCADIS U.S., Inc.

Job Number: 680-57949-1.

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: Water:</b>			
Volatile Organic Compounds (GC/MS).	TAL SAV.	SW84. 8260B.	
Purge and Trap.	TAL SAV.		SW84. 50 30B.
Metals (ICP).	TAL SAV.	SW84. 60 10C.	
P. paration, Extractable Metals.	TAL SAV.		SM 3030C.

### Lab References:

TAL SAV . TestAmerica Sa. anna.

### Method References:

SM . .Standard Met. ods For T. Examination Of Water And Wastewater.,.

SW84. . .Test Met. ods For Evaluating Solid Waste, Physical/C. mical Met. ods., T. ird Edition, No. mber 19. And Its . Updates.

**METHOD / ANALYST SUMMARY**

Client: ARCADIS U.S., Inc

Job Number: 680-57949-1.

<b>M: th1</b>	<b>Analyst1</b>	<b>Analyst ID:</b>
SW846 8260B.	Lanier, Carolyn.	CL.
SW846 8260B.	Waldorf, Jonathan.	JW.
SW846 6010C.	Bland, Brian.	BCB.

## SAMPc SUMMARY2

Client: ARCADIS U.S., Incb

Job Number: 680-57949-1.

<b>ab Sample I2</b>	<b>ClDc Sample I2</b>	<b>ClDc Mark2</b>	<b>a:e/Time : Sampledb</b>	<b>a:e/Time : Receivedb</b>
680-57949-1.	E4luent.	Water.	05/24/2010 0700.	05/25/2010 0928.

Client: ARCADIS U.S., Incb

Job Number: 680-57949-1.

**ClientSampleID:d      Effluentc**Lab Sample ID.: 680-57949-1.  
Client . atrix.: Water.Date Sampled: 05/24/2010 0700.  
Date Received: 05/25/2010 0928.**8260BdVolatileOrganic Compounasd(GC/MS):**

ethod.:	8260B.	Analysis Batch: 680-170190.	Instrument ID.:	SP.
Preparation.:	5030B.		Lab File ID.:	p0541.d.
Dilution.:	1.0.		Initial Weight/Volume.:	5 mL.
Date Analyzed.:	05/30/2010 1543.		Final Weight/Volume.:	5 mL.
Date Prepared.:	05/30/2010 1543.			

Analyte.	Result (ug/L)b	Qualifier.	RL.
Acetone.	25.	U.	25.
Benzene.	1.0.	U.	1.0.
Bromoform.	1.0.	U.	1.0.
Bromomethane.	1.0.	U.	1.0.
Carbon disulfide. 0.	2	U.	2.0.
Carbon tetrachloride.	1.0.	U.	1.0.
Chlorobenzene.	1.0.	U.	1.0.
Chlorodibromomethane.	1.0.	U.	1.0.
Chloroethane.	1.0.	U.	1.0.
Chloroform.	1.0.	U.	1.0.
Chloromethane.	1.0.	U.	1.0.
cis-1,2-Dichloroethene.	1.0.	U.	1.0.
cis-1,3-Dichloropropene.	1.0.	U.	1.0.
Dichlorobromomethane.	1.0.	U.	1.0.
1,1-Dichloroethane.	1.0.	U.	1.0.
1,2-Dichloroethane.	8.4		1.0.
1,1-Dichloroethene.	1.0.	U.	1.0.
1,2-Dichloropropane.	1.0.	U.	1.0.
Diethyl ether.	330.	E4	10.
Ethylbenzene.	1.0.	U *b	1.0.
2-Hexanone.	10.	U.	10.
ethylene Chloride.	5.0.	U.	5.0.
2-Butanone (c EK)b	10.	U.	10.
4- ethyl-2-pentanone (c IBK)b	10.	U.	10.
Styrene.	1.0.	U.	1.0.
1,1,2,2-Tetrachloroethane.	1.0.	U.	1.0.
Tetrachloroethene.	1.0.	U.	1.0.
Toluene.	1.0.	U.	1.0.
trans-1,2-Dichloroethene.	1.0.	U.	1.0.
trans-1,3-Dichloropropene.	1.0.	U.	1.0.
1,1,1-Trichloroethane.	1.0.	U.	1.0.
1,1,2-Trichloroethane.	1.0.	U.	1.0.
Trichloroethene.	1.0.	U.	1.0.
Vinyl chloride.	1.0.	U.	1.0.
Xylenes, Total. 0.	2	U.	2.0.

Surrogate.	%Recb	Qualifier.	Acceptance Limits.
4-Bromofluorobenzene.	93.		75 - 120.
Dibromofluoromethane.	99.		75 - 121.
Toluene-d8 (Surr)b	111.		75 - 120.

Client: ARCADIS U.S., Incb

Job Number: 680-57949-1.

**ClientSampleID:d Effluentc**Lab Sample ID.: 680-57949-1.  
Client . atrix.: Water.Date Sampled: 05/24/2010 0700.  
Date Received: 05/25/2010 0928.**8260BdVolatileOrganic Compounasd(GC/MS):**

ethod.:	8260B.	Analysis Batch: 680-170470.	Instrument ID.:	SO2N
Preparation.:	5030B.		Lab File ID.:	o2002.d.
Dilution.:	5.0.		Initial Weight/Volume.:	5 mL.
Date Analyzed.:	06/03/2010 1151.	Run Type.: DL.	Final Weight/Volume.:	5 mL.
Date Prepared.:	06/03/2010 1151.			

Analyte.	Result (ug/L)b	Qualifier.	RL.
Acetone.	130.	U.	130.
Benzene.	5.0.	U.	5.0.
Bromoform.	5.0.	U.	5.0.
Bromomethane.	5.0.	U.	5.0.
Carbon disulfide.	10.	U.	10.
Carbon tetrachloride.	5.0.	U.	5.0.
Chlorobenzene.	5.0.	U.	5.0.
Chlorodibromomethane.	5.0.	U.	5.0.
Chloroethane.	5.0.	U.	5.0.
Chloroform.	5.0.	U.	5.0.
Chloromethane.	5.0.	U.	5.0.
cis-1,2-Dichloroethene.	5.0.	U.	5.0.
cis-1,3-Dichloropropene.	5.0.	U.	5.0.
Dichlorobromomethane.	5.0.	U.	5.0.
1,1-Dichloroethane.	5.0.	U.	5.0.
1,2-Dichloroethane.	9.4	D.	5.0.
1,1-Dichloroethene.	5.0.	U.	5.0.
1,2-Dichloropropane.	5.0.	U.	5.0.
Diethyl ether.	440.	D.	50.
Ethylbenzene.	5.0.	U.	5.0.
2-Hexanone.	50.	U.	50.
ethylene Chloride.	25.	U.	25.
2-Butanone (c EK)b	50.	U.	50.
4- ethyl-2-pentanone (c IBK)b	50.	U.	50.
Styrene.	5.0.	U.	5.0.
1,1,2,2-Tetrachloroethane.	5.0.	U.	5.0.
Tetrachloroethene.	5.0.	U.	5.0.
Toluene.	5.0.	U.	5.0.
trans-1,2-Dichloroethene.	5.0.	U.	5.0.
trans-1,3-Dichloropropene.	5.0.	U.	5.0.
1,1,1-Trichloroethane.	5.0.	U.	5.0.
1,1,2-Trichloroethane.	5.0.	U.	5.0.
Trichloroethene.	5.0.	U.	5.0.
Vinyl chloride.	5.0.	U.	5.0.
Xylenes, Total.	10.	U.	10.

Surrogate.	%Recb	Qualifier.	Acceptance Limits.
4-Bromofluorobenzene.	96.		75 - 120.
Dibromofluoromethane.	86.		75 - 121.
Toluene-d8 (Surr)b	96.		75 - 120.

Client: ARCADIS U.S., Incb

Job Number: 680-57949-1.

ClientSampleID:d      Effluentc

Lab Sample ID.:      680-57949-1.  
Client . atrix.:      Water.

Date Sampled: 05/24/2010 0700.  
Date Received: 05/25/2010 0928.

---

**6010C Metalsq(ICP):**

ethod.:      6010C.	Analysis Batch: 680-170001.	Instrument ID.:      ICPD.
Preparation.:      3030C.	Prep Batch: 680-169693.	Lab File ID.:      169693.chr.
Dilution.:      1.0.		Initial Weight/Volume.:      50 mL.
Date Analyzed.:      05/26/2010 2136.		Final Weight/Volume.:      50 mL.
Date Prepared.:      05/25/2010 1537.		

---

Analyte.	Result (ug/L)b	Qualifier.	RL.
Arsenicb	20.	U.	20.
Chromium.	10.	U.	10.
Copper.	20.	U.	20.
Lead.	10	U.	10.
Zincb	100.	U.	100.

DATA REPORT: N1 L ALI Fa RSh

Client: ARCADIS U.S., Inc

Job Number: 680-57949-1.

Lab Section	Qualifier	Description
GC/MS VOA.		
	U.	Indicates the analyte was analyzed for but not detected
	*)	LCS or LCSD exceeds the control limits,
	Ec	Result exceeded calibration range.
	D.	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples,
Metals,		
	U.	Indicates the analyte was analyzed for but not detected



## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 680-57949-1.

**Method Blank - Batch: c0 -170190u**

**Method: c20 Bc**  
**Preparation: 6030Bc**

Lab Sample ID.: MB 680-170190/7.  
Client Matrixe Water.  
Dilution.: 1.0.  
Date Analyz4d. 05/30/2010 1210.  
Date P. pa. d. 05/30/2010 1210.

Analysis Batch) 680-170190.  
P. p Batch) N/A.  
Units) ug/Le

Instrument ID.: MSP.  
Lab File ID.: pq3n1.d.  
Initial Weight/Volume.: 5 mL  
Final Weight/Volume.: 5 mL

Analyte.	Result.	Qual.	RLe
Acetone.	25.	U.	25.
B)n z4e. 0.	1	U.	1.0.
B)omomethane. 0.	1	U.	1.0.
B)omomethane. 0.	1	U.	1.0.
Ca.bon disulfid.	20.	U.	2 0.
Ca.bon tetrachlorid. 0.	1	U.	1.0.
Chlorobenz4e. 0.	1	U.	1.0.
Chlorodibromomethane. 0.	1	U.	1.0.
Chloroethane. 0.	1	U.	1.0.
Chloroform. 0.	1	U.	1.0.
Chloromethane. 0.	1	U.	1.0.
cis-1,2-Dichloroeth)ne. 0.	1	U.	1.0.
cis-1,3-Dichlorop.op.ne. 0.	1	U.	1.0.
Dichlorobromomethane. 0.	1	U.	1.0.
1,1-Dichloroethane. 0.	1	U.	1.0.
1,2-Dichloroethane. 0.	1	U.	1.0.
1,1-Dichloroeth)ne. 0.	1	U.	1.0.
1,2-Dichlorop.opane. 0.	1	U.	1.0.
Diethyl eth)	10.	U.	10.
Ethylbenz4e. 0.	1	U.	1.0.
2-H) xanone.	10.	U.	10.
M4 hylene Chlorid.	5.0.	U.	5.0.
2-Butanone (MEK)4	10.	U.	10.
4-M4 hyl-2-p.nt anone (MIBK)4	10.	U.	10.
Styene. 0.	1	U.	1.0.
1,1,2,2-Tetrachloroethane.0.	1	U.	1.0.
Tetrachloroeth)ne. 0.	1	U.	1.0.
Toluene. 0.	1	U.	1.0.
trans-1,2-Dichloroeth)ne. 0.	1	U.	1.0.
trans-1,3-Dichlorop.op.ne.0.	1	U.	1.0.
1,1,1-Trichloroethane. 0.	1	U.	1.0.
1,1,2-Trichloroethane. 0.	1	U.	1.0.
Trichloroeth)ne. 0.	1	U.	1.0.
Vinyl chlorid. 0.	1	U.	1.0.
Xylenes, Total.	20.	U.	2 0.

Surrogate.	% Rec.	Acceptance Limits)
4-B)omofluorobenz4e.	95.	75 - 120.
Dibromofluoromethane.	105.	75 - 121.
Toluene-d. (Surr)4	111.	75 - 120.

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 680-57949-1.

Lab Control Sample/1

Lab Control Sample Duplicate Recovery Report - Batch: c 0 -170190u

Method: c2R Bc

Preparation: 6030Bc

LCS Lab Sample ID.: LCS 680-170190/4.  
 Client Matrixe Water.  
 Dilution: 1.0.  
 Date Analyz4d. 05/30/2010 1012  
 Date P. pa. d. 05/30/2010 1012

Analysis Batch) 680-170190.  
 P. p Batch) N/A.  
 Units) ug/Le

Instrument ID.: MSP.  
 Lab File ID.: pq353rd.  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

LCSD Lab Sample ID.: LCSD 680-170190/5.  
 Client Matrixe Water.  
 Dilution: 1.0.  
 Date Analyz4d. 05/30/2010 1042  
 Date P. pa. d. 05/30/2010 1042

Analysis Batch) 680-170190.  
 P. p Batch) N/A.  
 Units) ug/Le

Instrument ID.: MSP.  
 Lab File ID.: pq355.d.  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Analyte.	% Rec.		Limit.	RPD.	RPD Limit.	LCS Qual.	LCSD Qual.
	LCS.	LCSD.					
Acetone.		9.	17 - 175.	3n	50.		
B)nz4e.	110.	107.	77 - 119.	3n	30.		
B)omofom.	105.	99.	2 - 133n		30.		
B)omomethane.	92	108.	12 - 1. 4.	16	50		
Ca.bon disulfid.	104.	109.	55 - 131.	5.	30.		
Ca.bon tetrachlorid.	111.	107.	71 - 135.	3n	30.		
Chlorobenz4e.	112	111.	5 - 11.	1.	30.		
Chlorodibromomethane.	112	106.	75 - 133n		30.		
Chloroethane.	123n	120.	40 - 1.5.	3n	50.		
Chloroform.	112	115.	2 - 120.	3n	30.		
Chloromethane.	109.	117.	4. - 142	7.	50.		
cis-1,2-Dichloroeth)ne.	105.	108.	9 - 134.	3n	30.		
cis-1,3-Dichlorop.op.ne.	106.	104.	7. - 12	1.	30.		
Dichlorobromomethane.	111.	105.	7. - 127.		30.		
1,1-Dichloroethane.	110.	113n	74 - 127.	3n	30.		
1,2-Dichloroethane.	109.	101.	- 132		30.		
1,1-Dichloroeth)ne.	99.	108.	2 - 141.	9.	30.		
1,2-Dichlorop.opane.	109.	100.	73 - 124.		30.		
Ethylbenz4e.	121.	120.	- 11.	1.	30.	*b	*b
2-H) xanone.	95.	92	34 - 1. 1.	3n	30.		
M4ethylene Chlorid.	102	108.	70 - 125.	5.	30.		
2-Butanone (MEK)4	5.	3n	33 - 157.	3n	30.		
4-M4ethyl-2-p.nt anone (MIBK)4	91.	5.	40 - 151.	7.	30.		
Stylene.	11.	114.	2 - 122	2	30.		
1,1,2,2-Tetrachloroethane.	9.	91.	9 - 129.		30.		
Tetrachloroeth)ne.	11.	111.	7. - 12	4.	30.		
Toluene.	113n	111.	1 - 117.	3n	30.		
trans-1,2-Dichloroeth)ne.	108.	112	72 - 131.	3n	30.		
trans-1,3-Dichlorop.op.ne.	100.	99.	73 - 12	1.	30.		
1,1,1-Trichloroethane.	113n	107.	7. - 127.		30.		
1,1,2-Trichloroethane.	95.	95.	75 - 121.	0.	30.		
Trichloroeth)ne.	1108.	111.	4 - 115.	1.	30.		
Vinyl chlorid.	107.	114.	59 - 144.	7.	50.		

**Quality Control Results**

Client: ARCADIS U.S., Inc.

Job Number: 680-57949-1.

**Lab Control Sample/1**

**Lab Control Sample Duplicate Recovery Report - Batch: c 0 -170190u**

**Method: c20 Bc**

**Preparation: 6030Bc**

LCS Lab Sample ID.: LCS 680-170190/4.  
 Client Matrixe Water.  
 Dilution.: 1.0.  
 Date Analyz4d. 05/30/2010 1012  
 Date P. pa. d. 05/30/2010 1012

Analysis Batch) 680-170190.  
 P. p Batch) N/A.  
 Units) ug/Le

Instrument ID.: MSP.  
 Lab File ID.: pq353rd.  
 Initial Weight/Volume.: 5 mL  
 Final Weight/Volume.: 5 mL

LCSD Lab Sample ID.: LCSD 680-170190/5.  
 Client Matrixe Water.  
 Dilution.: 1.0.  
 Date Analyz4d. 05/30/2010 1042  
 Date P. pa. d. 05/30/2010 1042

Analysis Batch) 680-170190.  
 P. p Batch) N/A.  
 Units) ug/Le

Instrument ID.: MSP.  
 Lab File ID.: pq355.d.  
 Initial Weight/Volume.: 5 mL  
 Final Weight/Volume.: 5 mL

Analyte.	% Rec.		Limit.	RPD.	RPD Limit.	LCS Qual.	LCSD Qual.
	LCS.	LCSD.					
Xylenes, Total.	112	109.	4 - 11.	2	30.		
Surrogate.	LCS % Rec.		LCSD % Rec.		Acceptance Limits)		
4-Bromofluorobenzene.	109.		108.		75 - 120.		
Dibromofluoromethane.	101.		105.		75 - 121.		
Toluene-d. (Surr)	113n		108.		75 - 120.		

Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 680-57949-1.

Lab Control Sample/1

Lab Control Sample Duplicate Recovery Report - Batch: c 0 -170470u

Method: c2R Bc

Preparation: 5030Bc

LCS Lab Sample ID.: LCS 680-170470/4.  
 Client Matrixe Water.  
 Dilution: 1.0.  
 Date Analyz4d. 06/03/2010 0858.  
 Date P. pa. d. 06/03/2010 0858.

Analysis Batch) 680-170470.  
 P. p Batch) N/A.  
 Units) ug/Le

Instrument ID.: MSO2  
 Lab File ID.: oq) 0. d.  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

LCSD Lab Sample ID.: LCSD 680-170470/5.  
 Client Matrixe Water.  
 Dilution: 1.0.  
 Date Analyz4d. 06/03/2010 0941.  
 Date P. pa. d. 06/03/2010 0941.

Analysis Batch) 680-170470.  
 P. p Batch) N/A.  
 Units) ug/Le

Instrument ID.: MSO2  
 Lab File ID.: oq) 2 d.  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Analyte.	% Rec.		Limit.	RPD.	RPD Limit.	LCS Qual.	LCSD Qual.
	LCS.	LCSD.					
Acetone.	104.	101.	17 - 175.	3n	50.		
B) n z4e.	97.	9.	77 - 119.	1.	30.		
B) omoform.	102.	100.	2 - 133n	2	30.		
B) omomethane.	112.	113n	12 - 1. 4.	1.	50.		
Ca. bon disulfid.	9.	9.	55 - 131.	0.	30.		
Ca. bon tetrachlorid.	99.	9.	71 - 135.	2	30.		
Chlorobenz4e.	105.	105.	5 - 11.	0.	30.		
Chlorodibromomethane.	112.	109.	75 - 133n	2	30.		
Chloroethane.	9.	92	40 - 1.5.	4.	50.		
Chloroform.	107.	104.	2 - 120.	3n	30.		
Chloromethane.	101.	99.	4 - 142	2	50.		
cis-1,2-Dichloroeth)ne.	93n	91.	9 - 134.	3n	30.		
cis-1,3-Dichlorop.op.ne.	108.	108.	7 - 12	0.	30.		
Dichlorobromomethane.	94.	95.	7 - 127.	1.	30.		
1,1-Dichloroethane.	95.	94.	74 - 127.	2	30.		
1,2-Dichloroethane.	99.	100.	- 132	0.	30.		
1,1-Dichloroeth)ne.	99.	97.	2 - 141.	1.	30.		
1,2-Dichlorop.opane.	99.	99.	73 - 124.	0.	30.		
Ethylbenz4e.	92	92	- 11.	0.	30.		
2-H) xanone.	106.	102	34 - 1. 1.	3n	30.		
Mé hylene Chlorid.	105.	105.	70 - 125.	0.	30.		
2-Butanone (MEK)4	104.	102	33 - 157.	2	30.		
4-Mé hyl-2-p.nt anone (MIBK)4	101.	99.	40 - 151.	2	30.		
Stylene.	102	101.	2 - 122	2	30.		
1,1,2,2-Tetrachloroethane.	103n	102	9 - 129.	2	30.		
Tetrachloroeth)ne.	93n	92	7 - 12	1.	30.		
Toluene.	9.	9.	1 - 117.	1.	30.		
trans-1,2-Dichloroeth)ne.	106.	104.	72 - 131.	2	30.		
trans-1,3-Dichlorop.op.ne.	93n	93n	73 - 12	0.	30.		
1,1,1-Trichloroethane.	94.	95.	7 - 127.	1.	30.		
1,1,2-Trichloroethane.	9.	97.	75 - 121.	1.	30.		
Trichloroeth)ne.	93n	94.	4 - 115.	2	30.		
Vinyl chlorid.	94.	95.	59 - 144.	1.	50.		

## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 680-57949-1.

**Lab Control Sample/1**

**Lab Control Sample Duplicate Recovery Report - Batch: c 0 -170470u**

**Method: c20 Bc**

**Preparation: 6030Bc**

LCS Lab Sample ID.: LCS 680-170470/4.  
 Client Matrixe Water.  
 Dilution.: 1.0.  
 Date Analyz4d. 06/03/2010 0858.  
 Date P. pa. d. 06/03/2010 0858.

Analysis Batch) 680-170470.  
 P. p Batch) N/A.  
 Units) ug/Le

Instrument ID.: MSO2  
 Lab File ID.: oq) 0. d.  
 Initial Weight/Volume.: 5 mL  
 Final Weight/Volume.: 5 mL

LCSD Lab Sample ID.: LCSD 680-170470/5.  
 Client Matrixe Water.  
 Dilution.: 1.0.  
 Date Analyz4d. 06/03/2010 0941.  
 Date P. pa. d. 06/03/2010 0941.

Analysis Batch) 680-170470.  
 P. p Batch) N/A.  
 Units) ug/Le

Instrument ID.: MSO2  
 Lab File ID.: oq) 2 d.  
 Initial Weight/Volume.: 5 mL  
 Final Weight/Volume.: 5 mL

Analyte.	% Rec.		Limit.	RPD.	RPD Limit.	LCS Qual.	LCSD Qual.
	LCS.	LCSD.					
Xylenes, Total.	105.	103n	4 - 11.	1.	30.		
Surrogate.	LCS % Rec.		LCSD % Rec.		Acceptance Limits)		
4-Bomofluorobenz4ne.	100.		9.		75 - 120.		
Dibromofluoromethane.	97.		9.		75 - 121.		
Toluene-d. (Surr)4	95.		95.		75 - 120.		

**Quality Control Results**

Client: ARCADIS U.S., Inc.

Job Number: 680-57949-1.

**Method Blank - Batch: c0 -1P9c93m**

**Method: 10Cc**  
**Preparation: 8030Cc**

Lab Sample ID.: MB 680-1. 9. 93/2-A.  
Client Matrixe Water.  
Dilution.: 1.0.  
Date Analyz4d. 05/2 /2010 2125.  
Date P. pa. d. 05/25/2010 1537.

Analysis Batch) 680-170001.  
P. p Batch) 680-1. 9. 93n  
Units) ug/Le

Instrument ID.: ICPD.  
Lab File ID.: 1. 9. 93.ch)  
Initial Weight/Volume.: 50 mL  
Final Weight/Volume.: 50 mL

Analyte.	Result.	Qual.	RLe
A.s)nic.	20.	U.	20.
Ch)omium.	10.	U.	10.
Copp.	20.	U.	20.
Lead.	10.	U.	10.
Zinc.	100.	U.	100.

**Lab Control Sample - Batch: c0 -1P9c93m**

**Method: 10Cc**  
**Preparation: 8030Cc**

Lab Sample ID.: LCS 680-1. 9. 93/3-A.  
Client Matrixe Water.  
Dilution.: 1.0.  
Date Analyz4d. 05/2 /2010 2131.  
Date P. pa. d. 05/25/2010 1537.

Analysis Batch) 680-170001.  
P. p Batch) 680-1. 9. 93n  
Units) ug/Le

Instrument ID.: ICPD.  
Lab File ID.: 1. 9. 93.ch)  
Initial Weight/Volume.: 50 mL  
Final Weight/Volume.: 50 mL

Analyte.	Spike Amount.	Result.	% Rec.	Limit.	Qual.
Ars)nic.	2000.	2090.	104.	75 - 125.	
Ch)omium.	200.	209.	105.	75 - 125.	
Copp.	250.	254.	102.	75 - 125.	
Lead.	500.	52.	106.	75 - 125.	
Zinc.	500.	525.	105.	75 - 125.	

**Quality Control Results**

Client: ARCADIS U.S., Inc.

Job Number: 680-57949-1.

**Matrix Spike/1**

**Matrix Spike Duplicate Recovery RepRt - Batch: c 0 -1P9c93m**

**Method: Ø 10Cc**

**Preparation: Ø030Cc**

MS Lab Sample ID.: 0-5 7949-1. Analysis Batch) 680-170001.  
 Client Matrixe Water. P. p Batch) 680-1. 9. 93n  
 Dilution.: 1.0.  
 Date Analyz4d. 05/2 /2010 2152  
 Date P. pa. d. 05/25/2010 1537.

Instrument ID.: ICPD.  
 Lab File ID.: 1. 9. 93.ch)  
 Initial Weight/Volume.: 50 mL  
 Final Weight/Volume.: 50 mL

MSD Lab Sample ID.: 0-5 7949-1. Analysis Batch) 680-170001.  
 Client Matrixe Water. P. p Batch) 680-1. 9. 93n  
 Dilution.: 1.0.  
 Date Analyz4d. 05/2 /2010 2158.  
 Date P. pa. d. 05/25/2010 1537.

Instrument ID.: ICPD.  
 Lab File ID.: 1. 9. 93.ch)  
 Initial Weight/Volume.: 50 mL  
 Final Weight/Volume.: 50 mL

Analyte.	% Rec.		Limit.	RPD.	RPD Limit.	MS Qual.	MSD Qual.
	MS.	MSD.					
A.s)nic.	105.	105.	75 - 125.	0.	20.		
Ch)omium.	105.	105.	75 - 125.	0.	20.		
Copp.	104.	103n	75 - 125.	0.	20.		
Lead.	105.	104.	75 - 125.	1.	20.		
Zinc.	105.	104.	75 - 125.	0.	20.		

Serial Number 019810

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Website: www.testamericainc.com  
Phone: (912) 354-7858  
Fax: (912) 352-0165

TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_

PROJECT REFERENCE: **UNC- Airport Rd.** PROJECT NO.: **NC00239.0018.00001** PROJECT LOCATION (STATE): **NC** PAGE **1** OF **1**

TAL (LAB) PROJECT MANAGER: **Kathy Smith** P.O. NUMBER: \_\_\_\_\_ CONTRACT NO.: \_\_\_\_\_

CLIENT (SITE) PM: **Alan Pinnix** CLIENT PHONE: **919-854-1282** CLIENT FAX: \_\_\_\_\_

CLIENT NAME: **ARCADIS** CLIENT E-MAIL: **apinnix@arcadis-us.com**

CLIENT ADDRESS: **801 Corporate Center Dr. Raleigh, NC 27607**

COMPANY CONTRACTING THIS WORK (if applicable): \_\_\_\_\_

MATRIX TYPE:  Aqueous (Water)  Composite (C) or Grab (G) Indicate  Solid or Semisolid  Air  Nonaqueous Liquid (Oil, Solvent, ...)

SAMPLE IDENTIFICATION		REQUIRED ANALYSIS		REMARKS	
NO.	DATE	TIME	DATE	TIME	
6	5/24/10	0700	3	1	*Report: Arsenic, Chromium, Copper, lead, and Zinc.
7					

RELINQUISHED BY: (SIGNATURE) **Paul Smith** DATE: **5/24/10** TIME: **1200**

RECEIVED BY: (SIGNATURE) \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

RECEIVED FOR LABORATORY BY: (SIGNATURE) **Theory K. Conner** DATE: **5/25/10** TIME: **0928**

SAVANNAH LOG NO.: **680-57949** LABORATORY REMARKS: **2.1°C**



## Log Sample Receipt Checklist

Client: ARCADIS U.S., Incb

Job Number: 680-57949-1.

Log Number: 579491

List Source: TestAmerica Savannah1

Creator: Conner, Keaton1

List Number: 1

Question1	/ F/ NA1	Comment1
Radioactivity level was not measured or, if measured, is at or below background	N/A.	
The cooler's custody seal, if present, is intact.	True.	
The cooler or samples do not appear to have been compromised or tampered with.	True.	
Samples were received on ice.	True.	
Cooler Temperature is acceptable.	True.	
Cooler Temperature is recorded	True.	
COC is present.	True.	
COC is filled out in ink and legible.	True.	
COC is filled out with all pertinent information.	True.	
There are no discrepancies between the sample IDs on the containers and the COC.	True.	
Samples are received within Holding Time.	True.	
Sample containers have legible labels	True.	
Containers are not broken or leaking	True.	
Sample collection date/times are provided	True.	
Appropriate sample containers are used	True.	
Sample bottles are completely filled	True.	
There is sufficient volume for all requested analyses, including an. requested MS/MSDs	True.	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True.	
If necessary, staff have been informed of an. s. Cort. old time or quick TAT needs	True.	
Multiphasic samples are not present.	N/A.	
Samples do not require splitting or compositing	N/A.	
Is the Field Sampler's name present on COC?)	N/A.	
Sample Preservation Verified	True.	

## ANALYTICAL REPORT

Job Number: 400-47770-1

Job Description: UNC-Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix



Approved for release.  
Marty Edwards  
Senior Project Manager  
6/4/2010 9:11 AM

---

Marty Edwards  
Senior Project Manager  
marty.edwards@testamericainc.com  
06/04/2010

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page.

TestAmerica Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250507), New Jersey (FL006), North Carolina (314), North Dakota (R-108), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-08-TX), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

**TestAmerica Laboratories, Inc.**

TestAmerica Pensacola 3355 McLemore Drive, Pensacola, FL 32514

Tel (850) 474-1001 Fax (850) 478-2671 [www.testamericainc.com](http://www.testamericainc.com)



## METHOD SUMMARY:

Client: CADIS U.S., Inc.)

Job Number: 400-47770-1)

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: Water:</b>			
M) mercury, Low Level (CVAFS)	TAL PEN.	EPA 1631E)	
P) particulate, M) mercury, Low Level (CVAFS)	TAL PEN.		EPA 1631E)

### Lab References:

TAL PEN = TestAmerica Pensacola)

### Method References:

EPA = US Environmental Protection Agency)

## METHOD / ANALYST SUMMARY

Client: ARCADIS U.S., Incb

Job Number: 400-47770-1c

<b>M: th1</b>	<b>Analyst1</b>	<b>Analyst ID:</b>
EPA 1631Ec	Jones, Randyc	Jc

## SAMPc SUMMARY2

Client: ARCADIS U.S., Inc.c

Job Number: 400-47770-1c

<b>ab Sample I2</b>	<b>ClDc Sample I2</b>	<b>ClDc Mark2</b>	<b>a:e/Time : Sampledb</b>	<b>a:e/Time : Recevedb</b>
400-47770-1,	NT,	Water,	05/24/2010 0700,	05/25/2010 1014,

**SAMP**

**SL**

**SL**

Client: ARCADIS U.S., Inc.,

Job Number: 400-47770-1,

**Client Sample ID: d EFFLUENTa**

Lab Sample ID: c 400-47770-1c  
Client Matrix: c Waterc

Date Sampled: 05/24/2010 0700c  
Date Received: 05/25/2010 1014c

---

**1631E Mercury, Low Level (CVAFS)L**

Method: c	1631Ec	Analysis Batch: 400-109746c	Instrument ID: c	HYDRAc
Preparation: c	1631Ec	Prep Batch: 400-109722c	Lab File ID: c	052710b.PRNc
Dilution: c	1.0c		Initial Weight/Volume: c	40 mLc
Date Analyzed: c	05/27/2010 1155c		Final Weight/Volume: c	40 mLc
Date Prepared: c	05/26/2010 1600c			

---

Analyte	Result (ng/L)	Qualifier	RL
Mercury	1.2		0.50

# QUALITY CONTROL RESULTS



## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 400-47770-1c

### QC Association Summary

Lab Sample ID-	Client Sample ID-	Rec rt	Client Matrix-	Meth- d-	Prec Batch-
		Basic			
<b>Metals</b>					
<b>Prec Batch- 400-10- 722m</b>					
400-109722/2-Ai	Lab Control Sample	Ti	Water	1631Ei	
D 400-109722/3-Ai	Lab Control Sample Duplicate	Ti	Water	1631Ei	
MB 400-109722/1-Ai	Method Blank	Ti	Water	1631Ei	
400-47770-1i	FFLUENT	Ti	Water	1631Ei	
400-47808-A-1-B MSi	Matrix Spike	Ti	Water	1631Ei	
400-47808-A-1-C MSDi	Matrix Spike Duplicate	Ti	Water	1631Ei	
<b>Analysis Batch-400-10- 7461</b>					
400-109722/2-Ai	Lab Control Sample	Ti	Water	1631Ei	400-109722i
D 400-109722/3-Ai	Lab Control Sample Duplicate	Ti	Water	1631Ei	400-109722i
MB 400-109722/1-Ai	Method Blank	Ti	Water	1631Ei	400-109722i
400-47770-1i	FFLUENT	Ti	Water	1631Ei	400-109722i
400-47808-A-1-B MSi	Matrix Spike	Ti	Water	1631Ei	400-109722i
400-47808-A-1-C MSDi	Matrix Spike Duplicate	Ti	Water	1631Ei	400-109722i

**Rec rt Basic**

T = Total

## Quality Control Results

Clii . Ci IS U.S., Inc.)

Job Number: 400-47770-1i

**Meth1 Blank - Batch 1 400-1097R**

Lab Sample ID: B 400-109722/1-Ah  
 Client: Matrixh Wath  
 Dilution:  
 Date Analyzed: 5/27/2010 . 58h  
 Date Prepared: 5/25/2010 .500h

Analysis Batch: 400-109746h  
 Prep Batch: 400-109722h  
 Units: ng/Lh

**Meth1 631Ec  
 Preparation: 1631Ec**

Instrument ID: HYDRAh  
 Lab File ID: 52710fb.PRN.  
 Initial Weight/Volume: .40h mLh  
 Final Weight/Volume: .40h mLh

Analyte	Result	Quality	RL
curyh	<0.50h		50h

**Lab Control Sample/1  
 Lab Control Sample Duplicate Recovery Report - Batch 1 400-1097R**

LCS Lab Sample ID: LCS 400-109722/2-Ah  
 Client: Matrixh Wath  
 Dilution:  
 Date Analyzed: 5/27/2010 . 7h  
 Date Prepared: 5/25/2010 .500h

Analysis Batch: 400-109746h  
 Prep Batch: 400-109722h  
 Units: ng/Lh

**Meth1 631Ec  
 Preparation: 1631Ec**

Instrument ID: HYDRAh  
 Lab File ID: 52710fb.PRN.  
 Initial Weight/Volume: .40h mLh  
 Final Weight/Volume: .40h mLh

Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
curyh	8h	9h	79 - 121h		2h		

**Quality Control Results**

Clinth ARCADIS U.S., Inc.

Job Number: 400-47770-1h

**Matrix Spike/1  
Matrix Spike Duplicate Recovery Report - Batch1 400-1097R**

**Meth1 631Ec  
Preparation: 1631Ec**

S Lab Samplh IDh 400-47808-A-1-B .Sh Analysis Batch 400-109746h  
 Clhnt Matfixh Wath Ph p Batch 400-109722h  
 Dilutionh  
 Dath Analyzhdh 5/27/2010h .31h  
 Dath Ph pah dh 5/26/2010h .600h

Insthument IDh HYDRAh  
 Lab Filh IDh 52710fb.PRN.  
 Initial Whight/Volume:. 40h mLh  
 Final Whight/Volume:. 40h mLh

SD Lab Samplh IDh 400-47808-A-1-C .SDh Analysis Batch 400-109746h  
 Clhnt Matfixh Wath Ph p Batch 400-109722h  
 Dilutionh  
 Dath Analyzhdh 5/27/2010h .306h  
 Dath Ph pah dh 5/26/2010h .600h

Insthument IDhHYDRAh  
 Lab Filh IDh 52710fb.PRN.  
 Initial Whight/Volume:.40h mLh  
 Final Whight/Volume:. 40h mLh

Analyth	% Rhc.h		Limith	RPDh	RPD Limith	S	Qualh	SD	Qualh
	Sh	SDh							
curyh	84h	80h	71h .25h	3h	24h				

DATA RhPORT:N1 L ALIFa RSh

Lab Sectionp	u alifierL	Descriptionp
--------------	------------	--------------

---

SERIAL NUMBER: 09271



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica Pensacola  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone: 850-474-1001  
 Fax: 850-478-2671  
 Website: www.testamericainc.com

QUOTE NO. BOTTLE ORDER NO. ORDER - LOG-IN NO.  
 C400-45770

CLIENT: ARCADIS ADDRESS: 801 Corporate Center Dr. Raleigh, NC. 27607  
 PROJECT NO.: UNCC-Airport Rd. NC000239.0018.00001 CLIENT PROJECT MANAGER: Alan Pimmix

SAMPLED BY: Dave Twamley CONTRACT / P.O. NO. CLIENT E-MAIL OR FAX

CLIENT PHONE: 919-854-1282

TAT REQUESTED: RUSH NEEDS LAB PRE-APPROVAL  NORMAL - 10 BUSINESS DAYS  
 1 DAY  2 DAYS  3 DAYS  5 DAYS  20 DAYS (Package)  OTHER:

SAMPLE DISPOSAL:  RETURN TO CLIENT  DISPOSAL BY LAB

SEE CONTRACT  OTHER:

DATE: 5/24/10 0700 SAMPLE IDENTIFICATION: Effluent

PROJECT LOC. (STATE): N.C. MATRIX: Air

PRESERVATIVE: No Preservative X

HCL - Hydrochloric Acid  
 HNO3 - Nitric Acid  
 H2SO4 - Sulfuric Acid or H3PO4  
 NaOH - Sodium Hydroxide  
 CH3OH - Methanol  
 NAHSO4 - Sodium Bisulfate  
 NA2S2O3 - Sodium Thiosulfate  
 Other:

Drinking Water  
 Aqueous GW, SW, WW  
 Solid, Semisolid, Sediment  
 NonAqueous (Oil, Solvent, etc.)

REQUESTED ANALYSIS

POSSIBLE HAZARD IDENTIFICATION

Δ NON-HAZARD  
 Δ FLAMMABLE  
 Δ RADIOACTIVE  
 Δ POISON B  
 Δ UNKNOWN  
 Δ OTHER:

NO. OF COOLERS PER SHIPMENT: 1

SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT

NUMBER OF CONTAINERS SUBMITTED

LAB USE ONLY - SAMPLE NUMBER

RELINQUISHED BY: (SIGNATURE) DATE: 5/24/10 TIME: 1200  
 RECEIVED BY: (SIGNATURE) DATE: TIME:

RELINQUISHED BY: (SIGNATURE) DATE: TIME:  
 RECEIVED BY: (SIGNATURE) DATE: TIME:

RECEIVED FOR LABORATORY BY: DATE: 5/25/10 10:14  
 CUSTODY SEAL NO. LABORATORY USE ONLY

REMARKS: 5.8c

## Logb Sam1 le Recei1 Check List1

Client: ARCADi U.c., Inc.c

Job Number: 400-47770-1i

**Logb Number: 477701**

**List Source: TestAmerica Pensacola1**

**Creator: Chea, Vanda1**

**List Number:**

Question1	F/ NA1	Comment1
Radioactivity either was not measured or, if measured, is at or below S backgroundS	N/AS	
The cooler's custody seal, if present, is intact.S	N/AS	
The cooler or samples do not appear to have been compromised or S tampered with.S	True	
amples were received on ice.S	TrueS	
Cooler Temperature is acceptable.S	TrueS	5.8°CS
Cooler Temperature is recorded.S	TrueS	
COC is present.S	TrueS	
COC is filled out in ink and legible.S	TrueS	
COC is filled out with all pertinent information.S	TrueS	
There are no discrepancies between the sample IDs on the containers and S the COC.S	True	
amples are received within Holding Time.S	True	
Sample containers have legible labels.S	TrueS	
Containers are not broken or leaking.S	True	
Sample collection date/times are provided.S	TrueS	
Appropriate sample containers are used.S	True	
Sample bottles are completely filled.S	TrueS	
There is sufficient vol. for all requested analyses, incl. any requested S MS/MSDsS	TrueS	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in S diameter.S	TrueS	
If necessary, staff have been informed of any short hold time or quick TAT S needsS	TrueS	
Multiphasic samples are not present.S	True	
Samples do not require splitting or compositing.S	TrueS	
Is the Field Sampler's name present on COC?S	True	
Sample Preservation VerifiedS	TrueS	

## ANALYTICAL REPORT

Job Number: 680-58582-1  
Job Description: UNC Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
6/24/2010 4:30 PM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
06/24/2010

cc: Mr. Adam Tripp

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



## METHOD SUMMARY:

Client: TARCADIST.S., Inc.

Job Number: 680-58582-1.

Description:	Lab Location:	Method:	Preparation Method:
<b>Matrix: Water:</b>			
Volatil Organic Compounds (GC/MS)	AL .AVT	WT 4T8.2D BT	
Purge and Trap	AL .AVT		WT 4T50 30B
Metals (ICP)	AL .AVT	WT 4T6010 CT	
Preparation, Extractable Metals	AL .AVT		M 3030C

### Lab References:

AL .AV = TestAmerica Savannah

### Method References:

M = "Standard Methods For The Examination Of Water And Wastewater",

WT 4T = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1996 And .ts .  
pdf at s.t



**METHOD / ANALYST SUMMARY**

Client: ARCADIS U.S., Inc.T

Job Number: 680-58582-1c

<b>M: th1</b>	<b>Analyst1</b>	<b>Analyst ID:</b>
SW846 8260Bc	Bearden, Robertc	Bc
SW846 6010Cc	Bland, Brianc	BCBc

## SAMPc SUMMARY2

Client: ARCADIS U.S., Inc.c

Job Number: 680-58582-1c

<b>ab Sample I2</b>	<b>ClDc Sample I2</b>	<b>ClDc Mark2</b>	<b>a:e/Time : Sampledb</b>	<b>a:e/Time : Receivedb</b>
680-58582-1c	luentc	Waterc	06/14/2010 0800c	06/15/2010 0914T

Client: ARCADIS U.S., Inc.c

Job Number: 680-58582-1c

**ClientSampleID:d      Effluentc**

ab Sample ID:c      680-58582-1c  
 Client Matrix:c      Waterc

Date Sampled: 06/14/2010 0800c  
 Date Received: 06/15/2010 0914c

**8260BdVolatileOrganic Compounasd(GC/MS):**

Method:c      8260Bc      Analysis Batch: 680-172098c      Instrument ID:c      MSOc  
 Preparation:c      5030Bc      ab File ID:c      o0155.dc  
 Dilution:c      1.0c      Initial Weight/Volume:c      5 mc  
 Date Analyzed:c      06/18/2010 1603c      Final Weight/Volume:c      5 mc  
 Date Prepared:c      06/18/2010 1603c

Analytec	esult (ug/c )c	Qualifierc	
Acetonec	25c	Uc	25c
Benzenec	1.0c	Uc	1.0c
Bromoformc	1.0c	Uc	1.0c
Bromomethanec	1.0c	Uc	1.0c
Carbon disulfidec	2.0c	Uc	2.0c
Carbon tetrachloridec	1.0c	Uc	1.0c
Chlorobenzenec	1.0c	Uc	1.0c
Chlorodibromomethanec	1.0c	Uc	1.0c
Chloroethanec	1.0c	Uc	1.0c
Chloroformc	1.0c	Uc	1.0c
Chloromethanec	1.0c	Uc	1.0c
is-1,2-Dichloroethenec	1.0c	Uc	1.0
cis-1,3-Dichloropropenec	1.0c	Uc	1.0
Dichlorobromomethanec	1.0c	Uc	1.0c
1,1-Dichloroethanec	1.0c	Uc	1.0c
1,2-Dichloroethanec	3.4c		1.0c
1,1-Dichloroethenec	1.0c	Uc	1.0c
1,2-Dichloropropanec	1.0c	Uc	1.0c
Diethyl etherc	190c	Ec	10c
Ethylbenzenec	1.0c	Uc	1.0c
2-Hexanonec	10c	Uc	10c
Methylene Chloridec	5.0c	Uc	5.0c
2-Butanone (MEK)c	10c	Uc	10c
4-Methyl-2-pentanone (MIBK)c	10c	Uc	10c
Styrenec	1.0c	Uc	1.0c
1,1,2,2-Tetrachloroethanec	1.0c	Uc	1.0c
Tetrachloroethenec	1.0c	Uc	1.0c
Toluenec	1.0c	Uc	1.0c
trans-1,2-Dichloroethenec	1.0c	Uc	1.0c
trans-1,3-Dichloropropenec	1.0c	Uc	1.0c
1,1,1-Trichloroethanec	1.0c	Uc	1.0c
1,1,2-Trichloroethanec	1.0c	Uc	1.0c
Trichloroethenec	1.0c	Uc	1.0c
Vinyl chloridec	1.0c	Uc	1.0c
Xylenes, Totalc	2.0c	Uc	2.0c
Surrogatec	%Rec	Qualifierc	Ac eptance cimitsc
4-Bromofluorobenzenec	97c		75 - 120c
Dibromofluoromethanec	106c		75 - 121c
Toluene-d8 (Surr)c	102c		75 - 120c

Client: ARCADIS U.S., Inc.c

Job Number: 680-58582-1c

ClientSampleID:d Effluentc

ab Sample ID:c 680-58582-1c  
Client Matrix:c Waterc

Date Sampled: 06/14/2010 0800c  
Date Received: 06/15/2010 0914c

8260BdVolatileOrganic Compounasd(GC/MS):

Method:c 8260Bc Analysis Batch: 680-172112c Instrument ID:c MSOc  
Preparation:c 5030Bc ab File ID:c o0177.dc  
Dilution:c 5.0c Initial Weight/Volume:c 5 mc  
Date Analyzed:c 06/20/2010 1606c un Ty pe:c Dc Final Weight/Volume:c 5 mc  
Date Prepared:c 06/20/2010 1606c

Analytec	esult (ug/c )c	Qualifierc	
Acetonec	130c	Uc	130c
Benzenec	5.0c	Uc	5.0c
Bromoformc	5.0c	Uc	5.0c
Bromomethanec	5.0c	Uc	5.0c
Carbon disulfidec	10c	Uc	10c
Carbon tetrachloridec	5.0c	Uc	5.0c
Chlorobenzenec	5.0c	Uc	5.0c
Chlorodibromomethanec	5.0c	Uc	5.0c
Chloroethanec	5.0c	Uc	5.0c
Chloroformc	5.0c	Uc	5.0c
Chloromethanec	5.0c	Uc	5.0c
is-1,2-Dichloroethenec	5.0c	Uc	5.0
cis-1,3-Dichloropropenec	5.0c	Uc	5.0
Dichlorobromomethanec	5.0c	Uc	5.0c
1,1-Dichloroethanec	5.0c	Uc	5.0c
1,2-Dichloroethanec	5.0c	Uc	5.0c
1,1-Dichloroethenec	5.0c	Uc	5.0c
1,2-Dichloropropanec	5.0c	Uc	5.0c
Diethyl etherc	180c	Dc	50c
Ethylbenzenec	5.0c	Uc	5.0c
2-Hexanonec	50c	Uc	50c
Methylene Chloridec	25c	Uc	25c
2-Butanone (MEK)c	50c	Uc	50c
4-Methyl-2-pentanone (MIBK)c	50c	Uc	50c
Styrenec	5.0c	Uc	5.0c
1,1,2,2-Tetrachloroethanec	5.0c	Uc	5.0c
Tetrachloroethenec	5.0c	Uc	5.0c
Toluenec	5.0c	Uc	5.0c
trans-1,2-Dichloroethenec	5.0c	Uc	5.0c
trans-1,3-Dichloropropenec	5.0c	Uc	5.0c
1,1,1-Trichloroethanec	5.0c	Uc	5.0c
1,1,2-Trichloroethanec	5.0c	Uc	5.0c
Trichloroethenec	5.0c	Uc	5.0c
Vinyl chloridec	5.0c	Uc	5.0c
Xylenes, Totalc	10c	Uc	10c
Surrogatec	%Rec	Qualifierc	Ac eptance cimitsc
4-Bromofluorobenzenec	97c		75 - 120c
Dibromofluoromethanec	101c		75 - 121c
Toluene-d8 (Surr)c	101c		75 - 120c

Client: ARCADIS U.S., Inc.c

Job Number: 680-58582-1c

**ClientSampleID:d      Effluentc**

ab Sample ID:c      680-58582-1c  
 Client Matrix:c      Waterc

Date Sampled: 06/14/2010 0800c  
 Date Received: 06/15/2010 0914c

**6010C Metalsq(ICP):**

Method:c	6010Cc	Analysis Batch: 680-172185c	Instrument ID:c	ICPDc
Preparation:c	3030Cc	PrepBatch: 680-171730c	ab File ID:c	171730.chrc
Dilution:c	1.0c		Initial Weight/Volume:c	50 mc
Date Analyzed:c	06/21/2010 2042c		Final Weight/Volume:c	50 mc
Date Prepared:c	06/16/2010 1436c			

Analytec	esult (ug/c )c	Qualifierc	
Arsenic	20c	Uc	20c
Chromiumc	10c	Uc	10c
Copperc	20c	Uc	20c
eadc	10c	Uc	10c
Zin	100c	Uc	100c

DATA REPORT: N1 L ALI Fa RSh

Client: ARCADIS U.S., Inc.

Job Number: 680-58582-1c

Lab Section	Qualifier	Description
GC/MS VOAc		
	Uc	Indicates, the analyte was analyzed but not detected.
	E,	Result exceeded calibration range.
	Dc	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
Metals,		
	Uc	Indicates, the analyte was analyzed but not detected.

## Quality Control Results

Client: ARCADIST.S., Inc.

Job Number: 680-58582-1.

**Meth1 Blank - Batch 0 - 170981**

**Method: 8260BI**

**Preparation: 5030BI**

Lab. amp. MB 680-17209h/9h  
 Client Mat. Wat  
 Dilution 1.0.  
 at Analytic 06/18/2010 1155.  
 at Pac dc 06/18/2010 1155.

Analysis Batch, 680-17209h  
 Prep Batch, N/AT  
 Unit: ug/Lc

Instrument: M) Oi  
 Lab File: oq091.dc  
 Initial Weight/Volume: 5 mLc  
 Final Weight/Volume: 5 mLc

Analyte	Result	Qualifier	Lc
Acetone	25.		25.
Benzene	1.0.		1.0.
Bromoform	1.0.		1.0.
Bromomethane	1.0.		1.0.
Carbon disulfide	2.0.	U	2.0.
Carbon tetrachloride	1.0.		1.0.
Chlorobenzene	1.0.		1.0.
Chlorodibromomethane	1.0.		1.0.
Chloroethane	1.0.		1.0.
Chloroform	1.0.		1.0.
Chloromethane	1.0.		1.0.
cis-1,2-dichloroethane	1.0.		1.0.
cis-1,3-dichloropropane	1.0.		1.0.
dibromomethane	1.0.		1.0.
1,1-dichloroethane	1.0.		1.0.
1,2-dichloroethane	1.0.		1.0.
1,1-dichloroethane	1.0.		1.0.
1,2-dichloropropane	1.0.		1.0.
Diethyl ether	10.		10.
Ethylbenzene	1.0.		1.0.
2-Hexanone	10.		10.
Methyl Chloride	5.0.		5.0.
2-Butanone (MEK)	10.		10.
4-Methyl-2-pentanone (MIBK)	10.		10.
Triethylamine	1.0.		1.0.
1,1,2-Trichloroethane	1.0.		1.0.
Trichloroethane	1.0.		1.0.
Toluene	1.0.		1.0.
trans-1,2-dichloroethane	1.0.		1.0.
trans-1,3-dichloropropane	1.0.		1.0.
1,1,1-Trichloroethane	1.0.		1.0.
1,1,2-Trichloroethane	1.0.		1.0.
Trichloroethane	1.0.		1.0.
Vinyl chloride	1.0.		1.0.
Xylenes, Total	2.0.	U	2.0.

Surrogate	% Recovery	Acceptance Limits
4-Bromofluorobenzene	97c	75 - 120.
1-bromofluoromethane	108.	75 - 121.
Toluene-d8 (internal)	101.	75 - 120.

## Quality Control Results

Client: ARCADIST.S., Inc.

Job Number: 680-58582-1.

**Lab Control Sample/**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-1720981**

**Method: 8260BI**

**Preparation: 5030BI**

LCST Lab . ampIT. LCST 680-17209h/c  
 Client MatIT WatT  
 Dilution 1.0.  
 Start Analyze 06/18/2010 0958.  
 Start Prep 06/18/2010 0958.

Analysis Batch, 680-17209h  
 Prep Batch, N/AT  
 Unit: ug/Lc

Instrument: M) Oi  
 Lab File: oq083.dc  
 Initial Weight/Volume: 5 mLc  
 Final Weight/Volume: 5 mLc

LCSD Lab . ampIT. LCSD 680-17209h/7c  
 Client MatIT WatT  
 Dilution 1.0.  
 Start Analyze 06/18/2010 1029h  
 Start Prep 06/18/2010 1029h

Analysis Batch, 680-17209h  
 Prep Batch, N/AT  
 Unit: ug/Lc

Instrument: M) Oi  
 Lab File: oq085.dc  
 Initial Weight/Volume: 5 mLc  
 Final Weight/Volume: 5 mLc

Analyte	% . c.T		Limit	Pc	Pc Limit	LCST Qual	LCSD Qual
	LCST	LCSDT					
Acetone	108.	105.	17 - 175.	2T	50.		
Benzene	100.	101.	77 - 119h	1.	30.		
Bromoform	93S	104S	2 - 133S	11.	30.		
Bromomethane	1.	3S	12 - 184S	3S	50.		
Carbon disulfide	119h	116.	55 - 131.	3S	30.		
Carbon tetrachloride	102T	103S	71 - 135.	1.	30.		
Chlorobenzene	92T	103S	5 - 116.	12T	30.		
Chlorodibromomethane	94S	104S	75 - 133S	10.	30.		
Chloroethane	150.	147c	40 - 165.	2T	50.		
Chloroform	111.	106.	2 - 120.	4S	30.		
Chloromethane	100.	93S	4S- 142T	7c	50.		
cis-1,2-dichloroethane	111.	105.	9 - 134S		30.		
cis-1,3-dichloropropane	105.	107c	7c- 12T	2T	30.		
dichlorobromomethane	102T	102T	7c- 127c	0.	30.		
1,1-dichloroethane	113S	109h	74 - 127c	3S	30.		
1,2-dichloroethane	9h	94S	- 1 32T	2T	30.		
1,1-dichloroethane	113S	109h	2 - 141.	4S	30.		
1,2-dichloropropane	101.	103S	73 - 124S	2T	30.		
Ethylbenzene	9h	107c	- 116.	11.	30.		
2-Hexanone	79h	90.	34 - 161.	13S	30.		
Methyl Chloride	116.	112T	70 - 125.	4S	30.		
2-Butanone (MEK)S	93S	93S	33 - 157c	0.	30.		
4-Methyl-2-pentanone (M)BK)S	9h	93S	40 - 151.	5.	30.		
1,1,1-trichloroethane	94S	104S	2 - 122T	11.	30.		
1,1,2-trichloroethane	4S	9h	9 - 129h	15.	30.		
1,1,2-trichloroethane	91.	101.	7c- 127	11	30.		
Toluene	105.	104S	1 - 117c	1.	30.		
trans-1,2-dichloroethane	110.	107c	72 - 131.	3S	30.		
trans-1,3-dichloropropane	102T	105.	73 - 12T	3S	30.		
1,1,1-trichloroethane	101.	102T	7c- 127c	1.	30.		
1,1,2-trichloroethane	94S	9h	75 - 121.	4S	30.		
Trichloroethane	99h	99h	4 - 115.	1.	30.		
Vinyl chloride	101.	95.	59 - 144S	6	50		



## Quality Control Results

Client: ARCADIST.S., Inc.

Job Number: 680-58582-1.

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-172098**

**Method: 8260BI  
Preparation: 5030BI**

Lab . ampIT.	LCST680-17209h/c	Analysis Batch, 680-17209h	Instrument .	M) Oi
Client MatIT	Wat	Pc p Batch, N/AT	Lab FilT.	oq083.dc
il utionT	1.0.	nit s.: ug/Lc	Initial WTight/Volume:.	5 mLc
atT AnalyzUdc	06/18/2010 0958.		Final WTight/Volume:.	5 mLc
atT Pc pac dc	06/18/2010 0958.			

Lab . ampIT.	LCSDT680-17209h/7c	Analysis Batch, 680-17209h	Instrument .	M) Oi
Client MatIT	Wat	Pc p Batch, N/AT	Lab FilT.	oq085.dc
il utionT	1.0.	nit s.: ug/Lc	Initial WTight/Volume:.	5 mLc
atT AnalyzUdc	06/18/2010 1029h		Final WTight/Volume:.	5 mLc
atT Pc pac dc	06/18/2010 1029h			

Analyt	%. c.T		Limit	Pc	Pc Limit	LCSTQualT	LCSDTQualT
	LCST	LCSDT					
XylTnB , Total	93S	105.	4 - 118.	12T	30.		
urrogat	LCST%	. cT	LCSDT%	. cT	AccTptancT Limits.		
4-BromofluorobenzUnT	94S		106.		75 - 120.		
i bromofluoromethanT	110.		107c		75 - 121.		
ToluenF dc (hurr)S	103S		103S		75 - 120.		

## Quality Control Results

Client: ARCADIST.S., Inc.

Job Number: 680-58582-1.

**Method Blank - Batch: 680-172112I**

**Method: 8260BI  
Preparation: 5030BI**

Lab. Sample ID: MB 680-172112/c  
Client Material: Water  
Injection Volume: 1.0  
Analysis Date: 06/20/2010 14:22  
Preparation Date: 06/20/2010 14:22

Analysis Batch: 680-172112T  
Preparation Batch: N/AT  
Injection Volume: 1.0 µg/L

Instrument: M) OI  
Lab File: oq100.dc  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Concentration	Quality	Limit
Acetone	25.		25.
Benzene	1.0.		1.0.
Bromoform	1.0.		1.0.
Bromomethane	1.0.		1.0.
Carbon disulfide	2.0.	U	2.0.
Carbon tetrachloride	1.0.		1.0.
Chlorobenzene	1.0.		1.0.
Chlorodibromomethane	1.0.		1.0.
Chloroethane	1.0.		1.0.
Chloroform	1.0.		1.0.
Chloromethane	1.0.		1.0.
cis-1,2-dichloroethane	1.0.		1.0.
cis-1,3-dichloropropane	1.0.		1.0.
dibromomethane	1.0.		1.0.
1,1-dichloroethane	1.0.		1.0.
1,2-dichloroethane	1.0.		1.0.
1,1-dichloroethane	1.0.		1.0.
1,2-dichloropropane	1.0.		1.0.
Diethyl ether	10.		10.
Ethylbenzene	1.0.		1.0.
2-Hexanone	10.		10.
Methyl Chloride	5.0.		5.0.
2-Butanone (MEK)	10.		10.
4-Methyl-2-pentanone (MIBK)	10.		10.
Triethylamine	1.0.		1.0.
1,1,2,2-tetrachloroethane	1.0.		1.0.
Tetrachloroethane	1.0.		1.0.
Toluene	1.0.		1.0.
trans-1,2-dichloroethane	1.0.		1.0.
trans-1,3-dichloropropane	1.0.		1.0.
1,1,1-trichloroethane	1.0.		1.0.
1,1,2-trichloroethane	1.0.		1.0.
Trichloroethane	1.0.		1.0.
Vinyl chloride	1.0.		1.0.
Xylenes, Total	2.0.	U	2.0.

Surrogate	% Recovery	Acceptance Limits
4-Bromofluorobenzene	97%	75 - 120.
Di-bromofluoromethane	109%	75 - 121.
Toluene-d8 (internal)	101%	75 - 120.

## Quality Control Results

Client: ARCADIST.S., Inc.

Job Number: 680-58582-1.

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-172112I**

**Method: 8260BI  
Preparation: 5030BI**

LCST Lab . ampIT. LCST 680-172112/5.  
Client MatIT WatT  
Dilution 1.0.  
Start Analyze 06/20/2010 1259h  
Start Pack 06/20/2010 1259h

Analysis Batch, 680-172112T  
Prep Batch, N/AT  
Unit: ug/Lc

Instrument: M) Oi  
Lab File: oq09h.dc  
Initial Weight/Volume: 5 mLc  
Final Weight/Volume: 5 mLc

LCSD Lab . ampIT. LCSD 680-172112/c  
Client MatIT WatT  
Dilution 1.0.  
Start Analyze 06/20/2010 1319h  
Start Pack 06/20/2010 1319h

Analysis Batch, 680-172112T  
Prep Batch, N/AT  
Unit: ug/Lc

Instrument: M) Oi  
Lab File: oq097.dc  
Initial Weight/Volume: 5 mLc  
Final Weight/Volume: 5 mLc

Analyte	% . c.T		Limit	Pc	Pc Limit	LCST Qual	LCSD Qual
	LCST	LCSDT					
Acetone	99h	93S	17 - 175	6	50		
Benzene	100.	99h	77 - 119h	0.	30.		
Bromoform	109h	109h	2 - 133S	0.	30.		
Bromomethane	57c	2T	12 - 184S	35	50		
Carbon disulfide	113S	113S	55 - 131.	0.	30.		
Carbon tetrachloride	110.	110.	71 - 135.	0.	30.		
Chlorobenzene	103S	102T	5 - 116.	0.	30.		
Chlorodibromomethane	109h	107c	75 - 133S	2T	30.		
Chloroethane	102T	104S	40 - 165.	2T	50.		
Chloroform	104S	105.	2 - 120.	1.	30.		
Chloromethane		9h	4S - 142T	3S	50.		
cis-1,2-dichloroethane	105.	106.	9 - 134S	1.	30.		
cis-1,3-dichloropropane	107c	106.	7c - 12T	1.	30.		
1,1-dichloroethane	102T	103S	7c - 127c	1.	30.		
1,1-dichloroethane	107c	108.	74 - 127c	1.	30.		
1,2-dichloroethane	94S	94S	- 1 32T	0.	30.		
1,1-dichloroethane	108.	103S	2 - 141.	5.	30.		
1,2-dichloropropane	100.	99h	73 - 124S	1.	30.		
Ethylbenzene	106.	106.	- 116.	0.	30.		
2-Hexanone	7c	4S	34 - 161.	4S	30.		
Methyl Chloride	115.	116.	70 - 125.	1.	30.		
2-Butanone (MEK)	9h		33 - 157c	3S	30.		
4-Methyl-2-pentanone (MIBK)	9h	7c	40 - 151.	2T	30.		
1,1,1-trichloroethane	103S	103S	2 - 122T	0.	30.		
1,1,2,2-tetrachloroethane	92T	91.	9 - 129h	1.	30.		
1,1,2-trichloroethane	101.	100.	7c - 12T	1.	30.		
Toluene	102T	104S	1 - 117c	1.	30.		
trans-1,2-dichloroethane	110.	109h	72 - 131.	0.	30.		
trans-1,3-dichloropropane	105.	103S	73 - 12T	2T	30.		
1,1,1-trichloroethane	106.	104S	7c - 127c	2T	30.		
1,1,2-trichloroethane	9h	95.	75 - 121.	1.	30.		
Trichloroethane	99h	99h	4 - 115.	1.	30.		
Vinyl chloride	7c	9h	59 - 144S	2T	50.		

**Quality Control Results**

Client: ARCADIST.S., Inc.

Job Number: 680-58582-1.

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-172112I**

**Method: 8260BI  
Preparation: 5030BI**

Lab . ampIT. LCST680-172112/5.  
Client MatIT WatT  
DilutionT 1.0.  
Date Analyzed 06/20/2010 1259h  
Date Prepared 06/20/2010 1259h

Analysis Batch, 680-172112T  
Prep Batch, N/AT  
Units: ug/Lc

Instrument . M) Oi  
Lab File. oq09h.dc  
Initial Weight/Volume: 5 mLc  
Final Weight/Volume: 5 mLc

Lab . ampIT. LCSDT680-172112/c  
Client MatIT WatT  
DilutionT 1.0.  
Date Analyzed 06/20/2010 1319h  
Date Prepared 06/20/2010 1319h

Analysis Batch, 680-172112T  
Prep Batch, N/AT  
Units: ug/Lc

Instrument . M) Oi  
Lab File. oq097.dc  
Initial Weight/Volume: 5 mLc  
Final Weight/Volume: 5 mLc

Analyte	% . c.T		Limit	Pc	Pc Limit	LCSTQual	LCSDTQual
	LCST	LCSDT					
Xylenes, Total	103S	104S	4 - 118.	0.	30.		
Surrogate	LCST% . cT	LCSDT% . cT			Acceptance Limits.		
4-Bromofluorobenzene	105.		105.			75 - 120.	
1-bromofluoromethane	106.		109h			75 - 121.	
Toluene (hurr)	103S		103S			75 - 120.	

## Quality Control Results

Client: ARCADIST.S., Inc.

Job Number: 680-58582-1.

**Method Blank - Batch: 680-171730I**

Lab . ampID: MB 680-171730/2-AT  
 Client MatID: Wat  
 Dilution: 1.0  
 Date Analyzed: 06/21/2010 2032T  
 Date Prepared: 06/16/2010 143S

Analysis Batch, 680-172185.  
 Prep Batch, 680-171730.  
 Unit: ug/Lc

**Method: 6010CI  
 Preparation: 3030CI**

Instrument: CPc  
 Lab File: 171730.ch,  
 Initial Weight/Volume: 50 mLc  
 Final Weight/Volume: 50 mLc

Analyte	Result	Qualifier	Limit
Arsenic	20.		20.
Chromium	10.		10.
Copper	20.		20.
Lead	10.		10.
Zinc	100.		100.

**Lab Control Sample - Batch: 680-171730I**

Lab . ampID: LCS 680-171730/3-AT  
 Client MatID: Wat  
 Dilution: 1.0  
 Date Analyzed: 06/21/2010 2037c  
 Date Prepared: 06/16/2010 143S

Analysis Batch, 680-172185.  
 Prep Batch, 680-171730.  
 Unit: ug/Lc

**Method: 6010CI  
 Preparation: 3030CI**

Instrument: CPc  
 Lab File: 171730.ch,  
 Initial Weight/Volume: 50 mLc  
 Final Weight/Volume: 50 mLc

Analyte	Target	Result	% Rec.	Limit	Qual
Arsenic	2000.	2090.	105.	75 - 125.	
Chromium	200.	210.	105.	75 - 125.	
Copper	250.	271.	104S	75 - 125.	
Lead	500.	521.	104S	75 - 125.	
Zinc	500.	531.	106.	75 - 125.	

**Quality Control Results**

Client: ARCADIST.S., Inc.

Job Number: 680-58582-1.

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 680-171730I**

**Method: 6010CI  
Preparation: 3030CI**

M) Lab . ampIT. 0-5858. 2-1. Analysis Batch, 680-172185.  
 Client MatTT WatT Pc p Batch, 680-171730.  
 DilutionT 1.0.  
 atT AnalyzUdc 06/21/2010 2058.  
 atT Pc pac dc 06/16/2010 143S

Instrument . CPc  
 Lab FileT. 171730.ch,  
 Initial WTight/Volume:. 50 mLc  
 Final WTight/Volume:. 50 mLc

M) Lab . ampIT. 0-5858. 2-1. Analysis Batch, 680-172185.  
 Client MatTT WatT Pc p Batch, 680-171730.  
 DilutionT 1.0.  
 atT AnalyzUdc 06/21/2010 2103S  
 atT Pc pac dc 06/16/2010 143S

Instrument . CPc  
 Lab FileT. 171730.ch,  
 Initial WTight/Volume:. 50 mLc  
 Final WTight/Volume:. 50 mLc

AnalytT	% . c.T		LimitT	Pc	Pc LimitT	M) QualT	M) QualT
	M)	M)					
AsenicT	106.	106.	75 - 125.	0.	20.		
Ch,omium.	105.	105.	75 - 125.	0.	20.		
Coppc	107c	107c	75 - 125.	0.	20.		
Lcadc	104S	104S	75 - 125.	0.	20.		
ZincT	102T	102T	75 - 125.	0.	20.		



# Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-58582-1c

**Login Number: 58582p**  
**Creator: Daughtry, Beth**  
**List Number: 11**

**List Source: TestAmerica Savannah**

Question	F/ NA	Comment
Activity either was, or measured, if measured, at or below background	N/A	
The cooler's, usually, present, is, intact.	True	
The cooler or samples, do not appear to have been compromised or contaminated with.	True	
Samples, were received on ice.	True	
Cooler temperature is acceptable.	True	
Cooler temperature is, recorded.	True	
COC is, present.	True	
COC is, filled out in ink, stable.	True	
COC is, filled out with all pertinent information.	True	
There are no discrepancies, between the sample IDs, on the containers, and the COC.	True	
Samples, are received within holding time.	True	
Sample containers, have legible labels.	True	
Containers, are not broken or leaking.	True	
Sample collection dates/times, are provided.	True	
Appropriate sample containers, are used.	True	
Sample bottles, are completely filled.	True	
There is, sufficient vol. for all requested analyses, including requested MS/MSDs,	True	
VOA samples, do not have beads or bubbles, <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quickSTAT needs,	True	
Multiphase samples, are not present.	N/A	
Samples, do not require splitting or compositing.	N/A	
Is, the Field Sampler's, name present on COC?,	F. Isec	
Sample Preservation Verified	True	



## ANALYTICAL REPORT

Job Number: 400-48250-1

Job Description: UNC-Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix



Approved for release.  
Marty Edwards  
Senior Project Manager  
6/24/2010 8:46 AM

---

Marty Edwards  
Senior Project Manager  
marty.edwards@testamericainc.com  
06/24/2010

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page.

TestAmerica Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250507), New Jersey (FL006), North Carolina (314), North Dakota (R-108), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-08-TX), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

**TestAmerica Laboratories, Inc.**

TestAmerica Pensacola 3355 McLemore Drive, Pensacola, FL 32514

Tel (850) 474-1001 Fax (850) 478-2671 [www.testamericainc.com](http://www.testamericainc.com)



**Jrb Narrativ1**  
**400-48250-1D**

**Commen:**

No additional co. n tS. k

**Receipt D**

All samples wekS rScSved in g ood condition within tSpek raturS rS quirS n tS.S

**Metals D**

Method 1631E: The matrix spike / matrix spike duplicatS (MS/MSD) rScovekies for batch 400-111162\ 400-111279 wekS outSde contro. k  
imitS. The associatS la boratory contro. samples (LCS\LCSD) rScovekies mekaccS tancS critSria. Data was fraggd and rS ortS as iskS

No othe analytical or quality isskc wekrSn otS .S

## METHOD SUMMARY:

Client: CADIS U.S., Inc.

Job Number: 400-48250-1.

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: Water:</b>			
MF cury, Low LFvFI (CVAFS)F	TAL PEN.	EPA#631EF	
PF paFatiB., MF cury, Low LFvFIF	TAL PEN.		EPA#631EF

### Lab References:

TAL PEN = TFstA#mer.ca PF sac olaF

### Method References:

EPA# US EnviFb. me. al PFb. ctiB. .gF cyF

## METHOD / ANALYST SUMMARY

Client: ARCADIS U.S.,dnc.c

Job Number: 400-48250-1U

<b>M: th1</b>	<b>Analyst1</b>	<b>Analyst ID:</b>
EPA 1631EU	Jones, RandyU	RJU

## SAMPLD SUMMARY2

Client: ARCADIS U.S., Inc.U

Job Number: 400-48250-1U

<b>Lab Sample I2</b>	<b>CID</b>	<b>Sample I2</b>	<b>CID</b>	<b>Mark2</b>	<b>a:e/Time : Sampledb</b>	<b>a:e/Time : Rel elvedb</b>
400-48250-1,		EFFLUENT,		Water,	06/14/2010 0800U	06/15/2010 1005U

**SAMPL : S L SD**

Client: ARCADIS U.S., Inc.,

Job Number: 400-48250-1,

Client Sample ID: EFFLUENTa

Lab Sample ID: 400-48250-1,  
Client Matrix: Water,

Date Sampled: 06/14/2010 0800-  
Received: 06/15/2010 1005-

---

**1631E Mercury, Low Level (CVAFS)D**

Method:-	1631E-	Analysis Batch: 400-111279-	Instrument ID:-	HYDRA-
Preparation:-	1631E-	Prep Batch: 400-111162-	Lab File ID:-	062110b.PRN
Dilution:-	1.0-		Initial Weight/Volume:-	40 mL-
Analyzed:-	06/21/2010 1236-		Final Weight/Volume:-	40 mL-
Prepared:-	06/18/2010 1100-			

---

Analyte-	Result (ng/L)-	Qualifier-	RL-
Mercury-	<0.50-		0.50-

# QUALITY CONTROL RESULTS



## Quality Control Results

Client: ARCADIS U.S., Inc.-

Job Number: 400-48250-1-

### QC Association Summary

Lab Sample ID-	Client Sample ID-	Report Basis	Client Matrix-	Method-	Prel Batch-
<b>Metals</b>					
<b>Pre Batch- 400-111162C</b>					
LCS 400-111162/2-AM	Lab Control Sample-	TM	Water	1631EM	
LCSD 400-111162/3-AM	Lab Control Sample Duplicate	T	Water	31EM	
B 400-111162/1-AM	Method Blank	TM	Water	31E	
400-48250-1M	EFFLUENT	T	Water	31EM	
400-48348-A-4-B MSM	Matrix Spike	T	Water	31EM	
400-48348-A-4-C MSDM	Matrix Spike Duplicate	TM	Water	31EM	
<b>Analysis Batch 400-111279C</b>					
LCS 400-111162/2-AM	Lab Control Sample	TM	Water	31EM	400-111162M
LCSD 400-111162/3-AM	Lab Control Sample Duplicate	T	Water	31EM	400-111162M
B 400-111162/1-AM	Method Blank	TM	Water	31E	400-111162M
400-48250-1M	EFFLUENT	T	Water	31EM	400-111162M
400-48348-A-4-B MSM	Matrix Spike	T	Water	31EM	400-111162M
400-48348-A-4-C MSDM	Matrix Spike Duplicate	TM	Water	31EM	400-111162M

**Report Basis**

T = Total

## Quality Control Results

Client: CNIS U.S., Inc.

Job Number: 400-48250-1.

**Method Blank - Batch: 400-111162y**

Lab Sample ID: FMB 400-111162/1-AF  
 Client: MaM WaM  
 Dilution: 1.0M  
 Date Analyzed: 06/21/2010 0931.  
 Date Prepared: 06/18/2010 1100M

Analysis Method: 400-111279,  
 P, p Batch: 400-111162  
 Unit: g/Lc

**Method: 1631Ey  
 Preparation: 1631Ey**

Instrument: IDFHYDRAF  
 Lab: F,IFIDF 062110b.P, N.  
 Initial Volume: 40 mLc  
 Final Volume: 40 mLc

aly.	sulf	Qual	RF	Lc
M) cury.	<0.50M			0.50M

**Lab Control Sample/  
 Lab Control Sample Duplicate Recovery Report - Batch: 400-111162y**

LCS Lab Sample ID: FLCS 400-111162/2-AF  
 Client: MaM WaM  
 Dilution: 1.0M  
 Date Analyzed: 06/21/2010 0939,  
 Date Prepared: 06/18/2010 1100M

Analysis Method: 400-111279,  
 P, p Batch: 400-111162  
 Unit: g/Lc

**Method: 1631Ey  
 Preparation: 1631Ey**

Instrument: IDF HYDRAF  
 Lab: F,IFIDF 062110b.P, N.  
 Initial Volume: 40 mLc  
 Final Volume: 40 mLc

aly.	LCSF	LCSDF	Lc	PDF	PD Lc	LCS Qual	LCSD Qual
M) cury.	94h	95M	79 - 121.	1.	20M		

# Quality Control Results

Client: CMS U.S., Inc.

Job Number: 400-48250-1.

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 400-111162y**

**Method: 1631Ey  
Preparation: 1631Ey**

MS Lab Sample ID: 400-48348-A-4-B MSF  
 Client: MaM WaM  
 Dilution: 1.0M  
 Date Analyzed: 06/21/2010 1108F  
 Date Prepared: 06/18/2010 1100M

Instrument: HYDRAP  
 Lab File ID: 062110b.P, N.  
 Initial Volume: 40 mL  
 Final Volume: 40 mL

MSD Lab Sample ID: 400-48348-A-4-C MSDF  
 Client: MaM WaM  
 Dilution: 1.0M  
 Date Analyzed: 06/21/2010 1116,  
 Date Prepared: 06/18/2010 1100M

Instrument: HYDRAP  
 Lab File ID: 062110b.P, N.  
 Initial Volume: 40 mL  
 Final Volume: 40 mL

Analyte	% Recovery		Concentration	PDF	PD Limit	MS Quality	MSD Quality
	MSF	MSDF					
M) cury.	43	41.	71 - 125M	4h	24h	F,	F,

DATA REPORT:ND D ALI Fa RSh

Client: ARCADIS U.S., Inc.-

Job Number: 400-48250-1M

Lab Section	Qualifier	Description
etalsb	Fb	S or MSD exceeds the control limits



# L1gin Sam1le Recei1t CheckList1

Client: ARCADIS U.S., Inc.-

Job Number: 400-48250-1M

**L1gin Number: 48250N**

**List Source: TestAmerica PensacolaN**

**Creator: Hor, KomaN**

**List Number: 1N**

QuestionN	F/ NAN	CommentN
RMioMctivity either w) s not meMured or, if meMured, is M or below M bMckgroundc	N/AM	
The cooler's custody seM, if present, is intMt.-	N/AM	
The cooler or s, mples do not MppeM to have been compromised or M tMnpered with.-	TrueM	
SMmples were received on ice.-	TrueM	
Cooler TemperMure is MceptMble.-	TrueM	
Cooler TemperMure is recorded.-	TrueM	0.0°CM
COC is present.-	TrueM	
COC is filled out in ink Mnd legible.-	TrueM	
COC is filled out with MI pertinent informMion.-	TrueM	
There Me no discrep ncies between the s, mple IDs on the contMners Mnd M the COC.-	TrueM	
SMmples Me received within Holding Time.-	TrueM	
SMmple contMners have legible lMels.-	TrueM	
ContMners Me not broken or leMking.-	TrueM	
SMmple collection dcte/times Me provided.-	TrueM	
AppropriMe s, mple contMners Me used.-	TrueM	
SMmple bottles Me completely filled.-	TrueM	
There is sufficient vol. for MI requested MhMyses, incl. Mhy requested M MS/MSDs,	TrueM	
VOA s, mple viMs do not have heMlsp ce or bubble is <6mm (, /4") in M diMmeter.-	TrueM	
If necess, ry, stMf have been informed of Mhy short hold time or quick TAT M needs,	TrueM	
Multiphabic s, mples Me not present.-	TrueM	
SMmples do not require splitting or compositing.-	TrueM	
Is the Field SMmpler's nMme present on COC?M	TrueM	
SMmple PreservStion Verifiedc	TrueM	

## ANALYTICAL REPORT

Job Number: 680-59824-1

Job Description: UNC Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
8/10/2010 11:18 AM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
08/10/2010

cc: Mr. Adam Tripp

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404

Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



## METHOD SUMMARY:

Client: ARCADIS U.S., Inc.

Job Number: 680-5924-1C

Description:	Lab Location:	Method:	Preparation Method:
<b>Matrix: Water:</b>			
Volatile . a nic Com. oun. (GC/MS)C	TAL SAVC	SW84C8.20 BC	
Pur. an. TApC	TAL SAVC		SW84C50 30BC
MCal. (ICP)C	TAL SAVC	SW84C60 10C.	
Preparation, Extractable MCal.	TAL SAVC		SM 3030C.

### Lab References:

TAL SAV = TC tAmerica SavannahC

### Method References:

SM = "Stan.aC MCh. For ThCExamination .f Water An. Waste water",.

SW84C = "TC t MCh. For Evaluatin. Soli. Waste, Physical/ChOnic al MCh. " , Thir. EdOn, NovOnber 19CAn. It. . U. a te.



**METHOD / A9 AL1ST SUMMAR**

Client: ARCADIS U.S., Inc.C

Job Number: 680-59824-1C

<b>M: thN</b>			<b>AnalystN</b>	<b>Analyst ID:</b>
SW846	8260BC		Bearden, RobertC	RBC
SW846	6010C	BC	Bland, BrianCC	B

## SAMPLD SUMMARY2

Client: ARCADIS U.S. , Inc.C

Job Number: 680-59824-1C

<b>Lab Sample I2</b>	<b>City Sample I2</b>	<b>City Material</b>	<b>Date : Sampledb</b>	<b>Date : Reyeyedb</b>
0-59824-1U	luentU	WaterU	07/27/2010 1440U	07/28/2010 0856U

Client: ARCADIS U.S., Inc.U

Job Number: 680-59824-1U

## Client Sample ID: d Effluent

Lab Sample ID:U 0-59824-1U  
Client Uatrix:U WaterUDate Sampled: 07/27/2010 1440U  
Date Received: 07/28/2010 0856U

## 8260BdVolatileOrganic Compounds(GC/MS):

ethod:U	260BU	Analysis Batch: 680-175708U	Instrument ID:U	SO2U
Preparation:U	030BU		Lab File ID:U	o0058.dU
Dilution:U	1.0U		Initial Weight/Volume:U	m L.
Date Analyzed:U	07/29/2010 1533U		Final Weight/Volume:U	m L.
Date Prepared:U	07/29/2010 1533U			

AnalyteU	Result (ug/L)	QualifierU	RL.
AcetoneU	25	U	25U
BenzeneU	1.0	U	1.0U
BromoformU	1.0	U	1.0U
BromomethaneU	1.0	U	1.0U
Carbon disulfideU	2.0	U	2.0U
Carbon tetrachlorideU	1.0	U	1.0U
ChlorobenzeneU	1.0	U	1.0U
ChlorodibromomethaneU	1.0	U	1.0U
ChloroethaneU	1.0	U	1.0U
ChloroformU	1.0	U	1.0U
ChloromethaneU	1.0	U	1.0U
cis-1,2-DichloroetheneU	1.0	U	1.0U
cis-1,3-DichloropropeneU	1.0	U	1.0U
DichlorobromomethaneU	1.0	U	1.0U
1,1-DichloroethaneU	1.0	U	1.0U
1,2-DichloroethaneU	1.0	U	1.0U
1,1-DichloroetheneU	1.0	U	1.0U
1,2-DichloropropaneU	1.0	U	1.0U
Diethyl etherU	45U		10U
EthylbenzeneU	1.0	U	1.0U
2-HexanoneU	10	U	10U
ethylene ChlorideU		.0	5.0U
2-Butanone (UEK)U	10	U	10U
4-Uethyl-2-pentanone (UIBK)U	10	U	10U
StyreneU	1.0	U	1.0U
1,1,2,2-TetrachloroethaneU	1.0	U	1.0U
TetrachloroetheneU	1.0	U	1.0U
TolueneU	1.0	U	1.0U
trans-1,2-DichloroetheneU	1.0	U	1.0U
trans-1,3-DichloropropeneU	1.0	U	1.0U
1,1,1-TrichloroethaneU	1.0	U	1.0U
1,1,2-TrichloroethaneU	1.0	U	1.0U
TrichloroetheneU	1.0	U	1.0U
Vinyl chlorideU	1.0	U	1.0U
Xylenes, TotalU	2.0	U	2.0U
SurrogateU	%RecU	QualifierU	Acceptance LimitsU
4-BromofluorobenzeneU	93U		75 - 120U
DibromofluoromethaneU	98U		75 - 121U
Toluene-d8 (Surr)U	102U		75 - 120U

Client: ARCADIS U.S., Inc.U

Job Number: 680-59824-1U

ClientSampleID:d Effluenty

Lab Sample ID:U 0-59824-1U  
Client Uatrix:U WaterU

Date Sampled: 07/27/2010 1440U  
Date Received: 07/28/2010 0856U

---

6010C Metalsq(ICP):

ethod:U	010CU	Analysis Batch: 680-176620U	Instrument ID:U	ICPDU
Preparation:U	3030CU	Prep Batch: 680-175681U	Lab File ID:U	080610.chrU
Dilution:U	1.0U		Initial Weight/Volume:U	0 m L.
Date Analyzed:U	08/06/2010 2204U		Final Weight/Volume:U	0 m L.
Date Prepared:U	07/29/2010 1241U			

---

AnalyteU	Result (ug/L)U	QualifierU	RL.
ArsenicU	20		20U
ChromiumU	10	U	10U
CopperU	20		20U
LeadU	10	U	10U
ZincU	100		100U

**DATA REPORT: D ALIQUOTS**

Client: ARCADIS U.S., Inc.

Job Number: 680-59824-1U

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
GC/MS V. AU		Indicates the analyte was analyzed for but not detected.
Metals	T	Indicates the analyte was analyzed for but not detected.

## Quality Control Resultsy

Client: ARCADIS U.S., Inc.

Job Number: 680-59C24-1C

**Method Blank - Batch: y80 -175708u**

**Method: 8260Bu**  
**Preparation: 5030Bu**

Lab Sample ID.: MB 680-175708/T  
 Client Matrixe Water.  
 Dilution.: 1.0.  
 Date Analyz4dU 07/29/2010 1144C  
 Date PU pa. dU 07/29/2010 1144C

Analysis BatchM 680-175708.  
 PU p BatchM/A.  
 Units- ug/Le

Instrument ID.: MSO2C  
 Lab File ID.: oq220.dU  
 Initial Weight/Volume.: 5 mL  
 Final Weight/Volume.: 5 mL

Analyte.	Result.	Qual.	RLe
Acetone.	25.	U.	25.
Benzene.	0.	U.	1.0.
Bromoform.	0.	U.	1.0.
Bromomethane.	0.	U.	1.0.
Carbon disulfide	0.	U.	2.0.
Carbon tetrachloride	0.	U.	1.0.
Chlorobenzene.	0.	U.	1.0.
Chlorodibromomethane.	0.	U.	1.0.
Chloroethane.	0.	U.	1.0.
Chloroform.	0.	U.	1.0.
Chloromethane.	0.	U.	1.0.
cis-1,2-Dichloroethane.	0.	U.	1.0.
cis-1,3-Dichloropropane.	0.	U.	1.0.
Dichlorobromomethane.	0.	U.	1.0.
1,1-Dichloroethane.	0.	U.	1.0.
1,2-Dichloroethane.	0.	U.	1.0.
1,1-Dichloroethane.	0.	U.	1.0.
1,2-Dichloropropane.	0.	U.	1.0.
Diethyl ether	10.	U.	10.
Ethylbenzene.	0.	U.	1.0.
2-Hexanone.	10.	U.	10.
Methylene Chloride	5.0.	U.	5.0.
2-Butanone (MEK)	10.	U.	10.
4-Methyl-2-pentanone (MIBK)	10.	U.	10.
Styrene.	0.	U.	1.0.
1,1,2-Trichloroethane.	0.	U.	1.0.
Trichloroethane.	0.	U.	1.0.
Toluene.	0.	U.	1.0.
trans-1,2-Dichloroethane.	0.	U.	1.0.
trans-1,3-Dichloropropane.	0.	U.	1.0.
1,1,1-Trichloroethane.	0.	U.	1.0.
1,1,2-Trichloroethane.	0.	U.	1.0.
Trichloroethane.	0.	U.	1.0.
Vinyl chloride	0.	U.	1.0.
Xylenes, Total.	0.	U.	2.0.

Surrogate.	% Rec.	Acceptance Limits-
4-Bromofluorobenzene.	94C	75 - 120.
Dibromofluoromethane.	99C	75 - 121C
Toluene-dU (Surr)	99C	75 - 120.

## Quality Control Resultsu

Client: ARCADIS U.S., Inc.

Job Number: 680-59C24-1C

**Lab Control Sample/u**  
**Lab Control Sample Duplicate Recovery Report - Batch: 680-175708u**

**Method: 8260Bu**  
**Preparation: 5030Bu**

LCS Lab Sample ID.: LCS 680-175708/5.  
 Client Matrixe Water.  
 Dilution:. 1.0.  
 Date Analyz4dU 07/29/2010 0949C  
 Date PU pa. dU 07/29/2010 0949C

Analysis BatchM 680-175708.  
 PU p BatchMN/A.  
 Units- ug/Le

Instrument ID.: MSO2C  
 Lab File ID.: oq212QU  
 Initial Weight/Volume:. 5 mL  
 Final Weight/Volume:. 5 mL

LCSD Lab Sample ID.: LCSD 680-175708/T  
 Client Matrixe Water.  
 Dilution:. 1.0.  
 Date Analyz4dU 07/29/2010 101C  
 Date PU pa. dU 07/29/2010 101C

Analysis BatchM 680-175708.  
 PU p BatchMN/A.  
 Units- ug/Le

Instrument ID.: MSO2C  
 Lab File ID.: oq214QU  
 Initial Weight/Volume:. 5 mL  
 Final Weight/Volume:. 5 mL

Analyte.	% Rec.		Limit.	RPD.	RPD Limit.	LCS Qual.	LCSD Qual.
	LCS.	LCSD.					
Acetone.	91C	93U	17 - 175.	2C	50.		
Benzene.	99C	99C	77 - 119C	0.	30.		
Bromoform.	102C	101C	2 - 133U	1C	30.		
Bromomethane.	72C	73U	12 - 104C	1C	50.		
Carbon disulfide	9C	9C	55 - 131C	0.	30.		
Carbon tetrachloride	103U	102C	71 - 135.	1C	30.		
Chlorobenzene.	9C	100.	5 - 11C	2C	30.		
Chlorodibromomethane.	102C	104C	75 - 133U	1C	30.		
Chloroethane.	92C	94C	40 - 105.	2C	50.		
Chloroform.	99C	100.	2 - 120.	1C	30.		
Chloromethane.	91C		40 - 142C	4C	50.		
cis-1,2-Dichloroethane.	97N	9C	9 - 134C	2C	30.		
cis-1,3-Dichloropropane.	102C	102C	7N - 12C	0.	30.		
Dichlorobromomethane.	103U	104C	7N - 127N	1C	30.		
1,1-Dichloroethane.	100.	101C	74 - 127N	1C	30.		
1,2-Dichloroethane.	100.	101C	- 132C	1C	30.		
1,1-Dichloroethane.	956.	94C	2 - 141C	1C	30.		
1,2-Dichloropropane.	99C	9C	73 - 124C	1C	30.		
Ethylbenzene.	102C	103U	- 11C	1C	30.		
2-Hexanone.	106.	107N	34 - 101C	1C	30.		
Methylene Chloride	9C	99C	70 - 125.	2C	30.		
2-Butanone (MEK)	9C	9C	33 - 157N	1C	30.		
4-Methyl-2-pentanone (MIBK)	105.	106.	40 - 151C	1C	30.		
Styrene.	94C	9C	2 - 122C	2C	30.		
1,1,2,2-Tetrachloroethane.	101C	102C	9 - 129C	1C	30.		
Tetrachloroethane.	97N	94C	7N - 12C	3U	30.		
Toluene.	103U	104C	1 - 117N	1C	30.		
trans-1,2-Dichloroethane.	97N	9C	72 - 131C	2C	30.		
trans-1,3-Dichloropropane.	105.	106.	73 - 12C	0.	30.		
1,1,1-Trichloroethane.	101C	101C	7N - 127N	0.	30.		
1,1,2-Trichloroethane.	99C	99C	75 - 121C	0.	30.		
Trichloroethane.	94C	97N	4 - 115.	3U	30.		
Vinyl chloride	9C	9C	59 - 144C	2C	50.		

**Quality Control Results**

Client: ARCADIS U.S., Inc.

Job Number: 680-5924-1C

**Lab Control Sample/u**  
**Lab Control Sample Duplicate Recovery Report - Batch: 680-175708u**

**Method: 8260Bu**  
**Preparation: 5030Bu**

LCS Lab Sample ID.: LCS 680-175708/5.  
 Client Matrixe Water.  
 Dilution.: 1.0.  
 Date Analyz4dU 07/29/2010 0949C  
 Date PU pa. dU 07/29/2010 0949C

Analysis BatchM 680-175708.  
 PU p BatchMN/A.  
 Units- ug/Le

Instrument ID.: MSO2C  
 Lab File ID.: oq2120U  
 Initial Weight/Volume.: 5 mL  
 Final Weight/Volume.: 5 mL

LCSD Lab Sample ID.: LCSD 680-175708/T  
 Client Matrixe Water.  
 Dilution.: 1.0.  
 Date Analyz4dU 07/29/2010 101C  
 Date PU pa. dU 07/29/2010 101C

Analysis BatchM 680-175708.  
 PU p BatchMN/A.  
 Units- ug/Le

Instrument ID.: MSO2C  
 Lab File ID.: oq2140U  
 Initial Weight/Volume.: 5 mL  
 Final Weight/Volume.: 5 mL

Analyte.	% Rec.		Limit.	RPD.	RPD Limit.	LCS Qual.	LCSD Qual.
	LCS.	LCSD.					
Xylenes, Total.	958.	95.	4 - 11C	0.	30.		
Surrogate.	LCS % Rec.		LCSD % Rec.		Acceptance Limits-		
4-Bromofluorobenzene.	9C		99C		75 - 120.		
Dibromofluoromethane.	99C		99C		75 - 121C		
Toluene-dU(Surr)M	102C		101C		75 - 120.		



**Quality Control Resultsu**

Client: ARCADIS U.S., Inc.

Job Number: 680-59C24-1C

**Method Blank - Batch: 680-175681u**

Lab Sample ID.: MB 680-175681/7-A.  
 Client Matrixe Water.  
 Dilution.: 1.0.  
 Date Analyz4dU 08/06/2010 2142C  
 Date PU pa. dU 07/29/2010 1241C

Analysis BatchM 680-17N 20.  
 PU p BatchM 680-175681C  
 Units- ug/Le

**Method: 6010Cu  
 Preparation: 3030Cu**

Instrument ID.: ICPD.  
 Lab File ID.: 080610.chM  
 Initial Weight/Volume.: 50 mL  
 Final Weight/Volume.: 50 mL

Analyte.	Result.	Qual.	RLe
A.s-nic.	20.	U.	20.
ChMmium.	10.	U.	10.
CoppU	20.	U.	20.
LeadU	10.	U.	10.
Zinc.	100.	U.	100.

**Lab Control Sample - Batch: 680-175681u**

Lab Sample ID.: LCS 680-175681/7A.  
 Client Matrixe Water.  
 Dilution.: 1.0.  
 Date Analyz4dU 08/06/2010 214C  
 Date PU pa. dU 07/29/2010 1241C

Analysis BatchM 680-17N 20.  
 PU p BatchM 680-175681C  
 Units- ug/Le

**Method: 6010Cu  
 Preparation: 3030Cu**

Instrument ID.: ICPD.  
 Lab File ID.: 080610.chM  
 Initial Weight/Volume.: 50 mL  
 Final Weight/Volume.: 50 mL

Analyte.	SpikUAmount.	Result.	% Rec.	Limit.	Qual.
Ars-nic.	2000.	2020.	101C	75 - 125.	
ChMmium.	200.	204C	102C	75 - 125.	
CoppU	250.	254C	101C	75 - 125.	
LeadU	500.	512C	102C	75 - 125.	
Zinc.	500.	51C	103U	75 - 125.	



## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-59824-1U

Job Number: 59824P

List Source: TestAmerica Savannah

Creator: Mickligbter, MarilyT

List Number: 1N

Question	F/ N/A	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <math>1/4''</math> in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	

## ANALYTICAL REPORT

Job Number: 400-49244-1

Job Description: UNC-Airport Road

For:

ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix



Approval for release:  
Marty Edwards  
Senior Project Manager  
08/04/10 1:39 PM

---

Marty Edwards  
Senior Project Manager  
marty.edwards@testamericainc.com  
08/04/2010

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page. TestAmerica Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250509), New Jersey (FL006), North Carolina (314), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-09-1), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

TestAmerica Laboratories, Inc.

TestAmerica Pensacola 3355 McLemore Drive, Pensacola, FL 32514

Tel (850) 474-1001 Fax (850) 478-2671 [www.testamericainc.com](http://www.testamericainc.com)



**Job Narrative**  
**400-49244-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**Metals**

Method 1631E: The matrix spike duplicate (MSD) recovery for batch 400-113618 \ 400-13658 was outside control limits. The associated laboratory control samples (LCS/LCSD) recoveries met acceptance criteria. Data was flagged and reported as is.

No other analytical or quality issues were noted.

## METHOD SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 400-49244-1

<b>Description</b>	<b>Lab Location</b>	<b>Method</b>	<b>Preparation Method</b>
<b>Matrix</b> Water			
Mercury, Low Level (CVAFS)	TAL PEN	EPA 1631E	
Preparation, Mercury, Low Level	TAL PEN		EPA 1631E

### Lab References:

TAL PEN = TestAmerica Pensacola

### Method References:

EPA = US Environmental Protection Agency

## METHOD / ANALYST SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 400-49244-1

<b>Method</b>	<b>Analyst</b>	<b>Analyst ID</b>
EPA 1631E	Jones, Randy	RJ

## SAMPLE SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 400-49244-1

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Client Matrix</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>
400-49244-1	EFFLUENT	Water	07/27/2010 1440	07/28/2010 0924



# **SAMPLE RESULTS**

## Analytical Data

Client: ARCADIS U.S., Inc.

Job Number: 400-49244-1

**Client Sample ID: EFFLUENT**

Lab Sample ID: 400-49244-1

Date Sampled: 07/27/2010 1440

Client Matrix: Water

Date Received: 07/28/2010 0924

---

### 1631E Mercury, Low Level (CVAFS)

Method: 1631E

Analysis Batch: 400-113658

Instrument ID: HYDRA

Preparation: 1631E

Prep Batch: 400-113618

Lab File ID: 072910b.PRN

Dilution: 1.0

Initial Weight/Volume: 40 mL

Date Analyzed: 07/29/2010 1101

Final Weight/Volume: 40 mL

Date Prepared: 07/28/2010 1445

Analyte	Result (ng/L)	Qualifier	RL
Mercury	<0.50		0.50

# QUALITY CONTROL RESULTS

## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 400-49244-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Metals</b>					
<b>Prep Batch: 400-113618</b>					
LCS 400-113618/2-A	Lab Control Sample	T	Water	1631E	
LCSD 400-113618/3-A	Lab Control Sample Duplicate	T	Water	1631E	
MB 400-113618/1-A	Method Blank	T	Water	1631E	
400-49231-A-1-B MS	Matrix Spike	T	Water	1631E	
400-49231-A-1-C MSD	Matrix Spike Duplicate	T	Water	1631E	
400-49244-1	EFFLUENT	T	Water	1631E	
<b>Analysis Batch:400-113658</b>					
LCS 400-113618/2-A	Lab Control Sample	T	Water	1631E	400-113618
LCSD 400-113618/3-A	Lab Control Sample Duplicate	T	Water	1631E	400-113618
MB 400-113618/1-A	Method Blank	T	Water	1631E	400-113618
400-49231-A-1-B MS	Matrix Spike	T	Water	1631E	400-113618
400-49231-A-1-C MSD	Matrix Spike Duplicate	T	Water	1631E	400-113618
400-49244-1	EFFLUENT	T	Water	1631E	400-113618

**Report Basis**

T = Total

## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 400-49244-1

**Method Blank - Batch: 400-113618**

**Method: 1631E**  
**Preparation: 1631E**

Lab Sample ID: MB 400-113618/1-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/29/2010 0932  
Date Prepared: 07/28/2010 1215

Analysis Batch: 400-113658  
Prep Batch: 400-113618  
Units: ng/L

Instrument ID: HYDRA  
Lab File ID: 072910b.PRN  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
Mercury	<0.50		0.50

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 400-113618**

**Method: 1631E**  
**Preparation: 1631E**

LCS Lab Sample ID: LCS 400-113618/2-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/29/2010 0940  
Date Prepared: 07/28/2010 1215

Analysis Batch: 400-113658  
Prep Batch: 400-113618  
Units: ng/L

Instrument ID: HYDRA  
Lab File ID: 072910b.PRN  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

LCSD Lab Sample ID: LCSD 400-113618/3-A  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 07/29/2010 0948  
Date Prepared: 07/28/2010 1215

Analysis Batch: 400-113658  
Prep Batch: 400-113618  
Units: ng/L

Instrument ID: HYDRA  
Lab File ID: 072910b.PRN  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Mercury	94	92	79 - 121	2	20		

## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 400-49244-1

**Matrix Spike/  
Matrix Spike Duplicate Recovery Report - Batch: 400-113618**

**Method: 1631E  
Preparation: 1631E**

MS Lab Sample ID: 400-49231-A-1-B MS      Analysis Batch: 400-113658  
Client Matrix: Water                              Prep Batch: 400-113618  
Dilution: 1.0  
Date Analyzed: 07/29/2010 1004  
Date Prepared: 07/28/2010 1215

Instrument ID: HYDRA  
Lab File ID: 072910b.PRN  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

MSD Lab Sample ID: 400-49231-A-1-C MSD      Analysis Batch: 400-113658  
Client Matrix: Water                              Prep Batch: 400-113618  
Dilution: 1.0  
Date Analyzed: 07/29/2010 1012  
Date Prepared: 07/28/2010 1215

Instrument ID: HYDRA  
Lab File ID: 072910b.PRN  
Initial Weight/Volume: 40 mL  
Final Weight/Volume: 40 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Mercury	81	67	71 - 125	12	24		F

## DATA REPORTING QUALIFIERS

Client: ARCADIS U.S., Inc.

Job Number: 400-49244-1

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
Metals	F	MS or MSD exceeds the control limits





## Login Sample Receipt Check List

Client: ARCADIS U.S., Inc.

Job Number: 400-49244-1

**Login Number: 49244**

**Creator: Chea, Vanda**

**List Number: 1**

**List Source: TestAmerica Pensacola**

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	2.4°C
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	



## ANALYTICAL REPORT

Job Number: 680-60519-1  
Job Description: UNC Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
8/24/2010 4:33 PM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
08/24/2010

cc: Mr. Adam Tripp

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



**n:sS**

No additional co. n tS. k

**Receipt S**

All samples were received in good condition within tSpek raturS rS. uirS n tSS

**GC/MS VOA S**

No analytical o. quality issues were noted.2

**Metals S**

No analytical o. quality issues were noted.2

**VOA Prep S**

No analytical o. quality issues were noted.2

## METHOD SUMMARY:

Client: CMDIS U.S., Inc.

Job Number: 680-60519-12

Description:	Lab Location:	Method:	Preparation Method:
<b>Matrix: Water:</b>			
Volatile Organic Compounds (GC/MS)	T2L S2V2	SW2428. 0 B2	
Purge and Trap	T2L S2V2		SW24250 30B2
Metal (ICP)	T2L S2V2	SW24260 10CM	
Preparation, Extractable Metal	T2L S2V2		SM 3030CM

### Lab References:

T2L S2V = TestAmerica Savannah

### Method References:

SM = "Standard Methods For The Examination Of Water and Wastewater", 2

SW242 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1996 and 1998. Update 2

**METHOD / ANALYST SUMMARY**

Client: ARCADIS U.S., Inc.2

Job Number: 680-60509-1b

<b>M: thN</b>	<b>AnalystN</b>	<b>Analyst ID:</b>
SWM#c 82.0 B4	Lanier, CarolynU	CLM
SWM#c 60 10CU	Bland, BrianU	BCB4

**AMPLS : UMMARY2**

Client: ARCADIS U.S., Inc.2

Job Number: 680-605U9-1b

<b>Lab : ample IDS</b>	<b>Clu : ample IDS</b>	<b>Clu Mark</b>	<b>Date/Time : ampled</b>	<b>Date/Time : Reuewed</b>
0-605U9-1b	luantU	WaterU	08/18/2010 0800U	08/19/2010 0931

Client: ARCADIS U.S., Inc.2

Job Number: 680-605U9-1b

Client Sample ID: Effluent

Lab Sample ID: 0-605U9-1b  
 Client Matrix: Water

Date Sampled: 08U1b 2010 0800U  
 Date Received: 08U9.2010 093U

8260B Volatile Organic Compounds (GC/MS):

Method: 24 B- Analysis Batch: 680-177793U Instrument ID: MSP24  
 Preparation: 0 30B- Lab File ID: p03U .d-  
 Dilution: 1.0U Initial Weight/Volume: m LM  
 Date Analyzed: 08U20U2010 1930U Final Weight/Volume: m LM  
 Date Prepared: 08U20U2010 1930U

Analyte	Res, lit (fg2L)c	QMalifier	RLM
Acetone	24		24
Benzene	1.0U		1.0U
Bromoform	1.0U		1.0U
Bromomethane	1.0U		1.0U
Carbon disulfide	2.0U		2.0U
Carbon tetrachloride	1.0U		1.0U
Chlorobenzene	1.0U		1.0U
Chlorodibromomethane	1.0U		1.0U
Chloroethane	1.0U		1.0U
Chloroform	1.0U		1.0U
Chloromethane	1.0U		1.0U
cis-1,2-Dichloroethene	1.0U		1.0U
cis-1,3-Dichloropropene	1.0U		1.0U
Dichlorobromomethane	1.0U		1.0U
1,1-Dichloroethane	1.0U		1.0U
1,2-Dichloroethane	1.0U		1.0U
1,1-Dichloroethene	1.0U		1.0U
1,2-Dichloropropane	1.0U		1.0U
Diethyl ether	10U		10U
Ethylbenzene	1.0U		1.0U
2-Hexanone	10U		10U
Methylene Chloride	.0U	5U	.0U
2-Butanone (MEK)	10U		10U
4-Methyl-2-pentanone (MIBK)	10U		10U
Styrene	1.0U		1.0U
1,1,2,2-Tetrachloroethane	1.0U		1.0U
Tetrachloroethene	1.0U		1.0U
Toluene	1.0U		1.0U
trans-1,2-Dichloroethene	1.0U		1.0U
trans-1,3-Dichloropropene	1.0U		1.0U
1,1,1-Trichloroethane	1.0U		1.0U
1,1,2-Trichloroethane	1.0U		1.0U
Trichloroethene	1.0U		1.0U
Vinyl chloride	1.0U		1.0U
Xylenes, Total	2.0U		2.0U

Surrogate	%Rec	QMalifier	Acceptance Limits
4-Bromofluorobenzene	103U		7c- 120U
Dibromofluoromethane	9.		7c- 121b
Toluene-d- (Sur)	101b		7c- 120U



Client: ARCADIS U.S., Inc.2

Job Number: 680-60509-1b

Client Sample ID: Effluent

Lab Sample ID: 0-60509-1b  
Client Matrix: Water

Date Sampled: 08/10/2010 08:00  
Date Received: 08/19/2010 09:30

---

6010C Metals (ICP):

Method: 010	CU	Analysis Batch: 680-17099	Instrument ID: ICPD2
Preparation: 3030	CU	Prep Batch: 680-177710	Lab File ID: 002310.chr
Dilution: 1.0			Initial Weight/Volume: 0 m LM
Date Analyzed: 08/23/2010 19:34	M		Final Weight/Volume: 0 m LM
Date Prepared: 08/19/2010 16:32			

---

Analyte	Result (µg/L)	Qualifier	RLM
Arsenic	20		20
Chromium	10		10
Copper	20		20
Lead	10		10
Zinc	100		100

DATA REPORT: NS S ALI# RSh

Client: ARCADIS U.S., Inc.2

Job Number: 680-60509-1b

Lab Section	Qualifier	Description
GC/MS VOAU		Indicates the analyte was analyzed for but not detected.2
Metals,		Indicates the analyte was analyzed for but not detected.2

**Quality Control Results**

Cli2n2 . CMDIS U.S., Inc.2

Job Number: 680-60519-12

**Method Blank - Batch: 680-177793y**

Lab Sample ID2 MB 680-177793/7c  
 Cli2n2MaM2 WaM  
 Dilution2 1.0.  
 DaM. analyzUd- 08/20/2010 1202N  
 DaM Ph paMd- 08/20/2010 1202N

analysis BaM2 680-177793F  
 Ph p BaM2 N/c  
 Uni2sh ug/Lc

**Method: 8260By  
 Preparation: 5030By**

Inshumen2ID2 MSP2N  
 Lab Fil2 ID2 pq390.d-  
 Ini2al W2igh /Volume:. 5 mLc  
 Final W2igh /Volume:. 5 mLc

naly.	sul2	Qual2	Lc
c2 on2	25.	U2	25.
BUnzUh2	1.0.	U	2.0.
BUnmoform.	1.0.	U	2.0.
BUnmome. an2	1.0.	U	2.0.
CaMon disulfid-	2.0.	U2	2.0.
CaMon. ac2lorid-	1.0.	U	2.0.
CMorobenzUh2	1.0.	U	2.0.
CMorodibromome. an2	1.0.	U	2.0.
CMoroe. an2	1.0.	U	2.0.
CMoroform.	1.0.	U	2.0.
CMorome. an2	1.0.	U	2.0.
cis-1,2-Dic2loroe. n2	1.0.	U	2.0.
cis-1,3-Dic2lorop2p2n2	1.0.	U	2.0.
Dic2lorobromome. an2	1.0.	U	2.0.
1,1-Dic2loroe. an2	1.0.	U	2.0.
1,2-Dic2loroe. an2	1.0.	U	2.0.
1,1-Dic2loroe. n2	1.0.	U	2.0.
1,2-Dic2lorop2pan2	1.0.	U	2.0.
Di2 yl e.	10.	U2	10.
EtFylbenzUh2	1.0.	U	2.0.
2-H, anon2	10.	U2	10.
M) yl2n2 CMorid-	5.0.	U2	5.0.
2-Bu.anon2 (MEK)U	10.	U2	10.
4-M) yl-2-p2n2anon2 (MIBK)U	10.	U2	10.
S2y. n2	1.0.	U	2.0.
1,1,2,2-Te. ac2loroe. an2	1.0.	U	2.0.
Te. ac2loroe. n2	1.0.	U	2.0.
Toluen2	1.0.	U	2.0.
ans-1,2-Dic2loroe. n2	1.0.	U	2.0.
ans-1,3-Dic2lorop2p2n2	1.0.	U	2.0.
1,1,1-Tric2loroe. an2	1.0.	U	2.0.
1,1,2-Tric2loroe. an2	1.0.	U	2.0.
Tric2loroe. n2	1.0.	U	2.0.
Vinyl c2lorid-	1.0.	U	2.0.
Xyl2n2s, To.al2	2.0.	U2	2.0.

Surrogat	% c2	cc2p2anc2 Limi2sh
4-BUnmofluorobenzUh2	104M	75 - 120.
Dibromofluorome. an2	99.	75 - 1212
Toluen2 d- (Surr)U	1012	75 - 120.

Quality Control Resultsy

Cli2n2 . CMDIS U.S., Inc.2

Job Number: 680-60519-12

Lab Control Sample/y  
Lab Control Sample Duplicate Recovery Report - Batch: 680-177793y

Method: 8260By  
Preparation: 5030By

LCS Lab Sampl2 ID2 LCS 680-177793/4M  
Cli2n2MaM2 WaM  
Dilu.ion2 1.0.  
DaM. nalyzUd- 08/20/2010 1032N  
DaM Ph paMd- 08/20/2010 1032N

nalysis BaM2 680-177793F  
Ph p BaM2 N/c  
Uni2h ug/Lc

Inshumen2ID2 MSP2N  
Lab Fil2 ID2 pq3F2.d-  
Ini2al W2igh /Volume:. 5 mLc  
Final W2igh /Volume:. 5 mLc

LCSD Lab Sampl2 ID2 LCSD 680-177793/5.  
Cli2n2MaM2 WaM  
Dilu.ion2 1.0.  
DaM. nalyzUd- 08/20/2010 1055.  
DaM Ph paMd- 08/20/2010 1055.

nalysis BaM2 680-177793F  
Ph p BaM2 N/c  
Uni2h ug/Lc

Inshumen2ID2 MSP2N  
Lab Fil2 ID2 pq3F4.d-  
Ini2al W2igh /Volume:. 5 mLc  
Final W2igh /Volume:. 5 mLc

naly.	% . c.2		Limi2	PD2	PD Limi2	LCS Qual2	LCSD Qual2
	LCS2	LCSD2					
c2 on2	9.	3F	17 - 175.	7c	50.		
BUnzUh2	1012	100.	77 - 119.	0.	30.		
BUmofom.	1156.	112N	2 - 133F	3F	30.		
BUmome. an2	58.	72N	12 - 124M	22N	50.		
CaMon disulfid-	1012	100.	55 - 1312	12	30.		
CaMon . ac2lorid-	9.	97c	71 - 135.	12	30.		
CMorobenzUh2	106.	104M	5 - 112	2N	30.		
CMorodibromome. an2	102N	102N	75 - 133F	0.	30.		
CMoroe. an2	912	100.	40 - 125.		50.		
CMoroform.	9.	9.	2 - 120.	0.	30.		
CMorome. an2	97c	97c	4M 142N	0.	50		
cis-1,2-Dic2loroe. n2	1012	1012	9 - 134M	12	30.		
cis-1,3-Dic2lorop2p2n2	102N	103F	7c- 12N	12	30.		
Dic2lorobromome. an2	103F	102N	7c- 127c	12	30.		
1,1-Dic2loroe. an2	100.	102N	74 - 127c	2N	30.		
1,2-Dic2loroe. an2	9.	94M	- 132N	2N	30.		
1,1-Dic2loroe. n2	906.	912	2 - 1412	2N	30.		
1,2-Dic2lorop2pan2	9.	9.	73 - 124M	0.	30.		
Di2 yle.	7c	0.	70 - 1308.		30.		
EtFylbenzUh2	108.	107c	- 112	12	30.		
2-H, anon2	9.	9.	34 - 1212	9.	30.		
M) yl2n2 CMorid-	1012	100.	70 - 125.	12	30.		
2-Bu.anon2 (MEK)U		9.	33 - 157c	12	30.		
4-M) yl-2-p2n2anon2 (MIBK)U	94M	90.	40 - 1512	4M	30.		
S2. n2	1108.	108.	2 - 122N	2N	30.		
1,1,2,2-Te. ac2loroe. an2	105.	102N	9 - 129.	3F	30.		
Te. ac2loroe. n2	112	112	7c- 12N	0.	30.		
Toluen2	100.	100.	1 - 117c	0.	30.		
ans-1,2-Dic2loroe. n2	9.	100.	72 - 1312	4M	30.		
ans-1,3-Dic2lorop2p2n2	104M	104M	73 - 12N	12	30.		
1,1,1-Tric2loroe. an2	108.	107c	7c- 127c	12	30.		
1,1,2-Tric2loroe. an2	99.	97c	75 - 1212	2N	30.		
Tric2loroe. n2	1012	102N	4 - 115.	0.	30.		

**Quality Control Results**

Cli2n2 . CMDIS U.S., Inc.2

Job Number: 680-60519-12

**Lab Control Sample/y**  
**Lab Control Sample Duplicate Recovery Report - Batch: 680-177793y**

**Method: 8260By**  
**Preparation: 5030By**

LCS Lab Sampl2 ID2 LCS 680-177793/4M  
 Cli2n2MaM2 WaM  
 Dilu.ion2 1.0.  
 DaM. nalyzUd- 08/20/2010 1032N  
 DaM Ph paMd- 08/20/2010 1032N

nalysis BaM2 680-177793F  
 Ph p BaM2 N/c  
 Uni2sh ug/Lc

Inshumen2ID2 MSP2N  
 Lab Fil2 ID2 pq3F2.d-  
 Ini2al W2igh /Volume:. 5 mLc  
 Final W2igh /Volume:. 5 mLc

LCSD Lab Sampl2 ID2 LCSD 680-177793/5.  
 Cli2n2MaM2 WaM  
 Dilu.ion2 1.0.  
 DaM. nalyzUd- 08/20/2010 1055.  
 DaM Ph paMd- 08/20/2010 1055.

nalysis BaM2 680-177793F  
 Ph p BaM2 N/c  
 Uni2sh ug/Lc

Inshumen2ID2 MSP2N  
 Lab Fil2 ID2 pq3F4.d-  
 Ini2al W2igh /Volume:. 5 mLc  
 Final W2igh /Volume:. 5 mLc

naly.	% . c.2		Limi2	PD2	PD Limi2	LCS Qual2	LCSD Qual2
	LCS2	LCSD2					
Vinyl c2lorid-	100.	102N	59 - 144M	2N	50.		
Xyl2n2s, To.al2	108.	105.	4 - 112	3F	30.		
SurrogaM		LCS % . c2	LCSD % . c2		cc2p2anc2 Limi2sh		
4-BlomofluorobenzUh2		106.	104M		75 - 120.		
Dibromofluorome. an2		102N	103F		75 - 1212		
Toluen2 d- (Surr)U		100.	100.		75 - 120.		

**Quality Control Resultsy**

Cli2n2 . CMDIS U.S., Inc.2

Job Number: 680-60519-12

**Method Blank - Batch: 680-177710y**

Lab Sampl2 ID2 MB 680-177710/14-.  
 Cli2n2MaM2 WaM  
 Dilu.ion2 1.0.  
 DaM. nalyzUd- 08/23/2010 1737c  
 DaM Ph paMd- 08/19/2010 1232N

analysis BaM2 680-170 99.  
 Ph p BaM2 680-177710.  
 Uni2h ug/Lc

**Method: 6010Cy  
 Preparation: 3030Cy**

Inshumen2ID2 ICPD2  
 Lab Fil2 ID2 082310.c2  
 Ini2al W2igh /Volume:. 50 mLc  
 Final W2igh /Volume:. 50 mLc

naly.	sul2	Qual2	Lc
shnic2	20.	U2	20.
CMomium.	10.	U2	10.
Copp2	20.	U2	20.
Lcad-	10.	U2	10.
Zinc2	100.	U2	100.

**Lab Control Sample - Batch: 680-177710y**

Lab Sampl2 ID2 LCS 680-177710/15-.  
 Cli2n2MaM2 WaM  
 Dilu.ion2 1.0.  
 DaM. nalyzUd- 08/23/2010 1742N  
 DaM Ph paMd- 08/19/2010 1232N

analysis BaM2 680-170 99.  
 Ph p BaM2 680-177710.  
 Uni2h ug/Lc

**Method: 6010Cy  
 Preparation: 3030Cy**

Inshumen2ID2 ICPD2  
 Lab Fil2 ID2 082310.c2  
 Ini2al W2igh /Volume:. 50 mLc  
 Final W2igh /Volume:. 50 mLc

naly.	Spik2. moun2	sul2	% . c.2	Limi2	Qual2
shnic2	2000.	1910.	95.	75 - 125.	
CMomium.	200.	19.	9.	75 - 125.	
Copp2	250.	2312	93F	75 - 125.	
Lcad-	500.	4912	9.	75 - 125.	
Zinc2	500.	495.	99.	75 - 125.	

Serial Number 030220

Website: www.testamericainc.com  
 Phone: (912) 354-7858  
 Fax: (912) 352-0165

TestAmerica Savannah  
 5102 LaRoche Avenue  
 Savannah, GA 31404

Phone:  
 Fax:

Alternate Laboratory Name/Location

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

PROJECT REFERENCE <b>UNC-Airport Rd.</b>	PROJECT NO. <b>NC000239.0018.00001</b>	PROJECT LOCATION (STATE) <b>NC</b>	MATRIX TYPE	REQUIRED ANALYSIS	PAGE <b>1</b> OF <b>1</b>
TAL (LAB) PROJECT MANAGER <b>Kathy Smith</b>	P.O. NUMBER	CONTRACT NO.	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	STANDARD REPORT DELIVERY	DATE DUE
CLIENT (SITE) PM <b>Alan Pinnix</b>	CLIENT PHONE <b>919-854-1282</b>	CLIENT FAX	AIR	EXPEDITED REPORT DELIVERY (SURCHARGE)	DATE DUE
CLIENT NAME <b>ARCADIS</b>	CLIENT E-MAIL <b>apinnix@arcadis-us.com</b>		AQUEOUS (WATER)	NUMBER OF COOLERS SUBMITTED PER SHIPMENT:	
CLIENT ADDRESS <b>801 Corporate Center Dr.</b>			COMPOSITE (C) OR GRAB (G) INDICATE		
COMPANY CONTRACTING THIS WORK (if applicable)					

TO	FROM	DATE	TIME	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS SUBMITTED	REMARKS
08	08	8/18/10	0800	Effluent	31	
09	09					
10	10					
11	11					
12	12					
13	13					
14	14					

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
<i>Devil [Signature]</i>	8/19/10	1700			
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	LABORATORY USE ONLY	LABORATORY REMARKS
<i>Beth Daugherty</i>	8/19/10	0935	YES <input type="checkbox"/> NO <input type="checkbox"/>	SAVANNAH LOG NO. 60519	Temp 33

## LNgin SamNle ReceiNt CheckListN

Client: ARCADIS U.S., Inc.2

Job NUmber: 680-60509-1b

LNgin Number: N0519y  
 CreatNr: Naughtry,SBethy  
 List Number: Nb

List SNurce: TestAmerica Savannahy

QuestiN	F/ NAN	CNmmentN
RUdioUctivity either w) s not meUs, red or, if meUs, red, is Ut or below U bUckgroUhd	N/AU	
The cooler's cUstody seU, if present, is intUct.2	TrUeU	
The cooler or s, mples do not UppeUr to habe been compromised or U tUmpered with.2	TrUeU	
SUmplies were received on ice.2	TrUeU	
Cooler TemperUtUre is UceptUble.2	TrUeU	
Cooler TemperUtUre is recorded.2	TrUeU	
COC is present.2	TrUeU	
COC is filled oUt in ink Uhd legible.2	TrUeU	
COC is filled oUt with UI pertinent informUtion.2	TrUeU	
Is the Field SUmpler's nUme present on COC?U	F, lseU	
There Ure no discrep ncies between the s, mple IDs on the contUners Uhd U the COC.2	TrUeU	
SUmplies Ure received within Holding Time.2	TrUeU	
SUmple contUners habe legible l2bels.2	TrUeU	
ContUners Ure not broken or leUking.2	TrUeU	
SUmple collection dcte/times Ure provided.2	TrUeU	
AppropriUte s, mple contUners Ure Used.2	TrUeU	
SUmple bottles Ure completely filled.2	TrUeU	
SUmple PreservStion Verified	TrUeU	
There is s, ffcient vol. for UI reqUested UnUlyses, incl. Uhy reqUested U MS/MSDs,	TrUeU	
VOA s, mple viUs do not habe heUdsp ce or bUbble is <)mm ( 1/4") in U diUmeter.2	TrUeU	
If necess, ry, stUff habe been informed of Uhy short hold time or qUick TAT U needs,	TrUeU	
M, l tiphabic s, mples Ure not present.2	N/AU	
SUmplies do not reqUre splitting or compositing.2	N/AU	



## ANALYTICAL REPORT

Job Number: 400-49786-1

Job Description: UNC-Airport Road

For:

ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix



Approved for release.  
Marty Edwards  
Senior Project Manager  
8/31/2010 9:59 AM

---

Marty Edwards  
Senior Project Manager  
marty.edwards@testamericainc.com  
08/31/2010

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page. TestAmerica Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250509), New Jersey (FL006), North Carolina (314), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-09-1), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

**TestAmerica Laboratories, Inc.**

TestAmerica Pensacola 3355 McLemore Drive, Pensacola, FL 32514

Tel (850) 474-1001 Fax (850) 478-2671 [www.testamericainc.com](http://www.testamericainc.com)



## METHOD SUMMARY:

Client: CADIS U.S., Inc.)

Job Number: 400-49786-1)

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: Water:</b>			
M) mercury, Low Level (CVAFS)	TAL PEN.	EPA 1631E)	
P) particulate, M) mercury, Low Level (CVAFS)	TAL PEN.		EPA 1631E)

### Lab References:

TAL PEN = TestAmerica Pensacola

### Method References:

EPA = US Environmental Protection Agency

## METHOD / ANALYST SUMMARY

Client: ARCADIS U.S., Inc.2

Job Number: 400-49786-1c

<b>M: thN</b>	<b>AnalystN</b>	<b>Analyst ID:</b>
EPA 1631Ec	Jones, Randyc	RJc

## AMPLS : UMMARY2

Client: ARCADIS U.S., Inc.c

Job Number: 400-49786-1c

<u>Lab : ample IDS</u>	<u>City : ample IDS</u>	<u>City Mark</u>	<u>Date/Time : ampledb</u>	<u>Date/Time : Reyeyedb</u>
400-49786-1c	LUcNTI	Waterc	08/18/k010 0800c	08/19/k010 0948c

TestAmerNa Peys a: ola:

**AMPL : LS**

Client: ARCADIS U.S., Inc.c

Job Number: 400-49786-1c

Client Sample ID: d EFFLUENTa

Lab Sample ID: 2 400-49786-12  
Client Matrix: 2 Water2

Date Sampled: 08/18/2010 08002  
Date Received: 08/19/2010 09482

---

**1631E Mercury, Low Level (CVAFS) D**

Method: 2	1631E2	Analysis Batch: 400-1152832	Instrument ID: 2	HYDRA2
Preparation: 2	1631E2	Prep Batch: 400-1152442	Lab File ID: 2	082310b.PRN2
Dilution: 2	1.02		Initial Weight/Volume: 2	40 mL2
Date Analyzed: 2	08/23/2010 12062		Final Weight/Volume: 2	40 mL2
Date Prepared: 2	08/19/2010 15002			

---

Analyte 2	Result (ng/L) 2	Qualifier 2	RL 2
Mercury 2	<0.502		0.502

# QUALITY CONTROL RESULTS

## Quality Control Results

Client: ARCADIS U.S., Inc.2

Job Number: 400-49786-12

### QC Association Summary

Lay Sample ID-	Client Sample ID-	Reporty asisy	Client Matrix-	Method-	PrepC atchC
<b>Metalsy</b>					
<b>PrepC atchC400-115244C</b>					
LCS 400-115244/2-A2	Lab Control Sample2	Tc	Water2	1631EM	
LCSD 400-115244/3-A2	Lab Control Sample Duplicate2	Tc	Water2	1631EM	
MB 400-115244/1-A2	Md hod Bøankc	Tc	Water2	1631EM	
400-49786-12	EFFLUENTc	Tc	Water2	1631EM	
700-50361-C-4-B MS2	Matrix Spikc	Tc	Water2	1631EM	
700-50361-C-4-C MSD2	Matrix SpikcDuplicate2	Tc	Water2	1631EM	
<b>Analysis y atchC400-115283y</b>					
LCS 400-115244/2-A2	Lab Control Sample2	Tc	Water2	1631EM	400-1152442
LCSD 400-115244/3-A2	Lab Control Sample Duplicate2	Tc	Water2	1631EM	400-1152442
MB 400-115244/1-A2	Md hod Bøankc	Tc	Water2	1631EM	400-1152442
400-49786-12	EFFLUENTc	Tc	Water2	1631EM	400-1152442
700-50361-C-4-B MS2	Matrix Spikc	Tc	Water2	1631EM	400-1152442
700-50361-C-4-C MSD2	Matrix SpikcDuplicate2	Tc	Water2	1631EM	400-1152442

**Report y asisy**

T = Total2



## Quality Control Resultsy

Cli) . CADIS U.S., Inc.)

Job Number: 400-49786-1)

**Method Blank - Batch: 400-y 5244y**

Lab Sample ID MB 400-115244/1-A5  
 Cli) Ma2 xo Wa2  
 Dilu. o. 1.0M  
 Date Analyzed 3/20105 10035  
 at5 P5p a5 d5 19/20105 14305

Analysis Batch 400-1152835  
 P5p Batch 400-1152445  
 Units ng/L5

**Method: y631Eh  
 Preparation: 1631Eh**

Instrument ID HYDRA5  
 Lab File ID 3105 b.PRN.  
 Initial Weight/Volume: 405 mL5  
 Final Weight/Volume: 405 mL5

Analyte	Result	Qual	RL
M5 cury5	<0.505		.505

**Lab Control Sample/h  
 Lab Control Sample Duplicate Recovery Report - Batch: 400-115244h**

LCS Lab Sample ID LCS 400-115244/2-A5  
 Client Material Water  
 Dilution 1.05  
 Date Analyzed 3/20105 10115  
 at5 P5p a5 d5 19/20105 14305

Analysis Batch 400-1152835  
 P5p Batch 400-1152445  
 Units ng/L5

**Method: 1631Eh  
 Preparation: 1631Eh**

Instrument ID HYDRA5  
 Lab File ID 3105 b.PRN.  
 Initial Weight/Volume: 405 mL5  
 Final Weight/Volume: 405 mL5

LCS Lab Sample ID	Analysis Batch	Instrument ID
400-115244/3-A5	400-1152835	HYDRA5
Client Material	P5p Batch 400-1152445	Lab File ID 3105 b.PRN.
Dilution 1.05	Units ng/L5	Initial Weight/Volume: 405 mL5
Date Analyzed 3/20105 10195		Final Weight/Volume: 405 mL5
at5 P5p a5 d5 19/20105 14305		

Analyte	% R5c.5		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
M5 cury5	115	1215	79 - 1215				

## DATA REPORT: NS S ALI Fa RSh

<u>Lab Section</u>	<u>u alifierN</u>	<u>Description</u>
--------------------	-------------------	--------------------

---



# LNgin SamNle ReceiNt CNeckListN

Client: ARCA5S U.S., 5c.2

Job Number: 400-49786-12

LNgin Number: ~~49786h~~

List SNurce: TestAmerica PensacNlaN

CreatNr: CNea, P/anNlaN

List Number: ~~MS~~

QuestiN	F/ NAN	CNmmentN
Radioactivity either was not measured or, if measured, is at or below S backgroundS	N/AS	
The cooler's custody seal, if present, is intact.S	N/AS	
The cooler or samples do not appear to have been compromised or S tampered with.	TrueS	
amples were received on ice.S	TrueS	
Cooler Temperature is acceptable.S	TrueS	2.2°CS
Cooler Temperature is recorded.S	TrueS	
COC is present.S	TrueS	
COC is filled out in ink and legible.S	TrueS	
COC is filled out with all pertinent information.S	TrueS	
Is the Field Sampler's name present on COC?S	TrueS	
There are no discrepancies between the sample IDs on the containers and S the COC.	TrueS	
amples are received within Holding Time.S	True	
ample containers have legible labels.S	TrueS	
Containers are not broken or leaking.S	True	
ample collection date/times are provided.S	TrueS	
Appropriate sample containers are used.S	True	
ample bottles are completely filled.S	True	
ample Preservation VerifiedS	TrueS	
There is sufficient vol. for all requested analyses, incl. any requested S M /MSDsS	TrueS	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in S diameter.S	TrueS	
If necessary, staff have been informed of any short hold time or quick TAT S eedsS	TrueS	
Multiphasic samples are not present.S	True	
amples do not require splitting or compositing.S	TrueS	

## ANALYTICAL REPORT

Job Number: 680-61207-1

Job Description: UNC Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
9/20/2010 4:55 PM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
09/20/2010

cc: Mr. Adam Tripp

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



**Commen:**

No additional co. n tS. 2

**Receipt M**

All saꝑ les weꝑ rScS vld in good condition within tS pk raturS rS uirS n tS.S

**GC/MS VOA M**

No analytical or qdality issdS we2rSn otS .S

**Metals M**

No analytical or qdality issdS we2rSn otS .S

**VOA Prep M**

No analytical or qdality issdS we2rSn otS .S

## METHOD SUMMARY:

Client: CADISM U.S., Inc.

Job Number: 680-6. 207-1M

Description:	Lab Location:	Method:	Preparation Method:
<b>Matrix: Water:</b>			
VolatilOrganic Compounds (GC/MS)	TAL . VM	WM4M6.2M BM	
Purgand TAP	TAL . VM		WM4M5030BM
tals (ICP)	TAL . VM	WM4M60 10CM	
Preparation, Extractables	TAL . VM		3030CM

### Lab References:

TAL . V = TestAmerica Savannah

### Method References:

= "Standard Methods For Examination Of Wastewater",

WM4M= "Standard Methods For Evaluating Solid Waste Physical/Chemical Methods", Third Edition, November 1996. Updated.

**METHOD / ANALYST SUMMARY**

Client: ARCADIS U.S., Inc.S

Job Number M80-S1207-11

<b>M: thN</b>	<b>AnalystM</b>	<b>Analyst ID:</b>
SW846 8260BI	Lanier, Carolyn	LI
SW846 6010CI	Robertson, Bryn	BRI



SAC PLMSU2 ARY2

Client: ARCADIS U.S., Inc.

Job Number: 680-61207-11

Lab Sample ID	Client	Sample ID	Client : a:rt	Date/Time : Sampled	Date/Time : Reheved
680-61207-1U	uentU		WaterU	09/12/2010 1730U	09/14/2010 0907U

# Analytical

Client: ARCADIS U.S., Inc.U

Job Number: 680-61207-1U

**Client Sample ID:** Effluena

Lab Sample ID:U 680-61207-1U  
Client Matrix:U WaterU

Date Sampled: 09/12/2010 1730U  
Date Received: 09/14/2010 0907U

### 8260B Volatile Organic Compounds (GC/MS):

Method:U	8260BU	Analysis Batch: 680-180258U	Instrument ID:U	MSPU
Preparation:U	5030BU		Lab File ID:U	p0209.d-
Dilution:U	1.0U		Initial Weight/Volume:U	5 mL
Date Analyzed:U	09/17/2010 1928U		Final Weight/Volume:U	5 mL
Date Prepared:U	09/17/2010 1928U			

AnalyteU	Result (ug/L)	QualifierU	RLI
AcetoneU	25	U	25U
BenzeneU	1.0	U	1.0U
BromoformU	1.0	U	1.0U
BromomethaneU	1.0	U	1.0U
Carbon disulfideU	2.0	U	2.0U
Carbon tetrachlorideU	1.0	U	1.0U
ChlorobenzeneU	1.0	U	1.0U
ChlorodibromomethaneU	1.0	U	1.0U
ChloroethaneU	1.0	U	1.0U
ChloroformU	1.0	U	1.0U
ChloromethaneU	1.0	U	1.0U
cis-1,2-DichloroetheneU	1.0	U	1.0U
cis-1,3-DichloropropeneU	1.0	U	1.0U
DichlorobromomethaneU	1.0	U	1.0U
1,1-DichloroethaneU	1.0	U	1.0U
1,2-DichloroethaneU	1.0	U	1.0U
1,1-DichloroetheneU	1.0	U	1.0U
1,2-DichloropropaneU	1.0	U	1.0U
Diethyl etherU	10	U	10U
EthylbenzeneU	1.0	U	1.0U
2-HexanoneU	10	U	10U
Methylene ChlorideU	5.0	U	5.0U
2-Butanone (MEK)U	10	U	10U
4-Methyl-2-pentanone (MIBK)U	10	U	10U
StyreneU	1.0	U	1.0U
1,1,2,2-TetrachloroethaneU	1.0	U	1.0U
TetrachloroetheneU	1.0	U	1.0U
TolueneU	1.0	U	1.0U
trans-1,2-DichloroetheneU	1.0	U	1.0U
trans-1,3-DichloropropeneU	1.0	U	1.0U
1,1,1-TrichloroethaneU	1.0	U	1.0U
1,1,2-TrichloroethaneU	1.0	U	1.0U
TrichloroetheneU	1.0	U	1.0U
Vinyl chlorideU	1.0	U	1.0U
Xylenes, Total	2.0	U	2.0U
SurrogateU	%RecU	QualifierU	Acceptance LimitsU
4-BromofluorobenzeneU	92U		75 - 120U
DibromofluoromethaneU	96U		75 - 121U
Toluene-d8 (Surr)U	96U		75 - 120U

**Anal y ical**

Client: ARCADIS U.S., Inc.U

Job Number: 680-61207-1U

Client Sample ID: Effluena

Lab Sample ID:U 680-61207-1U  
Client Matrix:U WaterU

Date Sampled: 09/12/2010 1730U  
Date Received: 09/14/2010 0907U

---

**6010C MeNI sq(ICP):**

Method:U	6010CU	Analysis Batch: 680-180424U	Instrument ID:U	ICPDU
Preparation:U	3030CU	Prep Batch: 680-180001U	Lab File ID:U	091910.chrU
Dilution:U	1.0U		Initial Weight/Volume:U	50 mL
Date Analyzed:U	09/20/2010 0209I		Final Weight/Volume:U	50 mL
Date Prepared:U	09/15/2010 1232U			

---

AnalyteU	Result (ug/L)U	QualifierU	RLI
ArsenicU	20		20U
ChromiumU	10		10U
CopperU	20		20U
Lead-U	10		10U
ZincU	100		100U

DATA REPORT: NM M ALI Fa R Sh

Client: ARCADIS U.S., Inc.U

Job Number: 680-61207-1U

Lab Section	Qualifier	Description
-------------	-----------	-------------

---

GC/MS VOAU

Indicate the analyte was analyzed for but not detected.

Meta.

Indicate the analyte was analyzed for but not detected.

## Quality Control Results

Client: CADISM U.S., Inc.

Job Number: 680-61207-1M

**Method Blank - Batch: h0 -18025u**

**Method: h210 Bh**  
**Preparation: 5030Bh**

Lab . amp MB 680-10 25U95  
 Client Mat Wat  
 Dilution 1.0.  
 atM nalyzUd- 09/57/2010 1207M  
 atMPh pal d- 09/57/2010 1207M

Analysis Batch 680-10 25U  
 Ph p Batch N.  
 Unitsh ug/Lc

Instrument: M) Ph  
 Lab File pq139.d  
 Initial Volume: 5 mL  
 Final Volume: 5 mL

analyte	result	Quality	Lc
Monomer	25U	UM	25U
Benzene	1.0	U	MO.
Benzenesulfone	1.0	U	MO.
Bromobenzene	1.0	U	MO.
Carbon disulfide	2.0	U	MO.
Carbon tetrachloride	1.0	U	MO.
Chlorobenzene	1.0	U	MO.
Chlorodibromomethane	1.0	U	MO.
Chloroethane	1.0	U	MO.
Chloroform	1.0	U	MO.
Chloromethane	1.0	U	MO.
cis-1,2-dichloroethane	1.0	U	MO.
cis-1,3-dichloropropane	1.0	U	MO.
1,1-dichloroethane	1.0	U	MO.
1,2-dichloroethane	1.0	U	MO.
1,1-dichloroethane	1.0	U	MO.
1,2-dichloropropane	1.0	U	MO.
Diethyl ether	10	UM	10
Ethylbenzene	1.0	U	MO.
2-Hexanone	10	UM	10
Methyl chloride	5.0	UM	5.0
2-Butanone (MEK)	10	UM	10
4-Methyl-2-pentanone (MIBK)	10	UM	10
Acetylene	1.0	U	MO.
1,1,2-Tetrachloroethane	1.0	U	MO.
Tetrachloroethane	1.0	U	MO.
Toluene	1.0	U	MO.
trans-1,2-dichloroethane	1.0	U	MO.
trans-1,3-dichloropropane	1.0	U	MO.
1,1,1-Trichloroethane	1.0	U	MO.
1,1,2-Trichloroethane	1.0	U	MO.
Trichloroethane	1.0	U	MO.
Vinyl chloride	1.0	U	MO.
Xylenes, Total	2.0	U	MO.

Surrogate	% CM	ccMptancMLimitsh
4-Fluorobenzene	95U	75 - 120.
1-bromofluoromethane	95	75 - 121M
Toluene-d (1,3)	95	75 - 120.

Quality Control Results6

Client: CADISM U.S., Inc.

Job Number: 680-61207-1M

Lab Control Sample/6

Lab Control Sample Duplicate Recovery Report - Batch: 680-1802586

Method: 8260B6

Preparation: 5030B6

LCSDM Lab . ampLM LCSM 680-18025U n alysis Batch# 680-18025U nstMent . M) Ph  
 Client MatM WatM Ph p Batch# N. Lab File pq131.d-  
 dilutionM 1.0. Unitsh ug/Lc nitial WMghtVolume:. 5 mLc  
 atM n alyzUd- 09/57/2010 1010. Final WMghtVolume:. 5 mLc  
 atM Ph pal d- 09/57/2010 1010.

LCSDM Lab . ampLM LCSDM 680-18025U7M n alysis Batch# 680-18025U nstMent . M) Ph  
 Client MatM WatM Ph p Batch# N. Lab File pq133.d-  
 dilutionM 1.0. Unitsh ug/Lc nitial WMghtVolume:. 5 mLc  
 atM n alyzUd- 09/57/2010 10395 Final WMghtVolume:. 5 mLc  
 atM Ph pal d- 09/57/2010 10395

analytM	% . c.M		LimitM	Ph	Ph LimitM	LCSMQualM	LCSDMQualM
	LCSM	LCSDM					
cMonM	5U		17 - 175U	3I	50.		
Bl n zUhM	95U	93I	77 - 1195	2M	30.		
Blomofom.	102M	100.	2 - 133I	2M	30.		
BlomomethanM	72M	7M	12 - 14U		50.		
Calbon disulfid-	103I	101M	55 - 131M	2M	30.		
Calbon tMchlorid-	107M	108.	71 - 135U	0.7M	30.		
ChlorobenzUhM	95	995	5 - 11M	1M	30.		
ChlorodibromomethanM	105U	104U	75 - 133I	0.4U	30.		
ChloroethanM	95	995	40 - 15U	3I	50.		
Chloroform.	100.	101M	2 - 120.	0.3I	30.		
ChloromethanM	105U	105U	4U - 142M	0.5U	50.		
cis-1,2-.ic hloroethl nM	100.	95	9 - 134U	4U	30.		
cis-1,3-.ic hlorop2p2nM	95	97M	7M - 12M	0 .M	30.		
ic hlorobromomethanM	100.	995	7M - 127M	0.1M	30.		
1,1-.ic hloroethanM	95	100.	74 - 127M	2M	30.		
1,2-.ic hloroethanM		7M	- 132M	1M	30.		
1,1-.ic hloroethl nM	104U	106.	2 - 141M	2M	30.		
1,2-.ic hlorop2panM	92M	93I	73 - 124U	1M	30.		
iM thyl ethl	103I	104U	70 - 130.	1M	30.		
EthylbenzUhM	100.	101M	- 11M	1M	30.		
2-Hl anonM	3I	4U	34 - 1M1M	1M	30.		
M) thylMchlorid-	995	995	70 - 125U	0.5U	30.		
2-ButanonM(MEK)I	95	93I	33 - 157M	3I	30.		
4-M) thyl-2-p2ntanonM(M)BK)I	1M	0.	40 - 151M	1M	30.		
t yS nM	101M	100.	2 - 122M	0.5U	30.		
1,1,2,2-TetMchloroethanM		95	9 - 1295	0.1M	30.		
TetMchloroethl nM	102M	101M	7M - 12M	0 .1M	30.		
ToluenM	95U	95U	1 - 117M	0.03I	30.		
tMns-1,2-.ic hloroethl nM	102M	103I	72 - 131M	0.3I	30.		
tMns-1,3-.ic hlorop2p2nM	95	95U	73 - 12M	3I	30.		
1,1,1-TrichloroethanM	101M	995	7M - 127M	2M	30.		
1,1,2-TrichloroethanM	91M	90.	75 - 121M	1M	30.		
Trichloroethl nM	95	95	4 - 115U	0.08.	30.		

**Quality Control Results6**

Client: CADISM U.S., Inc.

Job Number: 680-61207-1M

**Lab Control Sample/6**  
**Lab Control Sample Duplicate Recovery Report - Batch: 680-1802586**

**Method: 8260B6**  
**Preparation: 5030B6**

LCSM Lab . amp	LCSM 80-10 25U	Analysis Batch	680-10 25U	Instrument .	M) Ph
Client Mat	Wat	Ph p Batch	N.	Lab File	pq131.d-
Injection	1.0.	Unit	ug/Lc	Initial Weight	5 mLc
atM n alyzUd-	09/57/2010 1010.			Final Weight	5 mLc
atM Ph pal d-	09/57/2010 1010.				

LCSDM Lab . amp	LCSDM 80-10 25U7M	Analysis Batch	680-10 25U	Instrument .	M) Ph
Client Mat	Wat	Ph p Batch	N.	Lab File	pq133.d-
Injection	1.0.	Unit	ug/Lc	Initial Weight	5 mLc
atM n alyzUd-	09/57/2010 10395			Final Weight	5 mLc
atM Ph pal d-	09/57/2010 10395				

Analyte	% . c.M		Limit	Ph	Ph Limit	LCSM Qual	LCSDM Qual
	LCSM	LCSDM					
Vinyl chloride	11M	114U	59 - 144U	2M	50.		
Xylenes, Total	106.	106.	4 - 11M	0.1M	30.		
Surrogate	LCSM % . cM	LCSDM % . cM			ccMptancMLimitsh		
4-Fluorobenzene	95		95		75 - 120.		
1-bromofluoromethane	95		95		75 - 121M		
Toluene (Irr)	94U		94U		75 - 120.		

**Quality Control Results6**

CliMntM . CADISM U.S., .nc.M

Job Number: 680-61207-1M

**Method Blank - Batch: 680-1800016**

Lab . amplM MB 680-1000 1M-.  
 CliMnt MatMM WatM  
 il utionM 1.0.  
 atM n alyzUd- 09/20.2010 01595  
 atMPh pal d- 09/25/2010 1232M

n alysis Batchl 680-1000 424U  
 Ph p Batchl 680-1000 1M  
 Unitsh ugILc

**Method: 6010C6  
 Preparation: 3030C6**

nstMment . CPh  
 Lab FilM 091910.chl  
 nitial WMghtWolume:. 50 mLc  
 Final WMghtWolume:. 50 mLc

nalytM	sultM	QualRM	Lc
shnicM	20.	UM	20.
Chlromium.	10.	UM	10.
Copp2	20.	UM	20.
Lcad-	10.	UM	10.
ZincM	100.	UM	100.

**Lab Control Sample - Batch: 680-1800016**

Lab . amplM LCSM680-1000 1M-.  
 CliMnt MatMM WatM  
 il utionM 1.0.  
 atM n alyzUd- 09/20.2010 0204U  
 atMPh pal d- 09/25/2010 1232M

n alysis Batchl 680-1000 424U  
 Ph p Batchl 680-1000 1M  
 Unitsh ugILc

**Method: 6010C6  
 Preparation: 3030C6**

nstMment . CPh  
 Lab FilM 091910.chl  
 nitial WMghtWolume:. 50 mLc  
 Final WMghtWolume:. 50 mLc

nalytM	pikU. mountM	sultM	% . c.M	LimitM	QualM
shnicM	2000.	2110.	105U	75 - 125U	
Chlromium.	200.	211M	106.	75 - 125U	
Copp2	250.	254U	101M	75 - 125U	
Lcad-	500.	534U	107M	75 - 125U	
ZincM	500.	54U	110.	75 - 125U	



**Quality Control Results6**

CliMntM . CADISM U.S., .nc.M

Job Number: 680-61207-1M

**Matrix Spike/6**  
**Matrix Spike Duplicate Recovery Report - Batch: 680-1800016**

**Method: 6010C6**  
**Preparation: 3030C6**

M) Lab . ampIM 0-6. 1207-1M  
 CliMnt MatMM WatM  
 il utionM 1.0.  
 atM n alyzUd- 09/20.2010 0225U  
 atMPh pal d- 09/25.2010 1232M

n alysis BatchI 680-1800016  
 Ph p BatchI 680-1800016

nstMment . CPh  
 Lab FilM 091910.chl  
 nitial WMghtWolume:. 50 mLc  
 Final WMghtWolume:. 50 mLc

M) Lab . ampIM 0-6. 1207-1M  
 CliMnt MatMM WatM  
 il utionM 1.0.  
 atM n alyzUd- 09/20.2010 0230.  
 atMPh pal d- 09/25.2010 1232M

n alysis BatchI 680-1800016  
 Ph p BatchI 680-1800016

nstMment . CPh  
 Lab FilM 091910.chl  
 nitial WMghtWolume:. 50 mLc  
 Final WMghtWolume:. 50 mLc

nalytM	% . c.M		LimitM	Ph	Ph LimitM	M) QualM	M) QualM
	M)	M)					
shnicM	104U	106.	75 - 125U	2M	20.		
Chlomium.	103I	105U	75 - 125U	2M	20.		
Copp2	101M	103I	75 - 125U	2M	20.		
Lcad-	103I	105U	75 - 125U	2M	20.		
ZincM	108.	1095	75 - 125U	1M	20.		

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Website: www.testamericainc.com  
 Phone: (912) 354-7858  
 Fax: (912) 352-0165

TestAmerica Savannah  
 5102 LaRoche Avenue  
 Savannah, GA 31404

Alternate Laboratory Name/Location

Phone:  
 Fax:

PROJECT REFERENCE: <b>UNC - Airport Rd.</b>		PROJECT NO. <b>NC 000239.0019.0001</b>		PROJECT LOCATION (STATE) <b>NC</b>		MATRIX TYPE		REQUIRED ANALYSIS		PAGE <b>1</b> OF <b>1</b>	
TAL (LAB) PROJECT MANAGER <b>Kathy Smith</b>		P.O. NUMBER		CONTRACT NO.		SOLID OR SEMISOLID		STANDARD REPORT DELIVERY		DATE DUE	
CLIENT (SITE) PM <b>Alan Pinnix</b>		CLIENT PHONE <b>919-854-1282</b>		CLIENT FAX		AQUEOUS (WATER)		EXPEDITED REPORT DELIVERY (SURCHARGE)		DATE DUE	
CLIENT NAME <b>ARCADIS</b>		CLIENT E-MAIL <b>apinnix@arcadis-us.com</b>		COMPOSITE (C) OR GRAB (G) INDICATE		AIR		NUMBER OF COOLERS SUBMITTED PER SHIPMENT:		DATE DUE	
CLIENT ADDRESS <b>801 Corporate Center Dr. Raleigh, NC 27607</b>		COMPANY CONTRACTING THIS WORK (if applicable)		SAMPLE IDENTIFICATION		NONAQUEOUS LIQUID (OIL SOLVENT...)		NUMBER OF CONTAINERS SUBMITTED		REMARKS	
SAMPLE DATE <b>8/12/10</b>		SAMPLE TIME <b>1730</b>		SAMPLE IDENTIFICATION <b>Effluent</b>		X		3		VOCs (8260)* Metals (6010)* HCL-HING PRESERVATIVE	
RELINQUISHED BY: (SIGNATURE)		DATE <b>9/13/10</b>		TIME <b>0900</b>		RELINQUISHED BY: (SIGNATURE)		DATE TIME		DATE TIME	
RECEIVED BY: (SIGNATURE)		DATE <b>9/14/10</b>		TIME <b>09:07</b>		RECEIVED BY: (SIGNATURE)		DATE TIME		DATE TIME	
RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>m. w. [Signature]</i>		DATE <b>9/14/10</b>		TIME <b>09:07</b>		CUSTODY SEAL NO.		SAVANNAH LOG NO.		LABORATORY REMARKS	
						YES <input type="radio"/> NO <input type="radio"/>		650-6207		0.2	

## Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-61207-1U

**Login Number: M1207L**

**Test Source: TestAmerica Savannah**

**Creator: Kicklighter, Marilyn**

**Print Number: 1L**

Question	Y / N / NA	Comments
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with pertinent information.	True	
Is the Field Sample Name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection dates are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for requested analyses, incl. any requested MS/MSDs.	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs.	True	
Multiphase samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	

## ANALYTICAL REPORT

Job Number: 400-50360-1

Job Description: UNC-Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix



Approved for release.  
Marty Edwards  
Senior Project Manager  
9/17/2010 9:01 AM

---

Marty Edwards  
Senior Project Manager  
marty.edwards@testamericainc.com  
09/17/2010

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page. TestAmerica Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250509), New Jersey (FL006), North Carolina (314), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-09-1), Virginia (00008), Washington (C915), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

**TestAmerica Laboratories, Inc.**

TestAmerica Pensacola 3355 McLemore Drive, Pensacola, FL 32514

Tel (850) 474-1001 Fax (850) 478-2671 [www.testamericainc.com](http://www.testamericainc.com)



**CommeD:**

No additional co. n tS. 2

**ipt D**

All saꝑ les weꝑ rScꝑ vld in good condition within tS pk raturSrS uirS n tS.S

**Metals D**

Mkthod 1631E: Thk2 atrix sꝑi2 / 2 atrix sꝑi2 d uplicatS (MS/MSD) rScovkries for batch 400-116788\400-116818 weꝑ outside control 2 li2 itS. Thk assꝑciatꝑ la boratory control saꝑ les (LCS\LCSD) rScovkries 2 t accꝑtancꝑ critꝑria. Data was flaggd and rꝑortꝑ as isꝑ

No othkr analytical or qꝑality issꝑU weꝑ rSn otꝑ .S

**METHOD SUMMARY:**

Clipntp. CADIS U.S., .nc.p

Job Number: 400-5C360-1.

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix:D Water:</b>			
Mp cury, Low Lpvpl (CVAFS)p	TAL PEN.	EPA1631Ep	
P papation, Mp cury, Low Lpvplp	TAL PEN.		EPA1631Ep

**Lab References:D**

TAL PEN = TpstAmerica Ppnsacolap

**Method References:D**

EPA US Environmental Pp. ction .gp ncyp

**METHOD / ANALYST SUMMARY**

Client: ARCADIS U.S., Inc.U

Job Number: 400-50360-1b

<b>MethN</b>	<b>AnalystM</b>	<b>Analyst ID:</b>
EPA 1631Eb	Jones, Randyb	Jb

## SAMPLD SUMMARY2

Client: ARCADIS U.S., Inc.b

Job Number: 400-50360-1b

<b>Lab Sample I2</b>	<b>CLD6 Sample I2</b>	<b>CLD6 Material</b>	<b>a:e/Time : Sampledb</b>	<b>a:e/Time : Re6e6vedb</b>
400-50360-1R	LUENTR	WaterR	09/1b/U010 1730R	09/14/2010 0908R



**SAMPL : S L SD**

Client: ARCADIS U.S., Inc.R

Job Number: 400-50360-1R

Client Sample ID: EFFLUENTa

Lab Sample ID:R 400-50360-1R

Date Sampled: 09/12/2010 1730R

Client Matrix:R WaterR

Date Received: 09/14/2010 0908

---

1631E Mercury, low Level (CVAFS)D

Method:R 1631ER

Analysis Batch: 400-116818

Instrument ID:R HYDRAR

Preparation:R 1631ER

Prep Batch: 400-116788

Lab File ID:R 091610b.PRNR

Dilution:R 1.0R

Initial Weight/Volume:R 40 mL

Date Analyzed:R 09/16/2010 1147b

Final Weight/Volume:R 40 mL

Date Prepared:R 09/14/2010 1515R

---

Analyte	Result (ng /L)R	QualifierR	LI
MercuryR	0.74R		0.50R

---

# QUALITY CONTROL RESULTS

Quality Control Results6

Client: ARCADIS U.S., Inc.R

Job Number: 400-50360-1R

QC AssocCtion Summary6

L- S- mple ID-	Client S- mple ID-	Report6 sis6	Client Matrix-	Method-	PrepC t chC
<b>Metals6</b>					
<b>PrepC t chC400-116788M</b>					
LCS 400-116788/2-A0	Lab Control SampleR	T0	WaterR	1631Eb	
LCSD 40 -116788/3-A0	Lab Control Sample Duplicate0	T0	Water0	1631E0	
MB 40 -116788/1-A0	Method Blank0	T0	Water0	1631E0	
640-29855-A-1-B MS0	Matrix Spike0	T0	Water0	1631E0	
640-29855-A-1-C MSD0	Matrix Spike Duplicate0	T0	Water0	1631E0	
40 -50360-10	EFFLUENT0	T0	Water0	1631E0	
<b>Analysis 6 t chC400-116818M</b>					
LCS 40 -116788/2-A0	Lab Control Sample0	T0	Water0	1631E0	40 -1167880
LCSD 40 -116788/3-A0	Lab Control Sample Duplicate0	T0	Water0	1631E0	40 -1167880
MB 40 -116788/1-A0	Method Blank0	T0	Water0	1631E0	40 -1167880
640-29855-A-1-B MS0	Matrix Spike0	T0	Water0	1631E0	40 -1167880
640-29855-A-1-C MSD0	Matrix Spike Duplicate0	T0	Water0	1631E0	40 -1167880
40 -50360-10	EFFLUENT0	T0	Water0	1631E0	40 -1167880

Report 6 sis6

T = Total0

**Quality Control Results6**

Clipntp . C0 S U.S., .nc.p

Job Number: 400-50360-1.

**Method Blank - Batch: 400-116788v**

LRb Spmpl. MB 400-11678801-Ap np lysis Bb chb 400-1168180  
 ClipntpMp ip WM P p Bb chb 400-1167880  
 il u.ionp 1.00 Unitpb ngLR  
 . np lyzUdb 09/56/2010 0952b  
 P p2 db 09/54/2010 1515C

**Method: 1631Ev  
 Preparation: 1631Ev**

nsbumentp HY0  
 LRb Filp. 091610b.P N.  
 nitipl WMghbVolume:. 40 mLR  
 Finpl WMghbVolume:. 40 mLR

npLyS	sultp	Qu. IRp	LR
Mp curyS	<0.500		0.500

**Lab Control Sample/  
 Lab Control Sample Duplicate Recovery Report - Batch: 400-116788v**

**Method: 1631Ev  
 Preparation: 1631Ev**

LCS LRb Spmpl. LCS 400-11678802-Ap np lysis Bb chb 400-1168180  
 ClipntpMp ip WM P p Bb chb 400-1167880  
 il u.ionp 1.00 Unitpb ngLR  
 . np lyzUdb 09/56/2010 10000  
 P p2 db 09/54/2010 1515C

nsbumentp HY0  
 LRb Filp. 091610b.P N.  
 nitipl WMghbVolume:. 40 mLR  
 Finpl WMghbVolume:. 40 mLR

LCSDpLRb Spmpl. LCSDp400-11678803-Ap np lysis Bb chb 400-1168180  
 ClipntpMp ip WM P p Bb chb 400-1167880  
 il u.ionp 1.00 Unitpb ngLR  
 . np lyzUdb 09/56/2010 10080  
 P p2 db 09/54/2010 1515C

nsbumentp HY0  
 LRb Filp. 091610b.P N.  
 nitipl WMghbVolume:. 40 mLR  
 Finpl WMghbVolume:. 40 mLR

npLyS	% . c.p		Limitp	P	P Limitp	LCS Qu. Ip	LCSDpQu. Ip
	LCSp	LCSDp					
Mp curyS	101.	1030	79 - 121.	2b	200		

**Quality Control Results**

Clipntp . C0 S U.S., .nc.p

Job Number: 400-50360-1.

**Matrix Spike/v**

**Matrix Spike Duplicate Recovery Report - Batch: 400-116788v**

**Method: 1631Ev**

**Preparation: 1631Ev**

MS LRb Spmplp. 640-29855-A-1-B MSp np lysis Bb chb 400-1168180  
 ClipntpMp ip WM P p Bb chb 400-1167880  
 il u.ionp 1.00  
 . np lyzUdb 09/56/2010 10345  
 P p2 db 09/54/2010 1515C

nsbumentp HY0  
 LRb Filp. 091610b.P N.  
 nitipl WMghbVolume:. 40 mL  
 Finpl WMghbVolume:. 40 mL

MSDpLRb Spmplp. 640-29855-A-1-C MSDp np lysis Bb chb 400-1168180  
 ClipntpMp ip WM P p Bb chb 400-1167880  
 il u.ionp 1.00  
 . np lyzUdb 09/56/2010 1042b  
 P p2 db 09/54/2010 1515C

nsbumentp HY0  
 LRb Filp. 091610b.P N.  
 nitipl WMghbVolume:. 40 mL  
 Finpl WMghbVolume:. 40 mL

npLyS	% . c.p		Limitp	P	P	Limitp	MS Qu. Ip	MSDpQu. Ip
	MSp	MSDp						
Mp curyS	300	22b	71 - 125C	100	245	Fb	Fb	

DATA REPORT: ND D ALI Fa R Sh

Client: ARCAD IS U.S., Inc. R

Job Number: 40 -50360-10

Lab Section	Qualifier	Description
-------------	-----------	-------------

---

etalsb

S or 0 SD e0ceedsthe control limitsb





# Log in Sample Receipt Check List

Client: ARCAD IS U.S., Inc.

Job Number: 40 -50360-10

Log in Number: 503606

List Source: TestAmerica Pensacola/

Creator: Chea, Manda/

List Number: 1/

Question ID	Y/N/A	Comment
Refrigerator activity either on or off for 24 hours, for 24 hours, for 12 or below 24 hours.	N/A	
The cooler's custody log is present.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Refrigerator temperature is kept below 1.9°.	True	1.9°
Refrigerator temperature is recorded.	True	
Ice is present.	True	
Ice is filled cut in in kU ndegible.	True	
Ice is filled cut with pertinent information.	True	
Is the Field Sample's name present on CO2 cap?	True	
There are no discrepancies between the sample IDs in the containers and the CO2.	True	
Samples are received within holding time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection dates are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient volume for all requested analyses, including requested MS/MS.	True	
VOA sample is not overdispersed or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed by text or QuickChat needs.	True	
Multiphase samples are not present.	True	
Samples do not require splitting or compaction.	True	

## ANALYTICAL REPORT

Job Number: 680-61805-1  
Job Description: UNC Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
10/22/2010 12:28 PM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
10/22/2010

cc: Mr. Adam Tripp

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



**CommC**

No additional co. n tS. 2

**cli pt D**

All samples were stored in good condition within temperature range in tS.

**GC/MS VOA M**

No analytical or quality issues were noted.

**Metals M**

No analytical or quality issues were noted.

**OA Prep M**

No analytical or quality issues were noted.

## METHOD SUMMARY:

Client: CADIS U.S., Inc.)

Job Number: 680-6105-1M

Description:	Lab Location:	Method:	Preparation Method:
<b>Matrix: Water:</b>			
Volatiles (GC/MS)	TML SAYM	SW, 4U8.2,0 BM	
Purge and Trap (ICP)	TML SAYM		SW, 4U5030BM
PRPA, Total dissolved solids	TML SAYM	SW, 4U60 10C)	
	TML SAYM		SW, 4U3005M

### Lab References:

TML SAY = TestAmerica Savannah

### Method References:

SW, 4U = "Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1996, EPA 823-G-96-010 (Updated)

**METHOD / ANALYST SUMMARY**

Client: ARCAD IS U.S., Inc.R

JR Number: 0680-61805-1U

<b>Method</b>	<b>Analyst</b>	<b>Analyst ID:</b>
SW846U8260BN	BeOrder, Robert	RBN
SW846U6010U	Blond, Brian	BNBN

**SAMPLMSU MA RY2**

Client: ARCAD IS U.S., Inc.R

JR Number: 0680-61805-1U

<b>Lab Sample I2</b>	<b>CIMv Sample I2</b>	<b>CIMv : a: x2</b>	<b>a:e/Time : Sampledb</b>	<b>a:e/Time : Reviewedb</b>
680-61805-1U	EFFLUENT,	Water0	10/01/2010U1030	10/02/2010U1010U

lient: ARCAD IS U.S.,Inc.R

JR Number: 0680-61805-1U

ClientSample/ID:d EFFLUENTA  
 S0 mple ID:0 680-61805-1U  
 lient QMpri0:0 Wnter0

D0te S0mpled: 00/01/2010U030U  
 D0te Received: 00/02/2010U010U

8260B Volatile Organic Compounds (GC/MS)T

MethM:0 8260Bc AnOlysisPctch: 080-182671U Instrument ID:0 MSO2c  
 Prep4r0tion:0 5030Bc File ID:0 0440.dN  
 Dilution:0 1.0U Initi0l Weight/VNume:0 5Mm0  
 D0te AnOlyzed:0 10/11/2010U1612c Fin0l Weight/VNume:0 5Mm0  
 D0te Pprep4red:0 10/11/2010U1612c

AnOlyte0	Result (ug/c)U	Qu0lifier0	R0
Acetone0	25M	U0	25M
Benzene0	1.0U	U0	1.0U
Bromo0rm0	1.0U	U0	1.0U
BromomethMhe0	1.0U	U0	1.0U
rbon disulfide0	2.0U	U0	2.0U
rbon tetr0chloride0	1.0U	U0	1.0U
hlorobenzene0	1.0U	U0	1.0U
hloro0ibromomethMhe0	1.0U	U0	1.0U
hloroethMhe0	1.0U	U0	1.0U
hloro0rm0	1.0U	U0	1.0U
hloromethMhe0	1.0U	U0	1.0U
cis-1,2-Dichloroethene0	1.0U	U0	1.0U
cis-1,3-Dichloro0ro0ene0	1.0U	U0	1.0U
DichlorobromomethMhe0	1.0U	U0	1.0U
1,1-DichloroethMhe0	1.0U	U0	1.0U
1,2-DichloroethMhe0	1.0U	U0	1.0U
1,1-Dichloroethene0	1.0U	U0	1.0U
1,2-Dichloro0ro04ne0	1.0U	U0	1.0U
Diethyl ether0	10U	U0	10U
Ethylbenzene0	1.0U	U0	1.0U
2-He0 none0	10U	U0	10U
Methylene C0loride0	5.0U	U0	5.0U
2-But0none (MEK)U	10U	U0	10U
4-Methyl-2-pent0none (MIBK)U	10U	U0	10U
Styrene0	1.0U	U0	1.0U
1,1,2,2-Tetr0chloroethMhe0	1.0U	U0	1.0U
Tetr0chloroethene0	1.0U	U0	1.0U
T.luene0	1.0U	U0	1.0U
tr0ns-1,2-Dichloroethene0	1.0U	U0	1.0U
tr0ns-1,3-Dichloro0ro0ene0	1.0U	U0	1.0U
1,1,1-TrichloroethMhe0	1.0U	U0	1.0U
1,1,2-TrichloroethMhe0	1.0U	U0	1.0U
Trichloroethene0	1.0U	U0	1.0U
Vinyl chloride0	1.0U	U0	1.0U
Xylenes, R.t0 I0	2.0U	U0	2.0U
Surro0) te0	%Rec0	Qu0lifier0	Accept0nce 0imitsp
4-Bromo0uorobenzene0	98U		75M120U
Dibromo0uoromethMhe0	98U		75M121U
T.luene -d80(Surr)	108U		75M120U

Client: ARCAD IS U.S., Inc.R

JR Number: 0680-61805-1U

Client Sample ID: T EFFLUENT

Sample ID: 680-61805-1U  
 Client ID: Wnter0

Date Sampled: 00/01/2010 1030U  
 Date Received: 00/02/2010 1010U

6010C Metals (ICP)- I Recoverable

MethM: 60100	Analysis Bctch: 080-1831270	Instrument ID: IRPD0
Prep4rtion: 3005A0	Prep4Bctch: 080-1827690	File ID: 1015101039.chr0
Dilution: 1.0U	Initial Weight/Vol: 50U m0	Final Weight/Vol: 50U m0
Date Analyzed: 10/15/2010 02322c		
Date Prepared: 10/13/2010 09534		

Analyte	Result (ug/c)	Qualifier	R0
Arsenic	20U	U0	20U
Chromium	10U	U0	10U
Copper	20	U0	20U
Lead	10	U0	10U
Zinc	20	U0	20U



DATA REPORT: NM M ALI Fa R Sh

Client: ARCAD IS U.S., Inc. R

JR Number: 0680-61805-1U

Lab Section	Qualifier	Description
G1/MS VOA0		
	U0	Indicates the analyte was analyzed but not detected.
MetalsI		
	U0	Indicates the analyte was analyzed but not detected.

Quviy ConvovResuvs

Cli) . CADIS U.S., Inc.)

Job Number: 680-61M 5-1M

Method Bv nk - Bv ch: 680-1826716

Method: 0260Bv

Prep6rv ion: 0030Bv

L) b S) mpl4 ID) MB 680-1M2b71/2b  
 Cli) Mc icx W,  
 i lu.io. 1.0.  
 . lyzBdN 10/11/2010 1155M  
 Pc pM dN 10/11/2010 1155M

lysis BU ch, 680-1M2b71M  
 Pc p BU ch, N/b  
 Units: ug/L)

In\$. ume. ID) MSO2b  
 L) b Fil4 ID) oq294.dN  
 Initi) l W, igh,/Volume: 5 mL)  
 Fin) l W, igh,/Volume: 5 mL)

lyb	su l4	Qu. l4	L)
c) o.	25M	U)	25M
BU zB	1.0.	U)	1.0.
Bloform.	1.0.	U)	1.0.
Blomome.h,	1.0.	U)	1.0.
C) bo. disulfidN	2.0.	U)	2.0.
C) bo. . chloridN	1.0.	U)	1.0.
Chlorobe. zB	1.0.	U)	1.0.
Chlorodibromome.h,	1.0.	U)	1.0.
Chloroe.h,	1.0.	U)	1.0.
Chloroform.	1.0.	U)	1.0.
Chlorome.h,	1.0.	U)	1.0.
cis-1,2-.ic hloroe.h,	1.0.	U)	1.0.
cis-1,3-.ic hloropM	1.0.	U)	1.0.
ic hlorobromome.h,	1.0.	U)	1.0.
1,1-.ic hloroe.h,	1.0.	U)	1.0.
1,2-.ic hloroe.h,	1.0.	U)	1.0.
1,1-.ic hloroe.h,	1.0.	U)	1.0.
1,2-.ic hloropM	1.0.	U)	1.0.
i) hyl e.h,	10.	U)	10.
E.hylbe. zB	1.0.	U)	1.0.
2-Hcxc o.	10.	U)	10.
Mc hyl4 ChloridN	5.0.	U)	5.0.
2-Bu. o. (MEK)0	10.	U)	10.
4-Mc hyl-2-pM o. (MIBK)0	10.	U)	10.
Styb	1.0.	U)	1.0.
1,1,2,2-T0 chloroe.h,	1.0.	U)	1.0.
T0 chloroe.h,	1.0.	U)	1.0.
Tolue.	1.0.	U)	1.0.
s-1,2-.ic hloroe.h,	1.0.	U)	1.0.
s-1,3-.ic hloropM	1.0.	U)	1.0.
1,1,1-T0chloroe.h,	1.0.	U)	1.0.
1,1,2-T0chloroe.h,	1.0.	U)	1.0.
T0chloroe.h,	1.0.	U)	1.0.
Vinyl chloridN	1.0.	U)	1.0.
Xyl4 s, To. l4	2.0.	U)	2.0.

Surrogc	% . c)	cc) pM c) Limit\$.
4-Blofluorobe. zB	100.	75 - 120.
i bromofluorome.h,	100.	75 - 121M
Tolue. - dN(Surr)0	104)	75 - 120.

Cli) . CADIS U.S., Inc.)

Job Number: 680-61M 5-1M

**LMbMConvovSMmpc/M**

**LMbMConvovSMmpc Dup6cv e Recovery Reporv- Bv ch: 680-1826716**

**Method: 0260Bv**

**Prep6rv ion: 0030Bv**

LCS L) b S) mpl4 ID) LCS 680-1M2b71/23) lysis BU ch, 680-1M2b71M In\$. ume. ID) MSO2b  
 Cli) Mc icx W, Pc p BU ch, N/b L) b Fil4 ID) oq2b .dN  
 i lu.io. 1.0. Unit\$: ug/L) Initi) l W, igh,/Volume:. 5 mL)  
 . lyzBdN 10/11/2010 1001M Fin) l W, igh,/Volume:. 5 mL)  
 Pc pM dN 10/11/2010 1001M

LCSD)L) b S) mpl4 ID) LCSD)680-1M2b71/24) lysis BU ch, 680-1M2b71M In\$. ume. ID) MSO2b  
 Cli) Mc icx W, Pc p BU ch, N/b L) b Fil4 ID) oq2b .dN  
 i lu.io. 1.0. Unit\$: ug/L) Initi) l W, igh,/Volume:. 5 mL)  
 . lyzBdN 10/11/2010 1030. Fin) l W, igh,/Volume:. 5 mL)  
 Pc pM dN 10/11/2010 1030.

lyb	% . c.)		Limit)	Pc	Pc Limit)	LCS Qu. I4	LCSD)Qu. I4
	LCS)	LCSD)					
c) o.	93)	9c	17 - 175M	5M	50.		
BU zB	92b	95M	77 - 119c	3)	30.		
B0moform.	94)	94)	2 - 133)	0.	30.		
B0mome.h,	1M7c	1M4)	12 - 1M4)	2b	50.		
C) bo. disulfidN	91M	95M	55 - 131M	5M	30.		
C) bo. . chloridN	93)	9c	71 - 135M	3)	30.		
Chlorobe. zB	9c	9c	5 - 11M	2b	30.		
Chlorodibromome.h,	109c	109c	75 - 133)	0.	30.		
Chloroe.h,	90.	105M	40 - 1M5M	15M	50.		
Chloroform.	9c	100.	2 - 120.	4)	30.		
Chlorome.h,	11M	121M	4) - 142b	5M	50.		
cis-1,2-.ic hloroe.h,	9c	101M	9 - 134)	4)	30.		
cis-1,3-.ic hloropMpm	103)	106.	7c- 12b	3)	30.		
ic hlorobromome.h,	100.	100.	7c- 127c	0.	30.		
1,1-.ic hloroe.h,	92b	95M	74 - 127c	4)	30.		
1,2-.ic hloroe.h,	94)	9c	- 132b	2b	30.		
1,1-.ic hloroe.h,	92b	9c	2 - 141M	5M	30.		
1,2-.ic hloropMpm	93)	95M	73 - 124)	3)	30.		
i) hyl e.h,	7c	90.	70 - 130.	2b	30.		
E.hylbe. zB	100.	102b	- 11M	1M	30.		
2-Hcxc o.	106.	107c	34 - 1M1M	1M	30.		
Mc hyl4 ChloridN	94)	9c	70 - 125M	2b	30.		
2-Bu. o. (MEK)0	97c	97c	33 - 157c	0.	30.		
4-Mc hyl-2-pM o. (MIBK)0	103)	105M	40 - 151M	1M	30.		
Styb	7c	7c	2 - 122b	0.	30.		
1,1,2,2-T0 chloroe.h,	100.	9c	9 - 129c	2b	30.		
T0 chloroe.h,	9c	100.	7c- 12b	2b	30.		
Tolue.	97c	99c	1 - 117c	3)	30.		
s-1,2-.ic hloroe.h,	93)	9c	72 - 131M	5M	30.		
s-1,3-.ic hloropMpm	107c	109c	73 - 12b	1M	30.		
1,1,1-T0chloroe.h,	92b	95M	7c- 127c	2b	30.		
1,1,2-T0chloroe.h,	9c	9c	75 - 121M	0.	30.		
T0chloroe.h,	95M	97c	4 - 115M	2b	30.		

Cli) . CADIS U.S., Inc.)

Job Number: 680-61M 5-1M

**LMConvovSMp/M**

**LMConvovSMp/M Duplcv e Recovery Reporv- Bv ch: 680-1826716**

**Method: 9260Bv**

**Prep6rv ion: 5030Bv**

LCS L) b S) mpl4 ID)	LCS 680-1M2b71/23)	lysis BU ch, 680-1M2b71M	In\$. ume. ID)	MSO2b
Cli) Mc ixc	W,	Pc p BU ch: N/b	L) b Fil4 ID)	oq2b .dN
i lu.io.	1.0.	Unit\$: ug/L)	Initi) l W, igh,/Volume:.	5 mL)
. lyzBdN	10/11/2010 1001M		Fin) l W, igh,/Volume:.	5 mL)
Pc pM dN	10/11/2010 1001M			

LCSD)L) b S) mpl4 ID)	LCSD)680-1M2b71/24)	lysis BU ch, 680-1M2b71M	In\$. ume. ID)	MSO2b
Cli) Mc ixc	W,	Pc p BU ch, N/b	L) b Fil4 ID)	oq2b .dN
i lu.io.	1.0.	Unit\$: ug/L)	Initi) l W, igh,/Volume:.	5 mL)
. lyzBdN	10/11/2010 1030.		Fin) l W, igh,/Volume:.	5 mL)
Pc pM dN	10/11/2010 1030.			

lyb	% . c.)		Limit)	Pc	Pc Limit)	LCS Qu. l4	LCSD)Qu. l4
	LCS)	LCSD)					
Vinyl chloridN	9c	93)	59 - 144)	5M	50.		
Xyl4 s, To. l4	102b	103)	4 - 11M	1M	30.		
Surrogc	LCS % . c)	LCSD)% . c)			cc) pM c)	Limit\$.	
4-Blomofluorobe. zB	103)	105M			75 - 120.		
i bromofluorome.h,	99c	101M			75 - 121M		
Tolue. - dN(Surr)0	9c	100.			75 - 120.		

Cli) . CADIS U.S., Inc.)

Job Number: 680-61M 5-1M

**Method Bv nk - Bv ch: 680-1827L9M**

L) b S) mpl4 ID) MB 680-1M27c9/14-.  
 Cli) Mc ixc W,  
 i lu.io. 1.0.  
 . lyzBdN 10/15/2010 213)  
 Pc pM dN 10/13/2010 0953)

lysis BU ch, 680-1M8127c  
 Pc p BU ch, 680-1M27c9c  
 Units: ug/L)

**Method: 6010Cv  
 Prep6rv ion: 9005AM  
 Tov RecovervbMv**

In\$. ume. ID) ICPc  
 L) b Fil4 ID) 1015101039.ch,  
 Initi) I W, igh,/Volume: 50 mL)  
 Fin) I W, igh,/Volume: 50 mL)

lyb	su l4	Qu. l4	L)
se.ic)	20.	U)	20.
Ch,omium.	10.	U)	10.
CoppM	20.	U)	20.
L) dN	10.	U)	10.
Zinc)	20.	U)	20.

**LMConvovSMmp - Bv ch: 680-1827L9M**

L) b S) mpl4 ID) LCS 680-1M27c9/15-.  
 Cli) Mc ixc W,  
 i lu.io. 1.0.  
 . lyzBdN 10/15/2010 2141M  
 Pc pM dN 10/13/2010 0953)

lysis BU ch, 680-1M8127c  
 Pc p BU ch, 680-1M27c9c  
 Units: ug/L)

**Method: 6010Cv  
 Prep6rv ion: 9005AM  
 Tov RecovervbMv**

In\$. ume. ID) ICPc  
 L) b Fil4 ID) 1015101039.ch,  
 Initi) I W, igh,/Volume: 50 mL)  
 Fin) I W, igh,/Volume: 50 mL)

lyb	Spik0. mou.	su l4	% . c.)	Limit)	Qu. l4
se.ic)	2000.	2030.	101M	75 - 125M	
Ch,omium.	200.	199c	99c	75 - 125M	
CoppM	250.	251M	100.	75 - 125M	
L) dN	500.	520.	104)	75 - 125M	
Zinc)	500.	529c	106.	75 - 125M	



## Login Sample Rejection Checklist

Client: ARCAD IS U.S., Inc.

JR Number: 0680-61805-1U

**Login Number / 8056**  
**Client: Clinn et, Keaton/**  
**List Number /**

**List Source: / estAmerica Savannah**

Question/	Y/N/A/	Comments/
Radioactivity level was not measured, measured, or below background	N/A	
The cooler's custody seal, is present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Temperature is accurate.	True	
Temperature is recorded.	True	
OU is present.	True	
OU is filled cut in in a undegradable.	True	
OU is filled cut with all pertinent information.	True	
Is the field sample's name present on COU?	N/A	
There are no discrepancies between the sample IDs on the containers and the COU.	True	
Samples are received within building time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/time are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient QC for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have heads/ caps or bubbles (6mm (1/4") in diameter).	True	
If necessary, staff have been informed of any shift or quick turn needs.	True	
Multi-asic samples are not present.	N/A	
Samples do not require cutting. r compositing.	N/A	

## ANALYTICAL REPORT

Job Number: 400-50885-1

Job Description: UNC-Airport Road

For:

ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix



Approved for release.  
Marty Edwards  
Senior Project Manager  
10/16/2010 9:29 AM

---

Marty Edwards  
Senior Project Manager  
marty.edwards@testamericainc.com  
10/16/2010

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page. TestAmerica Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250509), New Jersey (FL006), North Carolina (314), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-09-1), Virginia (00008), Washington (C915), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

**TestAmerica Laboratories, Inc.**

TestAmerica Pensacola 3355 McLemore Drive, Pensacola, FL 32514

Tel (850) 474-1001 Fax (850) 478-2671 [www.testamericainc.com](http://www.testamericainc.com)





**Jrb NarrativeM**  
**400-50885-1S**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within the specified time.

**Metal**

Method 1631E: The two duplicate (MS/MSD) recoveries for batch 400-118193 \ 400-118025 were outside the control limits. The assigned laboratory control samples (LCS/LCSD) recoveries met acceptance criteria. Data was flagged and reported as is.

No other analytical or quality issues were noted.

**METHOD SUMMARY:**

Cli) . CA) DIS U.S., lgr .g

Job Number: 400-50885-12

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix:D Water:</b>			
M5 cury, Lo. LhvTI (CVgFS)g	TgL PEN.	EPg 16g1Eg	
Pg paggo. , M5 cury, Lo. LhvTI4	TgL PEN.		EPg 16g1Eg

**Lab References:D**

TgL PEN = TgsR merica Pg sacolag

**Method References:D**

EPg = US Egvi)o. me. al Pgp. ctio. . gT c yS

**METHOD / ANALYST SUMMARY**

Client: ARCADIS U.S., Inc.

JRN Number: 40 -50885-1b

<b>Method</b>	<b>Analyst</b>	<b>Analyst ID:</b>
PA 0 31b	Jones, R ndyl	RJR

**SAMPLMSU MA RY2**

Client: ARCADIS U.S., Inc.R

JRN umber: 40 -50885-1b

<b>Lab Sample I2</b>	<b>CIMv Sample I2</b>	<b>CIMv : a: x2</b>	<b>a:e/Time : Sampledb</b>	<b>a:e/Time : Reviewedb</b>
40 -50885-1b	EFFLUENT,	Water0	1 / 1/2 1b 1 3)	1 / 2/2 1b 11 8u

**SAMPL : S L SM**

Client: ARCADIS U.S., Inc.

JRN Number: 40 -50885-1b

Client Sample ID: T EFFLUENT

Sample ID: 40 -50885-1b  
 Client ID: Wnter

Date Sampled: 01/21/2013 11:34  
 Date Received: 01/22/2013 11:58

1631E Mercury, Low Level (CVAFS)

MethID: 1631E-	Analysis: 40 -1181934	Instrument ID: HYDRA0
Preparation: 1631E-	Prep: 40 -118u250	File ID: 1b 71b .PRN0
Dilution: 1.R		Initial Weight/Volume: 40 mL
Date Analyzed: 01/21/2013 11:51		Final Weight/Volume: 40 mL
Date Prepared: 01/04/2013 15:00		

Analyte	Result (ng/c)	Qualifier	g	R0
Mercury	<g.50			.50

# QUALITY CONTROL RESULTS

lient: ARCADIS U.S.,Inc.R

JRN umber: 40 -50885-1b

**QC Associv ion SummCryv**

LaT S-mp@ ID-	CvienvS- mp@ ID-	Reporv sisv	CvienvML rix-	Mevhod-	PrepC	chC
<b>Mev sv</b>						
<b>PrepC chC400-118025u</b>						
CS 40 -118u25/2-A0	ntro0 IgS0mple0	TR	W. ter0	1631b		
CSD 40 -118u25/3-A0	ntro0 IgS0mple Duplic0te0	TR	W. ter0	1631b		
BM40 -118u25/1-A0	ethMIBIgnkM	TR	W. ter0	1631		
640-3c220-A-14-BM S0	trix*Spike0	TR	W. ter0	1631b		
640-3c220-A-14-C 0 SD0	trix*Spike Duplic0te0	TR	W. ter0	1631b		
40 -50885-1b	FF5U0NTR	TR	W. ter0	1631b		
<b>Analysis Batchu400-118193u</b>						
CS 40 -118u25/2-A0	ntro0 IgS0mple0	TR	W. ter0	1631b	40 -118u250	
CSD 40 -118u25/3-A0	ntro0 IgS0mple Duplic0te0	TR	W. ter0	1631b	40 -118u250	
BM40 -118u25/1-A0	ethMIBIgnkM	TR	W. ter0	1631	40 -118u250	
640-3c220-A-14-BM S0	trix*Spike0	TR	W. ter0	1631b	40 -118u250	
640-3c220-A-14-C 0 SD0	trix*Spike Duplic0te0	TR	W. ter0	1631b	40 -118u250	
40 -50885-1b	FF5U0NTR	TR	W. ter0	1631b	40 -118u250	

**Report Basisu**

TR)TR0 Ig





**Quality Control Results**

Cli) . CA) DIS U.S., Iq .g

Job Number: 400-50885-12

**Matrix Spkce/T**

**Matrix Spkce D/ pccate Recovery Report - Batch: 400-1180256**

**Method: 1631Ec**

**reparation: 1631Ec**

MS L) b SgmpI4 IDg 640-30220-p-14-B MSg lysis B5 ch5 400-1181935  
 Cli) Mc ixc W, PU p B5 ch5 400-118025C  
 Dilu.io. 1.00  
 Dg . lyzBdN 10/07/2010 1055C  
 Dg PU pM dN 10/05/2010 11300

Igs5ume. IDg HYDg  
 L) b Fil4 IDg 100710b.PUN.  
 Igti) I W, igh5Volume:. 40 mL)  
 Fin) I W, igh5Volume:. 40 mL)

MSD L) b SgmpI4 IDg 640-30220-p-14-C MSDg lysis B5 ch5 400-1181935  
 Cli) Mc ixc W, PU p B5 ch5 400-118025C  
 Dilu.io. 1.00  
 Dg . lyzBdN 10/07/2010 11035  
 Dg PU pM dN 10/05/2010 11300

Igs5ume. IDg HYDg  
 L) b Fil4 IDg 100710b.PUN.  
 Igti) I W, igh5Volume:. 40 mL)  
 Fin) I W, igh5Volume:. 40 mL)

lyb	% . c.g		Limit)	PDg	PD Limit)	MS Qu. I4	MSD Qu. I4
	MSg	MSDg					
Mc curyb	245	200	71 - 125C	19,	245	F5	F5

DATA REPORT: NM M ALI Fa R Sh

Client: ARCADIS U.S., Inc. R

JRN umber: 40 -50885-1b

Lab Section	Qualifier	Description
et0lg	Fb	S or 0 SD exceeds the control limit



### Login Sample Rejection Checklist

Client: ARCADIS U.S., Inc.

JRN Number: 40 -50885-1b

Log Number: 50885T

List Source: / estAmTca Pensacola/

Collector: H1, Klma/

List Number: /

Question/	Y/N/NA	Comments/
Radioactivity level was not measured, if measured, is it at or below background?	N/A	
Ice cooler's custody seal, if present, is intact?	N/A	
Ice cooler or samples do not appear to have been compromised or tampered with?	True	
Samples were received on ice?	True	
Ice temperature is acceptable?	True	
Ice temperature is recorded?	True	3.4°
UI is present?	True	
UI is filled out in ink and legible?	True	
UI is filled out with all pertinent information?	True	
Is the field sampler's name present on CDU?h	True	
There are no discrepancies between the sample IDs on the containers and the CDU.	True	
Samples are received within holding time?	True	Sample EFFLUENT was received on Saturday, and was not reserved within 48 hours.
Sample containers are legible and intact?	True	
Containers are not broken or leaking?	True	
Sample collection date/time is recorded?	True	
Appropriate sample containers are used?	True	
Sample bottles are completely filled?	True	
Sample preservation verified?	True	
There is sufficient volume for all requested analyses, including any requested MS/MSDs?	True	
VOA sample vials do not have heads capped or bung hole is <math>6\text{mm}</math> (1/4") in diameter?	True	
If necessary, staff have been informed of any shift or quick turn needs?	True	
Multi-asic samples are not present?	True	
Samples do not require splitting or compositing?	True	

## ANALYTICAL REPORT

Job Number: 680-62921-1

Job Description: UNC Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
11/16/2010 3:50 PM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
11/16/2010

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404

Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



## METHOD SUMMARY:

Clipntp. C0 S U.S., .nc.p

Job Number: 680-62921-1.

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: Water:</b>			
Volat Organic Compounds (GC/MS)	TML SA	SWMM6.2 0 BM	
PurgMand T	TML SA		SWMM5030BM
als (CP)	TML SA	SWMM6010 C0	
PrepaNon, To.al . coverablpor . i ssolved . als	TML SA		SWMM3005M

### Lab References:

TML SA = TestAmerica Savannah.

### Method References:

SWMM " Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1996. n d . s .  
UpdaMs.p

**METHOD / ANALYST SUMMARY**

Client: ARCADIS U.S., Inc.R

JRN umber: 080-6U9U1-10

<b>MethodM</b>	<b>AnalystM</b>	<b>Analyst ID:</b>
SW846U8U60Bc	Bearden, RRobert0	RBc
SW846U6010U	Blgn d, Brian0	Bc Bc



# SAMPLMSU MA RY2

Client: ARCADIS U.S., Inc.R

JRN umber: 080-6U0U1-10

<b>Lab Sample I2</b>	<b>CIMu Sample I2</b>	<b>CIMu : a: x2</b>	<b>a:e/Time : Sampledb</b>	<b>a:e/Time : Reuewedb</b>
680-62921-1U	uentU	WaterU	11/05/2010 1600U	11/06/2010 1034U

Client: ARCADIS U.S., Inc.

Job Number: 680-62921-1U

Client Sample ID: T Effluent  
 Lab Sample ID: U 680-62921-1U  
 Client Matrix: U W-ter

Date Sampled: 11/05/2010 1600U  
 Date Received: 11/06/2010 1034U

8260B Volatile Organic Compounds (GC/MS):

Method: U 8260BU Analysis Batch: 680-186146U Instrument ID: U MS02U  
 Preparation: U 5030BU Lab File ID: U o1598.db  
 Dilution: U 1.0U Initial Weight/Volume: U 5 mL  
 Date Analyzed: U 11/14/2010 1414U Final Weight/Volume: U 5 mL  
 Date Prepared: U 11/14/2010 1414U

Analyte	Result (ug/L)	Qualifier	RL0
Acetone	25	U	25U
Benzene	1.0	U	1.0U
Bromoform	1.0	U	1.0U
Bromomethane	1.0	U	1.0U
Carbon disulfide	2.0	U	2.0U
Carbon tetrachloride	1.0	U	1.0U
Chlorobenzene	1.0	U	1.0U
Chlorodibromomethane	1.0	U	1.0U
Chloroethane	1.0	U	1.0U
Chloroform	1.0	U	1.0U
Chloromethane	1.0	U	1.0U
cis-1,2-Dichloroethene	1.0	U	1.0U
cis-1,3-Dichloropropene	1.0	U	1.0U
Dichlorobromomethane	1.0	U	1.0U
1,1-Dichloroethane	1.0	U	1.0U
1,2-Dichloroethane	1.0	U	1.0U
1,1-Dichloroethene	1.0	U	1.0U
1,2-Dichloropropane	1.0	U	1.0U
Diethyl ether	49U		10U
Ethylbenzene	1.0	U	1.0U
2-Hexanone	10	U	10U
Methylene Chloride	5.0	U	5.0U
2-Butanone (MEK)	10	U	10U
4-Methyl-2-pentanone (MIBK)	10	U	10U
Styrene	1.0	U	1.0U
1,1,2,2-Tetrachloroethane	1.0	U	1.0U
Tetrachloroethene	1.0	U	1.0U
Toluene	1.0	U	1.0U
trans-1,2-Dichloroethene	1.0	U	1.0U
trans-1,3-Dichloropropene	1.0	U	1.0U
1,1,1-Trichloroethane	1.0	U	1.0U
1,1,2-Trichloroethane	1.0	U	1.0U
Trichloroethene	1.0	U	1.0U
Vinyl chloride	1.0	U	1.0U
Xylenes, Total	2.0	U	2.0U
Surrogate	%Recd	Qualifier	Acceptance Limits
4-Bromofluorobenzene	86U		75 - 120U
Dibromofluoromethane	99U		75 - 121U
Toluene-d8 (Surr)	100U		75 - 120U

Client: ARCADIS U.S., Inc.

Job Number: 680-62921-1U

**Client Sample ID: T Effluent**

Lab Sample ID: 680-62921-1U  
 Client Matrix: W-ter

Date Sampled: 11/05/2010 1600  
 Date Received: 11/06/2010 1034

**6010C Metals (ICP)-Total Recoverable**

Method: 6010CU	Analysis Batch: 680-185840U	Instrument ID: ICPDU
Preparation: 3005AU	Prep Batch: 680-185495U	Lab File ID: 11920101610.chr
Dilution: 1.0U	Initial Weight/Volume: 50 mL	
Date Analyzed: 11/09/2010 2241U	Final Weight/Volume: 50 mL	
Date Prepared: 11/08/2010 1638U		

Analyte	Result (ug/L)	Qualifier	RL
Arsenic	20		20U
Chromium	10		10U
Copper	20		20U
Lead	10		10U
Zinc	20		20U

DATA REPORT: NM M ALI Fa R Sh

Client: ARCADIS U.S., Inc.U

Job Number: 680-62921-1U

Lab Section	Multiplier	Description
GC/MS VOA		Indicate the analyte was analyzed for but not detected.
Meta.		Indicate the analyte was analyzed for but not detected.

Quality Control Results

Clipntp . C0 S U.S., .nc.p

Job Number: 680-62921-1.

Method Blank - Batch: 680-186141

Method: 8 60Bv  
Preparation: 6030Bv

LRb Spmpl. MB 680-18614U/12  
ClipntpMp ip WM  
il u.ionp 1.0.  
. np lyzUdb 11/14/2010 1249C  
Ph p2 db 11/14/2010 1249C

np lysis BRchl 680-18614U  
Ph p BRchl N/c  
Unitph ug/LR

nshumentp MSO2  
LRb Filp. oq23F.db  
nitipl WMghl/Volume:. mLR  
Finpl WMghl/Volume:. mLR

nplyS	sultp	Qu. IRp	LR
cp onp	2	Up	2
BRhzUhp	1.0.	Up	1.0.
BRmoform.	1.0.	Up	1.0.
BRmome.hl np	1.0.	Up	1.0.
CaOon disulfidb	2.0.	Up	2.0.
CaOon . chloridb	1.0.	Up	1.0.
ChlorobenzUhp	1.0.	Up	1.0.
Chlorodibromome.hl np	1.0.	Up	1.0.
Chloroe.hl np	1.0.	Up	1.0.
Chloroform.	1.0.	Up	1.0.
Chlorome.hl np	1.0.	Up	1.0.
cis-1,2-.ic hloroe.hl np	1.0.	Up	1.0.
cis-1,3-.ic hlorop2p2np	1.0.	Up	1.0.
ic hlorobromome.hl np	1.0.	Up	1.0.
1,1-.ic hloroe.hl np	1.0.	Up	1.0.
1,2-.ic hloroe.hl np	1.0.	Up	1.0.
1,1-.ic hloroe.hl np	1.0.	Up	1.0.
1,2-.ic hlorop2p2np	1.0.	Up	1.0.
ip hyl e.hl	10.	Up	10.
EthylbenzUhp	1.0.	Up	1.0.
2-HU nonp	10.	Up	10.
Mp hylpnp Chloridb	.0.	Up	.0.
2-Bu. nonp (MEK)U	10.	Up	10.
4-Mp hyl-2-p2ntpnnp (MIBK)U	10.	Up	10.
StpS np	1.0.	Up	1.0.
1,1,2,2-Te. chloroe.hl np	1.0.	Up	1.0.
Te. chloroe.hl np	1.0.	Up	1.0.
Toluenp	1.0.	Up	1.0.
ns-1,2-.ic hloroe.hl np	1.0.	Up	1.0.
ns-1,3-.ic hlorop2p2np	1.0.	Up	1.0.
1,1,1-Trichloroe.hl np	1.0.	Up	1.0.
1,1,2-Trichloroe.hl np	1.0.	Up	1.0.
Trichloroe.hl np	1.0.	Up	1.0.
Vinyl chloridb	1.0.	Up	1.0.
Xylpnps, To. lp	2.0.	Up	2.0.
Surrogl e	% cp	ccp p2 ncp Limitph	.
4-BRmofluorobenzUhp	90.	7U- 120.	
i bromofluorome.hl np	97U	7U- 121.	
Toluenp db (Surr)U	99C	7U- 120.	

Quality Control Results

Clipntp . C0 S U.S., .nc.p

Job Number: 680-62921-1.

Lab Control Sample/M

Lab Control Sample DMP6cate Recovery Report - Batch: 680-186141

Method: 8 60Bv

Preparation: 6030Bv

LCS LRb Spmplp.	LCS 680-18614U/9C	np lysis BRchl	680-18614U	nshumentp	MSO2
Clipntp Mp ip	WM	Ph p BRchl	N/c	LRb Filp.	oq230.db
il u.ionp	1.0.	Unitph	ug/LR	nitipl WMghl/Volume:.	mLR
. np lyzUdb	11/14/2010 10.			Finpl WMghl/Volume:.	mLR
Ph p2 db	11/14/2010 10.				

LCSDp LRb Spmplp.	LCSDp 680-18614U/10.	np lysis BRchl	680-18614U	nshumentp	MSO2
Clipntp Mp ip	WM	Ph p BRchl	N/c	LRb Filp.	oq232.db
il u.ionp	1.0.	Unitph	ug/LR	nitipl WMghl/Volume:.	mLR
. np lyzUdb	11/14/2010 1123F			Finpl WMghl/Volume:.	mLR
Ph p2 db	11/14/2010 1123F				

nplyS	% . c.p		Limitp	Ph	Ph Limitp	LCS Qu. Ip	LCSDp Qu. Ip
	LCSp	LCSDp					
cp onp	9C	1.	17 - 17U		0.		
BRnzUhp	97U	93F	77 - 119C	4U	30.		
BRmoform.	10.	102	2 - 133F	3F	30.		
BRmome.hl np	90.	74U	12 - 184U	20.	0.		
CaObon disulfidb	7U	2	- 1316.		30.		
CaObon . chloridb	103F	97U	71 - 13F		30.		
ChlorobenzUhp	103F	103F	- 116.	0.	30.		
Chlorodibromome.hl np	108.	109C	7U - 133F	1.	30.		
Chloroe.hl np	99C	100.	40 - 16.	0.	0.		
Chloroform.	102	102	2 - 120.	1.	30.		
Chlorome.hl np	9C	9C	4U - 142	1.	0.		
cis-1,2-.ic hloroe.hl np	103F	9C	9 - 134U		30.		
cis-1,3-.ic hlorop2p2np	106.	103F	7U - 12	2	30.		
ic hlorobromome.hl np	100.	97U	7U - 127U	3F	30.		
1,1-.ic hloroe.hl np	99C	97U	74 - 127U	3F	30.		
1,2-.ic hloroe.hl np	102	9C	- 1 32		30.		
1,1-.ic hloroe.hl np	9C	9C	2 - 1416.		30.		
1,2-.ic hlorop2p2np	9C	94U	73 - 124U	4U	30.		
EthylbenzUhp	106.	104U	- 116.	2	30.		
2-HU nonp	103F	106.	34 - 161.	2	30.		
Mp hylpnp Chloridb	91.		70 - 12	4U	30.		
2-Bu. nonp (MEK)U	97U	93F	33 - 1. 7U	4U	30.		
4-Mp hyl-2-p2ntpnnp (MIBK)U	102	99C	40 - 1. 1.	3F	30.		
StpS np	104U	102	2 - 122	2	30.		
1,1,2,2-Te. chloroe.hl np	99C	99C	9 - 129C	0.	30.		
Te. chloroe.hl np	108.	109C	7U - 12	1.	30.		
Toluemp	101.	97U	1 - 11 7U		30.		
ns-1,2-.ic hloroe.hl np	99C	94U	72 - 131.		30.		
ns-1,3-.ic hlorop2p2np	109C	10.	73 - 12	4U	30.		
1,1,1-Trichloroe.hl np	100.	9C	7U - 127U	4U	30.		
1,1,2-Trichloroe.hl np	9C	9C	7U - 121.	4U	30.		
Trichloroe.hl np	10.	101.	4 - 11.	4U	30.		
Vinyl chloridb	9C	93F	9 - 144U		0.		

**Quality Control Results**

Clipntp . C0 S U.S., .nc.p

Job Number: 680-62921-1.

**Lab Control Sample/M**

**Lab Control Sample DM6cate Recovery Report - Batch: 680-186141**

**Method: 8 60Bv**

**Preparation: 6030Bv**

LCS LRb Spmpl.	LCS 680-18614U/9C	np lysis BRchl	680-18614U	nshumentp	MSO2
Clipntp Mp ip	WM	Ph p BRchl N/c		LRb Filp.	oq230.db
il u.ionp	1.0.	Unitph ug/LR		nitipl WMghl/Volume:.	mLR
. np lyzUdb	11/14/2010 10.			Finpl WMghl/Volume:.	mLR
Ph p2 db	11/14/2010 10.				

LCSD LRb Spmpl.	LCSD 680-18614U/10.	np lysis BRchl	680-18614U	nshumentp	MSO2
Clipntp Mp ip	WM	Ph p BRchl N/c		LRb Filp.	oq232.db
il u.ionp	1.0.	Unitph ug/LR		nitipl WMghl/Volume:.	mLR
. np lyzUdb	11/14/2010 1123F			Finpl WMghl/Volume:.	mLR
Ph p2 db	11/14/2010 1123F				

nplyS	% . c.p		Limitp	Ph	Ph Limitp	LCS Qu. Ip	LCSDp Qu. Ip
	LCSp	LCSDp					
Xylpnps, To. Ip	10.	103F	4 - 118.	1.	30.		
Surrogl						ccp p2 ncp Limitph	
4-BromofluorobenzUhp	9C		92			7U- 120.	
i bromofluorome.hi nē	104U		100.			7U- 121.	
Toluenē db (Surr)U	103F		97U			7U- 120.	

**Quality Control Results**

Clipntp . C0 S U.S., .nc.p

Job Number: 680-62921-1.

**Method Blank - Batch: 680-185495u**

LRb Spmplp. MB 680-18. 49C/1. -. np lysis BRchl 680-18. 40.  
 ClipntpMp ip WM Ph p BRchl 680-18. 49C  
 il u.ionp 1.0. Unitph ug/LR  
 . np lyzUdb 11/09/2010 20. 2  
 Ph p2 db 11/08/2010 163F

**Method: 6010Cu  
 Preparation: 8005AM  
 Total Recoverable**

nshumentp CPh  
 LRb Filp. 11920101610.chl  
 nitipl WMghl/Volume:. 0 mL  
 Finpl WMghl/Volume:. 0 mL

nplyS	sultp	Qu. IRp	LR
shnicp	20.	Up	20.
Chlromium.	10.	Up	10.
Copp2	20.	Up	20.
LR db	10.	Up	10.
Zincp	20.	Up	20.

**Lab Control Sample - Batch: 680-185495u**

LRb Spmplp. LCS 680-18. 49C/16-. np lysis BRchl 680-18. 40.  
 ClipntpMp ip WM Ph p BRchl 680-18. 49C  
 il u.ionp 1.0. Unitph ug/LR  
 . np lyzUdb 11/09/2010 20. 7U  
 Ph p2 db 11/08/2010 163F

**Method: 6010Cu  
 Preparation: 8005AM  
 Total Recoverable**

nshumentp CPh  
 LRb Filp. 11920101610.chl  
 nitipl WMghl/Volume:. 0 mL  
 Finpl WMghl/Volume:. 0 mL

nplyS	SpikU. mountp	sultp	% . c.p	Limitp	Qu. lp
shnicp	2000.	1890.	9C	7U - 12	
Chlromium.	200.	197U	9C	7U - 12	
Copp2	2 0.	2 3F	101.	7 - 12	
LR db	00.	479C	9C	7 - 12	
Zincp	00.	4 2	9C	7 - 12	





**Login Sample Report Checklist**

Client: ARCADIS U.S., Inc.

Job Number: 680-62921-1U

**Login Number / 2921c**  
**Creator: Daughtry, Bethc**  
**List Number: 1c**

**List Source: TestAmerica Savannah**

Question	Y/N/A	Comments
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with pertinent information.	True	
Is the Field Sample Name present on COC?	F5 seal	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection dates are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for requested analyses, incl. any requested MS/MSDs!	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs!	True	
Multiphase samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	

## ANALYTICAL REPORT

Job Number: 400-51787-1

Job Description: UNC-Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix



Approved for release.  
Marty Edwards  
Senior Project Manager  
11/23/2010 7:42 AM

---

Marty Edwards  
Senior Project Manager  
marty.edwards@testamericainc.com  
11/23/2010

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page. TestAmerica Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250510), New Jersey (FL006), North Carolina (314), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-10-2), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

**TestAmerica Laboratories, Inc.**

TestAmerica Pensacola 3355 McLemore Drive, Pensacola, FL 32514  
Tel (850) 474-1001 Fax (850) 478-2671 [www.testamericainc.com](http://www.testamericainc.com)



## METHOD SUMMARY:

Client: CADIS U.S., Inc.)

Job Number: 400-51787-1)

Description:	Lab Location:	Method:	Preparation Method:
<b>Matrix: Water:</b>			
M) mercury, Low Level (CVAFS)	TAL PEN.	EPA 1631E)	
P) particulate, M) mercury, Low Level (CVAFS)	TAL PEN.		EPA 1631E)

### Lab References:

TAL PEN = TestAmerica Pensacola)

### Method References:

EPA = US Environmental Protection Agency)

**METHOD / ANALcST SUMMARM**

Client: ARCADIS U.S., Inc.U

Job Number: 40 -51787-1c

<b>MethodM</b>	<b>AnalystM</b>	<b>Analyst ID:</b>
EPA 1631Ec	Jones, Randyc	Jc

# SAMPLMSU MA RY2

Client: ARCADIS U.S., Inc.c

Job Number: 400-51787-1c

<b>Lab Sample I2</b>	<b>CIMu Sample I2</b>	<b>CIMu : a:rx2</b>	<b>a:e/Time : Sampledb</b>	<b>a:e/Time : Reuevedb</b>
400-51787-1c	LUcNTI	Waterc	11/05/2010 1600c	11/06/2010 1040c

**SAMPL : S L SM**

Client: ARCADIS U.S., Inc.

Job Number: 400-51787-1c

**Client Sample ID: T EFFLUENT**

Lab Sample ID: 400-51787-1c  
Client Matrix: Water

Date Sampled: 11/05/2010 1600c  
Date Received: 11/06/2010 1040c

---

**1631E Mercury, Low Level (CVAFS)**

Method:	1631Ec	Analysis Batch:	400-120331c	Instrument ID:	HYDRAc
Preparation:	1631Ec	Prep Batch:	400-120303	Lab File ID:	110910b.PRNc
Dilution:	1.0c			Initial Weight / Volume:	40 mL
Date Analyzed:	11/09/2010 1105c			Final Weight / Volume:	40 mL
Date Prepared:	11/08/2010 1515c				

---

Analyte	Result (ng /L)	Qualifier	L0
Mercury	0.68c		0.50c



# QUALITY CONTROL SULTS

## Quality Control Results

Client: ARCADIS U.S., Inc.

Job Number: 400-51787-1c

### QC Association Summary

Lau Sample ID-	Client Sample ID-	Reportu Basisu	Client Matrix-	Method-	Prep Batchu
<b>Metals</b>					
<b>Prep Batchu400-1203032</b>					
LCS 400-120303/2-Ac	Lab Control Samplec	T0	Waterc	1G 1EM	
LCSD 400-120303/3-Ac	Lab Control Sample Duplicatec	T0	Waterc	1G 1EM	
MB0400-120303/1-Ac	M0ho d0Blank0	T0	Waterc	1G 1EM	
0-37993-A-14-B0MSc	Matrix0Spik0	T0	Waterc	1G 1EM	
0-37993-A-14-C 0MSDc	Matrix0Spik0Du plicatec	T0	Waterc	1G 1EM	
400-51787-1c	EFFLUENT0	T0	Waterc	1G 1EM	
<b>Analysis Batchu400-120331u</b>					
LCS 400-120303/2-Ac	Lab Control Samplec	T0	Waterc	1G 1EM	400-120303M
LCSD 400-120303/3-Ac	Lab Control Sample Duplicatec	T0	Waterc	1G 1EM	400-120303M
MB0400-120303/1-Ac	M0ho d0Blank0	T0	Waterc	1G 1EM	400-120303M
0-37993-A-14-B0MSc	Matrix0Spik0	T0	Waterc	1G 1EM	400-120303M
0-37993-A-14-C 0MSDc	Matrix0Spik0Du plicatec	T0	Waterc	1G 1EM	400-120303M
400-51787-1c	EFFLUENT0	T0	Waterc	1G 1EM	400-120303M

#### Report Basisu

T0= Totalc

**Quality Control Results**

Cli) . CADIS U.S., Inc.)

Job Number: 400-51787-1)

**Method Blank - Batch: 400-120303T**

Lab Sample ID) MB 400-120303/1-A)  
 Client) Maci) Wac  
 Initial Volume: 1.00  
 Date Analyzed) 11/09/2010 0922b  
 Date Prepared) 11/08/2010 1515C

Analysis Batch) 400-120331)  
 Prep Batch) 400-120303)  
 Unit) g/LR

**Method: 1631Ey  
 Preparation: 1631Ey**

Instrument ID) HYDRA)  
 Lab File ID) 110910b.P N.  
 Initial Volume: 40 mL  
 Final Volume: 40 mL

Sample	Result	Quality	LR
Mp curyS	<0.500		0.500

**Lab Control Sample/  
 Lab Control Sample Duplicate Recovery Report - Batch: 400-120303T**

LCS Lab Sample ID) LCS 400-120303/2-A)  
 Client) Maci) Wac  
 Initial Volume: 1.00  
 Date Analyzed) 11/09/2010 09300  
 Date Prepared) 11/08/2010 1515C

Analysis Batch) 400-120331)  
 Prep Batch) 400-120303)  
 Unit) g/LR

**Method: 1631Ey  
 Preparation: 1631Ey**

Instrument ID) HYDRA)  
 Lab File ID) 110910b.P N.  
 Initial Volume: 40 mL  
 Final Volume: 40 mL

LCSD Lab Sample ID) LCSD)400-120303/3-A)  
 Client) Maci) Wac  
 Initial Volume: 1.00  
 Date Analyzed) 11/09/2010 0938)  
 Date Prepared) 11/08/2010 1515C

Analysis Batch) 400-120331)  
 Prep Batch) 400-120303)  
 Unit) g/LR

Instrument ID) HYDRA)  
 Lab File ID) 110910b.P N.  
 Initial Volume: 40 mL  
 Final Volume: 40 mL

Sample	% Rec.		Limit	P	P Limit	LCS Qual	LCSD)Qual
	LCS)	LCSD)					
Mp curyS	102b	102b	79 - 121)	00	200		

**Quality Control Results**

Cli) . CADIS U.S., Inc.)

Job Number: 400-51787-1)

**Matrix Spike/ Duplicate Recovery Report - Batch: 400-120303T**

**Method: 1631Ey  
Preparation: 1631Ey**

MS Lab Sampl) ID) 660-37993-A-14-B MS) alysis Bacchb 400-120331)  
 Cli) Maci) Wac P p Bacchb 400-120303)  
 il u.io. 1.00  
 ac . alyzUdb 11/09/2010 10000  
 ac P pac db 11/08/2010 1615C

In\$bume. ID) HYDRA)  
 Lab Fil) ID) 110910b.P N.  
 Initial WMghbVolume:. 40 mL  
 Final WMghbVolume:. 40 mL

MSD)Lab Sampl) ID) 660-37993-A-14-C MSD) alysis Bacchb 400-120331)  
 Cli) Maci) Wac P p Bacchb 400-120303)  
 il u.io. 1.00  
 ac . alyzUdb 11/09/2010 1008)  
 ac P pac db 11/08/2010 1615C

In\$bume. ID) HYDRA)  
 Lab Fil) ID) 110910b.P N.  
 Initial WMghbVolume:.40 mL  
 Final WMghbVolume:. 40 mL

alyS	% . c.)		Limit)	P	P Limit)	MS Qual)	MSD)Qual)
	MS)	MSD)					
Mp curyS	98)	91	71 - 125C	6)	245		

DATA RhPORT:Nc M ALIFa RSh

Lab Sectionp	u alifierM	Descriptionp
--------------	------------	--------------

---

SERIAL NUMBER: 050148

TestAmerica Pensacola  
 3355 McLemore Drive  
 Pensacola, FL 32514  
 Phone: 850-474-1001  
 Fax: 850-478-2671  
 Website: www.testamericainc.com

QUOTE NO. BOTTLE ORDER NO. ORDER LOG IN NO.  
 C410-51787

TESTAMERICA  
 ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD  
 THE LEADER IN ENVIRONMENTAL TESTING

CLIENT: **ARCADIS**  
 PROJECT NAME: **UNC-Airport Rd. NC 000239.0018.0001**  
 PROJECT NO.: **919-854-1282**  
 CLIENT PROJECT MANAGER: **Alan Pinnix**

ADDRESS: **801 Corporate Center Dr., Raleigh, NC 27607**  
 CONTRACT / P.O. NO.:  
 CLIENT E-MAIL OR FAX: **apinnix@arcadis-us.com**

SAMPLED BY: **Dave Twamley**  
 CLIENT PHONE: **919-854-1282**

LABORATORY USE ONLY  
 LAB USE ONLY - SAMPLE NUMBER

REQUESTED ANALYSIS

POSSIBLE HAZARD IDENTIFICATION  
 NON-HAZARD  
 FLAMMABLE  
 RADIOACTIVE  
 POISON B  
 UNKNOWN  
 OTHER:

NO. OF COOLERS PER SHIPMENT: **1**

SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT

NUMBER OF CONTAINERS SUBMITTED: **3**

PROJECT LOC. (STATE): **NC**

MATRIX  
 Drinking Water  
 Other:  
 Aqueous GW, SW, WW  
 Solid, Semisolid, Sediment  
 Air  
 NonAqueous (Oil, Solvent, etc.)

PRESERVATIVE  
 No Preservative  
 HCL - Hydrochloric Acid  
 HNO3 - Nitric Acid  
 H2SO4 + Sulfuric Acid or H3PO4  
 NaOH - Sodium Hydroxide  
 CH3OH - Methanol  
 NAHSO4 - Sodium Bisulfate  
 NA2S2O3 - Sodium Thiosulfate

SAMPLE IDENTIFICATION  
 DATE: **11-5-10** TIME: **1600**  
 SAMPLE: **Effluent**

RELINQUISHED BY (SIGNATURE): *Alan Pinnix* DATE: **11-5-10** TIME: **1700**  
 RECEIVED BY (SIGNATURE): DATE: TIME:

RECEIVED FOR LABORATORY BY: *Will* DATE: **11/05/10** TIME: **10:40**

REMARKS: *OK*

LABORATORY USE ONLY  
 CUSTODY SEAL NO. **657087**  
 CUSTODY INTACT?  YES  NO

Page 12 of 13

TAL-8251 (1207)

# Login Sample Receipt Check List

Client: ARCADIS U.S., Inc.

Job Number: 400-51787-1c

**Login Number: 51787c**  
**Creator: Chea, Vandac**  
**List Number: 1u**

**List Source: TestAmerica Pensacola**

Question	Y / N / NA	Comments
Temperature either was not measured, if measured is at or below background	N/A	
Thermometer 'sl' used, if present, is in calibration	True	
Thermometer or sample do not compare to bath/seen comparison	True	
Sample was received within 15 minutes	True	
Cooler temperature is recorded	True	0.0°C
Cooler temperature is recorded	True	
COC is present	True	
COC is filled out in ink/undegradable	True	
COC is filled out with appropriate information	True	
Is the field sample's name present on COC?	True	
There are no discrepancies between the sample ID on the container and COC	True	
Sample is received within holding time	True	Sample EFFLUENT was not present within 48 hours before use/reception
Sample containers have legible labels	True	Sturdy with no notice given to lab
Containers are not broken or leaking	True	
Sample collection dates are provided	True	
Appropriate sample containers are used	True	
Sample bottles are completely filled	True	
Sample preserved/stored properly	True	
There is sufficient volume for all requested analyses including any requested MS/MSDs	True	
VOA sample does not have any bubbles < 6mm (1/4") in diameter	True	
If necessary, staff has been informed by short bold time or quick turn needs	True	
Multiphase samples are not present	True	
Samples do not require splitting or compositing	True	

## ANALYTICAL REPORT

Job Number: 680-64168-1

Job Description: UNC Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
12/29/2010 10:47 AM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
12/29/2010

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)





## METHOD SUMMARY:

Client: ARCADIS U.S., Inc.c

Job Number: 680-64168-1T

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: Water:</b>			
Volatile Organic Compounds (GC/MS)	TAL SAVT	SW846 8260BT	
Purge and Trap	AL SAVT		SW846 5030BT
Metals (ICP)	AL SAVT	SW846 6010CT	
Preparation, Extractable Metals	AL SAVT		SM 3030CT

### Lab References:

AL SAV = TestAmerica SavannahT

### Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",T

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its T Updates.T

**METHOD / ANALYST SUMMARY**

Client: ARCADIS U.S., Inc.T

Job Number: 680-64168-1T

<b>Method</b>	<b>Analyst</b>	<b>Analyst ID:</b>
W.46 8160B.	Sokolin, EleinaN	
W.46 6010CN	Bland, BrianN	BCB.

# SAMPLMSU MA RY2

Client: ARCADIS U.S., Inc.N

Job Number: 680-64168-1N

<u>Lab Sample I2</u>	<u>CIMu Sample I2</u>	<u>CIMu : a:rx2</u>	<u>Date/TimeV SampledV</u>	<u>Date/TimeV ReceivedV</u>
680-64168-1N	EffluentJ	WaterJ	2. 2010 1700J	2. 6/2010 0934J

Client: ARCADIS U.S., Inc.

Job Number: 680-64168-1J

**Client Sample ID:V      EffluentV**

LJb SImple ID:J      680-64168-1J  
 Client MNrix:J      WNrterJ

DJte SImpled: 12/N /2010 1700J  
 DJte Received: 12/16 /2010 0934J

**8260B Tolatile Organic CompounTs (GC/MS):**

Method:J      8260BJ      AnJlysis BJtch: 680-190029J      Instrument ID:J      MSPJ  
 Prep4 tion:J      5030BJ      LJb File ID:J      p0385.dN  
 Dilution:J      .0J      InitiJl Weight/Volume:J      5 mLJ  
 DJte AnJlyzed:J      2/2N2010 1417J      FinJl Weight/Volume:J      5 mLJ  
 DJte Prep4 ed:J      2/2N2010 1417J

AnJlyteJ	Result (ug/L)J	QuJlifierJ	RLJ
AcetoneJ	25J	UJ	25J
BenzeneJ	.0J	UJ	.0J
BromoformJ	.0J	UJ	.0J
Bromometh neJ	.0J	UJ	.0J
CJ bon disulfideJ	2.0J	UJ	2.0J
CJ bon tetrJchlorideJ	.0J	UJ	.0J
ChlorobenzeneJ	.0J	UJ	.0J
Chlorodibromometh neJ	.0J	UJ	.0J
Chloroeth neJ	.0J	UJ	.0J
ChloroformJ	.0J	UJ	.0J
Chlorometh neJ	.0J	UJ	.0J
cis-1,2-DichloroetheneJ	.0J	UJ	.0J
cis-1,3-Dichlorop4peneJ	.0J	UJ	.0J
Dichlorobromometh neJ	.0J	UJ	.0J
,1-Dichloroeth neJ	.0J	UJ	.0J
,2-Dichloroeth neJ	.0J	UJ	.0J
,1-DichloroetheneJ	.0J	UJ	.0J
,2-Dichlorop4p4neJ	.0J	UJ	.0J
Diethyl etherJ	0J	UJ	0J
EthylbenzeneJ	.0J	UJ	.0J
2-HexJnoneJ	0J	UJ	0J
Methylene ChlorideJ	5.0J	UJ	5.0J
2-ButJnone (MEK)J	0J	UJ	0J
- Methyl-2-pentJnone (MIBK)J	0J	UJ	0J
StyreneJ	.0J	UJ	.0J
,1,2,2-TetrJchloroeth neJ	.0J	UJ	.0J
TetrJchloroetheneJ	.0J	UJ	.0J
TolueneJ	.0J	UJ	.0J
trJns-1,2-DichloroetheneJ	.0J	UJ	.0J
trJns-1,3-Dichlorop4peneJ	.0J	UJ	.0J
,1,1- T.ichloroeth neJ	.0J	UJ	.0J
,1,2-T.ichloroeth neJ	.0J	UJ	.0J
T.ichloroetheneJ	.0J	UJ	.0J
Vinyl chlorideJ	.0J	UJ	.0J
Xylenes, TotJJ	2.0J	UJ	2.0J
SurrogJteJ	%RecJ	QuJlifierJ	AcceptJnce LimitsJ
-BromofluorobenzeneJ	94J		70 - 130J
Dibromofluorometh neJ	09J		70 - 130J
Toluene-d8 (Surr)J	03J		70 - 130J

Client: ARCADIS U.S., Inc.

Job Number: 680-64168-1J

**Client Sample ID:V      EffluentV**

LJb SImple ID:J      680-64168-1J  
 Client MNrix:J      WNrterJ

DJte SImpled: 12/N /2010 1700J  
 DJte Received: 12/16 /2010 0934J

**6010C Metals (ICP):**

Method:J	6010CJ	AnJlysis BJtch: 680-189552N	Instrument ID:J	ICPDJ
Prep4 tion:J	3030CJ	Prep BJtch: 680-189355J	LJb File ID:J	21009 20.chr
Dilution:J	.0J		InitiJI Weight/Volume:J	50 mLJ
DJte AnJlyzed:J	2/19 /2010 1908J		FinJI Weight/Volume:J	50 mLJ
DJte Prep4 ed:J	2/17 /2010 1202N			

AnJlyteJ	Result (ug/L)J	QuJlifierJ	RLJ
ArsenicJ	20J	UJ	20J
ChromiumJ	0J	UJ	0J
CopperJ	20J	UJ	20J
Le dN	0	U	0J
ZincJ	00	UJ	00J

**D T R P O R T N M L I F a R S h**

Client: ARCADIS U.S., Inc.

Job Number: 680-64168-1J

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
GC/MS VOAJ		
	UJ	Indicates the analyte was analyzed for but not detected.
MetalsI		
	UJ	Indicates the analyte was analyzed for but not detected.

Client: CADISF U.S., Inc.

Job Number: 680-641F- 1F

Method Blank - Batch: 680-190069u

Method: 60Bv  
Preparation: 6030Bv

Lab. Sample: MB 680-190029/10.  
Client Material: Water  
Injection: 1.0.  
Sample Analyzed: 12/24/2010 123F  
Sample Preparation: 12/24/2010 123F

Analysis Batch: 680-190029F  
Preparation Batch: FN/AF  
Units: ug/LF

Instrument: MSPF  
Lab File: pq1F7.dF  
Injection Volume: 5 mL  
Injection Volume: 5 mL

analyte	result	Quality	Limit
Acetone	25F	UF	25F
Benzene	1.0.	U	1.0.
Bromoform	1.0.	U	1.0.
Bromomethane	1.0.	U	1.0.
Carbon disulfide	2.0.	U	2.0.
Carbon tetrachloride	1.0.	U	1.0.
Chlorobenzene	1.0.	U	1.0.
Chlorodibromomethane	1.0.	U	1.0.
Chloroethane	1.0.	U	1.0.
Chloroform	1.0.	U	1.0.
Chloromethane	1.0.	U	1.0.
cis-1,2-dichloroethane	1.0.	U	1.0.
cis-1,3-dichloropropane	1.0.	U	1.0.
dichlorobromomethane	1.0.	U	1.0.
1,1-dichloroethane	1.0.	U	1.0.
1,2-dichloroethane	1.0.	U	1.0.
1,1-dichloroethane	1.0.	U	1.0.
1,2-dichloropropane	1.0.	U	1.0.
Diethyl ether	10.	UF	10.
Ethylbenzene	1.0.	U	1.0.
2-Hexanone	10.	UF	10.
Methyl Chloride	5.0.	U	5.0.
2-Butanone (MEK)	10.	UF	10.
4-Methyl-2-pentanone (MIBK)	10.	UF	10.
toluene	1.0.	U	1.0.
1,1,2-Tetrachloroethane	1.0.	U	1.0.
Tetrachloroethane	1.0.	U	1.0.
Toluene	1.0.	U	1.0.
trans-1,2-dichloroethane	1.0.	U	1.0.
trans-1,3-dichloropropane	1.0.	U	1.0.
1,1,1-Trichloroethane	1.0.	U	1.0.
1,1,2-Trichloroethane	1.0.	U	1.0.
Trichloroethane	1.0.	U	1.0.
Vinyl chloride	1.0.	U	1.0.
Xylenes, Total	2.0.	U	2.0.

Surrogate	% Recovery	Concentration Limits
4-Bromofluorobenzene	97F	70 - 130.
1-bromofluoromethane	111F	70 - 130.
Toluene-d8 (Surr)	103F	70 - 130.

Client: CADISF U.S., Inc.

Job Number: 680-641F- 1F

Lab Control Sample /  
 Lab Control Sample Duplicate Recovery Report Batch: 680-190069u

Method: 8 60Bv  
 Preparation: 6030Bv

LCS Lab .a mpIF.	LCS 680-190029/7F	analysis BatchF 680-190029F	instrument .	MSPF
Client MatFixF	WatF	PF p BatchFN/AF	Lab FileF.	pq1F1.dF
dilutionF	1.0.	UnitsF ug/LF	initial WFight/Volume:	5 mL
atF . nalyzF dF	12/24/2010 1100.		final WFight/Volume:.	5 mL
atF PF paF dF	12/24/2010 1100.			

LCSD Lab .a mpIF.	LCSD 680-190029/F	analysis BatchF 680-190029F	instrument .	MSPF
Client MatFixF	WatF	PF p BatchFN/AF	Lab FileF.	pq1F3.dF
dilutionF	1.0.	UnitsF ug/LF	initial WFight/Volume:	5 mL
atF . nalyzF dF	12/24/2010 1129F		final WFight/Volume:.	5 mL
atF PF paF dF	12/24/2010 1129F			

analytF	% . c.F		LimitF	PDF	PDFLimitF	LCSQualF	LCSDQualF
	LCSF	LCSDF					
cFtonF	103F	101F	2F- 10.	2F	50.		
BFnzFnF	101F	101F	70 - 130.	0.	30.		
Bromoform.	99F	9F	70 - 130.	1F	30.		
BromomethanF	91F	97F	23 - 1F5F		50.		
Carbon disulfidF	110.	110.	54 - 132F	0.	30.		
Carbon tetrachloridF	110.	110.	70 - 130.	0.	30.		
ChlorobenzFnF	103F	103F	70 - 130.	0.	30.		
ChlorodibromomethanF	92F	91F	70 - 130.	0.	50.		
ChloroethanF	99F	101F	5F- 152F	2F	40.		
Chloroform.	110.	111F	70 - 130.	1F	30.		
ChloromethanF	99F	101F	70 - 130.	2F	30.		
cis-1,2-.ichl oroethFnF	112F	113F	70 - 130.	1F	30.		
cis-1,3-.ichl oropFpFnF	107F	107F	70 - 130.	0.	30.		
ichl orobromomethanF	106.	104F	70 - 130.	1F	30.		
1,1-.ichl oroethanF	111F	111F	70 - 130.	0.	30.		
1,2-.ichl oroethanF	93F	94F	70 - 130.	1F	30.		
1,1-.ichl oroethFnF	11F	115F	- 131F	1F	30.		
1,2-.ichl oropFpanF	102F	101F	70 - 130.	1F	30.		
EthylbenzFnF	9F	100.	70 - 130.	1F	30.		
2-HFxononF	93F	94F	42 - 1F5F	0.	30.		
MethylFnF ChloridF	112F	112F	7 - 130.	0.	30.		
2-ButanonF (MEK)F	109F	106.	49 - 172F	3F	30.		
4-Methyl-2-pFntanonF (MIBK)F	90.		70 - 130.	2F	30.		
tyF nF	104F	104F	70 - 130.	1F	30.		
1,1,2,2-TetFachloroethanF	101F	100.	70 - 130.	1F	30.		
TetFachloroethFnF	106.	107F	70 - 130.	1F	30.		
ToluenF	102F	102F	70 - 130.	0.	30.		
tFans-1,2-.ichl oroethFnF	111F	113F	70 - 130.	1F	30.		
tFans-1,3-.ichl oropFpFnF	105F	106.	70 - 130.	0.	50.		
1,1,1-TrichloroethanF	104F	105F	70 - 130.	1F	30.		
1,1,2-TrichloroethanF	9F	100.	70 - 130.	2F	30.		
TrichloroethFnF	104F	106.	70 - 130.	2F	30.		
Vinyl chloridF	105F	107F	7 - 134F	1F	30.		



Client: CADISF U.S., Inc.

Job Number: 680-641F- 1F

Lab Control Sample /  
 Lab Control Sample Duplicate Recovery Report Batch: 680-190069u

Method: 8 60Bv  
 Preparation: 6030Bv

LCS Lab .a mpIF.	LCS 680-190029/7F	analysis BatchF 680-190029F	instrument .	MSPF
Client MatFixF	WatF	PF p BatchFN/AF	Lab File.	pq1F1.dF
dilutionF	1.0.	UnitsF ug/LF	initial WFight/Volume:	5 mL
atF . nalyzF dF	12/24/2010 1100.		Final WFight/Volume:.	5 mL
atF PF paF dF	12/24/2010 1100.			

LCSD Lab .a mpIF.	LCSD 680-190029/F	analysis BatchF 680-190029F	instrument .	MSPF
Client MatFixF	WatF	PF p BatchFN/AF	Lab File.	pq1F3.dF
dilutionF	1.0.	UnitsF ug/LF	initial WFight/Volume:	5 mL
atF . nalyzF dF	12/24/2010 1129F		Final WFight/Volume:.	5 mL
atF PF paF dF	12/24/2010 1129F			

analytF	% . c.F		LimitF	PDF	PDF LimitF	LCS QualF	LCSD QualF
	LCSF	LCSDF					
XylFnFs, TotalF	104F	105F	70 - 130.	1F	30.		
urrogatF							
		LCS P% . cF	LCSD P% . cF		ccF ptancF LimitsF		
4-BromofluorobenzFnF		101F	9F		70 - 130.		
i bromofluoromethanF		113F	113F		70 - 130.		
ToluenF dF (Surr)F		102F	102F		70 - 130.		

Client: CADISF U.S., Inc.

Job Number: 680-641F- 1F

**Method Blank - Batch: 680-189355u**

**Method: 6010Cu**  
**Preparation: 8030Cu**

Lab Sample: MB 680-1F9355/2-  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/19/2010 1F5F  
Date Prepared: 12/17/2010 1202F

Analysis Batch: 680-1F9552F  
Preparation Batch: 680-1F9355F  
Units: ug/LF

Instrument: CPDF  
Lab File: 1219100920.ch  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

analyte	result	Quality	LF
arsenic	20.	UF	20.
chromium	10.	UF	10.
copper	20.	UF	20.
lead	10.	UF	10.
zinc	100.	UF	100.

**Lab Control Sample Batch: 680-189355u**

**Method: 6010Cu**  
**Preparation: 8030Cu**

Lab Sample: LCS 680-1F9355/3-  
Client Matrix: Water  
Dilution: 1.0  
Date Analyzed: 12/19/2010 1903F  
Date Prepared: 12/17/2010 1202F

Analysis Batch: 680-1F9552F  
Preparation Batch: 680-1F9355F  
Units: ug/LF

Instrument: CPDF  
Lab File: 1219100920.ch  
Initial Weight/Volume: 50 mL  
Final Weight/Volume: 50 mL

analyte	picogram mount	result	% recovery	Limit	Quality
arsenic	2000.	2050.	102%	75 - 125	
chromium	200.	209	105%	75 - 125	
copper	250.	25F	103%	75 - 125	
lead	500.	514F	103%	75 - 125	
zinc	500.	52F	105	75 - 125	

Client: CADISF U.S., Inc.

Job Number: 680-641F- 1F

**Matrix Spike**

**Matrix Spike Duplicate Recovery Report Batch: 680-189355u**

**Method: 6010Cu**

**Preparation: 8030Cu**

MSL Lab .a mpLF. 0-6.41F- 1F analysis BatchF 680-1F9552F  
 Client MatFixF WatF PF p BatchF 680-1F9355F  
 DilutionF 1.0  
 Date AnalyzedF 12/19/2010 1923F  
 Date PackedF 12/17/2010 1202F

Instrument . CPDF  
 Lab File. 1219100920.chF  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

MSDL Lab .a mpLF. 0-6.41F- 1F analysis BatchF 680-1F9552F  
 Client MatFixF WatF PF p BatchF 680-1F9355F  
 DilutionF 1.0  
 Date AnalyzedF 12/19/2010 192F  
 Date PackedF 12/17/2010 1202F

Instrument . CPDF  
 Lab File. 1219100920.chF  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	PDF	PDF Limit	MSR Qual	MSDR Qual
	MSF	MSDF					
Chromium	102	104	75 - 125	2	20		
Copper	103	105	75 - 125	2	20		
Lead	104	106	75 - 125	2	20		
Vanadium	100	103	75 - 125	2	20		
Zinc	104	106	75 - 125	2	20		

Chain of Custody Record

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Alan Pinnix Tel/Fax: 919-854-1282		Site Contact: Alan Pinnix Lab Contact: Kathy Smith		Date: December 14, 2010 Carrier: Fed Ex		COC No: _____ of _____ COCs	
ARCADIS		Analysis Turnaround Time		Filtered Sample		Job No.		SDG No.	
801 Corporate Center Drive, Suite 300 Raleigh, NC 27607		Calendar (C) or Work Days (W)		VOCs (Method 8260)		PP Metals (Method 6010)*		Sample Specific Notes:	
919-854-1282		TAT if different from Below		4		*Please report: As, Cr, Cu, Pb, and Zn.			
919-854-5448		2 weeks <input type="checkbox"/>		Sample Type					
Project Name: UNC - Airport Road		1 week <input type="checkbox"/>		Time					
Site: Chapel Hill, NC		2 days <input type="checkbox"/>		Date					
P O # NC000239.0018.00001		1 day <input type="checkbox"/>		12/14/2010		Grab			
Sample Identification		Sample Date		Sample Time		Matrix		# of Cont.	
Effluent		12/14/2010		1700		Grab		4	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/>									
Special Instructions/QC Requirements & Comments:									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months									
Relinquished by: <i>Michael Anthony</i>		Company: ARCADIS		Date/Time: 12/15/10 08:00		Received by:		Date/Time:	
Relinquished by:		Company:		Date/Time:		Received by:		Date/Time:	
Relinquished by:		Company:		Date/Time:		Received by: <i>Harriet Swafford</i>		Date/Time: 12/16/10 09:34	

TEMP 2.4 680-64168

## Login Sample Review Check List

Client: ARCADIS U.S., Inc.

Job Number: 680-64168-1J

**Login Number: c4168P**

**List Source: TestAmerica Savannah**

**Creator: Swafford, Frances**

**List Number: 16**

Question	Y / N / NA	Comments
Radioactivity was not measured or, if measured, is at or below background.	N/A	
The cooler's custody seal, if present, is intact.	Y	
The cooler for samples do not appear to have been compromised or tampered with.	Y	
Samples were received on ice.	Y	
Cooler temperature is acceptable.	Y	
Cooler temperature is recorded.	Y	
COC is present.	Y	
COC is filled out in ink and legible.	Y	
COC is filled out with all pertinent information.	Y	
Is the Field Sample's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	Y	
Samples are received within Holding Time.	Y	
Sample containers have legible labels.	Y	
Containers are not broken or leaking.	Y	
Sample collection date/times are provided.	Y	
Appropriate sample containers are used.	Y	
Sample bottles are completely filled.	Y	
Sample Preservation Verified	Y	
There is sufficient volume for all requested analyses, including any requested MS/MSDs.	Y	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	Y	
If necessary, staff have been informed of any sort of hold time or quick TAT needs.	Y	
Multiple samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	

## ANALYTICAL REPORT

Job Number: 400-52750-1

Job Description: UNC-Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix



Approved for release.  
Marty Edwards  
Senior Project Manager  
12/27/2010 10:32 AM

---

Marty Edwards  
Senior Project Manager  
marty.edwards@testamericainc.com  
12/27/2010

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page. TestAmerica Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250510), New Jersey (FL006), North Carolina (314), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-10-2), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

**TestAmerica Laboratories, Inc.**

TestAmerica Pensacola 3355 McLemore Drive, Pensacola, FL 32514

Tel (850) 474-1001 Fax (850) 478-2671 [www.testamericainc.com](http://www.testamericainc.com)



**METHOD SUMMARY:**

Client: ARCADIS U.S., Inc.

Job Number: 400-52750-1U

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: D Water:</b>			
Mercury, Low Level (CVAFS)	AL PENv	A 1631Ev	
Mercury, Low Level	AL PENv		A 1631Ev

**Lab References: D**

AL PEN = TestAmerica Pensacola

**Method References: D**

A = US Environmental Protection Agency

**METHOD / ANALYST SUMMARY**

Client: ARCADIS U.S., Inc.v

Job Number: 400-52750-1v

<b>Method</b>	<b>Analyst</b>	<b>Analyst ID:</b>
EPA 1631Ec	Jonev, RvndyF	RJv



SAVPLMSU2 R Y2

Client: ARCADIS U.S., Inc.v

Job Number: 400-52750-1v

<u>Lab Sa: ple IDV</u>	<u>Client Sa: ple IDV</u>	<u>Client : atrix2</u>	<u>Date/TimeV Sa: pledV</u>	<u>Date/TimeV ReceivedV</u>
400-52750-1v	FFLUENTS	WaterS	2/14/2010 1700S	2/16/2010 0930S

**SAV PL : S L SV**

Client: ARCADIS U.S., Inc.

Job Number: 400-52750-1S

Client Sample ID: V EFFLUENT

Lob Sample ID: S 400-52750-1S  
Client Mix: S W-

DS Sample: 12/14/2010 1700S  
DS Received: 12/16/2010 0930S

1631E Mercury, Low Level (CVAFS)

Meth: S	631ES	Analysis BS ch: 400-123101S	Instrument ID: S	HYDRAS
Prep ion: S	631ES	Prep BS ch: 400-123009S	Lob File ID: S	22110b.PRNS
Dilution: S	.0S		Initial Weight / Volume: S	40 mL0
DS Analyze: S	2/21/2010 1135S		Final Weight / Volume: S	40 mL0
DS Prep: S	2/16/2010 1215S			

Analyte	Result (ng/L)	Qualifier	RL
Mercury	0.71	S	0.50

# QUALITY CONTROL RESULTS

Client: ARCADIS U.S., Inc.

Job Number: 400-52750-1S

**QC Association Summary**

Lab Sample ID	Client Sample ID	Report Value	Client Matrix	Method	Prep Batch
<b>Metal</b>					
<b>Prep Batch 400-123009b</b>					
LCS 400-123009/2-AS	L0b Control Sample	W0		3MEM	
LCSD 400-123009/3-AS	L0b Control Sample Duplicate	W0		3MEM	
MB 400-123009/FAS	Method Blank	W0		3MEM	
400-52750-1S	EFFLUENS	W0		3MEM	
700-54458-B-2-B M0	Method Spike	W0		3MEM	
700-54458-B-2-C MSDS	Method Spike Duplicate	W0		3MEM	
<b>Anal Batch 400-123101u</b>					
LCS 400-123009/2-AS	L0b Control Sample	W0		3MEM	400-123009b
LCSD 400-123009/3-AS	L0b Control Sample Duplicate	W0		3MEM	400-123009b
MB 400-123009/FAS	Method Blank	W0		3MEM	400-123009b
400-52750-1S	EFFLUENS	W0		3MEM	400-123009b
700-54458-B-2-B M0	Method Spike	W0		3MEM	400-123009b
700-54458-B-2-C MSDS	Method Spike Duplicate	W0		3MEM	400-123009b

**Report Value**  
= Sot/SIS

Cli) . CADIS U.S., Inc.)

Job Number: 400-52750-1.

**Method Blank - Batch: 400-123009y**

LRb S) mpl) ID) MB 400-123009/1-A)  
 Cli) MaNixJ WM  
 il u.io. 1.00  
 . lyzUdb 12/21/2010 09445  
 PF p2 db 12/16/2010 1215C

lysis BF chF 400-123101.  
 PF p BF chF 400-123009S  
 Unit\$F g/LR

**Method: 1631Ev  
 Preparatón: 1631Ev**

In\$Fume. ID) HYv  
 LRb . il) ID) 122110b.PFN.  
 Initi) l WMghFVolume:. 40 mL  
 in) l WMghFVolume:. 40 mL

lyS	sult)	Qu. IR)	LR
MN curyS	<0.500		0.500

**LabControl\Sample/v  
 LabControl\Sample\ / pivate\Recovery Report\ Batch: 400-123009y**

**Method: 1631Ev  
 Preparatón: 1631Ev**

LCS LRb S) mpl) ID) LCS 400-123009/2-A)  
 Cli) MaNixJ WM  
 il u.io. 1.00  
 . lyzUdb 12/21/2010 0952  
 PF p2 db 12/21/2010 09300

lysis BF chF 400-123101.  
 PF p BF chF 400-123009S  
 Unit\$F g/LR

In\$Fume. ID) HYv  
 LRb . il) ID) 122110b.PFN.  
 Initi) l WMghFVolume:. 40 mL  
 in) l WMghFVolume:. 40 mL

LCSD)LRb S) mpl) ID) LCSD)400-123009/3-A)  
 Cli) MaNixJ WM  
 il u.io. 1.00  
 . lyzUdb 12/21/2010 10000  
 PF p2 db 12/21/2010 09300

lysis BF chF 400-123101.  
 PF p BF chF 400-123009S  
 Unit\$F g/LR

In\$Fume. ID) HYv  
 LRb . il) ID) 122110b.PFN.  
 Initi) l WMghFVolume:. 40 mL  
 in) l WMghFVolume:. 40 mL

lyS	LCS)	<u>% . c.)</u> LCSD)	Limit)	PF	PF Limit)	LCS Qu. I)	LCSD)Qu. I)
MN curyS	945	945	79 - 121.	00	200		

Cli) . CADIS U.S., Inc.)

Job Number: 400-52750-1.

Matrix Spike/Recovery Report Batch: 400-123009y

Method: 1631Ev  
Preparation: 1631Ev

MS (Sample ID) 700-54458-B-2-B MS) lysis BF chF 400-123101.  
 Cli) Matrix WM PF p BF chF 400-123009S  
 il u.io. 1.00  
 . lyzUdb 12/21/2010 1111.  
 PF p2 db 12/20/2010 1445C

Inj. Fume. ID) HYv  
 LRB (il) ID) 122110b.PFN.  
 Inj. Volume: 40 mL  
 Inj. Volume: 40 mL

MSD (Sample ID) 700-54458-B-2-C MSD) lysis BF chF 400-123101.  
 Cli) Matrix WM PF p BF chF 400-123009S  
 il u.io. 1.00  
 . lyzUdb 12/21/2010 1119S  
 PF p2 db 12/20/2010 1445C

Inj. Fume. ID) HYv  
 LRB (il) ID) 122110b.PFN.  
 Inj. Volume: 40 mL  
 Inj. Volume: 40 mL

lyS	% Rec.		Limit)	PF	PF Limit)	MS Qu. I)	MSD)Qu. I)
	MS)	MSD)					
MN curyS	98v	88	v 71 - 125C	100	245		

D T R PORT N M LIFa RSh

Lab Sectionp	u alifierM	Descriptionp
--------------	------------	--------------

---





# Login Sample Review Check List

Client: ARCADIS U.S., Inc.

Job Number: 400-52750-1S

**Login Number: 52750L**

**List Source: TestAmerica Peñacodac**

**Creator: Chea, Vandac**

**List Number: 1/**

Question	I / F / NA	Comment
Radioactivity is either not measured or, if measured, is above background	NS	
Refrigerator is properly maintained	ue	
Refrigerator or samples do not appear to have been compromised or tampered with	ue	
Samples were received on ice	ue	
Cooler temperature is acceptable	ue	0.0°C
Cooler temperature is recorded	ue	
COC is properly maintained	ue	
COC is filled out in ink and legible	ue	
COC is filled out with all pertinent information	ue	
Is the Field Sampler's name present on COC?	ue	
Are there no discrepancies between sample IDs on containers and COC?	ue	
Samples were received within Holding Time	ue	
Containers have legible labels	ue	
Containers are not broken or leaking	ue	
Sample collection dates are provided	ue	
Appropriate sample containers used	ue	
Sample bottles are completely filled	ue	
Sample P. sl. verified	ue	
Is sufficient vol. for all requested analyses, incl. any requested MNMSDs	ue	
VOA sample vials do not have headspace or bubble is <6mm (N4") in diameter	ue	
If necessary, staff have been informed of any short hold time or quick SAS needs	ue	
Multiphase samples are not present	ue	
Samples do not require splitting or compositing	ue	

## ANALYTICAL REPORT

Job Number: 680-61778-1

Job Description: UNC Chapel Hill

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
10/29/2010 4:31 PM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
10/29/2010  
Revision: 2

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



**CommentsU**

No additional comments. g

**Receipt U**

All samples were received in good condition within temperature requirements.g

**GC/MS VOA U**

No analytical or quality issues were noted.g

**Metals U**

No analytical or quality issues were noted.g

**General Chemistry U**

No analytical or quality issues were noted.g

**VOA Prep U**

No analytical or quality issues were noted.g

**METHOD SUMMARY:**

Client: F. CADISF U.S., Inc.

Job Number: 680-6177-1)

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: Water:</b>			
Volatil Organic Compounds (GC/M )M	TM . VM	WF 4U8.2,0 BM	
PurgMand T apF	TM . VM		WF 4U5030BM
tals (MCP)M	TM . VM	WF 4U60 10CF	
Preparation, Total . coverablFor . i ssolved . talsM	TM . VM		WF 4U3005T
cury (CVM )M	TM . VM	W 46 7470.	
Prepa ation, . curyc	TM . VM		WF 4U7470.
ulfatF, Turbidimetfif	TM . VM	WF 4U903T	

**Lab References:**

TM . V = TMstAmerica . avannah

**Method References:**

WF 4U = "TMst . thods For Evaluating . olid WastF, Physical/Chfm ical . thods", Third Edition, November 19b . n d . ts .  
 UpdatFs.F

**METHOD / ANALcST ScMMARM**

Client: ARCADIS U.S., Inc.S

Job Number: 680-61778-1c

<b>MethodM</b>	<b>AnalystM</b>	<b>Analyst ID:</b>
W8J6 8260BI	Lanier, CaFlynS	CLJ
W8J6 6010CS	Bland, BlianS	BCBI
W846 7470A.	Vasquez, Juana.	V.
W846 9038.	Ross, Jon.	R.

## SUMPLU SUMMUR Y2

Client: ARCADIS U.S., Inc.

Job Number: 680-61778-1.

<b>Lab Sa: ple IDV</b>	<b>Client Sa: ple IDV</b>	<b>Client Matrix2</b>	<b>Date/Time : Sa: pledb</b>	<b>Date/Time : ReVeivedb</b>
680-61778-1A	MW-1 (09302010)A		09/30/2010 1230.	10/01/2010 0941.
680-61778-2A	MW-2 (09302010)A		09/30/2010 1115A	10/01/2010 0941A
680-61778-3A	MW-3 (09302010)A		09/29/2010 1645A	10/01/2010 0941A
680-61778-4A	MW-14 (09302010)A		09/29/2010 1430A	10/01/2010 0941A
680-61778-5A	MW-38 (09302010)A		09/30/2010 1330A	10/01/2010 0941A
680-61778-6A	MW-39 (09302010)A		09/30/2010 1015A	10/01/2010 0941A
680-61778-7A	Trip BlankA		09/30/2010 0000A	10/01/2010 0941A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:V MW-1 (09302010)d

Lab Sample ID:A 680-61778-1A  
 Client Ma. ix:A Wa.

Da. Sample: 09/30/2010 1230A  
 Da. Recei vcd: 10/01/2010 0941A

60B Volatile Organic Compounds (GC/MS)d

MN hod:A 8260B Analysis Ba.ch: 680-182239J Instrument ID:A MSP  
 P. pa.a.ion:A 5030BA Lab File ID:A p0785.dF  
 Dilution:A 50A Initial W Sg h /Volume:A 5 mLJ  
 Da. An alyze:A 10/07/2010 1518A Final W Sg h /Volume:A 5 mLJ  
 Da. P. pa. d:A 10/07/2010 1518A

n alyteA	Result (ug/L)	QualifierA	RLJ
acetoneA	1300A	UA	1300
BenzeneA	620		50
BromobenzeneA	50A	UA	50A
BromochlorometAaneA	50A	UA	50A
BromoformA	50A	UA	50A
BromometAaneA	50A	UA	50A
2-Butanone (MEK)A	500A	UA	500A
Ca.bon disulfidF	100A	UA	100A
Ca.bon tetrAchloridF	50A	UA	50A
ChlorobenzeneA	50A	UA	50A
ChlorodibromometAaneA	50A	UA	50A
ChloroetAaneA	50A	UA	50A
ChloroformA	3400A		50A
ChlorometAaneA	50A	UA	50A
2-ChlorotolueneA	50A	UA	50A
4-ChlorotolueneA	50A	UA	50A
cis-1,2-DichloroetA neA	50A	UA	50A
cis-1,3-Dichlorop4p4neA	50A	UA	50A
1,2-Dibromo-3-Chlorop4paneA	50A	UA	50A
1,2-DibromoetAaneA	50A	UA	50A
DibromometAaneA	50A	UA	50A
1,3-DichlorobenzeneA	50A	UA	50A
1,2-DichlorobenzeneA	50A	UA	50A
1,4-DichlorobenzeneA	50A	UA	50A
DichlorobromometAaneA	50A	UA	50A
DichlorodifluorometAaneA	50A	UA	50A
1,1-DichloroetAaneA	50A		50A
1,2-DichloroetAaneA	360A		50A
1,1-DichloroetA neA	50A	UA	50A
1,2-DichloroetA ne, TotAlA	100A	UA	100A
1,2-Dichlorop4paneA	50A	UA	50A
2,2-Dichlorop4paneA	50A	UA	50A
1,3-Dichlorop4paneA	50A	UA	50A
1,1-Dichlorop4p4neA	50A	UA	50A
DietAyl etA	4300A		500A
EtAylbenzeneA	50A	UA	50A
HexAchlorobutadieneA	50A	UA	50A
2-HexAnoneA	500A	UA	500A
Isop4pylbenzeneA	50A	UA	50A
MNhylene ChloridF	570A		250A
4-MNhyl-2-p4ntAnone (MIBK)A	500A	UA	500A
MNhyl tert-butyl etA	500A	UA	500A
m-Xylene & p-XyleneA	100A	UA	100A
Naph haleneA	5900A		250A
n-ButylbenzeneA	50A	UA	50A
N-P.opylbenzeneA	50A	UA	50A



Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d MW-1 (09302010)d

Lab Sample ID:A 680-61778-1A  
 Client Matrix:A Wa.

Date Sampled: 09/30/2010 1230A  
 Date Received: 10/01/2010 0941A

60B Volatile Organic Compounds (GC/MS)d

MNhod:A 8260B Analysis Batch: 680-182239J Instrument ID:A MSP  
 P. parameter:A 5030BA Lab File ID:A p0785.dF  
 Dilution:A 50A Initial Weight/Volume:A 5 mLJ  
 Date Analyzed:A 10/07/2010 1518A Final Weight/Volume:A 5 mLJ  
 Date Printed:A 10/07/2010 1518A

analyte	Result (ug/L)	Qualifier	RLJ
o-Xylene	50A	UA	50A
p-Isopropyltoluene	50A	UA	50A
sec-Butylbenzene	50A	UA	50A
Styrene	50A	UA	50A
n-Butylbenzene	50A	UA	50A
1,1,2,2-Tetrachloroethane	530		50
1,1,1,2-Tetrachloroethane	50A	UA	50A
Tetrachloroethane	50A	UA	50A
Toluene	50A	UA	50A
trans-1,2-Dichloroethane	50A	UA	50A
trans-1,3-Dichloropropene	50A	UA	50A
1,2,4-Trichlorobenzene	50A	UA	50A
1,2,3-Trichlorobenzene	50A	UA	50A
1,1,1-Trichloroethane	50A	UA	50A
1,1,2-Trichloroethane	50A	UA	50A
Trichloroethane	130		50
Trichlorofluoromethane	50A	UA	50A
1,2,3-Trichloropropane	50A	UA	50A
1,2,4-Trimethylbenzene	50A	UA	50A
1,3,5-Trimethylbenzene	50A	UA	50A
Vinyl acetate	100A	UA	100A
Vinyl chloride	50A	UA	50A
Xylenes, Total	100A	UA	100A

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	98A		75 - 120A
Dibromofluoromethane	90A		75 - 121A
Toluene-d8 (Surrogate)	97A		75 - 120A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d MW-2 (09302010)d

Lab Sample ID:A 680-61778-2b

Da. Sample: 09/30/2010 1115A

Client Matrix:A Wa.

Da. Received: 10/01/2010 0941A

60B Volatile Organic Compounds (GC/MS)d

MNhod:A	8260B	Analysis Batch: 680-182239J	Instrument ID:A	MSP
P. parameter:A	5030BA		Lab File ID:A	p0787.dF
Dilution:A	100A		Initial Weight/Volume:A	5 mLJ
Da. Analyzed:A	10/07/2010 1548A		Final Weight/Volume:A	5 mLJ
Da. Printed:A	10/07/2010 1548A			

analyte	Result (ug/L)	Qualifier	RLJ
acetone	2500A	UA	2500
Benzene	6800A		100A
Bromobenzene	100A	UA	100A
Bromochloromethane	100A	UA	100A
Bromoform	100A	UA	100A
Bromomethane	100A	UA	100A
2-Butanone (MEK)	1000A	UA	1000A
Carbon disulfide	200A	UA	200A
Carbon tetrachloride	100A	UA	100A
Chlorobenzene	240A		100A
Chlorodibromomethane	100A	UA	100A
Chloroethane	100A	UA	100A
Chloroform	780A		100A
Chloromethane	100A	UA	100A
2-Chlorotoluene	100A	UA	100A
4-Chlorotoluene	100A	UA	100A
cis-1,2-Dichloroethane	100A	UA	100A
cis-1,3-Dichloropentane	100A	UA	100A
1,2-Dibromo-3-Chloropentane	100A	UA	100A
1,2-Dibromoethane	100A	UA	100A
Dibromomethane	100A	UA	100A
1,3-Dichlorobenzene	100A	UA	100A
1,2-Dichlorobenzene	100A	UA	100A
1,4-Dichlorobenzene	100A	UA	100A
Dichlorobromomethane	100A	UA	100A
Dichlorodifluoromethane	100A	UA	100A
1,1-Dichloroethane	100A	UA	100A
1,2-Dichloroethane	1000A		100A
1,1-Dichloroethane	100A	UA	100A
1,2-Dichloroethane, Total	200A	UA	200A
1,2-Dichloropentane	100A	UA	100A
2,2-Dichloropentane	100A	UA	100A
1,3-Dichloropentane	100A	UA	100A
1,1-Dichloropentane	100A	UA	100A
Dietylether	13000A	EA	1000A
Ethylbenzene	260A		100A
Hexachlorobutadiene	100A	UA	100A
2-Hexanone	1000A	UA	1000A
Isopropylbenzene	100A	UA	100A
Methylene Chloride	780A		500A
4-Methyl-2-pentanone (MIBK)	1000A	UA	1000A
Methyl tert-butyl ether	1000A	UA	1000A
m-Xylene & p-Xylene	220A		200A
Naphthalene	1500A		500A
n-Butylbenzene	100A	UA	100A
N-Propylbenzene	100A	UA	100A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d MW-2 (09302010)d

Lab Sample ID:A 680-61778-2b

Da. Sample: 09/30/2010 1115A

Client Matrix:A Wa.

Da. Received: 10/01/2010 0941A

60B Volatile Organic Compounds (GC/MS)d

MNhod:A	8260B	Analysis Batch: 680-182239J	Instrument ID:A	MSP
P. pa.a.ion:A	5030BA		Lab File ID:A	p0787.dF
Dilution:A	100A		Initial Wt/Vol: A	5 mL
Da. Analyzed:A	10/07/2010 1548A		Final Wt/Vol: A	5 mL
Da. P. pa. d:A	10/07/2010 1548A			

analyte	Result (ug/L)	Qualifier	RLJ
o-Xylene	640A		100A
p-Isopropyltoluene	100A	UA	100A
sec-Butylbenzene	100A	UA	100A
Styrene	100A	UA	100A
-Butylbenzene	100A	UA	100A
1,1,2,2-Tetrachloroethane	100A	UA	100A
1,1,1,2-Tetrachloroethane	100A	UA	100A
Tetrachloroethane	100A	UA	100A
Toluene	100A	UA	100A
ans-1,2-Dichloroethane	100A	UA	100A
ans-1,3-Dichloropropane	100A	UA	100A
1,2,4-Trichlorobenzene	100A	UA	100A
1,2,3-Trichlorobenzene	100A	UA	100A
1,1,1-Trichloroethane	100A	UA	100A
1,1,2-Trichloroethane	100A	UA	100A
Trichloroethane	130A		100A
Trichlorofluoromethane	100A	UA	100A
1,2,3-Trichloropropane	100A	UA	100A
1,2,4-Trimethylbenzene	100A	UA	100A
1,3,5-Trimethylbenzene	100A	UA	100A
Vinyl acetate	200A	UA	200A
Vinyl chloride	100A	UA	100A
Xylenes, Total	870A		200A

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	96A		75 - 120A
Dibromofluoromethane	91A		75 - 121A
Toluene-d8 (Surr)	98A		75 - 120A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d MW-3 (09302010)d

Lab Sample ID:A 680-61778-34

Da. Sample: 09/29/2010 1645A

Client Matrix:A Wa.

Da. Received: 10/01/2010 0941A

60B Volatile Organic Compounds (GC/MS)d

MNhod:A	8260B	Analysis Batch: 680-182149J	Instrument ID:A	MSP
P. parameter:A	5030BA		Lab File ID:A	p0755.dF
Dilution:A	1.0A		Initial Weight/Volume:A	5 mLJ
Da. Analyzed:A	10/06/2010 17534		Final Weight/Volume:A	5 mLJ
Da. Printed:A	10/06/2010 17534			

analyte	Result (ug/L)	Qualifier	RLJ
acetone	25A	UA	25
Benzene	1.0A	UA	1.0A
Bromobenzene	1.0A	UA	1.0A
Bromochloromethane	1.0A	UA	1.0A
Bromoform	1.0A	UA	1.0A
Bromomethane	1.0A	UA	1.0A
2-Butanone (MEK)	10A	UA	10A
Carbon disulfide	2.0A	UA	2.0A
Carbon tetrachloride	1.0A	UA	1.0A
Chlorobenzene	1.0A	UA	1.0A
Chlorodibromomethane	1.0A	UA	1.0A
Chloroethane	1.0A	UA	1.0A
Chloroform	1.0A	UA	1.0A
Chloromethane	1.0A	UA	1.0A
2-Chlorotoluene	1.0A	UA	1.0A
4-Chlorotoluene	1.0A	UA	1.0A
cis-1,2-Dichloroethane	1.0A	UA	1.0A
cis-1,3-Dichloropentane	1.0A	UA	1.0A
1,2-Dibromo-3-Chloropentane	1.0A	UA	1.0A
1,2-Dibromoethane	1.0A	UA	1.0A
Dibromomethane	1.0A	UA	1.0A
1,3-Dichlorobenzene	1.0A	UA	1.0A
1,2-Dichlorobenzene	1.0A	UA	1.0A
1,4-Dichlorobenzene	1.0A	UA	1.0A
Dichlorobromomethane	1.0A	UA	1.0A
Dichlorodifluoromethane	1.0A	UA	1.0A
1,1-Dichloroethane	1.0A	UA	1.0A
1,2-Dichloroethane	1.0A	UA	1.0A
1,1-Dichloroethane	1.0A	UA	1.0A
1,2-Dichloroethane, Total	2.0A	UA	2.0A
1,2-Dichloropentane	1.0A	UA	1.0A
2,2-Dichloropentane	1.0A	UA	1.0A
1,3-Dichloropentane	1.0A	UA	1.0A
1,1-Dichloropentane	1.0A	UA	1.0A
Dietylether	10A	UA	10A
Ethylbenzene	1.0A	UA	1.0A
Hexachlorobutadiene	1.0A	UA	1.0A
2-Hexanone	10A	UA	10A
Isopropylbenzene	1.0A	UA	1.0A
Methylene Chloride	5.0A	UA	5.0A
4-Methyl-2-pentanone (MIBK)	10A	UA	10A
Methyl tert-butylether	10A	UA	10A
m-Xylene & p-Xylene	2.0A	UA	2.0A
Naphthalene	5.0A	UA	5.0A
n-Butylbenzene	1.0A	UA	1.0A
N-Propylbenzene	1.0A	UA	1.0A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d MW-3 (09302010)d

Lab Sample ID:A 680-61778-34  
 Client Matrix:A Wa.

Date Sampled: 09/29/2010 1645A  
 Date Received: 10/01/2010 0941A

60B Volatile Organic Compounds (GC/MS)d

MN Method:A 8260B Analysis Batch: 680-182149J Instrument ID:A MSP  
 P. Parameter:A 5030BA Lab File ID:A p0755.dF  
 Dilution:A 1.0A Initial Weight/Volume:A 5 mLJ  
 Date Analyzed:A 10/06/2010 17534 Final Weight/Volume:A 5 mLJ  
 Date Printed:A 10/06/2010 17534

Compound Name	Result (ug/L)	Qualifier	RLJ
o-Xylene	1.0A	UA	1.0A
p-Isopropyltoluene	1.0A	UA	1.0A
sec-Butylbenzene	1.0A	UA	1.0A
Styrene	1.0A	UA	1.0A
n-Butylbenzene	1.0A	UA	1.0A
1,1,2,2-Tetrachloroethane	1.0A	UA	1.0A
1,1,1,2-Tetrachloroethane	1.0A	UA	1.0A
Tetrachloroethane	1.0A	UA	1.0A
Toluene	1.0A	UA	1.0A
trans-1,2-Dichloroethane	1.0A	UA	1.0A
trans-1,3-Dichloropropene	1.0A	UA	1.0A
1,2,4-Trichlorobenzene	1.0A	UA	1.0A
1,2,3-Trichlorobenzene	1.0A	UA	1.0A
1,1,1-Trichloroethane	1.0A	UA	1.0A
1,1,2-Trichloroethane	1.0A	UA	1.0A
Trichloroethane	1.0A	UA	1.0A
Trichlorofluoromethane	1.0A	UA	1.0A
1,2,3-Trichloropropane	1.0A	UA	1.0A
1,2,4-Trimethylbenzene	1.0A	UA	1.0A
1,3,5-Trimethylbenzene	1.0A	UA	1.0A
Vinyl acetate	2.0A	UA	2.0A
Vinyl chloride	1.0A	UA	1.0A
Xylenes, Total	2.0A	UA	2.0A

Surrogate	% Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	91A		75 - 120A
Dibromofluoromethane	89J		75 - 121A
Toluene-d8 (Surrogate)	96A		75 - 120A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d MW-14 (09302010)d

Lab Sample ID:A 680-61778-4U

Da. Sample: 09/29/2010 1430A

Client Matrix:A Wa.

Da. Received: 10/01/2010 0941A

60B Volatile Organic Compounds (GC/MS)d

MNhod:A	8260B	Analysis Batch: 680-182239J	Instrument ID:A	MSP
P. parameter:A	5030BA		Lab File ID:A	p0789.dF
Dilution:A	1.0A		Initial Weight/Volume:A	5 mLJ
Da. Analyzed:A	10/07/2010 1617A		Final Weight/Volume:A	5 mLJ
Da. Printed:A	10/07/2010 1617A			

analyte	Result (ug/L)	Qualifier	RLJ
acetone	25A	UA	25
Benzene	49J		1.0A
Bromobenzene	1.0A	UA	1.0A
Bromochloromethane	1.0A	UA	1.0A
Bromoform	1.0A	UA	1.0A
Bromomethane	1.0A	UA	1.0A
2-Butanone (MEK)	10A	UA	10A
Carbon disulfide	2.0A	UA	2.0A
Carbon tetrachloride	1.0A	UA	1.0A
Chlorobenzene	1.1A		1.0A
Chlorodibromomethane	1.0A	UA	1.0A
Chloroethane	1.0A	UA	1.0A
Chloroform	1.0A	UA	1.0A
Chloromethane	1.0A	UA	1.0A
2-Chlorotoluene	1.0A	UA	1.0A
4-Chlorotoluene	1.0A	UA	1.0A
cis-1,2-Dichloroethane	1.0A	UA	1.0A
cis-1,3-Dichloropentane	1.0A	UA	1.0A
1,2-Dibromo-3-Chloropentane	1.0A	UA	1.0A
1,2-Dibromoethane	1.0A	UA	1.0A
Dibromomethane	1.0A	UA	1.0A
1,3-Dichlorobenzene	1.0A	UA	1.0A
1,2-Dichlorobenzene	1.0A	UA	1.0A
1,4-Dichlorobenzene	1.0A	UA	1.0A
Dichlorobromomethane	1.0A	UA	1.0A
Dichlorodifluoromethane	1.0A	UA	1.0A
1,1-Dichloroethane	1.0A	UA	1.0A
1,2-Dichloroethane	15A		1.0A
1,1-Dichloroethane	1.0A	UA	1.0A
1,2-Dichloroethane, Total	2.0A	UA	2.0A
1,2-Dichloropentane	1.0A	UA	1.0A
2,2-Dichloropentane	1.0A	UA	1.0A
1,3-Dichloropentane	1.0A	UA	1.0A
1,1-Dichloropentane	1.0A	UA	1.0A
Dietylethyl	700A	EA	10A
Ethylbenzene	1.0A	UA	1.0A
Hexachlorobutadiene	1.0A	UA	1.0A
2-Hexanone	10A	UA	10A
Isopropylbenzene	1.0A	UA	1.0A
Methylene Chloride	5.0A	UA	5.0A
4-Methyl-2-pentanone (MIBK)	10A	UA	10A
Methyl tert-butyl ethyl	10A	UA	10A
m-Xylene & p-Xylene	2.0A	UA	2.0A
Naphthalene	5.0A	UA	5.0A
n-Butylbenzene	1.0A	UA	1.0A
N-Propylbenzene	1.0A	UA	1.0A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d MW-14 (09302010)d

Lab Sample ID:A 680-61778-4U

Da. Sample: 09/29/2010 1430A

Client Matrix:A Wa.

Da. Received: 10/01/2010 0941A

60B Volatile Organic Compounds (GC/MS)d

MNhod:A	8260B	Analysis Batch: 680-182239J	Instrument ID:A	MSP
P. pa.a.ion:A	5030BA		Lab File ID:A	p0789.dF
Dilution:A	1.0A		Initial Wt/Vol: A	5 mLJ
Da. Analyzed:A	10/07/2010 1617A		Final Wt/Vol: A	5 mLJ
Da. P. pa. d:A	10/07/2010 1617A			

analyte	Result (ug/L)	Qualifier	RLJ
o-Xylene	1.0A	UA	1.0A
p-Isopropyltoluene	1.0A	UA	1.0A
sec-Butylbenzene	1.0A	UA	1.0A
Styrene	1.0A	UA	1.0A
n-Butylbenzene	1.0A	UA	1.0A
1,1,2,2-Tetrachloroethane	1.0A	UA	1.0A
1,1,1,2-Tetrachloroethane	1.0A	UA	1.0A
Tetrachloroethane	1.0A	UA	1.0A
Toluene	1.0A	UA	1.0A
trans-1,2-Dichloroethane	1.0A	UA	1.0A
trans-1,3-Dichloropropene	1.0A	UA	1.0A
1,2,4-Trichlorobenzene	1.0A	UA	1.0A
1,2,3-Trichlorobenzene	1.0A	UA	1.0A
1,1,1-Trichloroethane	1.0A	UA	1.0A
1,1,2-Trichloroethane	1.0A	UA	1.0A
Trichloroethane	3.9J		1.0A
Trichlorofluoromethane	1.0A	UA	1.0A
1,2,3-Trichloropropene	1.0A	UA	1.0A
1,2,4-Trimethylbenzene	1.0A	UA	1.0A
1,3,5-Trimethylbenzene	1.0A	UA	1.0A
Vinyl acetate	2.0A	UA	2.0A
Vinyl chloride	1.0A	UA	1.0A
Xylenes, Total	2.0A	UA	2.0A

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	98A		75 - 120A
Dibromofluoromethane	89J		75 - 121A
Toluene-d8 (Surr)	99J		75 - 120A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d MW-38 (09302010)d

Lab Sample ID:A 680-61778-5A  
 Client Ma. ix:A Wa.

Da. Sample: 09/30/2010 1330A  
 Da. Receivcd: 10/01/2010 0941A

60B Volatile Organic Compounds (GC/MS)d

MNhod:A 8260B Analysis Ba.ch: 680-182149J Instrument ID:A MSP  
 P. pa.a.ion:A 5030BA Lab File ID:A p0759.dF  
 Dilution:A 1.0A Initial Wsg h /Volume:A 5 mLJ  
 Da. An alyze:A 10/06/2010 1852b Final Wsg h /Volume:A 5 mLJ  
 Da. P. pa. d:A 10/06/2010 1852b

n alyteA	Result (ug/L)	QualifierA	RLJ
acetoneA	25A	UA	25
BenzeneA	1.0A	UA	1.0A
BromobenzeneA	1.0A	UA	1.0A
BromochlorometAaneA	1.0A	UA	1.0A
BromoformA	1.0A	UA	1.0A
BromometAaneA	1.0A	UA	1.0A
2-Butanone (MEK)A	10A	UA	10A
Ca.bon disulfidF	2.0A	UA	2.0A
Ca.bon tetrAchloridF	1.0A	UA	1.0A
ChlorobenzeneA	1.0A	UA	1.0A
ChlorodibromometAaneA	1.0A	UA	1.0A
ChloroetAaneA	1.0A	UA	1.0A
ChloroformA	1.0A	UA	1.0A
ChlorometAaneA	1.0A	UA	1.0A
2-ChlorotolueneA	1.0A	UA	1.0A
4-ChlorotolueneA	1.0A	UA	1.0A
cis-1,2-DichloroetAaneA	1.0A	UA	1.0A
cis-1,3-Dichlorop4paneA	1.0A	UA	1.0A
1,2-Dibromo-3-Chlorop4paneA	1.0A	UA	1.0A
1,2-DibromoetAaneA	1.0A	UA	1.0A
DibromometAaneA	1.0A	UA	1.0A
1,3-DichlorobenzeneA	1.0A	UA	1.0A
1,2-DichlorobenzeneA	1.0A	UA	1.0A
1,4-DichlorobenzeneA	1.0A	UA	1.0A
DichlorobromometAaneA	1.0A	UA	1.0A
DichlorodifluorometAaneA	1.0A	UA	1.0A
1,1-DichloroetAaneA	1.0A	UA	1.0A
1,2-DichloroetAaneA	14U		1.0A
1,1-DichloroetAaneA	1.0A	UA	1.0A
1,2-DichloroetAane, TotalA	2.0A	UA	2.0A
1,2-Dichlorop4paneA	1.0A	UA	1.0A
2,2-Dichlorop4paneA	1.0A	UA	1.0A
1,3-Dichlorop4paneA	1.0A	UA	1.0A
1,1-Dichlorop4paneA	1.0A	UA	1.0A
DietAyl etA	220	UA	10
EtAylbenzeneA	1.0A	UA	1.0A
HexAchlorobutadieneA	1.0A	UA	1.0A
2-HexAnoneA	10A	UA	10A
Isop4pylbenzeneA	1.0A	UA	1.0A
MNhylene ChloridF	5.0A	UA	5.0A
4-MNhyl-2-p4ntAnone (MIBK)A	10A	UA	10A
MNhyl tert-butyl etA	10A	UA	10A
m-Xylene & p-XyleneA	2.0A	UA	2.0A
Naph haleneA	5.0A	UA	5.0A
n-ButylbenzeneA	1.0A	UA	1.0A
N-P.opylbenzeneA	1.0A	UA	1.0A



Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d MW-38 (09302010)d

Lab Sample ID:A 680-61778-5A  
 Client Matrix:A Wa.

Date Sampled: 09/30/2010 1330A  
 Date Received: 10/01/2010 0941A

60B Volatile Organic Compounds (GC/MS)d

MN Method:A 8260B Analysis Batch: 680-182149J Instrument ID:A MSP  
 P. Parameter:A 5030BA Lab File ID:A p0759.dF  
 Dilution:A 1.0A Initial Weight/Volume:A 5 mLJ  
 Date Analyzed:A 10/06/2010 1852b Final Weight/Volume:A 5 mLJ  
 Date Printed:A 10/06/2010 1852b

Compound Name	Result (ug/L)	Qualifier	RLJ
o-Xylene	1.0A	UA	1.0A
p-Isopropyltoluene	1.0A	UA	1.0A
sec-Butylbenzene	1.0A	UA	1.0A
Styrene	1.0A	UA	1.0A
n-Butylbenzene	1.0A	UA	1.0A
1,1,2,2-Tetrachloroethane	1.0A	UA	1.0A
1,1,1,2-Tetrachloroethane	1.0A	UA	1.0A
Tetrachloroethane	1.0A	UA	1.0A
Toluene	1.0A	UA	1.0A
trans-1,2-Dichloroethane	1.0A	UA	1.0A
trans-1,3-Dichloropropene	1.0A	UA	1.0A
1,2,4-Trichlorobenzene	1.0A	UA	1.0A
1,2,3-Trichlorobenzene	1.0A	UA	1.0A
1,1,1-Trichloroethane	1.0A	UA	1.0A
1,1,2-Trichloroethane	1.0A	UA	1.0A
Trichloroethane	1.0A	UA	1.0A
Trichlorofluoromethane	1.0A	UA	1.0A
1,2,3-Trichloropropane	1.0A	UA	1.0A
1,2,4-Trimethylbenzene	1.0A	UA	1.0A
1,3,5-Trimethylbenzene	1.0A	UA	1.0A
Vinyl acetate	2.0A	UA	2.0A
Vinyl chloride	1.0A	UA	1.0A
Xylenes, Total	2.0A	UA	2.0A

Surrogate	% Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	94U		75 - 120A
Dibromofluoromethane	89J		75 - 121A
Toluene-d8 (Surrogate)	98A		75 - 120A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d MW-39 (09302010)d

Lab Sample ID:A 680-61778-6A  
 Client Matrix:A Wa.

Date Sampled: 09/30/2010 1015A  
 Date Received: 10/01/2010 0941A

60B Volatile Organic Compounds (GC/MS)d

MN Method:A 8260B Analysis Batch: 680-182149J Instrument ID:A MSP  
 P. Parameter:A 5030BA Lab File ID:A p0761.dF  
 Dilution:A 1.0A Initial Weight/Volume:A 5 mLJ  
 Date Analyzed:A 10/06/2010 1921A Final Weight/Volume:A 5 mLJ  
 Date Printed:A 10/06/2010 1921A

Constituent	Result (ug/L)	Qualifier	RLJ
acetone	25A	UA	25
Benzene	1.0A	UA	1.0A
Bromobenzene	1.0A	UA	1.0A
Bromochloromethane	1.0A	UA	1.0A
Bromoform	1.0A	UA	1.0A
Bromomethane	1.0A	UA	1.0A
2-Butanone (MEK)	10A	UA	10A
Carbon disulfide	2.0A	UA	2.0A
Carbon tetrachloride	1.0A	UA	1.0A
Chlorobenzene	1.0A	UA	1.0A
Chlorodibromomethane	1.0A	UA	1.0A
Chloroethane	1.0A	UA	1.0A
Chloroform	1.0A	UA	1.0A
Chloromethane	1.0A	UA	1.0A
2-Chlorotoluene	1.0A	UA	1.0A
4-Chlorotoluene	1.0A	UA	1.0A
cis-1,2-Dichloroethane	1.0A	UA	1.0A
cis-1,3-Dichloropentane	1.0A	UA	1.0A
1,2-Dibromo-3-Chloropentane	1.0A	UA	1.0A
1,2-Dibromoethane	1.0A	UA	1.0A
Dibromomethane	1.0A	UA	1.0A
1,3-Dichlorobenzene	1.0A	UA	1.0A
1,2-Dichlorobenzene	1.0A	UA	1.0A
1,4-Dichlorobenzene	1.0A	UA	1.0A
Dichlorobromomethane	1.0A	UA	1.0A
Dichlorodifluoromethane	1.0A	UA	1.0A
1,1-Dichloroethane	1.0A	UA	1.0A
1,2-Dichloroethane	1.0A	UA	1.0A
1,1-Dichloroethane	1.0A	UA	1.0A
1,2-Dichloroethane, Total	2.0A	UA	2.0A
1,2-Dichloropentane	1.0A	UA	1.0A
2,2-Dichloropentane	1.0A	UA	1.0A
1,3-Dichloropentane	1.0A	UA	1.0A
1,1-Dichloropentane	1.0A	UA	1.0A
Dietylether	10A	UA	10A
Ethylbenzene	1.0A	UA	1.0A
Hexachlorobutadiene	1.0A	UA	1.0A
2-Hexanone	10A	UA	10A
Isopropylbenzene	1.0A	UA	1.0A
Methylene Chloride	5.0A	UA	5.0A
4-Methyl-2-pentanone (MIBK)	10A	UA	10A
Methyl tert-butyl ether	10A	UA	10A
m-Xylene & p-Xylene	2.0A	UA	2.0A
Naphthalene	5.0A	UA	5.0A
n-Butylbenzene	1.0A	UA	1.0A
N-Propylbenzene	1.0A	UA	1.0A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d MW-39 (09302010)d

Lab Sample ID:A 680-61778-6A  
 Client Matrix:A Wa.

Date Sampled: 09/30/2010 1015A  
 Date Received: 10/01/2010 0941A

60B Volatile Organic Compounds (GC/MS)d

MN Method:A 8260B Analysis Batch: 680-182149J Instrument ID:A MSP  
 P. Parameter:A 5030BA Lab File ID:A p0761.dF  
 Dilution:A 1.0A Initial Weight/Volume:A 5 mLJ  
 Date Analyzed:A 10/06/2010 1921A Final Weight/Volume:A 5 mLJ  
 Date Printed:A 10/06/2010 1921A

Compound Name	Result (ug/L)	Qualifier	RLJ
o-Xylene	1.0A	UA	1.0A
p-Isopropyltoluene	1.0A	UA	1.0A
sec-Butylbenzene	1.0A	UA	1.0A
Styrene	1.0A	UA	1.0A
n-Butylbenzene	1.0A	UA	1.0A
1,1,2,2-Tetrachloroethane	1.0A	UA	1.0A
1,1,1,2-Tetrachloroethane	1.0A	UA	1.0A
Tetrachloroethane	1.0A	UA	1.0A
Toluene	1.0A	UA	1.0A
trans-1,2-Dichloroethane	1.0A	UA	1.0A
trans-1,3-Dichloropropene	1.0A	UA	1.0A
1,2,4-Trichlorobenzene	1.0A	UA	1.0A
1,2,3-Trichlorobenzene	1.0A	UA	1.0A
1,1,1-Trichloroethane	1.0A	UA	1.0A
1,1,2-Trichloroethane	1.0A	UA	1.0A
Trichloroethane	1.0A	UA	1.0A
Trichlorofluoromethane	1.0A	UA	1.0A
1,2,3-Trichloropropane	1.0A	UA	1.0A
1,2,4-Trimethylbenzene	1.0A	UA	1.0A
1,3,5-Trimethylbenzene	1.0A	UA	1.0A
Vinyl acetate	2.0A	UA	2.0A
Vinyl chloride	1.0A	UA	1.0A
Xylenes, Total	2.0A	UA	2.0A

Surrogate	% Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	95A		75 - 120A
Dibromofluoromethane	87A		75 - 121A
Toluene-d8 (Surrogate)	96A		75 - 120A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d Trip Blankd

Lab Sample ID:A 680-61778-7A  
 Client Matrix:A Wa.

Date Sampled: 09/30/2010 0000A  
 Date Received: 10/01/2010 0941A

60B Volatile Organic Compounds (GC/MS)d

MN Method:A 8260B Analysis Batch: 680-182149J Instrument ID:A MSP  
 Population:A 5030BA Lab File ID:A p0749.dF  
 Dilution:A 1.0A Initial Weight/Volume:A 5 mLJ  
 Date Analyzed:A 10/06/2010 1625A Final Weight/Volume:A 5 mLJ  
 Date Printed:A 10/06/2010 1625A

Constituent	Result (ug/L)	Qualifier	RLJ
acetone	25A	UA	25
Benzene	1.0A	UA	1.0A
Bromobenzene	1.0A	UA	1.0A
Bromochloromethane	1.0A	UA	1.0A
Bromoform	1.0A	UA	1.0A
Bromomethane	1.0A	UA	1.0A
2-Butanone (MEK)	10A	UA	10A
Carbon disulfide	2.0A	UA	2.0A
Carbon tetrachloride	1.0A	UA	1.0A
Chlorobenzene	1.0A	UA	1.0A
Chlorodibromomethane	1.0A	UA	1.0A
Chloroethane	1.0A	UA	1.0A
Chloroform	1.0A	UA	1.0A
Chloromethane	1.0A	UA	1.0A
2-Chlorotoluene	1.0A	UA	1.0A
4-Chlorotoluene	1.0A	UA	1.0A
cis-1,2-Dichloroethane	1.0A	UA	1.0A
cis-1,3-Dichloropentane	1.0A	UA	1.0A
1,2-Dibromo-3-Chloropentane	1.0A	UA	1.0A
1,2-Dibromoethane	1.0A	UA	1.0A
Dibromomethane	1.0A	UA	1.0A
1,3-Dichlorobenzene	1.0A	UA	1.0A
1,2-Dichlorobenzene	1.0A	UA	1.0A
1,4-Dichlorobenzene	1.0A	UA	1.0A
Dichlorobromomethane	1.0A	UA	1.0A
Dichlorodifluoromethane	1.0A	UA	1.0A
1,1-Dichloroethane	1.0A	UA	1.0A
1,2-Dichloroethane	1.0A	UA	1.0A
1,1-Dichloroethane	1.0A	UA	1.0A
1,2-Dichloroethane, Total	2.0A	UA	2.0A
1,2-Dichloropentane	1.0A	UA	1.0A
2,2-Dichloropentane	1.0A	UA	1.0A
1,3-Dichloropentane	1.0A	UA	1.0A
1,1-Dichloropentane	1.0A	UA	1.0A
Dietylether	10A	UA	10A
Ethylbenzene	1.0A	UA	1.0A
Hexachlorobutadiene	1.0A	UA	1.0A
2-Hexanone	10A	UA	10A
Isopropylbenzene	1.0A	UA	1.0A
Methylene Chloride	5.0A	UA	5.0A
4-Methyl-2-pentanone (MIBK)	10A	UA	10A
Methyl tert-butyl ether	10A	UA	10A
m-Xylene & p-Xylene	2.0A	UA	2.0A
Naphthalene	5.0A	UA	5.0A
n-Butylbenzene	1.0A	UA	1.0A
N-Propylbenzene	1.0A	UA	1.0A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d Trip Blankd

Lab Sample ID:A 680-61778-7A  
 Client Matrix:A Wa.

Date Sampled: 09/30/2010 0000A  
 Date Received: 10/01/2010 0941A

60B Volatile Organic Compounds (GC/MS)d

MN Method:A 8260B Analysis Batch: 680-182149J Instrument ID:A MSP  
 P. Parameter:A 5030BA Lab File ID:A p0749.dF  
 Dilution:A 1.0A Initial Weight/Volume:A 5 mLJ  
 Date Analyzed:A 10/06/2010 1625A Final Weight/Volume:A 5 mLJ  
 Date Prepared:A 10/06/2010 1625A

Compound	Result (ug/L)	Qualifier	RLJ
o-Xylene	1.0A	UA	1.0A
p-Isopropyltoluene	1.0A	UA	1.0A
sec-Butylbenzene	1.0A	UA	1.0A
Styrene	1.0A	UA	1.0A
n-Butylbenzene	1.0A	UA	1.0A
1,1,2,2-Tetrachloroethane	1.0A	UA	1.0A
1,1,1,2-Tetrachloroethane	1.0A	UA	1.0A
Tetrachloroethane	1.0A	UA	1.0A
Toluene	1.0A	UA	1.0A
trans-1,2-Dichloroethane	1.0A	UA	1.0A
trans-1,3-Dichloropropene	1.0A	UA	1.0A
1,2,4-Trichlorobenzene	1.0A	UA	1.0A
1,2,3-Trichlorobenzene	1.0A	UA	1.0A
1,1,1-Trichloroethane	1.0A	UA	1.0A
1,1,2-Trichloroethane	1.0A	UA	1.0A
Trichloroethane	1.0A	UA	1.0A
Trichlorofluoromethane	1.0A	UA	1.0A
1,2,3-Trichloropropane	1.0A	UA	1.0A
1,2,4-Trimethylbenzene	1.0A	UA	1.0A
1,3,5-Trimethylbenzene	1.0A	UA	1.0A
Vinyl acetate	2.0A	UA	2.0A
Vinyl chloride	1.0A	UA	1.0A
Xylenes, Total	2.0A	UA	2.0A

Surrogate	% Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	93A		75 - 120A
Dibromofluoromethane	88A		75 - 121A
Toluene-d8 (Surrogate)	96A		75 - 120A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d MW-1 (09302010)d

Lab Sample ID:A 680-61778-1A  
 Client Matrix:A Wa.

Date Sampled: 09/30/2010 1230A  
 Date Received: 10/01/2010 0941A

6010C Metals (ICP)-Total Recoverable

MN Method:A 6010C      Analysis Batch: 680-183127A      Instrument ID:A ICPD  
 Precision:A 3005A      Precision Batch: 680-182769J      Lab File ID:A 1015101039.ch  
 Dilution:A 1.0A      Initial Weight/Volume:A 50 mLJ  
 Date Analyzed:A 10/15/2010 2147A      Final Weight/Volume:A 50 mLJ  
 Date Prepared:A 10/13/2010 09534

Element	Result (ug/L)	Qualifier	RLJ
As	20A	UA	20
Ba	27A		10
Cd	5.0A	UA	5.0A
Cr	10A	UA	10A
Fe	5100A		50A
Mn	10A	UA	10A
Se	20A	UA	20A
Pb	10A	UA	10A

MN Method:A 6010C      Analysis Batch: 680-183394U      Instrument ID:A ICPD  
 Precision:A 3005A      Precision Batch: 680-182769J      Lab File ID:A 18276961778.ch  
 Dilution:A 10A      Initial Weight/Volume:A 50 mLJ  
 Date Analyzed:A 10/18/2010 2009J      Final Weight/Volume:A 50 mLJ  
 Date Prepared:A 10/13/2010 09534

Element	Result (ug/L)	Qualifier	RLJ
Na	240000A		10000A

7470A Mercury (CVAA)d

MN Method:A 7470A      Analysis Batch: 680-182280A      Instrument ID:A LEEMAN1  
 Precision:A 7470A      Precision Batch: 680-1821034      Lab File ID:A b100710a.ch  
 Dilution:A 1.0A      Initial Weight/Volume:A 50 mLJ  
 Date Analyzed:A 10/07/2010 1251A      Final Weight/Volume:A 50 mLJ  
 Date Prepared:A 10/06/2010 1220A

Element	Result (ug/L)	Qualifier	RLJ
Hg	0.20A	UA	0.20A



Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d MW-3 (09302010)d

Lab Sample ID:A 680-61778-34  
 Client Matrix:A Wa.

Date Sampled: 09/29/2010 1645A  
 Date Received: 10/01/2010 0941A

6010C Metals (ICP)-Total Recoverable

MN Method:A 6010C      Analysis Batch: 680-183127A      Instrument ID:A ICPD  
 Precision:A 3005A      Precision Batch: 680-182769J      Lab File ID:A 1015101039.ch  
 Dilution:A 1.0A      Initial Weight/Volume:A 50 mLJ  
 Date Analyzed:A 10/15/2010 2218A      Final Weight/Volume:A 50 mLJ  
 Date Prepared:A 10/13/2010 09534

Element	Result (ug/L)	Qualifier	RLJ
As	20A	UA	20
Ba	220A		10
Cd	5.0A	UA	5.0A
Cr	150A		10A
Fe	980A		50A
Mn	10A	UA	10A
Se	20A	UA	20A
Pb	10A	UA	10A

MN Method:A 6010C      Analysis Batch: 680-183394U      Instrument ID:A ICPD  
 Precision:A 3005A      Precision Batch: 680-182769J      Lab File ID:A 18276961778.ch  
 Dilution:A 10A      Initial Weight/Volume:A 50 mLJ  
 Date Analyzed:A 10/18/2010 2024U      Final Weight/Volume:A 50 mLJ  
 Date Prepared:A 10/13/2010 09534

Element	Result (ug/L)	Qualifier	RLJ
Na	73000A		10000A

7470A Mercury (CVAA)d

MN Method:A 7470A      Analysis Batch: 680-182280A      Instrument ID:A LEEMAN1  
 Precision:A 7470A      Precision Batch: 680-1821034      Lab File ID:A b100710a.ch  
 Dilution:A 1.0A      Initial Weight/Volume:A 50 mLJ  
 Date Analyzed:A 10/07/2010 1256A      Final Weight/Volume:A 50 mLJ  
 Date Prepared:A 10/06/2010 1220A

Element	Result (ug/L)	Qualifier	RLJ
Hg	0.20A	UA	0.20A



Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d MW-14 (09302010)d

Lab Sample ID:A 680-61778-4U  
 Client Matrix:A Wa.

Date Sampled: 09/29/2010 1430A  
 Date Received: 10/01/2010 0941A

6010C Metals (ICP)-Total Recoverable

MN Method:A 6010C  
 P. Parameter:A 3005A  
 Dilution:A 1.0A  
 Date Analyzed:A 10/15/2010 2224U  
 Date Reported:A 10/13/2010 09534

Analysis Batch: 680-183127A  
 P. Batch: 680-182769J

Instrument ID:A ICPD  
 Lab File ID:A 1015101039.ch  
 Initial Weight/Volume:A 50 mLJ  
 Final Weight/Volume:A 50 mLJ

Element	Result (ug/L)	Qualifier	RLJ
As	20A	UA	20
Ba	31A		10
Cd	5.0A	UA	5.0A
Cr	10A	UA	10A
Fe	340A		50
Mn	10A	UA	10A
Se	20A	UA	20A
Pb	10A	UA	10A
Na	19000A		1000A

7470A Mercury (CVAA)d

MN Method:A 7470A  
 P. Parameter:A 7470A  
 Dilution:A 1.0A  
 Date Analyzed:A 10/07/2010 1306A  
 Date Reported:A 10/06/2010 1220A

Analysis Batch: 680-182280A  
 P. Batch: 680-1821034

Instrument ID:A LEEMAN1  
 Lab File ID:A b100710a.ch  
 Initial Weight/Volume:A 50 mLJ  
 Final Weight/Volume:A 50 mLJ

Element	Result (ug/L)	Qualifier	RLJ
Hg	0.20A	UA	0.20A



Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Client Sample ID:d MW-39 (09302010)d

Lab Sample ID:A 680-61778-6A  
 Client Matrix:A Wa.

Date Sampled: 09/30/2010 1015A  
 Date Received: 10/01/2010 0941A

6010C Metals (ICP)-Total Recoverable

MN Method:A 6010C      Analysis Batch: 680-183127A      Instrument ID:A ICPD  
 Preparation:A 3005A      Prep Batch: 680-182769J      Lab File ID:A 1015101039.ch  
 Dilution:A 1.0A      Initial Weight/Volume:A 50 mLJ  
 Date Analyzed:A 10/15/2010 2245A      Final Weight/Volume:A 50 mLJ  
 Date Prepared:A 10/13/2010 09534

Constituent	Result (ug/L)	Qualifier	RLJ
As	20A	UA	20
Ba	89J		10A
Cd	5.9J		5.0A
Cr	134		10A
Fe	2000A		50A
Mn	10A	UA	10A
Se	20A	UA	20A
Pb	10A	UA	10A
Na	25000A		1000A

7470A Mercury (CVAA)d

MN Method:A 7470A      Analysis Batch: 680-182280A      Instrument ID:A LEEMAN1  
 Preparation:A 7470A      Prep Batch: 680-1821034      Lab File ID:A b100710a.ch  
 Dilution:A 1.0A      Initial Weight/Volume:A 50 mLJ  
 Date Analyzed:A 10/07/2010 1312b      Final Weight/Volume:A 50 mLJ  
 Date Prepared:A 10/06/2010 1220A

Constituent	Result (ug/L)	Qualifier	RLJ
Hg	0.20A	UA	0.20A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

---

General Chemistry

Client Sample ID: MW-1 (09302010)

Lab Sample ID: 680-61778-1A

Date Sampled: 09/30/2010 1230A

Client Matrix: Wa.

Date Received: 10/01/2010 0941

Analyte	Result	Qualifier	Units	RLJ	Dilution	Method
Sulfa.	260		mg/L	100	20	9038

Analysis Batch: 680-182274U Date Analyzed: 10/07/2010 1222b

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

---

General Chemistry

Client Sample ID: MW-2 (09302010)

Lab Sample ID: 680-61778-2b

Date Sampled: 09/30/2010 11:15A

Client Matrix: Wa.

Date Received: 10/01/2010 09:41

Analyte	Result	Qualifier	Units	RLJ	Dilution	Method
Sulfa.	310		mg/L	100	20	9038

Analysis Batch: 680-182274U      Date Analyzed: 10/07/2010 12:22b

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

---

General Chemistry

Client Sample ID: MW-3 (09302010)

Lab Sample ID: 680-61778-34

Date Sampled: 09/29/2010 16:45

Client Matrix: Wa.

Date Received: 10/01/2010 09:41

Analyte	Result	Qualifier	Units	RLJ	Dilution	Method
Sulfate	61		mg/L	25	5.0	9038

Analysis Batch: 680-182274U      Date Analyzed: 10/07/2010 11:31A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

---

General Chemistry

Client Sample ID: MW-14 (09302010)d

Lab Sample ID: 680-61778-4U

Date Sampled: 09/29/2010 1430A

Client Matrix: Wa.

Date Received: 10/01/2010 0941

Analyte	Result	Qualifier	Units	RLJ	Dilution	Method
Sulfa.	18A		mg/L	5.0A	1.0A	9038

Analysis Batch: 680-182274U      Date Analyzed: 10/07/2010 1105A

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

---

General Chemistry

Client Sample ID: MW-38 (09302010)d

Lab Sample ID: 680-61778-5A

Client Matrix: Wa.

Date Sampled: 09/30/2010 1330A

Date Received: 10/01/2010 0941

Analyte	Result	Qualifier	Units	RLJ	Dilution	Method
Sulfa.	28		mg/L	5.0	1.0	9038

Analysis Batch: 680-182274U      Date Analyzed: 10/07/2010 1105A



Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

---

General Chemistry

Client Sample ID: MW-39 (09302010)

Lab Sample ID: 680-61778-6A

Date Sampled: 09/30/2010 10:15A

Client Matrix: Wa.

Date Received: 10/01/2010 09:41

Analyte	Result	Qualifier	Units	RLJ	Dilution	Method
Sulfa.	134		mg/L	5.0A	1.0A	9038

Analysis Batch: 680-182274U      Date Analyzed: 10/07/2010 11:06A

**D T R P O R T N U L I F a R S h**

Client: ARCADIS U.S., Inc.A

Job Number: 680-61778-1A

Lab Section	Multiplier	Description
GC/MS VON		
	UA	Indicates the analyte was analyzed for but not detected.
	ET	Result exceeded calibration range.
Metals		
	UT	Indicates the analyte was analyzed for but not detected.
	4T	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, T control limits are not applicable.
General Chemistry		
	UT	Indicates the analyte was analyzed for but not detected.

Clifnt . CADF IS U.S., Inc.

Job Number: 680-6177)- 1)

Method Blank - Batch: 680-182149I

Method: 0260Bv  
Preparatbn: 0030Bv

Lab SampIT MB 680-1) 2149/12b  
Clifnt MatTxT Wat  
i lutionF 1.0.  
atT. n alyzFdF 10/06/2010 1329.  
atT P paT dF 10/06/2010 1329.

n alysis Batch. 680-1) 2149.  
P p Batch. N/T  
Unitsb ug/LF

InstTument IT MSP  
Lab FilIT pq3F1.dF  
Initial WFight/Volume:. 5 mL  
Final WFight/Volume:. 5 mL

nalytT	sultT	QualT	LF
cTtonF	25T	UT	25T
B. nzFnF	1.0.	UT	1.0.
B.omobenzFnF	1.0.	UT	1.0.
B.omochloromethanF	1.0.	UT	1.0.
B.omoform.	1.0.	UT	1.0.
B.omomethanF	1.0.	UT	1.0.
2-ButanonF (MEK)T	10.	UT	10.
CaTon disulfidF	2.0.	UT	2.0.
CaTon tTlachloridF	1.0.	UT	1.0.
ChlorobenzFnF	1.0.	UT	1.0.
ChlorodibromomethanF	1.0.	UT	1.0.
ChloroethanF	1.0.	UT	1.0.
Chloroform.	1.0.	UT	1.0.
ChloromethanF	1.0.	UT	1.0.
2-ChlorotoluenF	1.0.	UT	1.0.
4-ChlorotoluenF	1.0.	UT	1.0.
cis-1,2-i chloroeth. nF	1.0.	UT	1.0.
cis-1,3-i chloropFpanF	1.0.	UT	1.0.
1,2-i bromo-3-ChloropFpanF	1.0.	UT	1.0.
1,2-i bromoethanF	1.0.	UT	1.0.
i bromomethanF	1.0.	UT	1.0.
1,3-i chlorobenzFnF	1.0.	UT	1.0.
1,2-i chlorobenzFnF	1.0.	UT	1.0.
1,4-i chlorobenzFnF	1.0.	UT	1.0.
i chlorobromomethanF	1.0.	UT	1.0.
i chlorodifluoromethanF	1.0.	UT	1.0.
1,1-i chloroethanF	1.0.	UT	1.0.
1,2-i chloroethanF	1.0.	UT	1.0.
1,1-i chloroeth. nF	1.0.	UT	1.0.
1,2-i chloroeth. nF, TotalT	2.0.	UT	2.0.
1,2-i chloropFpanF	1.0.	UT	1.0.
2,2-i chloropFpanF	1.0.	UT	1.0.
1,3-i chloropFpanF	1.0.	UT	1.0.
1,1-i chloropFpanF	1.0.	UT	1.0.
iF thyl eth.	10.	UT	10.
EthylbenzFnF	1.0.	UT	1.0.
HTxachlorobutadiFnF	1.0.	UT	1.0.
2-HTxanonF	10.	UT	10.
IsopFpylbenzFnF	1.0.	UT	1.0.
MTthylTnF ChloridF	5.0.	U	5.0.
4-MTthyl-2-pFntanonF (MIBK)T	10.	UT	10.
MTthyl tT t-butyl eth.	10.	UT	10.
m-XylTnF & p-XylTnF	2.0.	UT	2.0.

CliFntT . CADF IS U.S., Inc.

Job Number: 680-6177)- 1)

Method Blank - Batch: 680-182149I

Method: 8260Bv  
Preparatbn: 6030Bv

Lab SampIT IT MB 680-1) 2149/12b  
CliFnt MatTxT WatT  
i lutionF 1.0.  
atT. n alyzFdF 10/06/2010 1329.  
atT P paT dF 10/06/2010 1329.

n alysis Batch. 680-1) 2149.  
P p Batch. N/T  
Unitsb ug/LF

InstTment IT MSP  
Lab FilT IT pq3F1.dF  
Initial WFight/Volume.: 5 mL  
Final WFight/Volume.: 5 mL

nalytT	sultT	QualT	LF
NaphthalTnF	5.0.	UT	5.0.
n-ButylbenzFnF	1.0.	UT	1.0.
N-P opylbenzFnF	1.0.	UT	1.0.
o-XylTnF	1.0.	UT	1.0.
p-IsopFopyltoluenF	1.0.	UT	1.0.
sbc-ButylbenzFnF	1.0.	UT	1.0.
StyT nF	1.0.	UT	1.0.
tT t-ButylbenzFnF	1.0.	UT	1.0.
1,1,2,2-TTtTachloroethanF	1.0.	UT	1.0.
1,1,1,2-TTtTachloroethanF	1.0.	UT	1.0.
TTtTachloroeth. nF	1.0.	UT	1.0.
ToluenF	1.0.	UT	1.0.
tTans-1,2-i chloroeth. nF	1.0.	UT	1.0.
tTans-1,3-i chloropFopFnF	1.0.	UT	1.0.
1,2,4-TTtTchlorobenzFnF	1.0.	UT	1.0.
1,2,3-TTtTchlorobenzFnF	1.0.	UT	1.0.
1,1,1-TTtTchloroethanF	1.0.	UT	1.0.
1,1,2-TTtTchloroethanF	1.0.	UT	1.0.
TTtTchloroeth. nF	1.0.	UT	1.0.
TTtTchlorofluoromethanF	1.0.	UT	1.0.
1,2,3-TTtTchloropFopanF	1.0.	UT	1.0.
1,2,4-TTtTmethylbenzFnF	1.0.	UT	1.0.
1,3,5-TTtTmethylbenzFnF	1.0.	UT	1.0.
Vinyl acTtatT	2.0.	UT	2.0.
Vinyl chloridF	1.0.	UT	1.0.
XylTnFs, TotalT	2.0.	UT	2.0.

SurrogatT	% . cT	ccTptancT Limitsb
4-B.omofluorobenzFnF	93F	75 - 120.
i bromofluoromethanF	90.	75 - 121)
ToluenF dF (Surr)T	97)	75 - 120.

Client: CADFIS U.S., Inc.

Job Number: 680-6177-1)

LabControlSample/U  
 LabControlSampleUpdateRecovery Reportd Batch: 680-182149I

Method: 8260Bv  
 Preparation: 6030Bv

LCS Lab Sample IT LCS 680-1) 2149/9. n alysis Batch. 680-1) 2149. Instrument IT MSP  
 Client Matrix WatT P p Batch. N/T Lab File IT pq373.dF  
 DilutionF 1.0. Unitsb ug/LF Initial WFight/Volume:. 5 mL  
 atT. n alyzFdF 10/06/2010 1132b Final WFight/Volume:. 5 mL  
 atT P paT dF 10/06/2010 1132b

LCST Lab Sample IT LCST 680-1) 2149/10. n alysis Batch. 680-1) 2149. Instrument IT MSP  
 Client Matrix WatT P p Batch. N/T Lab File IT pq375.dF  
 DilutionF 1.0. Unitsb ug/LF Initial WFight/Volume:. 5 mL  
 atT. n alyzFdF 10/06/2010 1201) Final WFight/Volume:. 5 mL  
 atT P paT dF 10/06/2010 1201)

Analyte	% . c.		Limit	P	P	Limit	LCS Qual	LCST Qual
	LCST	LCST						
Acetone	91)	7)	17 - 175T			50.		
Benzene	99.	97)	77 - 119.	2b		30.		
Bromobenzene	93F	92b	0 - 124.	2b		30.		
Bromochloromethane	95T	95T	10 - 150.	1)		30.		
Bromoform	103F	101)	2 - 133F	2b		30.		
Bromomethane	157)	151)	12 - 1)4.	4.		50.		
2-Butanone (MEK)	104.	103F	33 - 157)	1)		30.		
Carbon disulfide	95T	94.	55 - 131)	1)		30.		
Carbon tetrachloride	117)	114.	71 - 135T	3F		30.		
Chlorobenzene	9.	9.	5 - 11)	0.		30.		
Chlorodibromomethane	107)	106.	75 - 133F	1)		30.		
Chloroethane	12b	117)	40 - 1)5T	7)		50.		
Chloroform	100.	99.	2 - 120.	1)		30.		
Chloromethane	107)	103F	4. - 142b	4.		50.		
2-Chlorotoluene	9.	95T	2 - 123F	1)		30.		
4-Chlorotoluene	9.	9.	3 - 122b	0.		30.		
cis-1,2-dichloroethane	9.	93F	9 - 134.	4.		30.		
cis-1,3-dichloropropene	107)	107)	7) - 12b	0.		30.		
1,2-dibromo-3-chloropropane	93F	92b	49 - 140.	2b		30.		
1,2-dibromoethane	9.	95T	0 - 121)	1)		30.		
Diethyl bromomethane	95T	94.	7) - 119.	2b		30.		
1,3-dichlorobenzene	95T	9.	7) - 125T	1)		30.		
1,2-dichlorobenzene	94.	94.	79 - 124.	0.		30.		
1,4-dichlorobenzene	9.	97)	1 - 122b	1)		30.		
Diethyl chlorobromomethane	109.	108.	7) - 127)	1)		30.		
Diethyl chlorodifluoromethane	9.	7)	34 - 154.	2b		30.		
1,1-dichloroethane	100.	99.	74 - 127)	1)		30.		
1,2-dichloroethane	9.	97)	- 132b	0.		30.		
1,1-dichloroethane	9.	94.	2 - 141)	2b		30.		
1,2-dichloroethane, Total	97)	94.	- 134.	3F		30.		
1,2-dichloropropane	102b	100.	73 - 124.	2b		30.		
2,2-dichloropropane	108.	106.	55 - 157)	2b		30.		
1,3-dichloropropane	9.	9.	75 - 120.	1)		30.		

Client: CADFIS U.S., Inc.

Job Number: 680-6177-1)

Lab Control Sample/Update Recovery Report Batch: 680-1821491

Method: 8260Bv  
Preparation: 6030Bv

LCS Lab Sample ID: LCS 680-1) 2149/9.  
Client Material: Water  
Dilution: 1.0.  
Analysis Date: 10/06/2010 1132b  
Preparation Date: 10/06/2010 1132b

Analysis Batch: 680-1) 2149.  
Preparation Batch: N/T  
Units: ug/LF

Instrument: MSP  
Lab File: pq373.dF  
Initial Volume: 5 mL  
Final Volume: 5 mL

LCST Lab Sample ID: LCST 680-1) 2149/10.  
Client Material: Water  
Dilution: 1.0.  
Analysis Date: 10/06/2010 1201)  
Preparation Date: 10/06/2010 1201)

Analysis Batch: 680-1) 2149.  
Preparation Batch: N/T  
Units: ug/LF

Instrument: MSP  
Lab File: pq375.dF  
Initial Volume: 5 mL  
Final Volume: 5 mL

Analyte	% . c.		Limit	P	P	Limit	LCS Qual	LCST Qual
	LCST	LCST						
1,1-dichloroethane	104.	102b	77 - 122b	1)	30.			
Ethylbenzene	100.	99.	- 11)	1)	30.			
Hexachlorocyclopentadiene	99.	100.	2 - 142b	2b	30.			
2-Hexanone	9.	97)	34 - 1) 1)	1)	30.			
Isopropylbenzene	99.	99.	2 - 121)	0.	30.			
Methyl Chloride	93F	93F	70 - 125T	0.	30.			
4-Methyl-2-pentanone (MIBK)	99.	9.	40 - 151)	1)	30.			
Methyl tert-butyl eth.	95T	94.	77 - 121)	1)	30.			
m-Xylene & p-Xylene	9.	9.	3 - 11)	0.	30.			
Naphthalene	123F	127)	4. - 135T	3F	30.			
n-Butylbenzene	11)	120.	4 - 13F	2b	30.			
n-Propylbenzene	97)	9.	0 - 12b	1)	30.			
o-Xylene	108.	108.	3 - 119.	0.	30.			
p-Isopropyltoluene	101)	103F	3 - 139.	2b	30.			
sec-Butylbenzene	101)	101)	77 - 12b	0.	30.			
Styrene	9.	9.	2 - 122b	1)	30.			
tert-Butylbenzene	9.	99.	0 - 124.	1)	30.			
1,1,2,2-Tetrachloroethane	94.	94.	9 - 129.	0.	30.			
1,1,1,2-Tetrachloroethane	107)	108.	1 - 12b	1)	30.			
Tetrachloroethane	93F	94.	7) - 12b	1)	30.			
Toluene	100.	9.	1 - 117)	1)	30.			
trans-1,2-dichloroethane	97)	94.	72 - 131)	3F	30.			
trans-1,3-dichloroethane	107)	107)	73 - 12b	0.	30.			
1,2,4-Trichlorobenzene	9.	101)	0 - 135T	2b	30.			
1,2,3-Trichlorobenzene	99.	103F	0 - 132b	5T	30.			
1,1,1-Trichloroethane	107)	107)	7) - 127)	0.	30.			
1,1,2-Trichloroethane	100.	9.	75 - 121)	2b	30.			
Trichloroethane	9.	97)	4 - 115T	1)	30.			
Trichlorofluoromethane	115T	113F	5T- 149.	2b	50.			
1,2,3-Trichloropropane	91)	91)	70 - 130.	1)	30.			
1,2,4-Trimethylbenzene	105T	104.	72 - 132b	0.	30.			
1,3,5-Trimethylbenzene	9.	99.	72 - 133F	1)	30.			
Vinyl acetate	105T	103F	10 - 217)	2b	30.			

CliFntT . CADF IS U.S., Inc.

Job Number: 680-6177)- 1)

LabControlSample/U  
 LabControlSampleDUpldteRecovery Reportd Batch: 680-182149I

Method: 8260Bv  
 Preparatbn: 6030Bv

LCS Lab SampIT IT LCS 680-1) 2149/9. n alysis Batch. 680-1) 2149. Instūment IT MSP  
 CliFnt MatTxT WatT P p Batch. N/T Lab FilIT IT pq373.dF  
 i lutionF 1.0. Unitsb ug/LF Initial WFight/Volume:. 5 mL  
 atT. n alyzFdF 10/06/2010 1132b Final WFight/Volume:. 5 mL  
 atT P paT dF 10/06/2010 1132b

LCST Lab SampIT IT LCST 680-1) 2149/10. n alysis Batch. 680-1) 2149. Instūment IT MSP  
 CliFnt MatTxT WatT P p Batch. N/T Lab FilIT IT pq375.dF  
 i lutionF 1.0. Unitsb ug/LF Initial WFight/Volume:. 5 mL  
 atT. n alyzFdF 10/06/2010 1201) Final WFight/Volume:. 5 mL  
 atT P paT dF 10/06/2010 1201)

nalytT	% . c.		LimitT	P	P	LimitT	LCS QualT	LCST QualT
	LCST	LCST						
Vinyl chloridF	111)	109.	59 - 144.	1)		50.		
XylTnFs, TotalT	101)	101)	4 - 11)	0.		30.		
SurrogatT		LCS % . cT	LCST % . cT			ccTptancT Limitsb		
4-B.omofluorobenzFnF		9.	97)			75 - 120.		
i bromofluoromethanF		93F	92b			75 - 121)		
ToluenF dF (Surr)T		99.	9.			75 - 120.		

Clifnt . CADF IS U.S., Inc.

Job Number: 680-6177)- 1)

Method Blank - Batch: 680-182239I

Method: 0260Bv  
Preparatbn: 0030Bv

Lab SampIT IT MB 680-1) 2239/T  
Clifnt MatTxT Wat  
i lutionF 1.0.  
atT. n alyzFdF 10/07/2010 1153F  
atT P paT dF 10/07/2010 1153F

n alysis Batch. 680-1) 2239.  
P p Batch. N/T  
Unitsb ug/LF

InstTument IT MSP  
Lab FilIT IT pq395.dF  
Initial WFight/Volume:. 5 mL  
Final WFight/Volume:. 5 mL

nalytT	sultT	QualT	LF
cTtonF	25T	UT	25T
B. nzFnF	1.0.	UT	1.0.
B. omobenzFnF	1.0.	UT	1.0.
B. omochloromethanF	1.0.	UT	1.0.
B. omoform.	1.0.	UT	1.0.
B. omomethanF	1.0.	UT	1.0.
2-ButanonF (MEK)T	10.	UT	10.
CaTbon disulfidF	2.0.	UT	2.0.
CaTbon tTtTachloridF	1.0.	UT	1.0.
ChlorobenzFnF	1.0.	UT	1.0.
ChlorodibromomethanF	1.0.	UT	1.0.
ChloroethanF	1.0.	UT	1.0.
Chloroform.	1.0.	UT	1.0.
ChloromethanF	1.0.	UT	1.0.
2-ChlorotoluenF	1.0.	UT	1.0.
4-ChlorotoluenF	1.0.	UT	1.0.
cis-1,2-.i chloroeth. nF	1.0.	UT	1.0.
cis-1,3-.i chloropFopFnF	1.0.	UT	1.0.
1,2-.i bromo-3-ChloropFopanF	1.0.	UT	1.0.
1,2-.i bromoethanF	1.0.	UT	1.0.
i bromomethanF	1.0.	UT	1.0.
1,3-.i chlorobenzFnF	1.0.	UT	1.0.
1,2-.i chlorobenzFnF	1.0.	UT	1.0.
1,4-.i chlorobenzFnF	1.0.	UT	1.0.
i chlorobromomethanF	1.0.	UT	1.0.
i chlorodifluoromethanF	1.0.	UT	1.0.
1,1-.i chloroethanF	1.0.	UT	1.0.
1,2-.i chloroethanF	1.0.	UT	1.0.
1,1-.i chloroeth. nF	1.0.	UT	1.0.
1,2-.i chloroeth. nF, TotalT	2.0.	UT	2.0.
1,2-.i chloropFopanF	1.0.	UT	1.0.
2,2-.i chloropFopanF	1.0.	UT	1.0.
1,3-.i chloropFopanF	1.0.	UT	1.0.
1,1-.i chloropFopFnF	1.0.	UT	1.0.
iF thyl eth.	10.	UT	10.
EthylbenzFnF	1.0.	UT	1.0.
HTxachlorobutadiFnF	1.0.	UT	1.0.
2-HTxanonF	10.	UT	10.
IsopFopylbenzFnF	1.0.	UT	1.0.
MTthylTnF ChloridF	5.0.	U	5.0.
4-MTthyl-2-pFntanonF (MIBK)T	10.	UT	10.
MTthyl tT t-butyl eth.	10.	UT	10.
m-XylTnF & p-XylTnF	2.0.	UT	2.0.



CliFntT . CADF IS U.S., Inc.

Job Number: 680-6177)- 1)

Method Blank - Batch: 680-182239I

Method: 0260Bv  
Preparat0bn: 0030Bv

Lab SampIT IT MB 680-1) 2239/T  
CliFnt MatTtX T WatT  
i lutionF 1.0.  
atT. n alyzFdF 10/07/2010 1153F  
atT P paT dF 10/07/2010 1153F

n alysis Batch. 680-1) 2239.  
P p Batch. N/T  
Unitsb ug/LF

InstTument IT MSP  
Lab FilT IT pq395.dF  
Initial WFight/Volume:. 5 mL  
Final WFight/Volume:. 5 mL

nalytT	sultT	QualT	LF
NaphthalTnF	5.0.	UT	5.0.
n-ButylbenzFnF	1.0.	UT	1.0.
N-P opylbenzFnF	1.0.	UT	1.0.
o-XylTnF	1.0.	UT	1.0.
p-Isop0pyltoluenF	1.0.	UT	1.0.
sbc-ButylbenzFnF	1.0.	UT	1.0.
StyT nF	1.0.	UT	1.0.
tT t-ButylbenzFnF	1.0.	UT	1.0.
1,1,2,2-TTtTachloroethanF	1.0.	UT	1.0.
1,1,1,2-TTtTachloroethanF	1.0.	UT	1.0.
TTtTachloroeth. nF	1.0.	UT	1.0.
ToluenF	1.0.	UT	1.0.
tTans-1,2-i chloroeth. nF	1.0.	UT	1.0.
tTans-1,3-i chlorop0pFnF	1.0.	UT	1.0.
1,2,4-TTtTchlorobenzFnF	1.0.	UT	1.0.
1,2,3-TTtTchlorobenzFnF	1.0.	UT	1.0.
1,1,1-TTtTchloroethanF	1.0.	UT	1.0.
1,1,2-TTtTchloroethanF	1.0.	UT	1.0.
TTtTchloroeth. nF	1.0.	UT	1.0.
TTtTchlorofluoromethanF	1.0.	UT	1.0.
1,2,3-TTtTchlorop0panF	1.0.	UT	1.0.
1,2,4-TTtTmethylbenzFnF	1.0.	UT	1.0.
1,3,5-TTtTmethylbenzFnF	1.0.	UT	1.0.
Vinyl acTtatT	2.0.	UT	2.0.
Vinyl chloridF	1.0.	UT	1.0.
XylTnFs, TotalT	2.0.	UT	2.0.

SurrogatT	% . cT	ccTptancT Limitsb
4-B.omofluorobenzFnF	92b	75 - 120.
i bromofluoromethanF	90.	75 - 121)
ToluenF dF (Surr)T	9.	75 - 120.

Client: CADFIS U.S., Inc.

Job Number: 680-6177-1)

Lab Control Sample/Update Recovery Report Batch: 680-182239

Method: 8260Bv  
Preparation: 6030Bv

LCS Lab Sample IT LCS 680-1) 2239/5T      Analysis Batch: 680-1) 2239.      Instrument IT MSP  
 Client Matrix WatT      Prep Batch: N/T      Lab File IT pq3F7.dF  
 DilutionF 1.0.      Units: ug/LF      Initial Weight/Volume: 5 mL  
 Date Analyzed 10/07/2010 095T      Final Weight/Volume: 5 mL  
 Date Prepared 10/07/2010 095T

LCST Lab Sample IT LCST 680-1) 2239/T      Analysis Batch: 680-1) 2239.      Instrument IT MSP  
 Client Matrix WatT      Prep Batch: N/T      Lab File IT pq3F9.dF  
 DilutionF 1.0.      Units: ug/LF      Initial Weight/Volume: 5 mL  
 Date Analyzed 10/07/2010 1025T      Final Weight/Volume: 5 mL  
 Date Prepared 10/07/2010 1025T

Analyte	% . c.		Limit	P	P	Limit	LCS Qual	LCST Qual
	LCST	LCST						
Carbon		7)	17 - 175T	1)	50.			
Benzene	9.	99.	77 - 119.	1)	30.			
Bromobenzene	94.	93F	0 - 124.	1)	30.			
Bromochloromethane	9.	9.	10 - 150.	2b	30.			
Bromoform	99.	100.	2 - 133F	0.	30.			
Bromomethane	143F	14.	12 - 1)4.	2b	50.			
2-Butanone (MEK)T	100.	9.	33 - 157)	2b	30.			
Carbon disulfide	93F	93F	55 - 131)	1)	30.			
Carbon tetrachloride	11)	117)	71 - 135T	1)	30.			
Chlorobenzene	95T	97)	5 - 11)	2b	30.			
Chlorodibromomethane	104.	106.	75 - 133F	1)	30.			
Chloroethane	124.	114.	40 - 1)5T	9.	50.			
Chloroform	101)	99.	2 - 120.	2b	30.			
Chloromethane	105T	100.	4. - 142b	5T	50.			
2-Chlorotoluene	94.	94.	2 - 123F	1)	30.			
4-Chlorotoluene	9.	9.	3 - 122b	2b	30.			
cis-1,2-dichloroethane	93F	93F	9 - 134.	0.	30.			
cis-1,3-dichloropropane	107)	107)	7) - 12b	0.	30.			
1,2-dibromo-3-chloropropane	5T	2b	49 - 140.	4.	30.			
1,2-dibromoethane	95T	95T	0 - 121)	0.	30.			
Diethyl bromomethane	94.	97)	7) - 119.	3F	30.			
1,3-dichlorobenzene	94.	95T	7) - 125T	0.	30.			
1,2-dichlorobenzene	93F	93F	79 - 124.	0.	30.			
1,4-dichlorobenzene	9.	9.	1 - 122b	0.	30.			
Diethyl chlorobromomethane	107)	108.	7) - 127)	1)	30.			
Diethyl chlorodifluoromethane		7)	34 - 154.	1)	30.			
1,1-dichloroethane	101)	100.	74 - 127)	1)	30.			
1,2-dichloroethane	99.	9.	- 132b	0.	30.			
1,1-dichloroethane	95T	95T	2 - 141)	0.	30.			
1,2-dichloroethane, Total	9.	95T	- 134.	1)	30.			
1,2-dichloropropane	101)	100.	73 - 124.	0.	30.			
2,2-dichloropropane	110.	110.	55 - 157)	1)	30.			
1,3-dichloropropane	94.	97)	75 - 120.	3F	30.			

Client: CADFIS U.S., Inc.

Job Number: 680-6177-1)

Lab Control Sample/Update Recovery Report Batch: 680-1822391

Method: 8260Bv  
Preparation: 6030Bv

LCS Lab Sample ID: LCS 680-1) 2239/5T      Analysis Batch: 680-1) 2239.      Instrument ID: MSP  
 Client Material: Water      Prep Batch: N/T      Lab File ID: pq3F7.dF  
 Dilution: 1.0      Units: ug/LF      Initial Weight/Volume: 5 mL  
 Date Analyzed: 10/07/2010 09:5T      Final Weight/Volume: 5 mL  
 Date Prepared: 10/07/2010 09:5T

LCST Lab Sample ID: LCST 680-1) 2239/T      Analysis Batch: 680-1) 2239.      Instrument ID: MSP  
 Client Material: Water      Prep Batch: N/T      Lab File ID: pq3F9.dF  
 Dilution: 1.0      Units: ug/LF      Initial Weight/Volume: 5 mL  
 Date Analyzed: 10/07/2010 10:25T      Final Weight/Volume: 5 mL  
 Date Prepared: 10/07/2010 10:25T

Analyte	% . c.		Limit	P	P	Limit	LCS Qual	LCST Qual
	LCST	LCST						
1,1-dichloroethane	104.	103F	77 - 122b	1)	30.			
Ethylbenzene	9.	9.	- 11)	0.	30.			
Hexachlorobutadiene	101)	101)	2 - 142b	1)	30.			
2-Hexanone	95T	94.	34 - 1) 1)	1)	30.			
Isopropylbenzene	100.	99.	2 - 121)	1)	30.			
Methyl Chloride	95T	92b	70 - 125T	4.	30.			
4-Methyl-2-pentanone (MIBK)	95T	9.	40 - 151)	3F	30.			
Methyl tert-butyl eth.	94.	93F	77 - 121)	2b	30.			
m-Xylene & p-Xylene	97)	9.	3 - 11)	1)	30.			
Naphthalene	107)	112b	4. - 135T	4.	30.			
n-Butylbenzene	117)	119.	4 - 13F	2b	30.			
N-Propylbenzene	97)	9.	0 - 12b	1)	30.			
o-Xylene	109.	108.	3 - 119.	1)	30.			
p-Isopropyltoluene	100.	102b	3 - 139.	2b	30.			
sec-Butylbenzene	100.	101)	77 - 12b	2b	30.			
Styrene	9.	97)	2 - 122b	1)	30.			
tert-Butylbenzene	99.	99.	0 - 124.	0.	30.			
1,1,2,2-Tetrachloroethane	91)	93F	9 - 129.	2b	30.			
1,1,1,2-Tetrachloroethane	106.	107)	1 - 12b	1)	30.			
Tetrachloroethane	91)	92b	7) - 12b	1)	30.			
Toluene	99.	101)	1 - 117)	1)	30.			
trans-1,2-dichloroethane	9.	9.	72 - 131)	1)	30.			
trans-1,3-dichlorobenzene	107)	106.	73 - 12b	1)	30.			
1,2,4-Trichlorobenzene	93F	95T	0 - 135T	2b	30.			
1,2,3-Trichlorobenzene	92b	9.	0 - 132b	4.	30.			
1,1,1-Trichloroethane	107)	108.	7) - 127)	1)	30.			
1,1,2-Trichloroethane	9.	9.	75 - 121)	0.	30.			
Trichloroethane	9.	97)	4 - 115T	2b	30.			
Trichlorofluoromethane	117)	117)	5T- 149.	0.	50.			
1,2,3-Trichloropropane	91)	9.	70 - 130.	2b	30.			
1,2,4-Trimethylbenzene	103F	106.	72 - 132b	2b	30.			
1,3,5-Trimethylbenzene	9.	9.	72 - 133F	2b	30.			
Vinyl acetate	108.	104.	10 - 217)	4.	30.			

Clifnt . CADF IS U.S., Inc.

Job Number: 680-6177)- 1)

**LabControlSample/U**  
**LabControlSampleUpdateRecovery Reportd Batch: 680-182239I**

**Method: 8260Bv**  
**Preparatbn: 6030Bv**

LCS Lab SampIT IT LCS 680-1) 2239/5T      n alysis Batch. 680-1) 2239.      Instūment IT      MSP  
 Clifnt MatTxT      WatT      P p Batch. N/T      Lab FilIT IT      pq3F7.dF  
 i lutionF      1.0.      Unitsb ug/LF      Initial WFight/Volume:.      5 mLF  
 atT. n alyzFdF      10/07/2010 095T      Final WFight/Volume:.      5 mLF  
 atT P paT dF      10/07/2010 095T

LCST Lab SampIT IT LCST 680-1) 2239/T      n alysis Batch. 680-1) 2239.      Instūment IT      MSP  
 Clifnt MatTxT      WatT      P p Batch. N/T      Lab FilIT IT      pq3F9.dF  
 i lutionF      1.0.      Unitsb ug/LF      Initial WFight/Volume:.      5 mLF  
 atT. n alyzFdF      10/07/2010 1025T      Final WFight/Volume:.      5 mLF  
 atT P paT dF      10/07/2010 1025T

nalytT	% . c.		LimitT	P	P	LimitT	LCS QualT	LCST QualT
	LCST	LCST						
Vinyl chloridF	111)	110.	59 - 144.	1)		50.		
XylTnFs, TotalT	101)	101)	4 - 11)	0.		30.		
SurrogatT		LCS % . cT	LCST % . cT			ccTptancT Limitsb		
4-B.omofluorobenzFnF		97)	97)			75 - 120.		
i bromofluoromethanF		95T	93F			75 - 121)		
ToluenF dF (Surr)T		97)	99.			75 - 120.		

Client: CADFIS U.S., Inc.

Job Number: 680-6177-1)

**Method Blank - Batch: 680-1827U9I**

Lab Sample ID: MB 680-1) 27) 9/14-.  
 Client Material: Water  
 Dilution: 1.0.  
 Analysis Date: 10/15/2010 213F  
 Report Date: 10/13/2010 0953F

Analysis Batch: 680-1) 3127)  
 Project Batch: 680-1) 27) 9.  
 Units: ug/LF

**Method: 6010Cu  
 Preparation: 8005AU  
 Total Recoverable**

Instrument: ICP  
 Lab File: 1015101039.ch.  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

analyte	result	Quality	LF
As	20.	UT	20.
Ba	10.	UT	10.
Cadmium	5.0.	UT	5.0.
Chromium	10.	UT	10.
Iron	50.	UT	50.
Lead	10.	UT	10.
Strontium	20.	UT	20.
Silver	10.	UT	10.
Sodium	1000.	UT	1000.

**Lab Control Sample Batch: 680-1827U9I**

Lab Sample ID: LCS 680-1) 27) 9/15-.  
 Client Material: Water  
 Dilution: 1.0.  
 Analysis Date: 10/15/2010 2141)  
 Report Date: 10/13/2010 0953F

Analysis Batch: 680-1) 3127)  
 Project Batch: 680-1) 27) 9.  
 Units: ug/LF

**Method: 6010Cu  
 Preparation: 8005AU  
 Total Recoverable**

Instrument: ICP  
 Lab File: 1015101039.ch.  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

analyte	Spiked amount	result	% Rec.	Limit	Quality
As	2000.	2030.	101)	75 - 125T	
Ba	2000.	2010.	101)	75 - 125T	
Cadmium	50.0.	50.4.	101)	75 - 125T	
Chromium	200.	199.	99.	75 - 125T	
Iron	1000.	1010.	101)	75 - 125T	
Lead	500.	520.	104.	75 - 125T	
Strontium	2000.	2030.	101)	75 - 125T	
Silver	50.0.	4.4.	93F	75 - 125T	
Sodium	5000.	4990.	100.	75 - 125T	

CliFntT . CADF IS U.S., Inc.

Job Number: 680-6177)- 1)

**Matrix Spike/U**

**Matrix Spike/Update/Recovery Reportd Batch: 680-1827U9I**

**Method: 6010Cu**

**Preparatbn: 8005AU**

**TotalRecoverableV**

MS Lab SampIT IT 0-6. 177)- 1) n alysis Batch. 680-1) 3127)  
 CliFnt MatTxT WatT P p Batch. 680-1) 27) 9.  
 i lutionF 1.0.  
 atT. n alyzFdF 10/15/2010 2202b  
 atT P paT dF 10/13/2010 0953F

InstTument IT ICP  
 Lab FilT IT 1015101039.ch.  
 Initial WFight/Volume:. 50 mL  
 Final WFight/Volume:. 50 mL

MST Lab SampIT IT 0-6. 177)- 1) n alysis Batch. 680-1) 3127)  
 CliFnt MatTxT WatT P p Batch. 680-1) 27) 9.  
 i lutionF 1.0.  
 atT. n alyzFdF 10/15/2010 2208.  
 atT P paT dF 10/13/2010 0953F

InstTument IT ICP  
 Lab FilT IT 1015101039.ch.  
 Initial WFight/Volume:. 50 mL  
 Final WFight/Volume:. 50 mL

nalytT	% . c.		LimitT	P	P	LimitT	MS QualT	MST QualT
	MST	MST						
sbnicT	108.	109.	75 - 125T	0.	20.			
BaTum.	100.	101)	75 - 125T	0.	20.			
Cadmium.	106.	108.	75 - 125T	1)	20.			
Ch.omium.	102b	103F	75 - 125T	1)	20.			
ITbnF	11)	12b	75 - 125T	2b	20.	4.		4.
LFadF	106.	106.	75 - 125T	1)	20.			
STITnium.	105T	107)	75 - 125T	1)	20.			
Silver.	94.	94.	75 - 125T	0.	20.			

**Matrix Spike/U**

**Matrix Spike/Update/Recovery Reportd Batch: 680-1827U9I**

**Method: 6010Cu**

**Preparatbn: 8005AU**

**TotalRecoverableV**

MS Lab SampIT IT 0-6. 177)- 1) n alysis Batch. 680-1) 3394.  
 CliFnt MatTxT WatT P p Batch. 680-1) 27) 9.  
 i lutionF 10.  
 atT. n alyzFdF 10/1)/2010 2014.  
 atT P paT dF 10/13/2010 0953F

InstTument IT ICP  
 Lab FilT IT 1) 27) 9. 177) .ch.  
 Initial WFight/Volume:. 50 mL  
 Final WFight/Volume:. 50 mL

MST Lab SampIT IT 0-6. 177)- 1) n alysis Batch. 680-1) 3394.  
 CliFnt MatTxT WatT P p Batch. 680-1) 27) 9.  
 i lutionF 10.  
 atT. n alyzFdF 10/1)/2010 2019.  
 atT P paT dF 10/13/2010 0953F

InstTument IT ICP  
 Lab FilT IT 1) 27) 9. 177) .ch.  
 Initial WFight/Volume:. 50 mL  
 Final WFight/Volume:. 50 mL

nalytT	% . c.		LimitT	P	P	LimitT	MS QualT	MST QualT
	MST	MST						
Sodium.	353F	530.	75 - 125T	3F	20.	4.		4.

Clifnt . CADF IS U.S., Inc.

Job Number: 680-6177)- 1)

**Method Blank - Batch: 680-182103I**

Lab SampIT IT MB 680-1) 2103/1-.  
 CliFnt MatTxT WatT  
 i lutionF 1.0.  
 atT. n alyzFdF 10/07/2010 1159.  
 atT P paT dF 10/06/2010 1220.

n alysis Batch. 680-1) 22b.  
 P p Batch. 680-1) 2103F  
 Unitsb ug/LF

**Method: 470AU  
 Preparatbn: 470AU**

InstTument IT LEEMTN1)  
 Lab FilIT IT b100710a.ch.  
 Initial WFight/Volume:. 50 mL  
 Final WFight/Volume:. 50 mL

nalytT	sultT	QualT	LF
MT curyT	0.20.	UT	0.20.

**LabControlSampleV Batch: 680-182103I**

Lab SampIT IT LCS 680-1) 2103/2-.  
 CliFnt MatTxT WatT  
 i lutionF 1.0.  
 atT. n alyzFdF 10/07/2010 1201)  
 atT P paT dF 10/06/2010 1220.

n alysis Batch. 680-1) 22b.  
 P p Batch. 680-1) 2103F  
 Unitsb ug/LF

**Method: 470AU  
 Preparatbn: 470AU**

InstTument IT LEEMTN1)  
 Lab FilIT IT b100710a.ch.  
 Initial WFight/Volume:. 50 mL  
 Final WFight/Volume:. 50 mL

nalytT	SpikT. mountT	sultT	% . c.	LimitT	QualT
MT curyT	2.50.	2.39.	9.	0 - 120.	

**Matrix Spike/U**

**Matrix SpikeU Update Recovery Reportd Batch: 680-182103I**

MS Lab SampIT IT 0-6. 177)-6.  
 CliFnt MatTxT WatT  
 i lutionF 1.0.  
 atT. n alyzFdF 10/07/2010 1315T  
 atT P paT dF 10/06/2010 1220.

n alysis Batch. 680-1) 22b.  
 P p Batch. 680-1) 2103F

**Method: 470AU  
 Preparatbn: 470AU**

InstTument IT LEEMTN1)  
 Lab FilIT IT b100710a.ch.  
 Initial WFight/Volume:. 50 mL  
 Final WFight/Volume:. 50 mL

MST Lab SampIT IT 0-6. 177)-6.  
 CliFnt MatTxT WatT  
 i lutionF 1.0.  
 atT. n alyzFdF 10/07/2010 131)  
 atT P paT dF 10/06/2010 1220.

n alysis Batch. 680-1) 22b.  
 P p Batch. 680-1) 2103F

InstTument IT LEEMTN1)  
 Lab FilIT IT b100710a.ch.  
 Initial WFight/Volume:. 50 mL  
 Final WFight/Volume:. 50 mL

nalytT	% . c.		LimitT	P	P LimitT	MS QualT	MST QualT
	MST	MST					
MT curyT	93F	95T	0 - 120.	3F	20.		

Clifnt . CADF IS U.S., Inc.

Job Number: 680-6177)- 1)

**Method Blank - Batch: 680-182274P**

**Method: 00386**  
**Preparatbn: N/AU**

Lab SamplIT MB 680-1) 2274/1)      n alysis Batch. 680-1) 2274.  
Clifnt MatTxT WatT      P p Batch. N/T  
i lutionF 1.0.      Unitsb mg/LF  
atT. n alyzFdF 10/07/2010 1100.  
atT P paT dF N/T

InstTment IT KONELAB1)  
Lab FilIT IT KONE11007101SO4B.xlsb  
Initial WFight/Volume:. 2 mL  
Final WFight/Volume:. 2 mL

nalytT	sultT	QualT	LF
SulfatT	5.0.	U	5.0.

**LabControlSampleV Batch: 680-182274P**

**Method: 00386**  
**Preparatbn: N/AU**

Lab SamplIT LCS 680-1) 2274/2b      n alysis Batch. 680-1) 2274.  
Clifnt MatTxT WatT      P p Batch. N/T  
i lutionF 1.0.      Unitsb mg/LF  
atT. n alyzFdF 10/07/2010 1100.  
atT P paT dF N/T

InstTment IT KONELAB1)  
Lab FilIT IT KONE11007101SO4B.xlsb  
Initial WFight/Volume:. 2 mL  
Final WFight/Volume:. 2 mL

nalytT	SpikT. mountT	sultT	% . c.	LimitT	QualT
SulfatT	20.0.	1).9	94	. 75 - 125T	



Serial Number 032569

Website: www.testamerica.com  
Phone: (912) 354-7858  
Fax: (912) 352-0165

TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404

Alternate Laboratory Name/Location

Phone:  
Fax:

### ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

PROJECT REFERENCE: **UNC-Chapel Hill**

TAL (LAB) PROJECT MANAGER: **Alan Pinnix**

CLIENT (SITE) PM: **Alan Pinnix**

CLIENT NAME: **Arcadis**

CLIENT ADDRESS: **801 Corporate Center Dr. #300, Raleigh, NC 27607**

COMPANY CONTRACTING THIS WORK (if applicable):

PROJECT NO. **NC-000239-001b-0006**

PROJECT LOCATION (STATE): **NC**

CONTRACT NO.:

CLIENT PHONE: **919-854-1282**

CLIENT FAX: **919-854-5444**

CLIENT E-MAIL: **alan.pinnix@arcadis-us.com**

MATRIX TYPE	REQUIRED ANALYSIS	PAGE 1 OF 1
COMPOSITE (C) OR GRAB (G) INDICATE		STANDARD REPORT DELIVERY
AQUEOUS (WATER)		DATE DUE
SOLID OR SEMISOLID		EXPEDITED REPORT DELIVERY (SURCHARGE)
AIR		DATE DUE
NONAQUEOUS LIQUID (OIL SOLVENT...)		NUMBER OF COOLERS SUBMITTED PER SHIPMENT

SAMPLE ID	DATE	TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL SOLVENT...)	NUMBER OF CONTAINERS SUBMITTED	REMARKS
-----------	------	------	-----------------------	------------------------------------	-----------------	--------------------	-----	------------------------------------	--------------------------------	---------

9-30-10	1230		MW-1 (09302010)	X					3	
9-30-10	1115		MW-2 (09302010)	X					3	
9-29-10	1645		MW-3 (09292010)	X					3	
9-29-10	1430		MW-14 (09292010)	X					3	
9-30-10	1330		MW-38 (09302010)	X					3	
9-30-10	1015		MW-39 (09302010)	X					3	
			Trip Blank	X					2	
			Temp Blank							

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
<i>[Signature]</i>	9-30-10	1600			
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
<i>[Signature]</i>					

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY SEAL NO.	CUSTODY INTACT	SAVANNAH LOG NO.	LABORATORY REMARKS
<i>Betha Daughtery</i>	10/1/10	0941		YES <input type="radio"/> NO <input type="radio"/>	6080-61778	Temp 1.8

VOCs  
RCA Metals  
Sulfate  
HPO3  
PRESERVATIVE  
KCl

JDF 9-30-2010

## Login Sample Reded Check Listc

Client: ARCADIS U.S., Inc.T

JA Number: 680-61778-1A

**Login Number: c177c**  
**Creator: Daughtry, Bedhc**  
**List Number: 1u**

**List Source: TestAmerVa Sa vannahc**

Question	Y / N / NA	Comment
Radon activity either was not measured or, if measured, is below Tackg. undc	N/A	
The cooler's dust dy seal, if present, is intact.	T	
The cooler or samples do not appear to have been compromised or tampered with.	T	
Samples were received on ice.	T	
Cooler Temperature is acceptable.	T	
Cooler Temperature is recorded.	T	
COC is present.	T	
COC is filled out in ink and legible.	T	
COC is filled out with all pertinent information.	T	
Is the Field Sampler's name present on COC?N	False	
There are no discrepancies between the sample IDs on the containers and the COC.	T	
Samples are received with no handling.	T	
Sample containers have legible labels.	T	
Containers are not broken or leaking.	T	
Sample collection dates/times are provided.	T	
Appropriate sample containers are used.	T	
Sample bottles are completely filled.	T	
Sample Preservation Verified	T	
There is sufficient volume for all requested analyses, including any requested MS/MSDs	T	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	T	
If necessary, staff have been informed of any special handling time or quick turnaround needs	T	
Multiple test samples are not present.	N/A	
Samples do not require splitting or comparison.	N/A	

## ANALYTICAL REPORT

Job Number: 680-61853-1

Job Description: UNC Airport Road, Chapel Hill

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
10/29/2010 4:44 PM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
10/29/2010  
Revision: 1

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



**CommDn:**

No additional comments. g

**i pDU**

All samples were received in good condition within temperature requirements.g

**GC/MS VOA U**

No analytical or quality issues were noted.g

**MMA Is U**

No analytical or quality issues were noted.g

**GMh:ra l ChdmU ry U**

No analytical or quality issues were noted.g

**VOA Prep U**

No analytical or quality issues were noted.g

## METHOD SUMMARY:

Client: (CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: Water:</b>			
Volatiles Organic Compounds (GC/MS)	T2L SAY2	SWM#M6.2A B2	
Purge and Trap	T2L SAY2		SWM#M5030B2
Metal (ICP)	T2L SAY2	SWM#M60 10C)	
Preparation, Total dissolved or suspended solids	T2L SAY2		SWM#M3005M
Metal (CV2)	T2L SAY2	SWM#M7470.	
Preparation, Metal	T2L SAY2		SWM#M7470.
Sulfate, Turbidity	T2L SAY2	SWM#M903T	

### Lab References:

T2L SAY = TestAmerica Savannah

### Method References:

SWM#M= "TestAmerica Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1999, updated.

**METHOD / ANALcST SdMMARM**

Client: ARCADIS U.S., Inc.T

JA Number: 680-61853-1A

<b>MethodM</b>	<b>AnalystM</b>	<b>Analyst ID:</b>
SW846 8260B4	L0nier, CT l ynT	CL0
SW846 6010CT	BITnd, B4 nT	BCB4
W846 7470Ab	Eaton, Cliffb	Eb
W846 9038b	Ross, Jonb	JRb

## SUMPLU SUMMUR Y2

ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

<b>Lab Sa: ple IDV</b>	<b>Client Sa: ple IDV</b>	<b>Client Matrix2</b>	<b>Date/Time : Sa: pledb</b>	<b>Date/Time : ReVeivedb</b>
680-61853-1b	MW-1b	Waterb	10/04/2010 1338b	10/05/2010 0938b
680-61853-2b	MW-2b	Waterb	10/04/2010 1415b	10/05/2010 0938b
680-61853-3b	MW-3b	Waterb	10/04/2010 1300b	10/05/2010 0938b
680-61853-4M	MW-38b	Waterb	10/04/2010 1600b	10/05/2010 0938b
680-61853-5b	MW-39.	Waterb	10/04/2010 1200b	10/05/2010 0938b
680-61853-6b	MW-14M	Waterb	10/04/2010 1500b	10/05/2010 0938b
680-61853-7b	Trip Blank	Waterb	10/04/2010 0000b	10/05/2010 0938b

ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

Client Sample ID:d MW-1d

Lab Sample ID:b 680-61853-1b  
Sample Matrix:b WaterbDate Sampled: 10/04/2010 1338b  
Date Received: 10/05/2010 0938b

## 8260B Volatile Organic Compounds (GC/MS)T

Method:b	8260Bb	Analysis Batch: 680-182508b	Instrument ID:b	M5P 2b
Preparation:b	5030Bb		Lab File ID:b	p0810.d
Dilution:b	50b		Initial Weight/Volume:b	5 mL0
Date Analyzed:b	10/08/2010 1308b		Final Weight/Volume:b	5 mL0
Date Prepared:b	10/08/2010 1308b			

Analyteb	Result (ug/L)b	Qualifierb	RL0
Acetoneb	1300b	Ub	1300b
Benzeneb	910b		50b
Bromobenzeneb	50b	Ub	50b
Bromochloromethaneb	50b	Ub	50b
Bromoformb	50b	Ub	50b
Bromomethaneb	50b	Ub	50b
2-Butanone (MEK)b	500b	Ub	500b
Carbon disulfideb	100b	Ub	100b
Carbon tetrachlorideb	50b	Ub	50b
Chlorobenzeneb	50b	Ub	50b
Chlorodibromomethaneb	50b	Ub	50b
Chloroethaneb	50b	Ub	50b
Chloroformb	4400b		50b
Chloromethaneb	50b	Ub	50b
2-Chlorotolueneb	50b	Ub	50b
4-Chlorotolueneb	50b	Ub	50b
cis-1,2-Dichloroetheneb	50b	Ub	50b
cis-1,3-Dichloropropeneb	50b	Ub	50b
1,2-Dibromo-3-Chloropropane b	50b	Ub	50b
1,2-Dibromoethaneb	50b	Ub	50b
Dibromomethaneb	50b	Ub	50b
1,3-Dichlorobenzeneb	50b	Ub	50b
1,2-Dichlorobenzeneb	50b	Ub	50b
1,4-Dichlorobenzeneb	50b	Ub	50b
Dichlorobromomethaneb	50b	Ub	50b
Dichlorodifluoromethaneb	50b	Ub	50b
1,1-Dichloroethaneb	57b		50b
1,2-Dichloroethaneb	430b		50b
1,1-Dichloroetheneb	50b	Ub	50b
1,2-Dichloroethene, Totalb	100b	Ub	100b
1,2-Dichloropropane b	50b	Ub	50b
2,2-Dichloropropane b	50b	Ub	50b
1,3-Dichloropropane b	50b	Ub	50b
1,1-Dichloropropene b	50b	Ub	50b
Diethyl etherb	5300b	E.	500b
Ethylbenzeneb	50b	Ub	50b
Hexachlorobutadieneb	50b	Ub	50b
2-Hexanoneb	500b	Ub	500b
Isopropylbenzeneb	50b	Ub	50b
Methylene Chlorideb	680b		250b
4-Methyl-2-pentanone (MIBK)b	500b	Ub	500b
Methyl tert-butyl etherb	500b	Ub	500b
m-Xylene & p-Xyleneb	100b	Ub	100b
Naphthaleneb	250b	Ub	250b
n-Butylbenzeneb	50b	Ub	50b
N-Propylbenzeneb	50b	Ub	50b



ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

Client Sample ID:T MW-1T

Lab Sample ID:b 680-61853-1b  
 Matrix:b Waterb

Date Sampled: 10/04/2010 1338b  
 Date Received: 10/05/2010 0938b

8260B Volatile Organic Compounds (GC/MS)T

Method:b	8260Bb	Analysis Batch: 680-182508b	Instrument ID:b	M5P 2b
Preparation:b	5030Bb		Lab File ID:b	p0810.d
Dilution:b	50b		Initial Weight/Volume:b	5 mL0
Date Analyzed:b	10/08/2010 1308b		Final Weight/Volume:b	5 mL0
Date Prepared:b	10/08/2010 1308b			

Analyteb	Result (ug/L)b	Qualifierb	RL0
o-Xyleneb	50b	Ub	50b
p-Isopropyltolueneb	50b	Ub	50b
sec-Butylbenzeneb	50b	Ub	50b
styreneb	50b	Ub	50b
tert-Butylbenzeneb	50b	Ub	50b
1,1,2,2-Tetrachloroethaneb	570b		50b
1,1,1,2-Tetrachloroethaneb	50b	Ub	50b
Tetrachloroetheneb	50b	Ub	50b
Tolueneb	50b	Ub	50b
trans-1,2-Dichloroetheneb	50b	Ub	50b
trans-1,3-Dichloropropeneb	50b	Ub	50b
1,2,4-Trichlorobenzeneb	50b	Ub	50b
1,2,3-Trichlorobenzeneb	50b	Ub	50b
1,1,1-Trichloroethaneb	50b	Ub	50b
1,1,2-Trichloroethaneb	50b	Ub	50b
Trichloroetheneb	160b		50b
Trichlorofluoromethaneb	50b	Ub	50b
1,2,3-Trichloropropane	50b	Ub	50b
1,2,4-Trimethylbenzeneb	50b	Ub	50b
1,3,5-Trimethylbenzeneb	50b	Ub	50b
Vinyl acetateb	100b	Ub	100b
Vinyl chlorideb	50b	Ub	50b
Xylenes, Totalb	100b	Ub	100b

Surrogateb	%Recovery	Qualifierb	Acceptance Limitsb
4-Bromofluorobenzeneb	96b		75 - 120b
Dibromofluoromethaneb	98b		75 - 121b
Toluene-d8 (Surr)	101b		75 - 120b

ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

Client Sample ID:T MW-2T

Lab Sample ID:b 680-61853-2b  
Sample Matrix:b WaterbDate Sampled: 10/04/2010 1415b  
Date Received: 10/05/2010 0938b

## 8260B Volatile Organic Compounds (GC/MS)T

Method:b	8260Bb	Analysis Batch: 680-182508b	Instrument ID:b	M5P 2b
Preparation:b	5030Bb		Lab File ID:b	p0812.d
Dilution:b	100b		Initial Weight/Volume:b	5 mL0
Date Analyzed:b	10/08/2010 1337b		Final Weight/Volume:b	5 mL0
Date Prepared:b	10/08/2010 1337b			

Analyteb	Result (ug/L)b	Qualifierb	RL0
Acetoneb	2500b	Ub	2500b
Benzeneb	7200b		100b
Bromobenzeneb	100b	Ub	100b
Bromochloromethaneb	100b	Ub	100b
Bromoformb	100b	Ub	100b
Bromomethaneb	100b	Ub	100b
2-Butanone (MEK)b	1000b	Ub	1000b
Carbon disulfideb	200b	Ub	200b
Carbon tetrachlorideb	100b	Ub	100b
Chlorobenzeneb	250b		100b
Chlorodibromomethaneb	100b	Ub	100b
Chloroethaneb	100b	Ub	100b
Chloroformb	1000b		100b
Chloromethaneb	100b	Ub	100b
2-Chlorotolueneb	100b	Ub	100b
4-Chlorotolueneb	100b	Ub	100b
cis-1,2-Dichloroetheneb	100b	Ub	100b
cis-1,3-Dichloropropeneb	100b	Ub	100b
1,2-Dibromo-3-Chloropropaneb	100b	Ub	100b
1,2-Dibromoethaneb	100b	Ub	100b
Dibromomethaneb	100b	Ub	100b
1,3-Dichlorobenzeneb	100b	Ub	100b
1,2-Dichlorobenzeneb	100b	Ub	100b
1,4-Dichlorobenzeneb	100b	Ub	100b
Dichlorobromomethaneb	100b	Ub	100b
Dichlorodifluoromethaneb	100b	Ub	100b
1,1-Dichloroethaneb	100b	Ub	100b
1,2-Dichloroethaneb	1100b		100b
1,1-Dichloroetheneb	100b	Ub	100b
1,2-Dichloroethene, Totalb	200b	Ub	200b
1,2-Dichloropropaneb	100b	Ub	100b
2,2-Dichloropropaneb	100b	Ub	100b
1,3-Dichloropropaneb	100b	Ub	100b
1,1-Dichloropropeneb	100b	Ub	100b
Diethyl etherb	16000b	E.	1000b
Ethylbenzeneb	360b		100b
Hexachlorobutadieneb	100b	Ub	100b
2-Hexanoneb	1000b	Ub	1000b
Isopropylbenzeneb	100b	Ub	100b
Methylene Chlorideb	890b		500b
4-Methyl-2-pentanone (MIBK)b	1000b	Ub	1000b
Methyl tert-butyl etherb	1000b	Ub	1000b
m-Xylene & p-Xyleneb	370b		200b
Naphthaleneb	500b	Ub	500b
n-Butylbenzeneb	100b	Ub	100b
N-Propylbenzeneb	100b	Ub	100b

ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

Client Sample ID:T MW-2T

Lab Sample ID:b 680-61853-2b  
 ent Matrix:b Waterb

Date Sampled: 10/04/2010 1415b  
 Date Received: 10/05/2010 0938b

8260B Volatile Organic Compounds (GC/MS)T

Method:b	8260Bb	Analysis Batch: 680-182508b	Instrument ID:b	M5P 2b
Preparation:b	5030Bb		Lab File ID:b	p0812.d
Dilution:b	100b		Initial Weight/Volume:b	5 mL0
Date Analyzed:b	10/08/2010 1337b		Final Weight/Volume:b	5 mL0
Date Prepared:b	10/08/2010 1337b			

Analyteb	Result (ug/L)b	Qualifierb	RL0
o-Xyleneb	700b		100b
p-Isopropyltolueneb	100b	Ub	100b
sec-Butylbenzeneb	100b	Ub	100b
tyreneb	100b	Ub	100b
tert-Butylbenzeneb	100b	Ub	100b
1,1,2,2-Tetrach oroethaneb	100b	Ub	100b
1,1,1,2-Tetrach oroethaneb	100b	Ub	100b
Tetrach oroetheneb	100b	Ub	100b
Tolueneb	100b	Ub	100b
trans-1,2-Dich oroetheneb	100b	Ub	100b
trans-1,3-Dich oropropeneb	100b	Ub	100b
1,2,4-Trich orobenzeneb	100b	Ub	100b
1,2,3-Trich orobenzeneb	100b	Ub	100b
1,1,1-Trich oroethaneb	100b	Ub	100b
1,1,2-Trich oroethaneb	100b	Ub	100b
Trich oroetheneb	140b		100b
Trich orofluoromethaneb	100b	Ub	100b
1,2,3-Trich oropropaneb	100b	Ub	100b
1,2,4-Trimethylbenzeneb	100b	Ub	100b
1,3,5-Trimethylbenzeneb	100b	Ub	100b
Vinyl acetateb	200b	Ub	200b
Vinyl ch orideb	100b	Ub	100b
Xylenes, Totalb	1100b		200b

urrogateb	%Recb	Qualifierb	Acceptance Limitsb
4-Bromofluorobenzeneb	94c		75 - 120b
Dibromofluoromethaneb	96b		75 - 121b
Toluene-d8 (Surr)	100b		75 - 120b

ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

Client Sample ID:T MW-3T

Lab Sample ID:b 680-61853-3b  
Sample Matrix:b WaterbDate Sampled: 10/04/2010 1300b  
Date Received: 10/05/2010 0938b

## 8260B Volatile Organic Compounds (GC/MS)T

Method:b	8260Bb	Analysis Batch: 680-182239.	Instrument ID:b	M5Pb
Preparation:b	5030Bb		Lab File ID:b	p0797.d
Dilution:b	1.0b		Initial Weight/Volume:b	5 mL0
Date Analyzed:b	10/07/2010 1815b		Final Weight/Volume:b	5 mL0
Date Prepared:b	10/07/2010 1815b			

Analyteb	Result (ug/L)b	Qualifierb	RL0
Acetoneb	25b	Ub	25b
Benzeneb	1.0b	Ub	1.0b
Bromobenzeneb	1.0b	Ub	1.0b
Bromochloromethaneb	1.0b	Ub	1.0b
Bromoformb	1.0b	Ub	1.0b
Bromomethaneb	1.0b	Ub	1.0b
2-Butanone (MEK)b	10b	Ub	10b
Carbon disulfideb	2.0b	Ub	2.0b
Carbon tetrachlorideb	1.0b	Ub	1.0b
Chlorobenzeneb	1.0b	Ub	1.0b
Chlorodibromomethaneb	1.0b	Ub	1.0b
Chloroethaneb	1.0b	Ub	1.0b
Chloroformb	1.0b	Ub	1.0b
Chloromethaneb	1.0b	Ub	1.0b
2-Chlorotolueneb	1.0b	Ub	1.0b
4-Chlorotolueneb	1.0b	Ub	1.0b
cis-1,2-Dichloroetheneb	1.0b	Ub	1.0b
cis-1,3-Dichloropropeneb	1.0b	Ub	1.0b
1,2-Dibromo-3-Chloropropaneb	1.0b	Ub	1.0b
1,2-Dibromoethaneb	1.0b	Ub	1.0b
Dibromomethaneb	1.0b	Ub	1.0b
1,3-Dichlorobenzeneb	1.0b	Ub	1.0b
1,2-Dichlorobenzeneb	1.0b	Ub	1.0b
1,4-Dichlorobenzeneb	1.0b	Ub	1.0b
Dichlorobromomethaneb	1.0b	Ub	1.0b
Dichlorodifluoromethaneb	1.0b	Ub	1.0b
1,1-Dichloroethaneb	1.0b	Ub	1.0b
1,2-Dichloroethaneb	1.0b	Ub	1.0b
1,1-Dichloroetheneb	1.0b	Ub	1.0b
1,2-Dichloroethene, Totalb	2.0b	Ub	2.0b
1,2-Dichloropropaneb	1.0b	Ub	1.0b
2,2-Dichloropropaneb	1.0b	Ub	1.0b
1,3-Dichloropropaneb	1.0b	Ub	1.0b
1,1-Dichloropropeneb	1.0b	Ub	1.0b
Diethyl etherb	10b	Ub	10b
Ethylbenzeneb	1.0b	Ub	1.0b
Hexachlorobutadieneb	1.0b	Ub	1.0b
2-Hexanoneb	10b	Ub	10b
Isopropylbenzeneb	1.0b	Ub	1.0b
Methylene Chlorideb	5.0b	Ub	5.0b
4-Methyl-2-pentanone (MIBK)b	10b	Ub	10b
Methyl tert-butyl etherb	10b	Ub	10b
m-Xylene & p-Xyleneb	2.0b	Ub	2.0b
Naphthaleneb	5.0b	Ub	5.0b
n-Butylbenzeneb	1.0b	Ub	1.0b
N-Propylbenzeneb	1.0b	Ub	1.0b

ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

Client Sample ID:T MW-3T

Lab Sample ID:b 680-61853-3b  
 ent Matrix:b Waterb

Date Sampled: 10/04/2010 1300b  
 Date Received: 10/05/2010 0938b

8260B Volatile Organic Compounds (GC/MS)T

Method:b	8260Bb	Analysis Batch: 680-182239.	Instrument ID:b	M5Pb
Preparation:b	5030Bb		Lab File ID:b	p0797.d
Dilution:b	1.0b		Initial Weight/Volume:b	5 mL0
Date Analyzed:b	10/07/2010 1815b		Final Weight/Volume:b	5 mL0
Date Prepared:b	10/07/2010 1815b			

Analyteb	Result (ug/L)b	Qualifierb	RL0
o-Xyleneb	1.0b	Ub	1.0b
p-Isopropyltolueneb	1.0b	Ub	1.0b
sec-Butylbenzeneb	1.0b	Ub	1.0b
tyreneb	1.0b	Ub	1.0b
tert-Butylbenzeneb	1.0b	Ub	1.0b
1,1,2,2-Tetrachloroethaneb	1.0b	Ub	1.0b
1,1,1,2-Tetrachloroethaneb	1.0b	Ub	1.0b
Tetrachloroetheneb	1.0b	Ub	1.0b
Tolueneb	1.0b	Ub	1.0b
trans-1,2-Dichloroetheneb	1.0b	Ub	1.0b
trans-1,3-Dichloropropeneb	1.0b	Ub	1.0b
1,2,4-Trichlorobenzeneb	1.0b	Ub	1.0b
1,2,3-Trichlorobenzeneb	1.0b	Ub	1.0b
1,1,1-Trichloroethaneb	1.0b	Ub	1.0b
1,1,2-Trichloroethaneb	1.0b	Ub	1.0b
Trichloroetheneb	1.0b	Ub	1.0b
Trichlorofluoromethaneb	1.0b	Ub	1.0b
1,2,3-Trichloropropaneb	1.0b	Ub	1.0b
1,2,4-Trimethylbenzeneb	1.0b	Ub	1.0b
1,3,5-Trimethylbenzeneb	1.0b	Ub	1.0b
Vinyl acetateb	2.0b	Ub	2.0b
Vinyl chlorideb	1.0b	Ub	1.0b
Xylenes, Totalb	2.0b	Ub	2.0b

Surrogateb	%Recoveryb	Qualifierb	Acceptance Limitsb
4-Bromofluorobenzeneb	94c		75 - 120b
Dibromofluoromethaneb	88b		75 - 121b
Toluene-d8 (Surr)	96b		75 - 120b

ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

Client Sample ID:T MW-38T

Lab Sample ID:b 680-61853-4c  
Sample Matrix:b WaterbDate Sampled: 10/04/2010 1600b  
Date Received: 10/05/2010 0938b

## 8260B Volatile Organic Compounds (GC/MS)T

Method:b	8260Bb	Analysis Batch: 680-182404c	Instrument ID:b	M5Pb
Preparation:b	5030Bb		Lab File ID:b	p0809.d
Dilution:b	1.0b		Initial Weight/Volume:b	5 mL0
Date Analyzed:b	10/08/2010 1253b		Final Weight/Volume:b	5 mL0
Date Prepared:b	10/08/2010 1253b			

Analyteb	Result (ug/L)b	Qualifierb	RL0
Acetoneb	25b	Ub	25b
Benzeneb	1.0b	Ub	1.0b
Bromobenzeneb	1.0b	Ub	1.0b
Bromochloromethaneb	1.0b	Ub	1.0b
Bromoformb	1.0b	Ub	1.0b
Bromomethaneb	1.0b	Ub	1.0b
2-Butanone (MEK)b	10b	Ub	10b
Carbon disulfideb	2.0b	Ub	2.0b
Carbon tetrachlorideb	1.0b	Ub	1.0b
Chlorobenzeneb	1.5b		1.0b
Chlorodibromomethaneb	1.0b	Ub	1.0b
Chloroethaneb	1.0b	Ub	1.0b
Chloroformb	1.0b	Ub	1.0b
Chloromethaneb	1.0b	Ub	1.0b
2-Chlorotolueneb	1.0b	Ub	1.0b
4-Chlorotolueneb	1.0b	Ub	1.0b
cis-1,2-Dichloroetheneb	1.0b	Ub	1.0b
cis-1,3-Dichloropropeneb	1.0b	Ub	1.0b
1,2-Dibromo-3-Chloropropaneb	1.0b	Ub	1.0b
1,2-Dibromoethaneb	1.0b	Ub	1.0b
Dibromomethaneb	1.0b	Ub	1.0b
1,3-Dichlorobenzeneb	1.0b	Ub	1.0b
1,2-Dichlorobenzeneb	1.0b	Ub	1.0b
1,4-Dichlorobenzeneb	1.0b	Ub	1.0b
Dichlorobromomethaneb	1.0b	Ub	1.0b
Dichlorodifluoromethaneb	1.0b	Ub	1.0b
1,1-Dichloroethaneb	1.0b	Ub	1.0b
1,2-Dichloroethaneb	8.7b		1.0b
1,1-Dichloroetheneb	1.0b	Ub	1.0b
1,2-Dichloroethene, Totalb	2.0b	Ub	2.0b
1,2-Dichloropropaneb	1.0b	Ub	1.0b
2,2-Dichloropropaneb	1.0b	Ub	1.0b
1,3-Dichloropropaneb	1.0b	Ub	1.0b
1,1-Dichloropropeneb	1.0b	Ub	1.0b
Diethyl etherb	140b	E *b	10b
Ethylbenzeneb	1.0b	Ub	1.0b
Hexachlorobutadieneb	1.0b	Ub	1.0b
2-Hexanoneb	10b	Ub	10b
Isopropylbenzeneb	1.0b	Ub	1.0b
Methylene Chlorideb	5.0b	Ub	5.0b
4-Methyl-2-pentanone (MIBK)b	10b	Ub	10b
Methyl tert-butyl etherb	10b	Ub	10b
m-Xylene & p-Xyleneb	2.0b	Ub	2.0b
Naphthaleneb	5.0b	Ub	5.0b
n-Butylbenzeneb	1.0b	Ub	1.0b
N-Propylbenzeneb	1.0b	Ub	1.0b

ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

Client Sample ID:T MW-38T

Lab Sample ID:b 680-61853-4c  
 ent Matrix:b Waterb

Date Sampled: 10/04/2010 1600b  
 Date Received: 10/05/2010 0938b

8260B Volatile Organic Compounds (GC/MS)T

Method:b	8260Bb	Analysis Batch: 680-182404c	Instrument ID:b	M5Pb
Preparation:b	5030Bb		Lab File ID:b	p0809.d
Dilution:b	1.0b		Initial Weight/Volume:b	5 mL0
Date Analyzed:b	10/08/2010 1253b		Final Weight/Volume:b	5 mL0
Date Prepared:b	10/08/2010 1253b			

Analyteb	Result (ug/L)b	Qualifierb	RL0
o-Xyleneb	1.0b	Ub	1.0b
p-Isopropyltolueneb	1.0b	Ub	1.0b
sec-Butylbenzeneb	1.0b	Ub	1.0b
tyreneb	1.0b	Ub	1.0b
tert-Butylbenzeneb	1.0b	Ub	1.0b
1,1,2,2-Tetrach oroethaneb	1.0b	Ub	1.0b
1,1,1,2-Tetrach oroethaneb	1.0b	Ub	1.0b
Tetrach oroetheneb	1.0b	Ub	1.0b
Tolueneb	1.0b	Ub	1.0b
trans-1,2-Dich oroetheneb	1.0b	Ub	1.0b
trans-1,3-Dich oropropeneb	1.0b	Ub	1.0b
1,2,4-Trich orobenzeneb	1.0b	Ub	1.0b
1,2,3-Trich orobenzeneb	1.0b	Ub	1.0b
1,1,1-Trich oroethaneb	1.0b	Ub	1.0b
1,1,2-Trich oroethaneb	1.0b	Ub	1.0b
Trich oroetheneb	1.0b	Ub	1.0b
Trich orofluoromethaneb	1.0b	Ub	1.0b
1,2,3-Trich oropropaneb	1.0b	Ub	1.0b
1,2,4-Trimethylbenzeneb	1.0b	Ub	1.0b
1,3,5-Trimethylbenzeneb	1.0b	Ub	1.0b
Vinyl acetateb	2.0b	Ub	2.0b
Vinyl ch orideb	1.0b	Ub	1.0b
Xylenes, Totalb	2.0b	Ub	2.0b

urrogateb	%Recb	Qualifierb	Acceptance Limitsb
4-Bromofluorobenzeneb	90b		75 - 120b
Dibromofluoromethaneb	89.		75 - 121b
Toluene-d8 (Surr)	95b		75 - 120b

ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

Client Sample ID:T MW-39T

Lab Sample ID:b 680-61853-5b  
Sample Matrix:b WaterbDate Sampled: 10/04/2010 1200b  
Date Received: 10/05/2010 0938b

## 8260B Volatile Organic Compounds (GC/MS)T

Method:b	8260Bb	Analysis Batch: 680-182404c	Instrument ID:b	M5Pb
Preparation:b	5030Bb		Lab File ID:b	p0811.d
Dilution:b	1.0b		Initial Weight/Volume:b	5 mL0
Date Analyzed:b	10/08/2010 1323b		Final Weight/Volume:b	5 mL0
Date Prepared:b	10/08/2010 1323b			

Analyteb	Result (ug/L)b	Qualifierb	RL0
Acetoneb	25b	Ub	25b
Benzeneb	1.0b	Ub	1.0b
Bromobenzeneb	1.0b	Ub	1.0b
Bromo chloroethaneb	1.0b	Ub	1.0b
Bromoformb	1.0b	Ub	1.0b
Bromomethaneb	1.0b	Ub	1.0b
2-Butanone (MEK)b	10b	Ub	10b
Carbon disulfideb	2.0b	Ub	2.0b
Carbon tetrachlorideb	1.0b	Ub	1.0b
Chlorobenzeneb	1.0b	Ub	1.0b
Chlorodibromomethaneb	1.0b	Ub	1.0b
Chloroethaneb	1.0b	Ub	1.0b
Chloroformb	1.0b	Ub	1.0b
Chloromethaneb	1.0b	Ub	1.0b
2-Chlorotolueneb	1.0b	Ub	1.0b
4-Chlorotolueneb	1.0b	Ub	1.0b
cis-1,2-Dichloroetheneb	1.0b	Ub	1.0b
cis-1,3-Dichloropropeneb	1.0b	Ub	1.0b
1,2-Dibromo-3-Chloropropaneb	1.0b	Ub	1.0b
1,2-Dibromoethaneb	1.0b	Ub	1.0b
Dibromomethaneb	1.0b	Ub	1.0b
1,3-Dichlorobenzeneb	1.0b	Ub	1.0b
1,2-Dichlorobenzeneb	1.0b	Ub	1.0b
1,4-Dichlorobenzeneb	1.0b	Ub	1.0b
Dichlorobromomethaneb	1.0b	Ub	1.0b
Dichlorodifluoromethaneb	1.0b	Ub	1.0b
1,1-Dichloroethaneb	1.0b	Ub	1.0b
1,2-Dichloroethaneb	1.0b	Ub	1.0b
1,1-Dichloroetheneb	1.0b	Ub	1.0b
1,2-Dichloroethene, Totalb	2.0b	Ub	2.0b
1,2-Dichloropropaneb	1.0b	Ub	1.0b
2,2-Dichloropropaneb	1.0b	Ub	1.0b
1,3-Dichloropropaneb	1.0b	Ub	1.0b
1,1-Dichloropropeneb	1.0b	Ub	1.0b
Diethyl etherb	10b	U *b	10b
Ethylbenzeneb	1.0b	Ub	1.0b
Hexachlorobutadieneb	1.0b	Ub	1.0b
2-Hexanoneb	10b	Ub	10b
Isopropylbenzeneb	1.0b	Ub	1.0b
Methylene Chlorideb	5.0b	Ub	5.0b
4-Methyl-2-pentanone (MIBK)b	10b	Ub	10b
Methyl tert-butyl etherb	10b	Ub	10b
m-Xylene & p-Xyleneb	2.0b	Ub	2.0b
Naphthaleneb	5.0b	Ub	5.0b
n-Butylbenzeneb	1.0b	Ub	1.0b
N-Propylbenzeneb	1.0b	Ub	1.0b



ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

Client Sample ID:T MW-39T

Lab Sample ID:b 680-61853-5b  
 ent Matrix:b Waterb

Date Sampled: 10/04/2010 1200b  
 Date Received: 10/05/2010 0938b

8260B Volatile Organic Compounds (GC/MS)T

Method:b 8260Bb Analysis Batch: 680-182404c Instrument ID:b MS**P**b  
 Preparation:b 5030Bb Lab File ID:b p0811.d  
 Dilution:b 1.0b Initial Weight/Volume:b 5 mL0  
 Date Analyzed:b 10/08/2010 1323b Final Weight/Volume:b 5 mL0  
 Date Prepared:b 10/08/2010 1323b

Analyteb	Result (ug/L)b	Qualifierb	RL0
o-Xyleneb	1.0b	Ub	1.0b
p-Isopropyltolueneb	1.0b	Ub	1.0b
sec-Butylbenzeneb	1.0b	Ub	1.0b
tyreneb	1.0b	Ub	1.0b
tert-Butylbenzeneb	1.0b	Ub	1.0b
1,1,2,2-Tetrach oroethaneb	1.0b	Ub	1.0b
1,1,1,2-Tetrach oroethaneb	1.0b	Ub	1.0b
Tetrach oroetheneb	1.0b	Ub	1.0b
Tolueneb	1.0b	Ub	1.0b
trans-1,2-Dich oroetheneb	1.0b	Ub	1.0b
trans-1,3-Dich oropropeneb	1.0b	Ub	1.0b
1,2,4-Trich orobenzeneb	1.0b	Ub	1.0b
1,2,3-Trich orobenzeneb	1.0b	Ub	1.0b
1,1,1-Trich oroethaneb	1.0b	Ub	1.0b
1,1,2-Trich oroethaneb	1.0b	Ub	1.0b
Trich oroetheneb	1.0b	Ub	1.0b
Trich orofluoromethaneb	1.0b	Ub	1.0b
1,2,3-Trich oropropaneb	1.0b	Ub	1.0b
1,2,4-Trimethylbenzeneb	1.0b	Ub	1.0b
1,3,5-Trimethylbenzeneb	1.0b	Ub	1.0b
Vinyl acetateb	2.0b	Ub	2.0b
Vinyl ch orideb	1.0b	Ub	1.0b
Xylenes, Totalb	2.0b	Ub	2.0b

urrogateb	%Recb	Qualifierb	Acceptance Limitsb
4-Bromofluorobenzeneb	89.		75 - 120b
Dibromofluoromethaneb	89.		75 - 121b
Toluene-d8 (Surr)	96b		75 - 120b

ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

Client Sample ID:T MW-14

Lab Sample ID:b 680-61853-6b  
Sample Matrix:b WaterbDate Sampled: 10/04/2010 1500b  
Date Received: 10/05/2010 0938b

## 8260B Volatile Organic Compounds (GC/MS)T

Method:b	8260Bb	Analysis Batch: 680-182404c	Instrument ID:b	M5Pb
Preparation:b	5030Bb		Lab File ID:b	p0813.d
Dilution:b	1.0b		Initial Weight/Volume:b	5 mL0
Date Analyzed:b	10/08/2010 1352b		Final Weight/Volume:b	5 mL0
Date Prepared:b	10/08/2010 1352b			

Analyteb	Result (ug/L)b	Qualifierb	RL0
Acetoneb	25b	Ub	25b
Benzeneb	34c		1.0b
Bromobenzeneb	1.0b	Ub	1.0b
Bromochloromethaneb	1.0b	Ub	1.0b
Bromoformb	1.0b	Ub	1.0b
Bromomethaneb	1.0b	Ub	1.0b
2-Butanone (MEK)b	10b	Ub	10b
Carbon disulfideb	2.0b	Ub	2.0b
Carbon tetrachlorideb	1.0b	Ub	1.0b
Chlorobenzeneb	1.0b	Ub	1.0b
Chlorodibromomethaneb	1.0b	Ub	1.0b
Chloroethaneb	1.0b	Ub	1.0b
Chloroformb	1.0b	Ub	1.0b
Chloromethaneb	1.0b	Ub	1.0b
2-Chlorotolueneb	1.0b	Ub	1.0b
4-Chlorotolueneb	1.0b	Ub	1.0b
cis-1,2-Dichloroetheneb	1.0b	Ub	1.0b
cis-1,3-Dichloropropeneb	1.0b	Ub	1.0b
1,2-Dibromo-3-Chloropropaneb	1.0b	Ub	1.0b
1,2-Dibromoethaneb	1.0b	Ub	1.0b
Dibromomethaneb	1.0b	Ub	1.0b
1,3-Dichlorobenzeneb	1.0b	Ub	1.0b
1,2-Dichlorobenzeneb	1.0b	Ub	1.0b
1,4-Dichlorobenzeneb	1.0b	Ub	1.0b
Dichlorobromomethaneb	1.0b	Ub	1.0b
Dichlorodifluoromethaneb	1.0b	Ub	1.0b
1,1-Dichloroethaneb	1.0b	Ub	1.0b
1,2-Dichloroethaneb	12b		1.0b
1,1-Dichloroetheneb	1.0b	Ub	1.0b
1,2-Dichloroethene, Totalb	2.0b	Ub	2.0b
1,2-Dichloropropaneb	1.0b	Ub	1.0b
2,2-Dichloropropaneb	1.0b	Ub	1.0b
1,3-Dichloropropaneb	1.0b	Ub	1.0b
1,1-Dichloropropeneb	1.0b	Ub	1.0b
Diethyl etherb	570b	E *b	10b
Ethylbenzeneb	1.0b	Ub	1.0b
Hexachlorobutadieneb	1.0b	Ub	1.0b
2-Hexanoneb	10b	Ub	10b
Isopropylbenzeneb	1.0b	Ub	1.0b
Methylene Chlorideb	5.0b	Ub	5.0b
4-Methyl-2-pentanone (MIBK)b	10b	Ub	10b
Methyl tert-butyl etherb	10b	Ub	10b
m-Xylene & p-Xyleneb	2.0b	Ub	2.0b
Naphthaleneb	5.0b	Ub	5.0b
n-Butylbenzeneb	1.0b	Ub	1.0b
N-Propylbenzeneb	1.0b	Ub	1.0b

ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

Client Sample ID:T MW-14

Lab Sample ID:b 680-61853-6b  
 ent Matrix:b Waterb

Date Sampled: 10/04/2010 1500b  
 Date Received: 10/05/2010 0938b

8260B Volatile Organic Compounds (GC/MS)T

Method:b	8260Bb	Analysis Batch: 680-182404c	Instrument ID:b	M5Pb
Preparation:b	5030Bb		Lab File ID:b	p0813.d
Dilution:b	1.0b		Initial Weight/Volume:b	5 mL0
Date Analyzed:b	10/08/2010 1352b		Final Weight/Volume:b	5 mL0
Date Prepared:b	10/08/2010 1352b			

Analyteb	Result (ug/L)b	Qualifierb	RL0
o-Xyleneb	1.0b	Ub	1.0b
p-Isopropyltolueneb	1.0b	Ub	1.0b
sec-Butylbenzeneb	1.0b	Ub	1.0b
tyreneb	1.0b	Ub	1.0b
tert-Butylbenzeneb	1.0b	Ub	1.0b
1,1,2,2-Tetrach oroethaneb	1.0b	Ub	1.0b
1,1,1,2-Tetrach oroethaneb	1.0b	Ub	1.0b
Tetrach oroetheneb	1.0b	Ub	1.0b
Tolueneb	1.0b	Ub	1.0b
trans-1,2-Dich oroetheneb	1.0b	Ub	1.0b
trans-1,3-Dich oropropeneb	1.0b	Ub	1.0b
1,2,4-Trich orobenzeneb	1.0b	Ub	1.0b
1,2,3-Trich orobenzeneb	1.0b	Ub	1.0b
1,1,1-Trich oroethaneb	1.0b	Ub	1.0b
1,1,2-Trich oroethaneb	1.0b	Ub	1.0b
Trich oroetheneb	2.9.		1.0b
Trich orofluoromethaneb	1.0b	Ub	1.0b
1,2,3-Trich oropropaneb	1.0b	Ub	1.0b
1,2,4-Trimethylbenzeneb	1.0b	Ub	1.0b
1,3,5-Trimethylbenzeneb	1.0b	Ub	1.0b
Vinyl acetateb	2.0b	Ub	2.0b
Vinyl ch orideb	1.0b	Ub	1.0b
Xylenes, Totalb	2.0b	Ub	2.0b

urrogateb	%Recb	Qualifierb	Acceptance Limitsb
4-Bromofluorobenzeneb	91b		75 - 120b
Dibromofluoromethaneb	92b		75 - 121b
Toluene-d8 (Surr)	97b		75 - 120b

ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

Client Sample ID: Trip BlankT

Lab Sample ID:b 680-61853-7b  
Sample Matrix:b WaterbDate Sampled: 10/04/2010 0000b  
Date Received: 10/05/2010 0938b

## 8260B Volatile Organic Compounds (GC/MS)T

Method:b	8260Bb	Analysis Batch: 680-182239.	Instrument ID:b	M5Pb
Preparation:b	5030Bb		Lab File ID:b	p0791.d
Dilution:b	1.0b		Initial Weight/Volume:b	5 mL0
Date Analyzed:b	10/07/2010 1647b		Final Weight/Volume:b	5 mL0
Date Prepared:b	10/07/2010 1647b			

Analyteb	Result (ug/L)b	Qualifierb	RL0
Acetoneb	25b	Ub	25b
Benzeneb	1.0b	Ub	1.0b
Bromobenzeneb	1.0b	Ub	1.0b
Bromochloromethaneb	1.0b	Ub	1.0b
Bromoformb	1.0b	Ub	1.0b
Bromomethaneb	1.0b	Ub	1.0b
2-Butanone (MEK)b	10b	Ub	10b
Carbon disulfideb	2.0b	Ub	2.0b
Carbon tetrachlorideb	1.0b	Ub	1.0b
Chlorobenzeneb	1.0b	Ub	1.0b
Chlorodibromomethaneb	1.0b	Ub	1.0b
Chloroethaneb	1.0b	Ub	1.0b
Chloroformb	1.0b	Ub	1.0b
Chloromethaneb	1.0b	Ub	1.0b
2-Chlorotolueneb	1.0b	Ub	1.0b
4-Chlorotolueneb	1.0b	Ub	1.0b
cis-1,2-Dichloroetheneb	1.0b	Ub	1.0b
cis-1,3-Dichloropropeneb	1.0b	Ub	1.0b
1,2-Dibromo-3-Chloropropaneb	1.0b	Ub	1.0b
1,2-Dibromoethaneb	1.0b	Ub	1.0b
Dibromomethaneb	1.0b	Ub	1.0b
1,3-Dichlorobenzeneb	1.0b	Ub	1.0b
1,2-Dichlorobenzeneb	1.0b	Ub	1.0b
1,4-Dichlorobenzeneb	1.0b	Ub	1.0b
Dichlorobromomethaneb	1.0b	Ub	1.0b
Dichlorodifluoromethaneb	1.0b	Ub	1.0b
1,1-Dichloroethaneb	1.0b	Ub	1.0b
1,2-Dichloroethaneb	1.0b	Ub	1.0b
1,1-Dichloroetheneb	1.0b	Ub	1.0b
1,2-Dichloroethene, Totalb	2.0b	Ub	2.0b
1,2-Dichloropropaneb	1.0b	Ub	1.0b
2,2-Dichloropropaneb	1.0b	Ub	1.0b
1,3-Dichloropropaneb	1.0b	Ub	1.0b
1,1-Dichloropropeneb	1.0b	Ub	1.0b
Diethyl etherb	10b	Ub	10b
Ethylbenzeneb	1.0b	Ub	1.0b
Hexachlorobutadieneb	1.0b	Ub	1.0b
2-Hexanoneb	10b	Ub	10b
Isopropylbenzeneb	1.0b	Ub	1.0b
Methylene Chlorideb	5.0b	Ub	5.0b
4-Methyl-2-pentanone (MIBK)b	10b	Ub	10b
Methyl tert-butyl etherb	10b	Ub	10b
m-Xylene & p-Xyleneb	2.0b	Ub	2.0b
Naphthaleneb	5.0b	Ub	5.0b
n-Butylbenzeneb	1.0b	Ub	1.0b
N-Propylbenzeneb	1.0b	Ub	1.0b

ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

Client Sample ID: Trip BlankT

Lab Sample ID:b 680-61853-7b  
 ent Matrix:b Waterb

Date Sampled: 10/04/2010 0000b  
 Date Received: 10/05/2010 0938b

8260B Volatile Organic Compounds (GC/MS)T

Method:b	8260Bb	Analysis Batch: 680-182239.	Instrument ID:b	M5Pb
Preparation:b	5030Bb		Lab File ID:b	p0791.d
Dilution:b	1.0b		Initial Weight/Volume:b	5 mL0
Date Analyzed:b	10/07/2010 1647b		Final Weight/Volume:b	5 mL0
Date Prepared:b	10/07/2010 1647b			

Analyteb	Result (ug/L)b	Qualifierb	RL0
o-Xyleneb	1.0b	Ub	1.0b
p-Isopropyltolueneb	1.0b	Ub	1.0b
sec-Butylbenzeneb	1.0b	Ub	1.0b
tyreneb	1.0b	Ub	1.0b
tert-Butylbenzeneb	1.0b	Ub	1.0b
1,1,2,2-Tetrach oroethaneb	1.0b	Ub	1.0b
1,1,1,2-Tetrach oroethaneb	1.0b	Ub	1.0b
Tetrach oroetheneb	1.0b	Ub	1.0b
Tolueneb	1.0b	Ub	1.0b
trans-1,2-Dich oroetheneb	1.0b	Ub	1.0b
trans-1,3-Dich oropropeneb	1.0b	Ub	1.0b
1,2,4-Trich orobenzeneb	1.0b	Ub	1.0b
1,2,3-Trich orobenzeneb	1.0b	Ub	1.0b
1,1,1-Trich oroethaneb	1.0b	Ub	1.0b
1,1,2-Trich oroethaneb	1.0b	Ub	1.0b
Trich oroetheneb	1.0b	Ub	1.0b
Trich orofluoromethaneb	1.0b	Ub	1.0b
1,2,3-Trich oropropaneb	1.0b	Ub	1.0b
1,2,4-Trimethylbenzeneb	1.0b	Ub	1.0b
1,3,5-Trimethylbenzeneb	1.0b	Ub	1.0b
Vinyl acetateb	2.0b	Ub	2.0b
Vinyl ch orideb	1.0b	Ub	1.0b
Xylenes, Totalb	2.0b	Ub	2.0b

urrogateb	%Recb	Qualifierb	Acceptance Limitsb
4-Bromofluorobenzeneb	93b		75 - 120b
Dibromofluoromethaneb	91b		75 - 121b
Toluene-d8 (Surr)	96b		75 - 120b

ent: ARCADIS U.S., Inc.

Job Number: 680-61853-1b

Client Sample ID: MW-1T

Lab Sample ID: 680-61853-1b  
 Matrix: Water

Date Sampled: 10/04/2010 1338  
 Date Received: 10/05/2010 0938

6010C Metals (ICP)-Total Recoverable

Method: 6010Cb      Analysis Batch: 680-183127b      Instrument ID: ICPDb  
 Preparation: 3005Ab      Prep Batch: 680-182769      Lab File ID: 1015101039.chrb  
 Dilution: 1.0b      Initial Weight/Volume: 50 mL0  
 Date Analyzed: 10/15/2010 2250b      Final Weight/Volume: 50 mL0  
 Date Prepared: 10/13/2010 0953b

Analyte	Result (ug/L)	Qualifier	RL0
Arsenic	20b	Ub	20b
Barium	33b		10b
cadmium	5.0b	Ub	5.0b
chromium	10b	Ub	10b
Iron	8200b		50b
Lead	10b	Ub	10b
mercury	20b	Ub	20b
vanadium	10b	Ub	10b

Method: 6010Cb      Analysis Batch: 680-183394c      Instrument ID: ICPDb  
 Preparation: 3005Ab      Prep Batch: 680-182769      Lab File ID: 18276961778.chrb  
 Dilution: 10b      Initial Weight/Volume: 50 mL0  
 Date Analyzed: 10/18/2010 2030b      Final Weight/Volume: 50 mL0  
 Date Prepared: 10/13/2010 0953b

Analyte	Result (ug/L)	Qualifier	RL0
mercury	270000b		10000b

7470A Mercury (CVAA)T

Method: 7470Ab      Analysis Batch: 680-182841b      Instrument ID: LEEMAN1b  
 Preparation: 7470Ab      Prep Batch: 680-182342b      Lab File ID: 101 210.chrb  
 Dilution: 1.0b      Initial Weight/Volume: 50 mL0  
 Date Analyzed: 10/13/2010 1248b      Final Weight/Volume: 50 mL0  
 Date Prepared: 10/08/2010 1022b

Analyte	Result (ug/L)	Qualifier	RL0
Mercury	0.20b	Ub	0.20b

ent: ARCADIS U.S., Inc.

Job Number: 680-61853-1b

Client Sample ID: MW-2T

Lab Sample ID: 680-61853-2b  
 Matrix: Water

Date Sampled: 10/04/2010 1415b  
 Date Received: 10/05/2010 0938b

6010C Metals (ICP)-Total Recoverable

Method:	6010Cb	Analysis Batch: 680-183127b	Instrument ID:	ICPD
Preparation:	3005Ab	Prep Batch: 680-182769.	Lab File ID:	1015101039.chr
Dilution:	1.0b		Initial Weight/Volume:	50 mL
Date Analyzed:	10/15/2010 2256b		Final Weight/Volume:	50 mL
Date Prepared:	10/13/2010 0953b			

Analyte	Result (ug/L)	Qualifier	RL
Arsenic	20b	Ub	20b
Barium	21		10
cadmium	5.0b	Ub	5.0b
chromium	10b	Ub	10b
Iron	6000b		50b
Lead	10	Ub	10b
mercury	20b	Ub	20b
vanadium	10	Ub	10b
zinc	67000b		1000b

7470A Mercury (CVAA)T

Method:	7470Ab	Analysis Batch: 680-182841b	Instrument ID:	LEEMAN1b
Preparation:	7470Ab	Prep Batch: 680-182342b	Lab File ID:	101 210.chr
Dilution:	1.0b		Initial Weight/Volume:	50 mL
Date Analyzed:	10/13/2010 1251b		Final Weight/Volume:	50 mL
Date Prepared:	10/08/2010 1022b			

Analyte	Result (ug/L)	Qualifier	RL
Mercury	0.20b	Ub	0.20b

ent: ARCADIS U.S., Inc.

Job Number: 680-61853-1b

Client Sample ID: MW-3T

Lab Sample ID: 680-61853-3b  
 Matrix: Water

Date Sampled: 10/04/2010 1300  
 Date Received: 10/05/2010 0938

6010C Metals (ICP)-Total Recoverable

Method: 6010Cb      Analysis Batch: 680-183127b      Instrument ID: ICPDb  
 Preparation: 3005Ab      Prep Batch: 680-182769      Lab File ID: 1015101039.chrb  
 Dilution: 1.0b      Initial Weight/Volume: 50 mL0  
 Date Analyzed: 10/15/2010 2301b      Final Weight/Volume: 50 mL0  
 Date Prepared: 10/13/2010 0953b

Analyte	Result (ug/L)	Qualifier	RL0
Arsenic	20	Ub	20
Barium	240		10
cadmium	5.0	Ub	5.0
chromium	170		10
Iron	1000		50
Lead	10	Ub	10
mercury	20	Ub	20
vanadium	10	Ub	10

Method: 6010Cb      Analysis Batch: 680-183394c      Instrument ID: ICPDb  
 Preparation: 3005Ab      Prep Batch: 680-182769      Lab File ID: 18276961778.chrb  
 Dilution: 10b      Initial Weight/Volume: 50 mL0  
 Date Analyzed: 10/18/2010 2035b      Final Weight/Volume: 50 mL0  
 Date Prepared: 10/13/2010 0953b

Analyte	Result (ug/L)	Qualifier	RL0
vanadium	76000		10000

7470A Mercury (CVAA)T

Method: 7470Ab      Analysis Batch: 680-182841b      Instrument ID: LEEMAN1b  
 Preparation: 7470Ab      Prep Batch: 680-182342b      Lab File ID: 101 210.chrb  
 Dilution: 1.0b      Initial Weight/Volume: 50 mL0  
 Date Analyzed: 10/13/2010 1254c      Final Weight/Volume: 50 mL0  
 Date Prepared: 10/08/2010 1022b

Analyte	Result (ug/L)	Qualifier	RL0
Mercury	0.20	Ub	0.20



ent: ARCADIS U.S., Inc.

Job Number: 680-61853-1b

Client Sample ID: MW-38T

Lab Sample ID: 680-61853-4c  
 Matrix: Water

Date Sampled: 10/04/2010 1600  
 Date Received: 10/05/2010 0938

6010C Metals (ICP)-Total Recoverable

Method:	6010Cb	Analysis Batch: 680-183127	Instrument ID:	ICPD
Preparation:	3005Ab	Prep Batch: 680-182769.	Lab File ID:	1015101039.chr
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	10/15/2010 2306		Final Weight/Volume:	50 mL
Date Prepared:	10/13/2010 0953			

Analyte	Result (ug/L)	Qualifier	RL
Arsenic	20	Ub	20
Barium	59		10
cadmium	5.0	Ub	5.0
chromium	18		10
Iron	16000		50
Lead	10	Ub	10
mercury	20	Ub	20
vanadium	10	Ub	10
zinc	41000		1000

7470A Mercury (CVAA)

Method:	7470Ab	Analysis Batch: 680-182841	Instrument ID:	LEEMAN1
Preparation:	7470Ab	Prep Batch: 680-182342	Lab File ID:	101 210.chr
Dilution:	1.0		Initial Weight/Volume:	50 mL
Date Analyzed:	10/13/2010 1257		Final Weight/Volume:	50 mL
Date Prepared:	10/08/2010 1022			

Analyte	Result (ug/L)	Qualifier	RL
Mercury	0.20	Ub	0.20

ent: ARCADIS U.S., Inc.

Job Number: 680-61853-1b

Client Sample ID: MW-39T

Lab Sample ID: 680-61853-5b  
 Matrix: Water

Date Sampled: 10/04/2010 1200b  
 Date Received: 10/05/2010 0938b

6010C Metals (ICP)-Total Recoverable

Method:	6010Cb	Analysis Batch: 680-183127b	Instrument ID:	ICPD
Preparation:	3005Ab	Prep Batch: 680-182769.	Lab File ID:	1015101039.chrb
Dilution:	1.0b		Initial Weight/Volume:	50 mL0
Date Analyzed:	10/15/2010 2312b		Final Weight/Volume:	50 mL0
Date Prepared:	10/13/2010 0953b			

Analyte	Result (ug/L)	Qualifier	RL0
Arsenic	20b	Ub	20b
Barium	69.		10b
cadmium	5.0b	Ub	5.0b
chromium	10b	Ub	10b
Iron	71b		50b
Lead	10	Ub	10b
mercury	20b	Ub	20b
nickel	10	Ub	10b
vanadium	23000b		1000b

7470A Mercury (CVAA)T

Method:	7470Ab	Analysis Batch: 680-182841b	Instrument ID:	LEEMAN1b
Preparation:	7470Ab	Prep Batch: 680-182342b	Lab File ID:	101 210.chrb
Dilution:	1.0b		Initial Weight/Volume:	50 mL0
Date Analyzed:	10/13/2010 1307b		Final Weight/Volume:	50 mL0
Date Prepared:	10/08/2010 1022b			

Analyte	Result (ug/L)	Qualifier	RL0
Mercury	0.20b	Ub	0.20b

ent: ARCADIS U.S., Inc.

Job Number: 680-61853-1b

Client Sample ID: MW-14

Lab Sample ID: 680-61853-6  
 Matrix: Water

Date Sampled: 10/04/2010 1500  
 Date Received: 10/05/2010 0938

6010C Metals (ICP)-Total Recoverable

Method:	6010Cb	Analysis Batch: 680-183127	Instrument ID:	ICPD
Preparation:	3005Ab	Prep Batch: 680-182769	Lab File ID:	1015101039.chr
Dilution:	1.0b		Initial Weight/Volume:	50 mL
Date Analyzed:	10/15/2010 2317		Final Weight/Volume:	50 mL
Date Prepared:	10/13/2010 0953			

Analyte	Result (ug/L)	Qualifier	RL
Arsenic	20	Ub	20
Barium	31		10
cadmium	5.0	Ub	5.0
chromium	10	Ub	10
Iron	140		50
Lead	10	Ub	10
mercury	20	Ub	20
nickel	10	Ub	10
vanadium	19000		1000

7470A Mercury (CVAA)

Method:	7470Ab	Analysis Batch: 680-182841	Instrument ID:	LEEMAN1
Preparation:	7470Ab	Prep Batch: 680-182342	Lab File ID:	101 210.chr
Dilution:	1.0b		Initial Weight/Volume:	50 mL
Date Analyzed:	10/13/2010 1310		Final Weight/Volume:	50 mL
Date Prepared:	10/08/2010 1022			

Analyte	Result (ug/L)	Qualifier	RL
Mercury	0.20	Ub	0.20

Client: ARCADIS U.S., Inc.

Job Number: 680-61853-1b

---

General Chemistry

Client Sample ID: MW-1T

Lab Sample ID: 680-61853-1b  
Sample Matrix: Water

Date Sampled: 10/04/2010 1338  
Date Received: 10/05/2010 0938

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	260		mg/L	50	10	9038
Analysis Batch: 680-183035		Date Analyzed: 10/14/2010 1737				

Client: ARCADIS U.S., Inc.

Job Number: 680-61853-1b

---

General Chemistry

Client Sample ID: MW-2T

Lab Sample ID: 680-61853-2b  
Sample Matrix: Water

Date Sampled: 10/04/2010 14:15  
Date Received: 10/05/2010 09:38

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	280		mg/L	50	10	9038
Analysis Batch: 680-183035		Date Analyzed: 10/14/2010 17:35				

Client: ARCADIS U.S., Inc.

Job Number: 680-61853-1b

---

General Chemistry

Client Sample ID: MW-3T

Lab Sample ID: 680-61853-3b  
Sample Matrix: Water

Date Sampled: 10/04/2010 13:00  
Date Received: 10/05/2010 09:38

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	57		mg/L	10	2.0	9038
Analysis Batch: 680-183035		Date Analyzed: 10/14/2010 17:16				

Client: ARCADIS U.S., Inc.

Job Number: 680-61853-1b

---

General Chemistry

Client Sample ID: MW-38T

Lab Sample ID: 680-61853-4c  
Sample Matrix: Water

Date Sampled: 10/04/2010 1600  
Date Received: 10/05/2010 0938

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	27		mg/L	5.0	1.0	9038
Analysis Batch: 680-183035		Date Analyzed: 10/14/2010 1708				

Client: ARCADIS U.S., Inc.

Job Number: 680-61853-1b

---

General Chemistry

Client Sample ID: MW-39T

Lab Sample ID: 680-61853-5b  
Sample Matrix: Water

Date Sampled: 10/04/2010 12:00  
Date Received: 10/05/2010 09:38

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	12		mg/L	5.0	1.0	9038
Analysis Batch: 680-183035		Date Analyzed: 10/14/2010 17:08				



Client: ARCADIS U.S., Inc.

Job Number: 680-61853-1b

---

General Chemistry

Client Sample ID: MW-14

Lab Sample ID: 680-61853-6  
Sample Matrix: Water

Date Sampled: 10/04/2010 15:00  
Date Received: 10/05/2010 09:38

Analyte	Result	Qual	Units	RL	Dil	Method
Chloride	21		mg/L	5.0	1.0	9038
Analysis Batch: 680-183035		Date Analyzed: 10/14/2010 17:08				

D T R P O R T N U L I F a R S h

ent: ARCADIS U.S., Inc.b

Job Number: 680-61853-1b

Lab Sectionp	u alifierM	Descriptionp
G /MN VOAb		
	Ub	IndFateb the ana.yte wa. ana.yzed for but not detected.b L* or L* D e xceedF the control limitb
	E4	Rebult exceeded ca. ration range.b RPD of the L* and L* D e xceedF the control limitb
Meta.		
	Ub	IndFateb the ana.yte wa. ana.yzed for but not detected.b
Genera. Cbemibtryl		
	Ub	IndFateb the ana.yte wa. ana.yzed for but not detected.b

Client: CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

Method Book - Batch: 680-1822u91

Method: 8260Bv  
Preparation: 6060Bv

Lab Sample ID) MB 680-1) 2239/F  
Client) MabixJ Wab  
Initial Volume: 1.0.  
Sample Date: 10/07/2010 1153T  
Preparation Date: 10/07/2010 1153T

Analysis Batch: 680-1) 2239c  
Preparation Batch: N/F  
Units: ug/LR

Instrument ID) MSP  
Lab File ID) pq395.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Sample	Result	Quality	LR
Acetone	25	U	25M
Benzene	1.0	U	1.0
Bromobenzene	1.0	U	1.0
Bromochlorobenzene	1.0	U	1.0
Bromoform	1.0	U	1.0
Bromobenzene	1.0	U	1.0
2-Bu.abo. (MEK)N	10.	U	10.
Carbon disulfide	2.0	U	2.0
Carbon tetrachloride	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
Chlorodibromobenzene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
Chloroform	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
2-Chloroethanol	1.0	U	1.0
4-Chloroethanol	1.0	U	1.0
cis-1,2-dichlorobenzene	1.0	U	1.0
cis-1,3-dichlorobenzene	1.0	U	1.0
1,2-dibromo-3-Chlorobenzene	1.0	U	1.0
1,2-dibromobenzene	1.0	U	1.0
1,3-dichlorobenzene	1.0	U	1.0
1,2-dichlorobenzene	1.0	U	1.0
1,4-dichlorobenzene	1.0	U	1.0
1,2-dichlorobromobenzene	1.0	U	1.0
1,2-dichlorodifluorobenzene	1.0	U	1.0
1,1-dichlorobenzene	1.0	U	1.0
1,2-dichlorobenzene	1.0	U	1.0
1,1-dichlorobenzene	1.0	U	1.0
1,2-dichlorobenzene (Total)	2.0	U	2.0
1,2-dichlorobenzene	1.0	U	1.0
2,2-dichlorobenzene	1.0	U	1.0
1,3-dichlorobenzene	1.0	U	1.0
1,1-dichlorobenzene	1.0	U	1.0
Dichloroethane	10.	U	10.
Difluorobenzene	1.0	U	1.0
Dibromochlorobenzene	1.0	U	1.0
2-Hexanol	10.	U	10.
Isopropylbenzene	1.0	U	1.0
Methyl Chloride	5.0	U	5.0
4-Methyl-2-pentanol (MIBK)N	10.	U	10.
Methyl tert-butyl ether	10.	U	10.
m-Xylene & p-Xylene	2.0	U	2.0

Client: CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

Method Book - Batch: 680-1822u91

Method: 8260Bv  
Preparation: 6060Bv

Lab Sample ID) MB 680-1) 2239/F  
Client) MabixJ Wab  
Injection Volume) 1.0.  
Sample Date) 10/07/2010 1153T  
Preparation Date) 10/07/2010 1153T

Analysis Batch) 680-1) 2239c  
Preparation Batch) N/F  
Injection Volume) 1.0 µg/LR

Injection Volume) MSP  
Lab File ID) pq395.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Sample	Result	Quality	LR
Naphthalene	5.0	U	5.0
n-Butylbenzene	1.0	U	1.0
N-Propylbenzene	1.0	U	1.0
o-Xylene	1.0	U	1.0
p-Isopropyltoluene	1.0	U	1.0
sec-Butylbenzene	1.0	U	1.0
Styrene	1.0	U	1.0
n-Butylbenzene	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
1,1,1,2-Tetrachloroethane	1.0	U	1.0
Tetrachloroethane	1.0	U	1.0
Toluene	1.0	U	1.0
abs-1,2-Dichloroethane	1.0	U	1.0
abs-1,3-Dichloroethane	1.0	U	1.0
1,2,4-Trichlorobenzene	1.0	U	1.0
1,2,3-Trichlorobenzene	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
1,1,2-Trichloroethane	1.0	U	1.0
Trichloroethane	1.0	U	1.0
Trichlorofluoromethane	1.0	U	1.0
1,2,3-Trichloropropane	1.0	U	1.0
1,2,4-Trimehylbenzene	1.0	U	1.0
1,3,5-Trimehylbenzene	1.0	U	1.0
Vinyl acetate	2.0	U	2.0
Vinyl chloride	1.0	U	1.0
Xylenes, Total	2.0	U	2.0

Surrogate	% Recovery	Acceptance Limits
4-Bromofluorobenzene	92	75 - 120
1-bromofluorobenzene	90	75 - 121
Toluene - d (Surrogate)	90	75 - 120

Client: CADIS U.S., Inc.)

Job Number: 680-61)53-1)

TCLP/SLP/LeVchc eVnk - Batch: 680-1822u9I

Method: 8260Bv  
Preparation: 6060Bv

Lab Sample ID) LB 680-1)2145/7-  
Client) MabixJ Wab  
Initial Volume: 20.  
Analysis Date 10/07/2010 1223T  
Preparation Date 10/07/2010 1223T  
Analysis Date 10/06/2010 1)07b

Analysis Batch: 680-1)2239c  
Preparation Batch: N/F  
Initial Volume: ug/LR  
Reference Batch: 680-1)2145M

Sample ID) MSP  
Lab File ID) p0773.d  
Initial Volume: 5 mL  
Final Volume: 5 mL

Sample	Result	Quality	Limit
Benzene	20.	U)	20.
2-Bu. (MEK)	200.	U)	200.
Chloro. (achlorid)	20.	U)	20.
Chloro. (zU)	20.	U)	20.
Chloroform.	20.	U)	20.
1,2-dichloroethane	20.	U)	20.
1,1-dichloroethane	20.	U)	20.
Toluene (achloroethane)	20.	U)	20.
Toluene (dichloroethane)	20.	U)	20.
Vinyl chloride	20.	U)	20.
Surrogate	% Recovery		Acceptable Limit
4-Bromofluorobenzene	93T		75 - 120.
1-bromofluorobenzene			75 - 121)
Toluene-d (Surrogate)	9c		75 - 120.

Clients: CADIS U.S., Inc.)

Job Number: 680-61)53-1)

Lab Sample ID: 680-1)2239/5M  
 Method: 8260Bv  
 Recovery Report - Batch: 680-1822u9I  
 Preparation: 6060Bv

LCS Lab Sample ID) LCS 680-1) 2239/5M      Analysis Batch. 680-1) 2239c      In-house ID) MSP  
 Client) MabixJ      Wab      Prep Batch. N/F      Lab File ID) pq3T7.d  
 Dilution) 1.0.      Unit) µg/LR      Initial Weight/Volume: 5 mL  
 Sample) alyzUd      10/07/2010 095M      Final Weight/Volume: 5 mL  
 Sample) P pab d      10/07/2010 095M

LCSD Lab Sample ID) LCSD)680-1) 2239/F      Analysis Batch. 680-1) 2239c      In-house ID) MSP  
 Client) MabixJ      Wab      Prep Batch. N/F      Lab File ID) pq3T9.d  
 Dilution) 1.0.      Unit) µg/LR      Initial Weight/Volume: 5 mL  
 Sample) alyzUd      10/07/2010 1025M      Final Weight/Volume: 5 mL  
 Sample) P pab d      10/07/2010 1025M

alyS	% . c.)		Limit)	P	P Limit)	LCS Qual)	LCSD)Qual)
	LCS)	LCSD)					
c) o.		7b	17 - 175M	1)	50.		
B. zU	9c	99c	77 - 119c	1)	30.		
B. omobe. zU	94c	93T	0 - 124c	1)	30.		
B. omochlorome.hab	9c	9c	10 - 150.	2b	30.		
B. omoform.	99c	100.	2 - 133T	0.	30.		
B. omome.hab	143T	14c	12 - 1) 4c	2b	50.		
2-Bu. abo. (MEK)N	100.	9c	33 - 157b	2b	30.		
Catbo. disulfid	93T	93T	55 - 131)	1)	30.		
Catbo. . achlorid	11)	117b	71 - 135M	1)	30.		
Chlorobe. zU	95M	97b	5 - 11)	2b	30.		
Chlorodibromome.hab	104c	106.	75 - 133T	1)	30.		
Chloroe.hab	124c	114c	40 - 1) 5M	9c	50.		
Chloroform.	101)	99c	2 - 120.	2b	30.		
Chlorome.hab	105M	100.	4c- 142b	5M	50.		
2-Chloro. olue.	94c	94c	2 - 123T	1)	30.		
4-Chloro. olue.	9c	9c	3 - 122b	2b	30.		
cis-1,2-. ic hloroe.h.	93T	93T	9 - 134c	0.	30.		
cis-1,3-. ic hlorop2p2	107b	107b	7b- 12b	0.	30.		
1,2-. i bromo-3-Chlorop2pab	5M	2b	49 - 140.	4c	30.		
1,2-. i bromoe.hab	95M	95M	0 - 121)	0.	30.		
i bromome.hab	94c	97b	7b- 119c	3T	30.		
1,3-. ic hlorobe. zU	94c	95M	7b- 125M	0.	30.		
1,2-. ic hlorobe. zU	93T	93T	79 - 124c	0.	30.		
1,4-. ic hlorobe. zU	9c	9c	1 - 122b	0.	30.		
ic hlorobromome.hab	107b	108.	7b- 127b	1)	30.		
ic hlorodifluorome.hab		7b	34 - 154c	1)	30.		
1,1-. ic hloroe.hab	101)	100.	74 - 127b	1)	30.		
1,2-. ic hloroe.hab	99c	9c	- 132b	0.	30.		
1,1-. ic hloroe.h.	95M	95M	2 - 141)	0.	30.		
1,2-. ic hloroe.h. , To.al)	9c	95M	- 134c	1)	30.		
1,2-. ic hlorop2pab	101)	100.	73 - 124c	0.	30.		
2,2-. ic hlorop2pab	110.	110.	55 - 157b	1)	30.		
1,3-. ic hlorop2pab	94c	97b	75 - 120.	3T	30.		

Client: CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

Lab Sample ID: LCS 680-1) 2239/5M  
 Analysis Batch: 680-1) 2239c  
 Client: MabixJ Wab  
 Unit: ug/LR  
 Date: 10/07/2010 095M  
 Date: 10/07/2010 095M

Method: 8260Bv  
 Preparation: 6060Bv

Lab Sample ID: LCS 680-1) 2239/F  
 Analysis Batch: 680-1) 2239c  
 Client: MabixJ Wab  
 Unit: ug/LR  
 Date: 10/07/2010 1025M  
 Date: 10/07/2010 1025M

Instrument ID: MSP  
 Lab File ID: pq3T7.d  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Lab Sample ID: LCS 680-1) 2239/F  
 Analysis Batch: 680-1) 2239c  
 Client: MabixJ Wab  
 Unit: ug/LR  
 Date: 10/07/2010 1025M  
 Date: 10/07/2010 1025M

Instrument ID: MSP  
 Lab File ID: pq3T9.d  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Analyte	% (c.)		Limit	P	P Limit	LCS Qual	LCS D)Qual
	LCS)	LCS D)					
1,1-dichloroethane	104c	103T	77 - 122b	1)	30.		
1,1,1-trichloroethane	9c	9c	- 11)	0.	30.		
1,1,2-dichloroethane	101)	101)	2 - 142b	1)	30.		
1,2-dichloroethane	95M	94c	34 - 1) 1)	1)	30.		
1,2-dichloroethane, isomer	100.	99c	2 - 121)	1)	30.		
1,2-dichloroethane, isomer	95M	92b	70 - 125M	4c	30.		
1,2-dichloroethane, isomer (MIBK)	95M	9c	40 - 151)	3T	30.		
1,2-dichloroethane, isomer	94c	93T	77 - 121)	2b	30.		
1,2-dichloroethane, isomer	97b	9c	3 - 11)	1)	30.		
1,2-dichloroethane, isomer	107b	112b	4c - 135M	4c	30.		
1,2-dichloroethane, isomer	117b	119c	4 - 13T	2b	30.		
1,2-dichloroethane, isomer	97b	9c	0 - 12b	1)	30.		
1,2-dichloroethane, isomer	109c	108.	3 - 119c	1)	30.		
1,2-dichloroethane, isomer	100.	102b	3 - 139c	2b	30.		
1,2-dichloroethane, isomer	100.	101)	77 - 12b	2b	30.		
1,2-dichloroethane, isomer	9c	97b	2 - 122b	1)	30.		
1,2-dichloroethane, isomer	99c	99c	0 - 124c	0.	30.		
1,1,1,2-tetrachloroethane	91)	93T	9 - 129c	2b	30.		
1,1,1,2-tetrachloroethane	106.	107b	1 - 12b	1)	30.		
1,1,2-tetrachloroethane	91)	92b	7b - 12b	1)	30.		
1,2-dichloroethane	99c	101)	1 - 117b	1)	30.		
1,2-dichloroethane	9c	9c	72 - 131)	1)	30.		
1,2-dichloroethane	107b	106.	73 - 12b	1)	30.		
1,2,4-trichloroethane	93T	95M	0 - 135M	2b	30.		
1,2,3-trichloroethane	92b	9c	0 - 132b	4c	30.		
1,1,1-trichloroethane	107b	108.	7b - 127b	1)	30.		
1,1,2-trichloroethane	9c	9c	75 - 121)	0.	30.		
1,1,2-trichloroethane	9c	97b	4 - 115M	2b	30.		
1,1,2-trichloroethane	117b	117b	5M - 149c	0.	50.		
1,2,3-trichloroethane	91)	9c	70 - 130.	2b	30.		
1,2,4-trichloroethane	103T	106.	72 - 132b	2b	30.		
1,3,5-trichloroethane	9c	9c	72 - 133T	2b	30.		
1,3,5-trichloroethane	108.	104c	10 - 217b	4c	30.		

Client: CADIS U.S., Inc.)

Job Number: 680-61)53-1)

Lab Sample ID

Lab Sample ID: LCS 680-1) 2239/5M  
 Method: 8260Bv  
 Recovery Report - Batch: 680-1822u9l  
 Preparation: 6060Bv

Method: 8260Bv

Preparation: 6060Bv

LCS Lab Sample ID) LCS 680-1) 2239/5M      Analysis Batch. 680-1) 2239c      In Sample ID) MSP  
 Client) MabixJ      Wab      Prep Batch. N/F      Lab File ID) pq3T7.d  
 Dilution) 1.0      Units) ug/LR      Initial Weight/Volume) 5 mL  
 Analysis Date) 10/07/2010 095M      Final Weight/Volume) 5 mL  
 Preparation Date) 10/07/2010 095M

LCSD Lab Sample ID) LCSD)680-1) 2239/F      Analysis Batch. 680-1) 2239c      In Sample ID) MSP  
 Client) MabixJ      Wab      Prep Batch. N/F      Lab File ID) pq3T9.d  
 Dilution) 1.0      Units) ug/LR      Initial Weight/Volume) 5 mL  
 Analysis Date) 10/07/2010 1025M      Final Weight/Volume) 5 mL  
 Preparation Date) 10/07/2010 1025M

Analyte	% Recovery		Limit	P	P Limit	LCS Qual	LCSD Qual
	LCS)	LCSD)					
Vinyl Chloride	111)	110.	59 - 144c	1)	50.		
Xylenes, Total)	101)	101)	4 - 11)	0.	30.		
Surrogates	LCS % Recovery	LCSD % Recovery			Acceptance Limit		
4-Bromofluorobenzene	97b	97b			75 - 120.		
1-Bromofluorobenzene	95M	93T			75 - 121)		
Toluene, m-xylol (Surrogate)	97b	99c			75 - 120.		



Client: CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

Method Book - Batch: 680-182404

Method: 8260Bv  
Preparation: 6060Bv

Lab Sample ID) MB 680-1) 2404/7b  
Client) MabixJ Wab  
Initial Volume: 1.0.  
Sample Date: 10/08/2010 1224c  
Preparation Date: 10/08/2010 1224c

Analysis Batch: 680-1) 2404c  
Preparation Batch: N/F  
Units: ug/LR

Instrument ID) MSP  
Lab File ID) pq411.d  
Initial Volume: 5 mL  
Final Volume: 5 mL

Sample	Result	Quality	LR
Acetone	25	U	25M
Benzene	1.0	U	1.0
Bromobenzene	1.0	U	1.0
Bromochlorobenzene	1.0	U	1.0
Bromoform	1.0	U	1.0
Bromobenzene	1.0	U	1.0
2-Bu.abo. (MEK)N	10.	U	10.
Carbon disulfide	2.0	U	2.0
Carbon tetrachloride	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
Chlorodibromobenzene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
Chloroform	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
2-Chloroethanol	1.0	U	1.0
4-Chloroethanol	1.0	U	1.0
cis-1,2-dichlorobenzene	1.0	U	1.0
cis-1,3-dichlorobenzene	1.0	U	1.0
1,2-dibromo-3-chlorobenzene	1.0	U	1.0
1,2-dibromobenzene	1.0	U	1.0
1,3-dichlorobenzene	1.0	U	1.0
1,2-dichlorobenzene	1.0	U	1.0
1,4-dichlorobenzene	1.0	U	1.0
1,2-dichlorobromobenzene	1.0	U	1.0
1,2-dichlorodifluorobenzene	1.0	U	1.0
1,1-dichlorobenzene	1.0	U	1.0
1,2-dichlorobenzene	1.0	U	1.0
1,1-dichlorobenzene	1.0	U	1.0
1,2-dichlorobenzene (Total)	2.0	U	2.0
1,2-dichlorobenzene	1.0	U	1.0
2,2-dichlorobenzene	1.0	U	1.0
1,3-dichlorobenzene	1.0	U	1.0
1,1-dichlorobenzene	1.0	U	1.0
Dichloroethane	10.	U	10.
Difluorobenzene	1.0	U	1.0
Dibromochlorobenzene	1.0	U	1.0
2-Hexanol	10.	U	10.
Isopropylbenzene	1.0	U	1.0
Methyl Chloride	5.0	U	5.0
4-Methyl-2-pentanol (MIBK)N	10.	U	10.
Methylbenzene	10.	U	10.
m-Xylene & p-Xylene	2.0	U	2.0

Client: CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

Method Book - Batch: 680-182404

Method: 8260Bv  
Preparation: 6060Bv

Lab Sample ID) MB 680-1) 2404/7b  
Client) MabixJ Wab  
Initial Volume: 1.0.  
Analysis Date 10/08/2010 1224c  
Preparation Date 10/08/2010 1224c

Analysis Batch: 680-1) 2404c  
Preparation Batch: N/F  
Units: ug/LR

Injection ID) MSP  
Lab File ID) pq411.d  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analysis	Result	Quality	LR
Naphthalene	5.0	U	5.0
n-Butylbenzene	1.0	U	1.0
N-Propylbenzene	1.0	U	1.0
o-Xylene	1.0	U	1.0
p-Isopropyltoluene	1.0	U	1.0
sec-Butylbenzene	1.0	U	1.0
Styrene	1.0	U	1.0
n-Butylbenzene	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
1,1,1,2-Tetrachloroethane	1.0	U	1.0
Tetrachloroethane	1.0	U	1.0
Toluene	1.0	U	1.0
abs-1,2-Dichloroethane	1.0	U	1.0
abs-1,3-Dichloroethane	1.0	U	1.0
1,2,4-Trichlorobenzene	1.0	U	1.0
1,2,3-Trichlorobenzene	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
1,1,2-Trichloroethane	1.0	U	1.0
Trichloroethane	1.0	U	1.0
Trichlorofluoromethane	1.0	U	1.0
1,2,3-Trichloropropane	1.0	U	1.0
1,2,4-Trimehylbenzene	1.0	U	1.0
1,3,5-Trimehylbenzene	1.0	U	1.0
Vinyl acetate	2.0	U	2.0
Vinyl chloride	1.0	U	1.0
Xylenes, Total	2.0	U	2.0

Surrogate	% Recovery	Acceptance Limits
4-Bromofluorobenzene	91	75 - 120
1-bromofluorobenzene	90	75 - 121
Toluene - d (Surr)N	97b	75 - 120

Clients: CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

Lab Sample ID: LCS 680-1) 2404/4c  
 Method: 8260Bv  
 Recovery Report - Batch: 680-182404

Preparation: 6060Bv

LCS Lab Sample ID) LCS 680-1) 2404/4c      Analysis Batch. 680-1) 2404c      In Sample ID) MSP  
 Client) MabixJ      Wab      Prep Batch. N/F      Lab File ID) pq403.d  
 Dilution) 1.0      Unit) µg/LR      Initial Weight/Volume) 5 mL  
 Analysis Date) 10/08/2010 1015M      Final Weight/Volume) 5 mL  
 Preparation Date) 10/08/2010 1015M

LCSD Lab Sample ID) LCSD)680-1) 2404/5M      Analysis Batch. 680-1) 2404c      In Sample ID) MSP  
 Client) MabixJ      Wab      Prep Batch. N/F      Lab File ID) pq405.d  
 Dilution) 1.0      Unit) µg/LR      Initial Weight/Volume) 5 mL  
 Analysis Date) 10/08/2010 105M      Final Weight/Volume) 5 mL  
 Preparation Date) 10/08/2010 105M

Analyte	% (c.c.)		Limit	P	P Limit	LCS Qual)	LCSD)Qual)
	LCS)	LCSD)					
Acetone	5M	1)	17 - 175M	5M	50.		
Benzene	9c	9c	77 - 119c	0.	30.		
Bromobenzene	93T	90.	0 - 124c	3T	30.		
Bromochlorobenzene	95M	97b	10 - 150.	2b	30.		
Bromofluorobenzene	97b	9c	2 - 133T	1)	30.		
Bromonitrobenzene	147b	1)2b	12 - 1)4c	10.	50.		
2-Bromonitrobenzene (MEK)	95M	9c	33 - 157b	0.	30.		
Chlorobenzene disulfide	9c	95M	55 - 131)	2b	30.		
Chlorobenzene dichloride	11)	11)	71 - 135M	0.	30.		
Chlorobenzene	97b	9c	5 - 11)	1)	30.		
Chlorodibromobenzene	103T	102b	75 - 133T	1)	30.		
Chloroethane	12b	137b	40 - 1)5M	7b	50.		
Chloroform	99c	9c	2 - 120.	1)	30.		
Chlorobenzene	109c	110.	4c- 142b	0.	50.		
2-Chloroethanol	94c	92b	2 - 123T	2b	30.		
4-Chloroethanol	94c	93T	3 - 122b	1)	30.		
cis-1,2-dichloroethane	95M	93T	9 - 134c	2b	30.		
cis-1,3-dichloroethane	104c	105M	7b- 12b	2b	30.		
1,2-dibromo-3-chloroethane	7b	7b	49 - 140.	3T	30.		
1,2-dibromoethane	9c	92b	0 - 121)	3T	30.		
1-bromo-2-chloroethane	94c	94c	7b- 119c	0.	30.		
1,3-dichloroethane	92b	90.	7b- 125M	2b	30.		
1,2-dichloroethane	92b	9c	79 - 124c	3T	30.		
1,4-dichloroethane	93T	92b	1 - 122b	2b	30.		
1,1-dichloroethane	106.	106.	7b- 127b	1)	30.		
1,1-difluoroethane	9c	9c	34 - 154c	2b	30.		
1,1-dichloroethane	99c	100.	74 - 127b	2b	30.		
1,2-dichloroethane	95M	9c	- 132b	1)	30.		
1,1-dichloroethane	97b	9c	2 - 141)	1)	30.		
1,2-dichloroethane (Total)	9c	95M	- 134c	2b	30.		
1,2-dichloroethane	100.	100.	73 - 124c	0.	30.		
2,2-dichloroethane	111)	113T	55 - 157b	2b	30.		
1,3-dichloroethane	92b	92b	75 - 120.	0.	30.		

Clients: CADIS U.S., Inc.)

Job Number: 680-61)53-1)

Lab Sample ID: LCS 680-1)2404/4c  
 Method: 8260Bv  
 Recovery Report - Batch: 680-182404

Preparation: 6060Bv

LCS Lab Sample ID) LCS 680-1)2404/4c      Analysis Batch: 680-1)2404c      In-house ID) MSP  
 Client) MabixJ      Wab      Prep Batch: N/F      Lab File ID) pq403.d  
 Unit) ug/LR  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

LCSD Lab Sample ID) LCSD)680-1)2404/5M      Analysis Batch: 680-1)2404c      In-house ID) MSP  
 Client) MabixJ      Wab      Prep Batch: N/F      Lab File ID) pq405.d  
 Unit) ug/LR  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Analyte	%. c.)		Limit	P	P Limit	LCS Qual)	LCSD)Qual)
	LCS)	LCSD)					
1,1-dichloroethane	102b	102b	77 - 122b	0.	30.		
1,1-dichloroethane	101)	0.	70 - 130.	200.	30.		U *b
1,1-dichloroethane	100.	9c	- 11)	2b	30.		
1,1-dichloroethane	93T	9c	2 - 142b	4c	30.		
1,1-dichloroethane	92b	91)	34 - 1) 1)	0.	30.		
1,1-dichloroethane	99c	97b	2 - 121)	3T	30.		
1,1-dichloroethane	95M	95M	70 - 125M	0.	30.		
1,1-dichloroethane	91)	92b	40 - 151)	1)	30.		
1,1-dichloroethane	95M	93T	77 - 121)	2b	30.		
1,1-dichloroethane	9c	97b	3 - 11)	1)	30.		
1,1-dichloroethane	102b	97b	4c- 135M	5M	30.		
1,1-dichloroethane	115M	110.	4 - 13T	4c	30.		
1,1-dichloroethane	9c	94c	0 - 12b	2b	30.		
1,1-dichloroethane	109c	106.	3 - 119c	3T	30.		
1,1-dichloroethane	9c	95M	3 - 139c	3T	30.		
1,1-dichloroethane	9c	94c	77 - 12b	4c	30.		
1,1-dichloroethane	97b	97b	2 - 122b	0.	30.		
1,1-dichloroethane	97b	93T	0 - 124c	3T	30.		
1,1,1,2-tetrachloroethane	906.		9 - 129c	2b	30.		
1,1,1,2-tetrachloroethane	106.	104c	1 - 12b	2b	30.		
1,1,1,2-tetrachloroethane	93T	91)	7b- 12b	1)	30.		
1,1,1,2-tetrachloroethane	9c	9c	1 - 117b	0.	30.		
1,1,1,2-tetrachloroethane	9c	97b	72 - 131)	1)	30.		
1,1,1,2-tetrachloroethane	102b	104c	73 - 12b	2b	30.		
1,1,2,2-tetrachloroethane	7b	2b	0 - 135M	5M	30.		
1,1,2,2-tetrachloroethane		0.	0 - 132b	7b	30.		
1,1,1,1-tetrachloroethane	106.	107b	7b- 127b	1)	30.		
1,1,1,2-tetrachloroethane	95M	93T	75 - 121)	3T	30.		
1,1,1,2-tetrachloroethane	95M	95M	4 - 115M	1)	30.		
1,1,1,2-tetrachloroethane	119c	120.	5M 149c	0.	50.		
1,1,2,2-tetrachloroethane		4c	70 - 130.	2b	30.		
1,1,2,2-tetrachloroethane	101)	101)	72 - 132b	1)	30.		
1,1,3,5-tetrachloroethane	97b	94c	72 - 133T	2b	30.		

Client: CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

Lab Sample ID: LCS 680-1) 2404/4c  
 Method: 8260Bv  
 Recovery Report - Batch: 680-182404

Preparation: 6060Bv

LCS Lab Sample ID) LCS 680-1) 2404/4c      Analysis Batch. 680-1) 2404c      In Sample ID) MSP  
 Client) MabixJ      Wab      Prep Batch. N/F      Lab File ID) pq403.d  
 Dilution) 1.0.      Unit) ug/LR      Initial Weight/Volume) 5 mL  
 Analysis Date) 10/08/2010 1015M      Final Weight/Volume) 5 mL  
 Prep Date) 10/08/2010 1015M

LCSD Lab Sample ID) LCSD)680-1) 2404/5M      Analysis Batch. 680-1) 2404c      In Sample ID) MSP  
 Client) MabixJ      Wab      Prep Batch. N/F      Lab File ID) pq405.d  
 Dilution) 1.0.      Unit) ug/LR      Initial Weight/Volume) 5 mL  
 Analysis Date) 10/08/2010 105M      Final Weight/Volume) 5 mL  
 Prep Date) 10/08/2010 105M

Analyte	% (c)		Limit	P	P Limit	LCS Qual	LCSD Qual
	LCS)	LCSD)					
Vinyl acetate	108.	106.	10 - 217b	3T	30.		
Vinyl chloride	117b	114c	59 - 144c	3T	50.		
Xylenes, Total	102b	100.	4 - 11)	1)	30.		
Surrogate	LCS % (c)		LCSD % (c)		Acceptance Limit		
4-Bromofluorobenzene	94c		94c		75 - 120.		
1,1-Dibromofluorobenzene	92b		92b		75 - 121)		
Toluene, m,p	9c		9c		75 - 120.		

Client: CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

Method Book - Batch: 680-1825086

Method: 8260Bv  
Preparation: 6060Bv

Lab Sample ID) MB 680-1) 2508/23T  
 Client) MabixJ Wab  
 Initial Volume: 1.0.  
 Analysis Date: 10/08/2010 1209c  
 Preparation Date: 10/08/2010 1209c

Analysis Batch: 680-1) 2508.  
 Preparation Batch: N/F  
 Units: ug/LR

Instrument ID) MSP2b  
 Lab File ID) pq410.d  
 Initial Volume: 5 mL  
 Final Volume: 5 mL

Sample	Result	Quality	LR
Acetone	25	U	25M
Benzene	1.0	U	1.0
Bromobenzene	1.0	U	1.0
Bromochlorobenzene	1.0	U	1.0
Bromoform	1.0	U	1.0
Bromobenzene	1.0	U	1.0
2-Bu.abo. (MEK)N	10.	U	10.
Carbon disulfide	2.0	U	2.0
Carbon tetrachloride	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
Chlorodibromobenzene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
Chloroform	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
2-Chloroethanol	1.0	U	1.0
4-Chloroethanol	1.0	U	1.0
cis-1,2-dichlorobenzene	1.0	U	1.0
cis-1,3-dichlorobenzene	1.0	U	1.0
1,2-dibromo-3-chlorobenzene	1.0	U	1.0
1,2-dibromobenzene	1.0	U	1.0
1,3-dichlorobenzene	1.0	U	1.0
1,2-dichlorobenzene	1.0	U	1.0
1,4-dichlorobenzene	1.0	U	1.0
1,2-dichlorobromobenzene	1.0	U	1.0
1,2-dichlorodifluorobenzene	1.0	U	1.0
1,1-dichlorobenzene	1.0	U	1.0
1,2-dichlorobenzene	1.0	U	1.0
1,1-dichlorobenzene	1.0	U	1.0
1,2-dichlorobenzene (Total)	2.0	U	2.0
1,2-dichlorobenzene	1.0	U	1.0
2,2-dichlorobenzene	1.0	U	1.0
1,3-dichlorobenzene	1.0	U	1.0
1,1-dichlorobenzene	1.0	U	1.0
Dichloroethane	10.	U	10.
Difluorobenzene	1.0	U	1.0
Dibromochlorobenzene	1.0	U	1.0
2-Hexanol	10.	U	10.
Isopropylbenzene	1.0	U	1.0
Methyl Chloride	5.0	U	5.0
4-Methyl-2-pentanol (MIBK)N	10.	U	10.
Methyl tert-butyl ether	10.	U	10.
m-Xylene & p-Xylene	2.0	U	2.0

Client: CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

Method Book - Batch: 680-1825086

Method: 8260Bv  
Preparation: 6060Bv

Lab Sample ID) MB 680-1) 2508/23T  
 Client) MabixJ Wab  
 Initial Volume) 1.0.  
 Analysis Date) 10/08/2010 1209c  
 Preparation Date) 10/08/2010 1209c

Analysis Batch) 680-1) 2508.  
 Preparation Batch) N/F  
 Units) ug/LR

Injection ID) MSP2b  
 Lab File ID) pq410.d  
 Initial Volume) 5 mL  
 Final Volume) 5 mL

Sample	Result	Quality	LR
Naphthalene	5.0	U	5.0
n-Butylbenzene	1.0	U	1.0
N-Propylbenzene	1.0	U	1.0
o-Xylenes	1.0	U	1.0
p-Isopropyltoluene	1.0	U	1.0
sec-Butylbenzene	1.0	U	1.0
Styrene	1.0	U	1.0
n-Butylbenzene	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
1,1,1,2-Tetrachloroethane	1.0	U	1.0
Tetrachloroethane	1.0	U	1.0
Toluene	1.0	U	1.0
abs-1,2-Dichloroethane	1.0	U	1.0
abs-1,3-Dichloroethane	1.0	U	1.0
1,2,4-Trichlorobenzene	1.0	U	1.0
1,2,3-Trichlorobenzene	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
1,1,2-Trichloroethane	1.0	U	1.0
Trichloroethane	1.0	U	1.0
Trichlorofluoromethane	1.0	U	1.0
1,2,3-Trichloropropane	1.0	U	1.0
1,2,4-Trimehylbenzene	1.0	U	1.0
1,3,5-Trimehylbenzene	1.0	U	1.0
Vinyl acetate	2.0	U	2.0
Vinyl chloride	1.0	U	1.0
Xylenes, Total	2.0	U	2.0

Surrogate	% Recovery	Acceptance Limits
4-Bromofluorobenzene	94%	75 - 120%
1-bromofluorobenzene	95%	75 - 121%
Toluene - d (Surr)	9%	75 - 120%

Client: CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

Lab Sample ID: 680-1) 2508/20.  
 Method: 8260Bv  
 Recovery Report - Batch: 680-1825086

Preparation: 6060Bv

LCS Lab Sample ID) LCS 680-1) 2508/20.      Analysis Batch. 680-1) 2508.  
 Client) MabixJ      Wab      Prep Batch. N/F  
 Initial Volume. 1.0.      Unit# ug/LR  
 Initial Weight/Volume. 5 mL  
 Final Weight/Volume. 5 mL

LCSD Lab Sample ID) LCSD)680-1) 2508/21)      Analysis Batch. 680-1) 2508.  
 Client) MabixJ      Wab      Prep Batch. N/F  
 Initial Volume. 1.0.      Unit# ug/LR  
 Initial Weight/Volume. 5 mL  
 Final Weight/Volume. 5 mL

Analyte	%. c.)		Limit	P	P Limit	LCS Qual)	LCSD)Qual)
	LCS)	LCSD)					
o.		5M	17 - 175M	3T	50.		
B. zU	103T	103T	77 - 119c	0.	30.		
B. omob. zU	92b	94c	0 - 124c	2b	30.		
B. omochlorome.hab	93T	9c	10 - 150.	3T	30.		
B. omoform.	101)	103T	2 - 133T	2b	30.		
B. omome.hab	9c		12 - 1) 4c	24c	50.		
2-Bu. abo. (MEK)N	9c	9c	33 - 157b	0.	30.		
Carbo. disulfid	90.	9c	55 - 131)	1)	30.		
Carbo. . achlorid	105M	103T	71 - 135M	2b	30.		
Chlorob. zU	97b	99c	5 - 11)	2b	30.		
Chlorodibromome.hab	9c	9c	75 - 133T	1)	30.		
Chloroe.hab	90.	101)	40 - 1) 5M	11)	50.		
Chloroform.	9c	99c	2 - 120.	1)	30.		
Chlorome.hab	7b	1)	4c- 142b	4c	50.		
2-Chloro. olue.	93T	94c	2 - 123T	1)	30.		
4-Chloro. olue.	94c	9c	3 - 122b	3T	30.		
cis-1,2-. ic hloroe.h.	9c	99c	9 - 134c	1)	30.		
cis-1,3-. ic hlorop2p2	109c	109c	7b- 12b	1)	30.		
1,2-. i bromo-3-Chlorop2pab	1)	3T	49 - 140.	3T	30.		
1,2-. i bromoe.hab	100.	99c	0 - 121)	1)	30.		
i bromome.hab	102b	101)	7b- 119c	0.	30.		
1,3-. ic hlorob. zU	9c	90.	7b- 125M	1)	30.		
1,2-. ic hlorob. zU	92b	93T	79 - 124c	1)	30.		
1,4-. ic hlorob. zU		90.	1 - 122b	2b	30.		
ic hlorobromome.hab	111)	110.	7b- 127b	0.	30.		
ic hlorodifluorome.hab	9c		34 - 154c	3T	30.		
1,1-. ic hloroe.hab	97b	9c	74 - 127b	1)	30.		
1,2-. ic hloroe.hab	102b	102b	- 132b	0.	30.		
1,1-. ic hloroe.h.	94c	92b	2 - 141)	2b	30.		
1,2-. ic hloroe.h. , To.al)	97b	99c	- 134c	2b	30.		
1,2-. ic hlorop2pab	104c	105M	73 - 124c	1)	30.		
2,2-. ic hlorop2pab	112b	111)	55 - 157b	1)	30.		
1,3-. ic hlorop2pab	100.	9c	75 - 120.	1)	30.		



Clients: CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

Lab Sample ID: LCS 680-1) 2508/20.  
 Client: MabixJ Wab  
 Unit: 1.0  
 Date: 10/08/2010 1000.  
 Date: 10/08/2010 1000.

Method: 8260Bv  
 Preparation: 5060Bv

Analysis Batch: 680-1) 2508.  
 Prep Batch: N/F  
 Inhouse ID: MSP2b  
 Lab File ID: pq402.d  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Lab Sample ID: LCSD)680-1) 2508/21)  
 Client: MabixJ Wab  
 Unit: 1.0  
 Date: 10/08/2010 1029c  
 Date: 10/08/2010 1029c

Analysis Batch: 680-1) 2508.  
 Prep Batch: N/F  
 Inhouse ID: MSP2b  
 Lab File ID: pq404.d  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

alyS	% . c.)		Limit)	P	P Limit)	LCS Qual)	LCSD)Qual)
	LCS)	LCSD)					
1,1-ic hlorop2p2	110.	109c	77 - 122b	2b	30.		
Ethylbe. zU	95M	9c	- 11)	3T	30.		
Hbxachlorobu.adi)	97b	97b	2 - 142b	1)	30.		
2-Hbxabo.	108.	108.	34 - 1) 1)	0.	30.		
Isop2pylbe. zU	95M	97b	2 - 121)	2b	30.		
MNhyl) Chlorid			70 - 125M	0.	30.		
4-MNhyl-2-p2 abo. (MIBK)N	104c	101)	40 - 151)	3T	30.		
MNhyl . -bu.yl e.h.	9c	9c	77 - 121)	0.	30.		
m-Xyl) & p-Xyl)	94c	9c	3 - 11)	2b	30.		
Naph.hal)	9c	100.	4c- 135M	2b	30.		
-Bu.ylbe. zU	9c	9c	4 - 13T	2b	30.		
N-P opylbe. zU	97b	9c	0 - 12b	1)	30.		
o-Xyl)	9c	9c	3 - 119c	1)	30.		
p-Isop2pylbe. zU	93T	94c	3 - 139c	1)	30.		
sbc-Bu.ylbe. zU	9c	94c	77 - 12b	2b	30.		
StyS	94c	94c	2 - 122b	1)	30.		
-Bu.ylbe. zU	95M	9c	0 - 124c	1)	30.		
1,1,2,2-Tb achloroe.hab	104c	103T	9 - 129c	1)	30.		
1,1,1,2-Tb achloroe.hab	104c	103T	1 - 12b	1)	30.		
Tb achloroe.h.	100.	101)	7b- 12b	0.	30.		
Tolue.	9c	95M	1 - 117b	1)	30.		
abs-1,2-ic hloroe.h.	97b	100.	72 - 131)	3T	30.		
abs-1,3-ic hlorop2p2	103T	104c	73 - 12b	1)	30.		
1,2,4-Tbchlorobe. zU	90.	92b	0 - 135M	2b	30.		
1,2,3-Tbchlorobe. zU	90.	92b	0 - 132b	2b	30.		
1,1,1-Tbchloroe.hab	111)	111)	7b- 127b	0.	30.		
1,1,2-Tbchloroe.hab	101)	100.	75 - 121)	0.	30.		
Tbchloroe.h.	101)	101)	4 - 115M	0.	30.		
Tbchlorofluorome.hab	104c	101)	5M 149c	4c	50.		
1,2,3-Tbchlorop2pab	97b	100.	70 - 130.	3T	30.		
1,2,4-Tbme.hylbe. zU	93T	95M	72 - 132b	2b	30.		
1,3,5-Tbme.hylbe. zU	93T	95M	72 - 133T	2b	30.		
Vinyl ac) ab	111)	108.	10 - 217b	3T	30.		

Client: CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

Lab Sample ID: LCS 680-1) 2508/20.  
 Method: 8260Bv  
 Recovery Report - Batch: 680-1825086

Method: 8260Bv  
 Preparation: 6060Bv

LCS Lab Sample ID) LCS 680-1) 2508/20.      Analysis Batch. 680-1) 2508.  
 Client) MabixJ      Wab      Prep Batch. N/F  
 Dilution. 1.0.      Units) ug/LR  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

LCSD Lab Sample ID) LCSD)680-1) 2508/21)      Analysis Batch. 680-1) 2508.  
 Client) MabixJ      Wab      Prep Batch. N/F  
 Dilution. 1.0.      Units) ug/LR  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Analyte	% (c)		Limit	P	P Limit	LCS Qual	LCSD Qual
	LCS)	LCSD)					
Vinyl Chloride	99c	101)	59 - 144c	2b	50.		
Xylenes, Total)	95M	9c	4 - 11)	2b	30.		
Surrogates	LCS % (c)		LCSD) % (c)		cc) (c) Limit		
4-Bromofluorobenzene	93T		94c		75 - 120.		
1-Bromofluorobenzene	9c		97b		75 - 121)		
Toluene, m- (Surrogate)	95M		95M		75 - 120.		

Client: CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

**Method Book - Batch: 680-182769I**

Lab Sample ID) MB 680-1) 27b9/14-.  
 Client) MabixJ Wab  
 Initial Volume. 1.0.  
 Sample Date 10/15/2010 213T  
 Sample Date 10/13/2010 0953T

Analysis Batch. 680-1) 3127b  
 Preparation Batch. 680-1) 27b9c  
 Units) ug/LR

**Method: 6010Cu  
 Preparation: u005AV  
 Total Recoverable**

Instrument ID) ICP  
 Lab File ID) 1015101039.ch.  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Element	Result	Quality	Limit
Barium	20.	U)	20.
Cadmium	10.	U)	10.
Chromium	5.0.	U)	5.0.
Cobalt	10.	U)	10.
Copper	50.	U)	50.
Lead	10.	U)	10.
Nickel	20.	U)	20.
Silver	10.	U)	10.
Sodium	1000.	U)	1000.

**Method Book - Batch: 680-182769I**

Lab Sample ID) LCS 680-1) 27b9/15-.  
 Client) MabixJ Wab  
 Initial Volume. 1.0.  
 Sample Date 10/15/2010 2141)  
 Sample Date 10/13/2010 0953T

Analysis Batch. 680-1) 3127b  
 Preparation Batch. 680-1) 27b9c  
 Units) ug/LR

**Method: 6010Cu  
 Preparation: u005AV  
 Total Recoverable**

Instrument ID) ICP  
 Lab File ID) 1015101039.ch.  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Element	Spike	Result	Recovery	Limit	Quality
Barium	2000.	2030.	101)	75 - 125M	
Cadmium	2000.	2010.	101)	75 - 125M	
Chromium	50.0.	50.4c	101)	75 - 125M	
Cobalt	200.	199c	99c	75 - 125M	
Copper	1000.	1010.	101)	75 - 125M	
Lead	500.	520.	104c	75 - 125M	
Nickel	2000.	2030.	101)	75 - 125M	
Silver	50.0.	4c.4c	93T	75 - 125M	
Sodium	5000.	4990.	100.	75 - 125M	

Client: . CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

**Method Book - Batch: 680-182u42u**

Lab Sample ID) MB 680-1) 2342/1-.  
 Client) MabixJ Wab  
 Initial Volume. 1.0.  
 Date Analyzed 10/13/2010 1233T  
 Date Prepared 10/08/2010 1022b

Analysis Batch. 680-1) 2b41)  
 Prep Batch. 680-1) 2342b  
 Units ug/LR

**Method: 470AV  
 Preparation: 470AV**

Instrument ID) LEEMNN1)  
 Lab File ID) b101210.ch.  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Sample	Result	Quality	LR
MN curyS	0.20.	U)	0.20.

**Method Book - Batch: 680-182u42u**

Lab Sample ID) LCS 680-1) 2342/2-.  
 Client) MabixJ Wab  
 Initial Volume. 1.0.  
 Date Analyzed 10/13/2010 123T  
 Date Prepared 10/08/2010 1022b

Analysis Batch. 680-1) 2b41)  
 Prep Batch. 680-1) 2342b  
 Units ug/LR

**Method: 470AV  
 Preparation: 470AV**

Instrument ID) LEEMNN1)  
 Lab File ID) b101210.ch.  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Sample	Spike	Result	% Rec.	Limit	Quality
MN curyS	2.50.	2.17b	7b	0 - 120.	

Clients: CADIS U.S., Inc.)

Job Number: 680-61) 53-1)

**Method Book - Batch: 680-186065I**

Lab Sample ID) MB 680-1) 3035/13T  
 Client) MabixJ Wab  
 Initial Volume) 1.0.  
 Sample Date) 10/14/2010 173T  
 Sample Period) N/F  
 Analysis Batch) 680-1) 3035M  
 Prep Batch) N/F  
 Units) mg/LR

**Method: 90686  
 Preparation: N/AV**

Instrument ID) KONELRB1)  
 Lab File ID) KONE11014101SO4.xlsb  
 Initial Weight/Volume: 2 mL  
 Final Weight/Volume: 2 mL

Sample	Result (mg/LR)	Quality (R)	Limit (LR)
Sulfab	5.0	U)	5.0

**Method Book - Batch: 680-186065I**

Lab Sample ID) LCS 680-1) 3035/14c  
 Client) MabixJ Wab  
 Initial Volume) 1.0.  
 Sample Date) 10/14/2010 1739c  
 Sample Period) N/F  
 Analysis Batch) 680-1) 3035M  
 Prep Batch) N/F  
 Units) mg/LR

**Method: 90686  
 Preparation: N/AV**

Instrument ID) KONELRB1)  
 Lab File ID) KONE11014101SO4.xlsb  
 Initial Weight/Volume: 2 mL  
 Final Weight/Volume: 2 mL

Sample	Spiked (mg/LR)	Result (mg/LR)	% Recovery	Limit (mg/LR)	Quality
Sulfab	20.0	19.	9c	75 - 125M	

**Savannah**  
5102 LaRoche Avenue  
Savannah, GA 31404  
phone 912.354.7858 fax 912.352.0165

**Chain of Custody Record**

ARCADIS  
801 Corporate Center Drive, Suite 300  
Raleigh, NC 27607  
919-854-1282  
919-854-5448  
Project Name: UNC Airport Road  
Site: Chapel Hill, NC  
P O # NC000239.0018.000006

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	VOCs (METHOD 8260)	Iron	Sodium	Sulfate	Sample Specific Notes:
MW-1	10/4/10	1338	GW	GW	5	X	X	X	X	X	
MW-2		1415	GW	GW	5	X	X	X	X	X	
MW-3		1300	GW	GW	5	X	X	X	X	X	
MW-38		1600	GW	GW	4	X	X	X	X	X	
MW-39		1200	GW	GW	5	X	X	X	X	X	
MW-14		1500	GW	GW	5	X	X	X	X	X	
Trip Blank	10/4/10	N			2	X					2 Vials only.

Project Manager: Alan Pinnix  
Tel/Fax: 919-854-1282  
Analysis Turnaround Time  
Calendar (C) or Work Days (W)  
TAT if different from Below  
2 weeks  
1 week  
2 days  
1 day

Site Contact: Alan Pinnix  
Lab Contact: Kathy Smith  
Date: 10/4/10  
Carrier: Fed Ex  
COC No: \_\_\_\_\_ of \_\_\_\_\_ COCs  
Job No. \_\_\_\_\_  
SDG No. \_\_\_\_\_

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other  
Possible Hazard Identification  
 Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)  
 Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months

Special Instructions/QC Requirements & Comments:  
**TEMPERATURE 0.4**  
680-61853

Relinquished by: *David Brantley*  
Relinquished by: \_\_\_\_\_  
Relinquished by: \_\_\_\_\_

Received by: *M. Kelly*  
Received by: \_\_\_\_\_  
Received by: \_\_\_\_\_

Company: **ARCADIS**  
Company: \_\_\_\_\_  
Company: \_\_\_\_\_

Date/Time: 10/4/10  
Date/Time: \_\_\_\_\_  
Date/Time: \_\_\_\_\_

## Login Sample Report Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-61853-1b

**Login Number:** c185c

**List Source:** cesterVasannah

**Creator:** KL Klinger, MaryL

**List Number:** 1u

Question	Y / N / NA /	Comments
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal is present, is intact.	Y	
The cooler or samples do not appear to have been compromised or tampered with.	Y	
Samples were received on ice.	Y	
Cooler temperature is acceptable.	Y	
Cooler temperature is recorded.	Y	
Ice is present.	Y	
Ice is placed out in ink and legible.	Y	
Ice is placed out with pertinent information.	Y	
Is the Field Sampler's name present on CD? U	N/A	
There are no discrepancies between the sample IDs on the containers and the CD.	Y	
Samples are received within Holding time.	Y	
Sample containers have legible labels.	Y	
Containers are not broken or leaking.	Y	
Sample collection dates/times are provided.	Y	
Appropriate sample containers are used.	Y	
Sample bottles are completely filled.	Y	
Sample Preservation Verified	Y	
There is sufficient vol. for a requested analyses, incl. any requested MC, MD, ST	Y	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	Y	
If necessary, staff have been informed of any short hold time or quick back needs.	Y	
Multiphase samples are not present.	N/A	
Samples do not require splitting or composting.	N/A	b

## ANALYTICAL REPORT

Job Number: 680-62026-1

Job Description: UNC Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
10/29/2010 4:43 PM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
10/29/2010

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)





**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

Method 8260B: The following samples were diluted due to the abundance of non-target analytes: MW-1 (680-62026-1), MW-2 (680-62026-2). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted.

**General Chemistry**

No analytical or quality issues were noted.

**VOA Prep**

No analytical or quality issues were noted.

## METHOD SUMMARY:

Client: T. CADF IS U.S., Inc.

Job Number: 680-6202M1F

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: Water:</b>			
Volatil, O, anic, . om. ou.ds (GC/MS), Pur. and T,ap,	TAL SAV, TAL SAV,	SWF4U8.2M B,	SW, 4, 5030B,
M, tals (ICP), P, pa,atio. Ext,actabl, M, tals,	TAL SAV, TAL SAV,	SW, 4, 60 10.	SM 3030.
M, ury (CVAA), P, pa,atio. M, ury,	TAL SAV, TAL SAV,	SW, 4, 7470A,	SW, 4, 7470A,
Sulfat, Turbidimet,ic,	TAL SAV,	SW, 4, 903,	

### Lab References:

TAL SAV = TestAmerica Savannah,

### Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW, 4, = "Standard Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition. November 19, And Its Updates.,

METHOD / ANALYST STMMARM

Client: ARCADIS U.S., Inc.,

Job Number: 680-62026-b

<b>Method</b>	<b>Analyst</b>	<b>Analyst ID:</b>
SW846 8260b	earden, Robert,	R,
SW846 60b0C,	land, , rian,	C,
SW846 , 4A0A,	Eaton, Cli,	CEc
SW846 9038b	Rob , Jon,	JR,

## SUMPLU SUMMUR Y2

Client: ARCADIS U.S., Inc.,

Job Number: 680-62026-b

<b>Lab Sa: ple IDV</b>	<b>Client Sa: ple IDV</b>	<b>Client Matrix2</b>	<b>Date/Time : Sa: pledb</b>	<b>Date/Time : ReVeivedb</b>
680-62026-b	MW-b	Ground WaterI	0/08/20b0 , 4, 5U	0/09/20b0 , 006b
680-62026-2I	MW-2I	Ground WaterI	0/08/2010 1630I	0/09/2010 1006I
680-62026-3I	MW-3I	Ground WaterI	0/08/2010 1550I	0/09/2010 1006I
680-62026-4I	MW-38I	Ground WaterI	0/08/2010 1345I	0/09/2010 1006I
680-62026-5I	MW-39I	Ground WaterI	0/08/2010 1500I	0/09/2010 1006I

Client: ARCADIS U.S., Inc.

Job Number: 680-62026-11

Client Sample ID:T MW-1T

Lab Sample ID:l 680-62026-11  
Client Matrix:l Ground WaterMSampled: 10/08/2010 1415M  
Received: 10/09/2010 1006M

## 8260B Volatile Organic Compounds (GC/MS)

Method:M	8260BM	Analysis Batch: 680-183245M	Instrument ID:M	SOM
Preparation:M	5030B		Lab File ID:M	o0621.dM
Dilution:M	100M		Initial Weight/Volume:M	5 mL
Analyzed:M	10/18/2010 1726M		Final Weight/Volume:M	5 mL
Prepared:M	10/18/2010 1726M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
AcetoneM	2500M	UM	2500M
BenzeneM	800M		100M
BromobenzeneM	100M	UM	100M
BromochloromethaneM	100M	UM	100M
BromoformM	100M	UM	100M
BromomethaneM	100M	U *M	100M
2-Butanone (MEK)M	1000M	UM	1000M
Carbon disulfideM	200M	UM	200M
Carbon tetrachlorideM	100M	UM	100M
ChlorobenzeneM	100M	UM	100M
ChlorodibromomethaneM	100M	UM	100M
ChloroethaneM	100M	UM	100M
ChloroformM	4500M		100M
ChloromethaneM	100M	UM	100M
2-ChlorotolueneM	100M	UM	100M
4-ChlorotolueneM	100M	UM	100M
cis-1,2-DichloroetheneM	100M	UM	100M
cis-1,3-DichloropropeneM	100M	UM	100M
1,2-Dibromo-3-ChloropropaneM	100M	UM	100M
1,2-DibromoethaneM	100M	UM	100M
ibromomethaneM	100M	UM	100M
1,3-DichlorobenzeneM	100M	UM	100M
1,2-DichlorobenzeneM	100M	UM	100M
1,4-DichlorobenzeneM	100M	UM	100M
ichlorobromomethaneM	100M	UM	100M
ichlorodifluoromethaneM	100M	UM	100M
1,1-DichloroethaneM	100M	UM	100M
1,2-DichloroethaneM	490M		100M
1,1-DichloroetheneM	100M	UM	100M
1,2-Dichloroethene, TotalM	200M	UM	200M
1,2-DichloropropaneM	100M	UM	100M
2,2-DichloropropaneM	100M	UM	100M
1,3-DichloropropaneM	100M	UM	100M
1,1-DichloropropeneM	100M	UM	100M
Diethyl etherM	5000M		1000M
EthylbenzeneM	100M	UM	100M
HexachlorobutadieneM	100M	UM	100M
2-HexanoneM	1000M	UM	1000M
IsopropylbenzeneM	100M	UM	100M
ethylene ChlorideM	720M		500
4-Methyl-2-pentanone (MIBK)M	1000M	UM	1000M
Diethyl tert-butyl etherM	1000M	UM	1000
m-Xylene & p-XyleneM	200M	UM	200M
NaphthaleneM	500M	UM	500M
n-ButylbenzeneM	100M	UM	100M
N-Propylbenzene	100M	UM	100M

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

Client Sample ID:T MW-1T

Lab Sample ID:M 680-62026-1M  
 Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1415M  
 Received: 10/09/2010 1006M

8260B Volatile Organic Compounds (GC/MS)

thod:M	8260BM	Analysis Batch: 680-183245M	Instrument ID:M	SOM
Preparation:M	5030B		Lab File ID:M	o0621.dM
ilution:M	100M		Initial Weight/Volume:M	5 mL
Analyzed:M	10/18/2010 1726M		Final Weight/Volume:M	5 mL
Prepared:M	10/18/2010 1726M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
o-XyleneM	100M	UM	100M
p-IsopropyltolueneM	100M	UM	100M
sec-ButylbenzeneM	100M	UM	100M
StyreneM	100M	UM	100M
rt-ButylbenzeneM	100M	UM	100M
1,1,2,2-TetrachloroethaneM	620M		100M
1,1,1,2-TetrachloroethaneM	100M	UM	100M
TetrachloroetheneM	100M	UM	100M
TolueneM	100M	UM	100M
rans-1,2-DichloroetheneM	100M	UM	100M
rans-1,3-DichloropropeneM	100M	UM	100M
1,2,4-TrichlorobenzeneM	100M	UM	100M
1,2,3-TrichlorobenzeneM	100M	UM	100M
1,1,1-TrichloroethaneM	100M	UM	100M
1,1,2-TrichloroethaneM	100M	UM	100M
TrichloroetheneM	140M		100M
TrichlorofluoromethaneM	100M	UM	100M
1,2,3-TrichloropropaneM	100M	UM	100M
1,2,4-TrimethylbenzeneM	100M	UM	100M
1,3,5-TrimethylbenzeneM	100M	UM	100M
Vinyl acetateM	200M	UM	200M
Vinyl chlorideM	100M	UM	100M
Xylenes, TotalM	200M	UM	200M

SurrogateM	%RecM	QualifierM	Acceptance LimitsM
4-BromofluorobenzeneM	102M		75 - 120M
ibromofluoromethaneM	94M		75 - 121M
Toluene-d8 (Surr)	111M		75 - 120M

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

Client Sample ID:T MW-2T

Lab Sample ID:M 680-62026-2M  
 Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1630M  
 Received: 10/09/2010 1006M

8260B Volatile Organic Compounds (GC/MS)

thod:M	8260BM	Analysis Batch: 680-183245M	Instrument ID:M	SOM
Preparation:M	5030B		Lab File ID:M	o0619.dM
ilution:M	200M		Initial Weight/Volume:M	5 mL
Analyzed:M	10/18/2010 1658M		Final Weight/Volume:M	5 mL
Prepared:M	10/18/2010 1658M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
AcetoneM	5000M	UM	5000M
BenzeneM	7600M		200M
BromobenzeneM	200M	UM	200M
BromochloromethaneM	200M	UM	200M
BromoformM	200M	UM	200M
BromomethaneM	200M	U *M	200M
2-Butanone (MEK)M	2000M	UM	2000M
Carbon disulfideM	400M	UM	400M
Carbon tetrachlorideM	200M	UM	200M
ChlorobenzeneM	220M		200M
ChlorodibromomethaneM	200M	UM	200M
ChloroethaneM	200M	UM	200M
ChloroformM	1100M		200M
ChloromethaneM	200M	UM	200M
2-ChlorotolueneM	200M	UM	200M
4-ChlorotolueneM	200M	UM	200M
cis-1,2-DichloroetheneM	200M	UM	200M
cis-1,3-DichloropropeneM	200M	UM	200M
1,2-Dibromo-3-ChloropropaneM	200M	UM	200M
1,2-DibromoethaneM	200M	UM	200M
ibromomethaneM	200M	UM	200M
1,3-DichlorobenzeneM	200M	UM	200M
1,2-DichlorobenzeneM	200M	UM	200M
1,4-DichlorobenzeneM	200M	UM	200M
ichlorobromomethaneM	200M	UM	200M
ichlorodifluoromethaneM	200M	UM	200M
1,1-DichloroethaneM	200M	UM	200M
1,2-DichloroethaneM	1400M		200M
1,1-DichloroetheneM	200M	UM	200M
1,2-Dichloroethene, TotalM	400M	UM	400M
1,2-DichloropropaneM	200M	UM	200M
2,2-DichloropropaneM	200M	UM	200M
1,3-DichloropropaneM	200M	UM	200M
1,1-DichloropropeneM	200M	UM	200M
iethyl etherM	14000M		2000M
EthylbenzeneM	410M		200M
HexachlorobutadieneM	200M	UM	200M
2-HexanoneM	2000M	UM	2000M
IsopropylbenzeneM	200M	UM	200M
hylene ChlorideM	1300M		1000
4-Methyl-2-pentanone (MIBK)M	2000M	UM	2000M
hyl tert-butyl etherM	2000M	UM	2000
m-Xylene & p-XyleneM	430M		400M
NaphthaleneM	1000M	UM	1000M
n-ButylbenzeneM	200M	UM	200M
N-Propylbenzene	200M	UM	200M

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

Client Sample ID:T MW-2T

Lab Sample ID:M 680-62026-2M  
 Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1630M  
 Received: 10/09/2010 1006M

8260B Volatile Organic Compounds (GC/MS)

thod:M	8260BM	Analysis Batch: 680-183245M	Instrument ID:M	SOM
Preparation:M	5030B		Lab File ID:M	o0619.dM
ilution:M	200M		Initial Weight/Volume:M	5 mL
Analyzed:M	10/18/2010 1658M		Final Weight/Volume:M	5 mL
Prepared:M	10/18/2010 1658M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
o-XyleneM	570M		200M
p-IsopropyltolueneM	200M	UM	200M
sec-ButylbenzeneM	200M	UM	200M
StyreneM	200M	UM	200M
rt-ButylbenzeneM	200M	UM	200M
1,1,2,2-TetrachloroethaneM	200M	UM	200M
1,1,1,2-TetrachloroethaneM	200M	UM	200M
TetrachloroetheneM	200M	UM	200M
TolueneM	200M	UM	200M
rans-1,2-DichloroetheneM	200M	UM	200M
rans-1,3-DichloropropeneM	200M	UM	200M
1,2,4-TrichlorobenzeneM	200M	UM	200M
1,2,3-TrichlorobenzeneM	200M	UM	200M
1,1,1-TrichloroethaneM	200M	UM	200M
1,1,2-TrichloroethaneM	200M	UM	200M
TrichloroetheneM	200M	UM	200M
TrichlorofluoromethaneM	200M	UM	200M
1,2,3-TrichloropropaneM	200M	UM	200M
1,2,4-TrimethylbenzeneM	200M	UM	200M
1,3,5-TrimethylbenzeneM	200M	UM	200M
Vinyl acetateM	400M	UM	400M
Vinyl chlorideM	200M	UM	200M
Xylenes, TotalM	1000M		400M

SurrogateM	%RecM	QualifierM	Acceptance LimitsM
4-BromofluorobenzeneM	102M		75 - 120M
ibromofluoromethaneM	94M		75 - 121M
Toluene-d8 (Surr)	110M		75 - 120M



Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

Client Sample ID:T MW-3T

Lab Sample ID:M 680-62026-3M  
 Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1550M  
 Received: 10/09/2010 1006M

8260B Volatile Organic Compounds (GC/MS)

thod:M	8260BM	Analysis Batch: 680-183229M	Instrument ID:M	SOM
Preparation:M	5030B		Lab File ID:M	o0581.dM
ilution:M	1.0M		Initial Weight/Volume:M	5 mL
Analyzed:M	10/15/2010 1545M		Final Weight/Volume:M	5 mL
Prepared:M	10/15/2010 1545M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
AcetoneM	25M	UM	25M
BenzeneM	1.0M	UM	1.0M
BromobenzeneM	1.0M	UM	1.0M
BromochloromethaneM	1.0M	UM	1.0M
BromoformM	1.0M	UM	1.0M
BromomethaneM	1.0M	UM	1.0M
2-Butanone (MEK)M	10M	UM	10M
Carbon disulfideM	2.0M	UM	2.0M
Carbon tetrachlorideM	1.0M	UM	1.0M
ChlorobenzeneM	1.0M	UM	1.0M
ChlorodibromomethaneM	1.0M	UM	1.0M
ChloroethaneM	1.0M	UM	1.0M
ChloroformM	1.0M	UM	1.0M
ChloromethaneM	1.0M	UM	1.0M
2-ChlorotolueneM	1.0M	UM	1.0M
4-ChlorotolueneM	1.0M	UM	1.0M
cis-1,2-DichloroetheneM	1.0M	UM	1.0M
cis-1,3-DichloropropeneM	1.0M	UM	1.0M
1,2-Dibromo-3-ChloropropaneM	1.0M	UM	1.0M
1,2-DibromoethaneM	1.0M	UM	1.0M
ibromomethaneM	1.0M	UM	1.0M
1,3-DichlorobenzeneM	1.0M	UM	1.0M
1,2-DichlorobenzeneM	1.0M	UM	1.0M
1,4-DichlorobenzeneM	1.0M	UM	1.0M
ichlorobromomethaneM	1.0M	UM	1.0M
ichlorodifluoromethaneM	1.0M	UM	1.0M
1,1-DichloroethaneM	1.0M	UM	1.0M
1,2-DichloroethaneM	1.0M	UM	1.0M
1,1-DichloroetheneM	1.0M	UM	1.0M
1,2-Dichloroethene, TotalM	2.0M	UM	2.0M
1,2-DichloropropaneM	1.0M	UM	1.0M
2,2-DichloropropaneM	1.0M	UM	1.0M
1,3-DichloropropaneM	1.0M	UM	1.0M
1,1-DichloropropeneM	1.0M	UM	1.0M
iethyl etherM	10M	UM	10M
EthylbenzeneM	1.0M	UM	1.0M
HexachlorobutadieneM	1.0M	UM	1.0M
2-HexanoneM	10M	UM	10M
IsopropylbenzeneM	1.0M	UM	1.0M
hylene ChlorideM	5.0M	UM	5.0
4-Methyl-2-pentanone (MIBK)M	10M	UM	10M
hyl tert-butyl etherM	10M	UM	10
m-Xylene & p-XyleneM	2.0M	UM	2.0M
NaphthaleneM	5.0M	UM	5.0M
n-ButylbenzeneM	1.0M	UM	1.0M
N-Propylbenzene	1.0M	UM	1.0M

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

Client Sample ID:T MW-3T

Lab Sample ID:M 680-62026-3M  
 Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1550M  
 Received: 10/09/2010 1006M

8260B Volatile Organic Compounds (GC/MS)

thod:M	8260BM	Analysis Batch: 680-183229M	Instrument ID:M	SOM
Preparation:M	5030B		Lab File ID:M	o0581.dM
ilution:M	1.0M		Initial Weight/Volume:M	5 mL
Analyzed:M	10/15/2010 1545M		Final Weight/Volume:M	5 mL
Prepared:M	10/15/2010 1545M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
o-XyleneM	1.0M	UM	1.0M
p-IsopropyltolueneM	1.0M	UM	1.0M
sec-ButylbenzeneM	1.0M	UM	1.0M
StyreneM	1.0M	UM	1.0M
rt-ButylbenzeneM	1.0M	UM	1.0M
1,1,2,2-TetrachloroethaneM	1.0M	UM	1.0M
1,1,1,2-TetrachloroethaneM	1.0M	UM	1.0M
TetrachloroetheneM	1.0M	UM	1.0M
TolueneM	1.0M	UM	1.0M
rans-1,2-DichloroetheneM	1.0M	UM	1.0M
rans-1,3-DichloropropeneM	1.0M	UM	1.0M
1,2,4-TrichlorobenzeneM	1.0M	UM	1.0M
1,2,3-TrichlorobenzeneM	1.0M	UM	1.0M
1,1,1-TrichloroethaneM	1.0M	UM	1.0M
1,1,2-TrichloroethaneM	1.0M	UM	1.0M
TrichloroetheneM	1.0M	UM	1.0M
TrichlorofluoromethaneM	1.0M	UM	1.0M
1,2,3-TrichloropropaneM	1.0M	UM	1.0M
1,2,4-TrimethylbenzeneM	1.0M	UM	1.0M
1,3,5-TrimethylbenzeneM	1.0M	UM	1.0M
Vinyl acetateM	2.0M	UM	2.0M
Vinyl chlorideM	1.0M	UM	1.0M
Xylenes, TotalM	2.0M	UM	2.0M

SurrogateM	%RecM	QualifierM	Acceptance LimitsM
4-BromofluorobenzeneM	97M		75 - 120M
ibromofluoromethaneM	93M		75 - 121M
Toluene-d8 (Surr)	114M		75 - 120M

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

Client Sample ID:T MW-38T

Lab Sample ID:M 680-62026-4M  
Client Matrix:M Ground WaterMSampled: 10/08/2010 1345M  
Received: 10/09/2010 1006M

## 8260B Volatile Organic Compounds (GC/MS)

thod:M	8260BM	Analysis Batch: 680-183229M	Instrument ID:M	SOM
Preparation:M	5030B		Lab File ID:M	o0583.dM
ilution:M	1.0M		Initial Weight/Volume:M	5 mL
Analyzed:M	10/15/2010 1614M		Final Weight/Volume:M	5 mL
Prepared:M	10/15/2010 1614M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
AcetoneM	25M	UM	25M
BenzeneM	1.0M	UM	1.0M
BromobenzeneM	1.0M	UM	1.0M
BromochloromethaneM	1.0M	UM	1.0M
BromoformM	1.0M	UM	1.0M
BromomethaneM	1.0M	UM	1.0M
2-Butanone (MEK)M	10M	UM	10M
Carbon disulfideM	2.0M	UM	2.0M
Carbon tetrachlorideM	1.0M	UM	1.0M
ChlorobenzeneM	2.1M	UM	1.0M
ChlorodibromomethaneM	1.0M	UM	1.0M
ChloroethaneM	1.0M	UM	1.0M
ChloroformM	1.0M	UM	1.0M
ChloromethaneM	1.0M	UM	1.0M
2-ChlorotolueneM	1.0M	UM	1.0M
4-ChlorotolueneM	1.0M	UM	1.0M
cis-1,2-DichloroetheneM	1.0M	UM	1.0M
cis-1,3-DichloropropeneM	1.0M	UM	1.0M
1,2-Dibromo-3-ChloropropaneM	1.0M	UM	1.0M
1,2-DibromoethaneM	1.0M	UM	1.0M
ibromomethaneM	1.0M	UM	1.0M
1,3-DichlorobenzeneM	1.0M	UM	1.0M
1,2-DichlorobenzeneM	1.0M	UM	1.0M
1,4-DichlorobenzeneM	1.0M	UM	1.0M
ichlorobromomethaneM	1.0M	UM	1.0M
ichlorodifluoromethaneM	1.0M	UM	1.0M
1,1-DichloroethaneM	1.0M	UM	1.0M
1,2-DichloroethaneM	21M	UM	1.0M
1,1-DichloroetheneM	1.0M	UM	1.0M
1,2-Dichloroethene, TotalM	2.0M	UM	2.0M
1,2-DichloropropaneM	1.0M	UM	1.0M
2,2-DichloropropaneM	1.0M	UM	1.0M
1,3-DichloropropaneM	1.0M	UM	1.0M
1,1-DichloropropeneM	1.0M	UM	1.0M
iethyl etherM	390M	EM	10M
EthylbenzeneM	1.0M	UM	1.0M
HexachlorobutadieneM	1.0M	UM	1.0M
2-HexanoneM	10M	UM	10M
IsopropylbenzeneM	1.0M	UM	1.0M
hylene ChlorideM	5.0M	UM	5.0
4-Methyl-2-pentanone (MIBK)M	10M	UM	10M
hyl tert-butyl etherM	10M	UM	10
m-Xylene & p-XyleneM	2.0M	UM	2.0M
NaphthaleneM	5.0M	UM	5.0M
n-ButylbenzeneM	1.0M	UM	1.0M
N-Propylbenzene	1.0M	UM	1.0M

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

Client Sample ID:T MW-38T

Lab Sample ID:M 680-62026-4M  
 Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1345M  
 Received: 10/09/2010 1006M

8260B Volatile Organic Compounds (GC/MS)

thod:M	8260BM	Analysis Batch: 680-183229M	Instrument ID:M	SOM
Preparation:M	5030B		Lab File ID:M	o0583.dM
ilution:M	1.0M		Initial Weight/Volume:M	5 mL
Analyzed:M	10/15/2010 1614M		Final Weight/Volume:M	5 mL
Prepared:M	10/15/2010 1614M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
o-XyleneM	1.0M	UM	1.0M
p-IsopropyltolueneM	1.0M	UM	1.0M
sec-ButylbenzeneM	1.0M	UM	1.0M
StyreneM	1.0M	UM	1.0M
rt-ButylbenzeneM	1.0M	UM	1.0M
1,1,2,2-TetrachloroethaneM	1.0M	UM	1.0M
1,1,1,2-TetrachloroethaneM	1.0M	UM	1.0M
TetrachloroetheneM	1.0M	UM	1.0M
TolueneM	1.0M	UM	1.0M
rans-1,2-DichloroetheneM	1.0M	UM	1.0M
rans-1,3-DichloropropeneM	1.0M	UM	1.0M
1,2,4-TrichlorobenzeneM	1.0M	UM	1.0M
1,2,3-TrichlorobenzeneM	1.0M	UM	1.0M
1,1,1-TrichloroethaneM	1.0M	UM	1.0M
1,1,2-TrichloroethaneM	1.0M	UM	1.0M
TrichloroetheneM	1.0M	UM	1.0M
TrichlorofluoromethaneM	1.0M	UM	1.0M
1,2,3-TrichloropropaneM	1.0M	UM	1.0M
1,2,4-TrimethylbenzeneM	1.0M	UM	1.0M
1,3,5-TrimethylbenzeneM	1.0M	UM	1.0M
Vinyl acetateM	2.0M	UM	2.0M
Vinyl chlorideM	1.0M	UM	1.0M
Xylenes, TotalM	2.0M	UM	2.0M

SurrogateM	%RecM	QualifierM	Acceptance LimitsM
4-BromofluorobenzeneM	99M		75 - 120M
ibromofluoromethaneM	96M		75 - 121M
Toluene-d8 (Surr)	112M		75 - 120M

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

Client Sample ID:T MW-39T

Lab Sample ID:M 680-62026-5M  
 Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1500M  
 Received: 10/09/2010 1006M

8260B Volatile Organic Compounds (GC/MS)

thod:M	8260BM	Analysis Batch: 680-183229M	Instrument ID:M	SOM
Preparation:M	5030B		Lab File ID:M	o0585.dM
ilution:M	1.0M		Initial Weight/Volume:M	5 mL
Analyzed:M	10/15/2010 1643M		Final Weight/Volume:M	5 mL
Prepared:M	10/15/2010 1643M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
AcetoneM	25M	UM	25M
BenzeneM	1.0M	UM	1.0M
BromobenzeneM	1.0M	UM	1.0M
BromochloromethaneM	1.0M	UM	1.0M
BromoformM	1.0M	UM	1.0M
BromomethaneM	1.0M	UM	1.0M
2-Butanone (MEK)M	10M	UM	10M
Carbon disulfideM	2.0M	UM	2.0M
Carbon tetrachlorideM	1.0M	UM	1.0M
ChlorobenzeneM	1.0M	UM	1.0M
ChlorodibromomethaneM	1.0M	UM	1.0M
ChloroethaneM	1.0M	UM	1.0M
ChloroformM	1.0M	UM	1.0M
ChloromethaneM	1.0M	UM	1.0M
2-ChlorotolueneM	1.0M	UM	1.0M
4-ChlorotolueneM	1.0M	UM	1.0M
cis-1,2-DichloroetheneM	1.0M	UM	1.0M
cis-1,3-DichloropropeneM	1.0M	UM	1.0M
1,2-Dibromo-3-ChloropropaneM	1.0M	UM	1.0M
1,2-DibromoethaneM	1.0M	UM	1.0M
ibromomethaneM	1.0M	UM	1.0M
1,3-DichlorobenzeneM	1.0M	UM	1.0M
1,2-DichlorobenzeneM	1.0M	UM	1.0M
1,4-DichlorobenzeneM	1.0M	UM	1.0M
ichlorobromomethaneM	1.0M	UM	1.0M
ichlorodifluoromethaneM	1.0M	UM	1.0M
1,1-DichloroethaneM	1.0M	UM	1.0M
1,2-DichloroethaneM	1.0M	UM	1.0M
1,1-DichloroetheneM	1.0M	UM	1.0M
1,2-Dichloroethene, TotalM	2.0M	UM	2.0M
1,2-DichloropropaneM	1.0M	UM	1.0M
2,2-DichloropropaneM	1.0M	UM	1.0M
1,3-DichloropropaneM	1.0M	UM	1.0M
1,1-DichloropropeneM	1.0M	UM	1.0M
iethyl etherM	10M	UM	10M
EthylbenzeneM	1.0M	UM	1.0M
HexachlorobutadieneM	1.0M	UM	1.0M
2-HexanoneM	10M	UM	10M
IsopropylbenzeneM	1.0M	UM	1.0M
hylene ChlorideM	5.0M	UM	5.0
4-Methyl-2-pentanone (MIBK)M	10M	UM	10M
hyl tert-butyl etherM	10M	UM	10
m-Xylene & p-XyleneM	2.0M	UM	2.0M
NaphthaleneM	5.0M	UM	5.0M
n-ButylbenzeneM	1.0M	UM	1.0M
N-Propylbenzene	1.0M	UM	1.0M

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

Client Sample ID:T MW-39T

Lab Sample ID:M 680-62026-5M  
 Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1500M  
 Received: 10/09/2010 1006M

8260B Volatile Organic Compounds (GC/MS)

thod:M	8260BM	Analysis Batch: 680-183229M	Instrument ID:M	SOM
Preparation:M	5030B		Lab File ID:M	o0585.dM
ilution:M	1.0M		Initial Weight/Volume:M	5 mL
Analyzed:M	10/15/2010 1643M		Final Weight/Volume:M	5 mL
Prepared:M	10/15/2010 1643M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
o-XyleneM	1.0M	UM	1.0M
p-IsopropyltolueneM	1.0M	UM	1.0M
sec-ButylbenzeneM	1.0M	UM	1.0M
StyreneM	1.0M	UM	1.0M
rt-ButylbenzeneM	1.0M	UM	1.0M
1,1,2,2-TetrachloroethaneM	1.0M	UM	1.0M
1,1,1,2-TetrachloroethaneM	1.0M	UM	1.0M
TetrachloroetheneM	1.0M	UM	1.0M
TolueneM	1.0M	UM	1.0M
rans-1,2-DichloroetheneM	1.0M	UM	1.0M
rans-1,3-DichloropropeneM	1.0M	UM	1.0M
1,2,4-TrichlorobenzeneM	1.0M	UM	1.0M
1,2,3-TrichlorobenzeneM	1.0M	UM	1.0M
1,1,1-TrichloroethaneM	1.0M	UM	1.0M
1,1,2-TrichloroethaneM	1.0M	UM	1.0M
TrichloroetheneM	1.0M	UM	1.0M
TrichlorofluoromethaneM	1.0M	UM	1.0M
1,2,3-TrichloropropaneM	1.0M	UM	1.0M
1,2,4-TrimethylbenzeneM	1.0M	UM	1.0M
1,3,5-TrimethylbenzeneM	1.0M	UM	1.0M
Vinyl acetateM	2.0M	UM	2.0M
Vinyl chlorideM	1.0M	UM	1.0M
Xylenes, TotalM	2.0M	UM	2.0M

SurrogateM	%RecM	QualifierM	Acceptance LimitsM
4-BromofluorobenzeneM	98M		75 - 120M
ibromofluoromethaneM	93M		75 - 121M
Toluene-d8 (Surr)	113M		75 - 120M

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

Client Sample ID:T MW-1T

Lab Sample ID:M 680-62026-1M  
 Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1415M  
 Received: 10/09/2010 1006M

**6010C Metals (ICP)**

Method:M	6010CM	Analysis Batch: 680-182792M	Instrument ID:M	ICPDM
Preparation:M	3030CM	Prep Batch: 680-182513M	Lab File ID:M	1012101012105.chrM
Dilution:M	1.0M		Initial Weight/Volume:M	50 mL
Analyzed:M	10/12/2010 2142M		Final Weight/Volume:M	50 mL
Prepared:M	10/11/2010 1148M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
ArsenicM	20M	UM	20M
BariumM	50M	UM	50M
CadmiumM	5.0M	UM	5.0M
ChromiumM	10M	UM	10M
IronM	6100M		100M
LeadM	10M	UM	10M
SeleniumM	20M	UM	20M
Silver	10M	UM	10M

Method:M	6010CM	Analysis Batch: 680-184533M	Instrument ID:M	Varian ICPM
Preparation:M	3030CM	Prep Batch: 680-182513M	Lab File ID:M	E10282010.csvM
Dilution:M	10M		Initial Weight/Volume:M	50 mL
Analyzed:M	10/28/2010 1430M		Final Weight/Volume:M	50 mL
Prepared:M	10/11/2010 1148M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
SodiumM	270000M		10000M

**7470A Mercury (CVAA)**

Method:M	7470AM	Analysis Batch: 680-182841M	Instrument ID:M	LEEMAN1M
Preparation:M	7470AM	Prep Batch: 680-182651M	Lab File ID:M	b101210.chrM
Dilution:M	1.0M		Initial Weight/Volume:M	50 mL
Analyzed:M	10/13/2010 1403M		Final Weight/Volume:M	50 mL
Prepared:M	10/12/2010 1047M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
Mercury	0.20M	UM	0.20

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

Client Sample ID:T MW-2T

Lab Sample ID:M 680-62026-2M  
 Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1630M  
 Received: 10/09/2010 1006M

**6010C Metals (ICP)**

Method:M	6010CM	Analysis Batch: 680-182792M	Instrument ID:M	ICPDM
Preparation:M	3030CM	Prep Batch: 680-182513M	Lab File ID:M	1012101012105.chrM
Dilution:M	1.0M		Initial Weight/Volume:M	50 mL
Analyzed:M	10/12/2010 2208M		Final Weight/Volume:M	50 mL
Prepared:M	10/11/2010 1148M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
ArsenicM	20M	UM	20M
BariumM	50M	UM	50M
CadmiumM	5.0M	UM	5.0M
ChromiumM	10M	UM	10M
IronM	7600M		100M
LeadM	10M	UM	10M
SeleniumM	20M	UM	20M
SilverM	10M	UM	10M
SodiumM	65000M		1000M

**7470A Mercury (CVAA)**

Method:M	7470AM	Analysis Batch: 680-182841M	Instrument ID:M	LEEMAN1M
Preparation:M	7470AM	Prep Batch: 680-182651M	Lab File ID:M	b101210.chrM
Dilution:M	1.0M		Initial Weight/Volume:M	50 mL
Analyzed:M	10/13/2010 1406M		Final Weight/Volume:M	50 mL
Prepared:M	10/12/2010 1047M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
Mercury	0.20M	UM	0.20



Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

Client Sample ID:T MW-3T

Lab Sample ID:M 680-62026-3M  
 Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1550M  
 Received: 10/09/2010 1006M

**6010C Metals (ICP)**

Method:M	6010CM	Analysis Batch: 680-182792M	Instrument ID:M	ICPDM
Preparation:M	3030CM	Prep Batch: 680-182513M	Lab File ID:M	1012101012105.chrM
Dilution:M	1.0M		Initial Weight/Volume:M	50 mL
Analyzed:M	10/12/2010 2213M		Final Weight/Volume:M	50 mL
Prepared:M	10/11/2010 1148M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
ArsenicM	20M	UM	20M
BariumM	250M		50M
CadmiumM	5.0M	UM	5.0M
ChromiumM	140M		10M
IronM	300M		100M
LeadM	10M	UM	10M
SeleniumM	20M	UM	20M
Silver	10M	UM	10M

Method:M	6010CM	Analysis Batch: 680-184533M	Instrument ID:M	Varian ICPM
Preparation:M	3030CM	Prep Batch: 680-182513M	Lab File ID:M	E10282010.csvM
Dilution:M	10M		Initial Weight/Volume:M	50 mL
Analyzed:M	10/28/2010 1444M		Final Weight/Volume:M	50 mL
Prepared:M	10/11/2010 1148M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
SodiumM	80000M		10000M

**7470A Mercury (CVAA)**

Method:M	7470AM	Analysis Batch: 680-182841M	Instrument ID:M	LEEMAN1M
Preparation:M	7470AM	Prep Batch: 680-182651M	Lab File ID:M	b101210.chrM
Dilution:M	1.0M		Initial Weight/Volume:M	50 mL
Analyzed:M	10/13/2010 1409M		Final Weight/Volume:M	50 mL
Prepared:M	10/12/2010 1047M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
Mercury	0.20M	UM	0.20

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

Client Sample ID:T MW-38T

Lab Sample ID:M 680-62026-4M  
 Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1345M  
 Received: 10/09/2010 1006M

**6010C Metals (ICP)**

Method:M	6010CM	Analysis Batch: 680-182792M	Instrument ID:M	ICPDM
Preparation:M	3030CM	Prep Batch: 680-182513M	Lab File ID:M	1012101012105.chrM
Dilution:M	1.0M		Initial Weight/Volume:M	50 mL
Analyzed:M	10/12/2010 2229M		Final Weight/Volume:M	50 mL
Prepared:M	10/11/2010 1148M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
ArsenicM	20M	UM	20M
BariumM	50M	UM	50M
CadmiumM	5.0M	UM	5.0M
ChromiumM	10M	UM	10M
IronM	260M		100M
LeadM	10M	UM	10M
SeleniumM	20M	UM	20M
SilverM	10M	UM	10M
SodiumM	42000M		1000M

**7470A Mercury (CVAA)**

Method:M	7470AM	Analysis Batch: 680-182841M	Instrument ID:M	LEEMAN1M
Preparation:M	7470AM	Prep Batch: 680-182651M	Lab File ID:M	b101210.chrM
Dilution:M	1.0M		Initial Weight/Volume:M	50 mL
Analyzed:M	10/13/2010 1418M		Final Weight/Volume:M	50 mL
Prepared:M	10/12/2010 1047M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
Mercury	0.20M	UM	0.20

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

Client Sample ID:T MW-39T

Lab Sample ID:M 680-62026-5M  
 Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1500M  
 Received: 10/09/2010 1006M

**6010C Metals (ICP)**

Method:M	6010CM	Analysis Batch: 680-182792M	Instrument ID:M	ICPDM
Preparation:M	3030CM	Prep Batch: 680-182513M	Lab File ID:M	1012101012105.chrM
Dilution:M	1.0M		Initial Weight/Volume:M	50 mL
Analyzed:M	10/12/2010 2235M		Final Weight/Volume:M	50 mL
Prepared:M	10/11/2010 1148M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
ArsenicM	20M	UM	20M
BariumM	63M		50M
CadmiumM	5.0M	UM	5.0M
ChromiumM	10M	UM	10M
IronM	100M	UM	100M
LeadM	10M	UM	10M
SeleniumM	20M	UM	20M
SilverM	10M	UM	10M
SodiumM	23000M		1000M

**7470A Mercury (CVAA)**

Method:M	7470AM	Analysis Batch: 680-182841M	Instrument ID:M	LEEMAN1M
Preparation:M	7470AM	Prep Batch: 680-182651M	Lab File ID:M	b101210.chrM
Dilution:M	1.0M		Initial Weight/Volume:M	50 mL
Analyzed:M	10/13/2010 1422M		Final Weight/Volume:M	50 mL
Prepared:M	10/12/2010 1047M			

AnalyteM	Result (ug/L)M	QualifierM	RLM
Mercury	0.20M	UM	0.20

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

---

General ChemistryT

Client Sample ID:T MW-1T

Lab Sample ID:M 680-62026-1M  
Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1415M  
Received: 10/09/2010 1006M

AnalyteM	ResultM	QualM	UnitsM	RLM	il	hodM
SulfateM	290M		mg/LM	100M	20M	9038M

Analysis Batch: 680-183526M Analyzed: 10/20/2010 1239

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

---

General ChemistryT

Client Sample ID:T MW-2T

Lab Sample ID:M 680-62026-2M  
Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1630M  
Received: 10/09/2010 1006M

AnalyteM	ResultM	QualM	UnitsM	RLM	il	hodM
SulfateM	270M		mg/LM	100M	20M	9038M
Analysis Batch: 680-183526M		Analyzed: 10/20/2010 1239				

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

---

General ChemistryT

Client Sample ID:T MW-3T

Lab Sample ID:M 680-62026-3M  
Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1550M  
Received: 10/09/2010 1006M

AnalyteM	ResultM	QualM	UnitsM	RLM	il	hodM
SulfateM	53M		mg/LM	10M	2.0M	9038M

Analysis Batch: 680-183526M Analyzed: 10/20/2010 1239

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

---

**General ChemistryT**

**Client Sample ID:T MW-38T**

Lab Sample ID:M 680-62026-4M  
Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1345M  
Received: 10/09/2010 1006M

AnalyteM	ResultM	QualM	UnitsM	RLM	il	hodM
SulfateM	26M		mg/LM	5.0M	1.0M	9038M

Analysis Batch: 680-183526M Analyzed: 10/20/2010 1231

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

---

**General ChemistryT**

**Client Sample ID:T MW-39T**

Lab Sample ID:M 680-62026-5M  
Client Matrix:M Ground WaterM

Sampled: 10/08/2010 1500M  
Received: 10/09/2010 1006M

AnalyteM	ResultM	QualM	UnitsM	RLM	il	hodM
SulfateM	14M		mg/LM	5.0M	1.0M	9038M

Analysis Batch: 680-183526M Analyzed: 10/20/2010 1231



**D T R P O R T N U L I F a R S h**

Client: ARCADIS U.S., Inc.M

Job Number: 680-62026-1M

Lab Sectionp	u alifierM	Descriptionp
GC/MS VOAM		
	UM	IndicaT s tM analyT was analyzI d for but not dT cteM.M
	*I	LCS or LCSD eM ceM s tM control limitM
	EI	Result eM ceM d calibraTon rangl.M
	*I	RPI o f tM LCS and LCSD eM ceM s tM control limitM
MT alsT		
	UM	IndicaT s tM analyT was analyzI d for but not dT cteM.M
	4I	MS, MSD: ThT analyT presM nt in tM Tori ginal sample is 4 M imeM greM Tr tM a tM m a Tix spikI concentraTon; tM FeM re, M control limitM are not applicablM.
GTher al ChTni sTyT		
	UM	IndicaT s tM analyT was analyzI d for but not dT cteM.M

Client: A, A, IS U.S., Inc.,

Job Number: 680-6202M1,

Method Book - Batch: 680-183T9I

Method: 8660Bv  
Preparation: 6030Bv

LFb S, mpl, I, MB 680-1, 3229/11,  
 li, t MTt,ixT W, t,  
 ilutio. 1.0.  
 t, An, lyzFdM 10/15/2010 1215M  
 t, . pF dM 10/15/2010 1215M

An, lysis BMchM 680-1, 3229M  
 p BMchMN/A,  
 Units: ug/LF

Inst,ume.t I, MSOM  
 LFb Fil, I, oq349.dM  
 Initi, I W, ight/Volume: 5 mL  
 Fin, I W, ight/Volume: 5 mL

A, lyt,	su lt,	Qu. I,	LF
A, to.	25M	U	25M
BM zF	1.0.	U	1.0.
BMmobe. zF	1.0.	U	1.0.
BMmo. hloromethM	1.0.	U	1.0.
BMmoform.	1.0.	U	1.0.
BMmomethM	1.0.	U	1.0.
2-But, o. (MEK)l	10.	U	10.
bo. disulfidM	2.0.	U	2.0.
bo. t, t, hloridM	1.0.	U	1.0.
hlorobe. zF	1.0.	U	1.0.
hlorodibromomethM	1.0.	U	1.0.
hloroethM	1.0.	U	1.0.
hloroform.	1.0.	U	1.0.
hloromethM	1.0.	U	1.0.
2- hlorotolue.	1.0.	U	1.0.
4- hlorotolue.	1.0.	U	1.0.
i s-1,2- ichloroethM	1.0.	U	1.0.
i s-1,3- ichloropFpF	1.0.	U	1.0.
1,2- ibromo-3- hloropFpF	1.0.	U	1.0.
1,2- ibromoethM	1.0.	U	1.0.
ibromomethM	1.0.	U	1.0.
1,3- ichlorobe. zF	1.0.	U	1.0.
1,2- ichlorobe. zF	1.0.	U	1.0.
1,4- ichlorobe. zF	1.0.	U	1.0.
ichlorobromomethM	1.0.	U	1.0.
ichlorodifluoromethM	1.0.	U	1.0.
1,1- ichloroethM	1.0.	U	1.0.
1,2- ichloroethM	1.0.	U	1.0.
1,1- ichloroethM	1.0.	U	1.0.
1,2- ichloroethM Tot, I,	2.0.	U	2.0.
1,2- ichloropFpF	1.0.	U	1.0.
2M- ichloropFpF	1.0.	U	1.0.
1,3- ichloropFpF	1.0.	U	1.0.
1,1- ichloropFpF	1.0.	U	1.0.
i, thyl ethM	10.	U	10.
Ethylbe. zF	1.0.	U	1.0.
HI xT hlorobut, d i,	1.0.	U	1.0.
2-HI xT o.	10.	U	10.
IsopFpylbe. zF	1.0.	U	1.0.
MTthyl, . hloridM	5.0.	U	5.0.
4-MTthyl-2-pF t, o. (MIBK)l	10.	U	10.
MTthyl t, t-butyl ethM	10.	U	10.
m-Xyl, & p-Xyl,	2.0.	U	2.0.

Client: A, A, IS U.S., Inc.,

Job Number: 680-6202M1,

Method Book - Batch: 680-183T9I

Method: 8660Bv  
Preparation: 6030Bv

LFb S, mpl, I, MB 680-1, 3229/11,  
li, t MTt,ixT W, t,  
ilutio. 1.0.  
t, An, lyzFdM 10/15/2010 1215M  
t, . pF dM 10/15/2010 1215M

An, lysis BMchM 680-1, 3229M  
p BMchMN/A,  
Units: ug/LF

Inst,ume.t I, MSOM  
LFb Fil, I, oq349.dM  
Initi, I W, ight/Volume: 5 mL  
Fin, I W, ight/Volume: 5 mL

A, lyt,	su lt,	Qu. I,	LF
N. phthM,	5.0.	U	5.0.
-Butylbe. zF	1.0.	U	1.0.
N-. opylbe. zF	1.0.	U	1.0.
o-Xyl,	1.0.	U	1.0.
p-Isopropyltolue.	1.0.	U	1.0.
se. -Butylbe. zF	1.0.	U	1.0.
StyT	1.0.	U	1.0.
t, t-Butylbe. zF	1.0.	U	1.0.
1,1,2-Tl t, hloroethM	1.0.	U	1.0.
1,1,1,2-Tl t, hloroethM	1.0.	U	1.0.
Tl t, hloroethM	1.0.	U	1.0.
Tolue.	1.0.	U	1.0.
t, s-1,2-. ichloroethM	1.0.	U	1.0.
t, s-1,3-. ichloropF	1.0.	U	1.0.
1,2-Tlichlorobe. zF	1.0.	U	1.0.
1,2,3-Tlichlorobe. zF	1.0.	U	1.0.
1,1,1-TlichloroethM	1.0.	U	1.0.
1,1,2-TlichloroethM	1.0.	U	1.0.
TlichloroethM	1.0.	U	1.0.
TlichlorofluoromethM	1.0.	U	1.0.
1,2,3-TlichloropF	1.0.	U	1.0.
1,2-Tlimethylbe. zF	1.0.	U	1.0.
1,3,5-Tlimethylbe. zF	1.0.	U	1.0.
Vinyl . t, t,	2.0.	U	2.0.
Vinyl . hloridM	1.0.	U	1.0.
Xyl, es. Tot, I,	2.0.	U	2.0.

Surrog t,	% .	Acc, pt,	Limits.
4-Bromofluorobe. zF	100.	75 - 120.	
ibromofluoromethM	9M	75 - 121,	
Tolue. - dM(Surr)l	109M	75 - 120.	

Client: A, A, IS U.S., Inc.,

Job Number: 680-6202M1,

Method: 8660Bv  
 Recovery Report - Batch: 680-183T9I

Preparation: 6030Bv

LFS LFb S, mpl, I,	LFS 680-1, 3229/9M	An, lysis BMchM 680-1, 3229M	Inst, ume.t I,	MSOM
li, t MTt, ixT	W, t,	p BMchMN/A,	LFb Fil, I,	oq343.dM
ilutio.	1.0.	Units:.. ug/LF	Initi, I W, ight/Volume:..	5 mLF
t, An, lyzFdM	10/15/2010 1049M		Fin, I W, ight/Volume:..	5 mLF
t, . pF dM	10/15/2010 1049M			

LFS, LFb S, mpl, I,	LFS, 680-1, 3229/12M	An, lysis BMchM 680-1, 3229M	Inst, ume.t I,	MSOM
li, t MTt ixT	W, t,	p BMch: N/A,	LFb Fil, I,	oq351.dM
ilutio.	1.0.	Units:.. ug/LF	Initi, I W, ight/Volume:..	5 mLF
t, An, lyzFdM	10/15/2010 2003,		Fin, I W, ight/Volume:..	5 mLF
t, . pF dM	10/15/2010 2003,			

A, lyt,	% . . . .		Limit,	Limit,	LFS Qu I,	LFS, Qu I,
	LFS,	LFS,				
A, to.	122M	112M	17 - 175M		50.	
BM zF	101,	110.	77 - 119M		30.	
BMmobe. zF	103,	104I	0 - 124I	1,	30.	
BMmo. hloromethM	109M	105M	10 - 150.	4I	30.	
BMmoform.	91,	7I	2 - 133,	4I	30.	
BMmomethM	108.	111,	12 - 1, 4I	3,	50.	
2-But, o. (MEK)I	107I	106.	33 - 157I	1,	30.	
bo. disulfidM	11,	111,	55 - 131,	5M	30.	
bo. t, t, hloridM	107I	111,	71 - 135M	4I	30.	
hlorobe. zF	99M	9M	5 - 11,	1,	30.	
hlorodibromomethM	110.	105M	75 - 133,	4I	30.	
hloroethM	145M	1, 4I	40 - 1, 5M	12M	50.	
hloroform.	101,	9M	2 - 120.	4I	30.	
hloromethM	123,	125M	4I - 142M	2M	50.	
2- hlorotolue.	108.	109M	2 - 123,	1,	30.	
4- hlorotolue.	1108.	109M	3 - 122M	1,	30.	
i s-1,2- i chloroethM	102M	9M	9 - 134I	4I	30.	
i s-1,3- i chloropFpF	109M	109M	7I - 12M	0.	30.	
1,2- ibromo-3- hloropFpF	105M	103,	49 - 140.	2M	30.	
1,2- ibromoethM	102M	110.	0 - 121,	7I	30.	
ibromomethM	102M	112M	7I - 119M	9M	30.	
1,3- i chlorobe. zF	105M	107I	7I - 125M	2M	30.	
1,2- i chlorobe. zF	104I	108.	79 - 124I	3,	30.	
1,4- i chlorobe. zF	104I	106.	1 - 122M	2M	30.	
i chlorobromomethM	105M	115M	7I - 127I	9M	30.	
i chlorodifluoromethM	137I	123,	34 - 154I	11,	30.	
1,1- i chloroethM	102M	101,	74 - 127I	1,	30.	
1,2- i chloroethM	102M	115M	- 132M	12M	30.	
1,1- i chloroethM	11,	107I	2 - 141,		30.	
1,2- i chloroethM Tot, I,	103,	99M	- 134I	4I	30.	
1,2- i chloropFpF	103,	113,	73 - 124I	9M	30.	
2M- i chloropFpF	11,	9M	55 - 157I	2M	30.	
1,3- i chloropFpF	103,	114I	75 - 120.	10.	30.	

li, t, A, A, IS U.S., Inc.,

Job Number: 680-6202M1,

**LUBCONROUSVMPUE/V**  
**LUBCONROUSVMPUEVDVpucv eVRecovery Reporu- Bv ch: 680-183T9I**

**MeVhod: 0660Bv**  
**Prepuru on: 6030Bv**

LFS LfB S, mpl, I,	LFS 680-1, 3229/9M	An, lysis BMchM 680-1, 3229M	Inšt,ume.t I,	MSOM
li, t MTt,ixT	W, t,	p BMchMN/A,	LFb Fil, I,	oq343.dM
ilutio.	1.0.	Units:.. ug/LF	Initi, I W, ight/Volume:..	5 mLF
t, An, lyzFdM	10/15/2010 1049M		Fin, I W, ight/Volume:..	5 mLF
t, . pF dM	10/15/2010 1049M			

LFS, LfB S, mpl, I,	LFS, 680-1, 3229/12M	An, lysis BMchM 680-1, 3229M	Inšt,ume.t I,	MSOM
li, t MTt ixT	W, t,	p BMch: N/A,	LFb Fil, I,	oq351.dM
ilutio.	1.0.	Units:.. ug/LF	Initi, I W, ight/Volume:..	5 mLF
t, An, lyzFdM	10/15/2010 2003,		Fin, I W, ight/Volume:..	5 mLF
t, . pF dM	10/15/2010 2003,			

A, lyt,	LFS,	% . . . . LFS,	Limit,	Limit,	LFS Qu I,	LFS, Qu I,
1,1- icloropFpF	107I	113,	77 - 122M	30.		
Ethylbe. zF	108.	107I	- 11,	1,	30.	
HI xT hlorobut,di	104I	97I	2 - 142M		30.	
2-HI xT o.	114I	121,	34 - 1, 1,		30.	
IsopFopylbe. zF	92M	93,	2 - 121,	1,	30.	
MTthyl, . hloridM	105M	9M	70 - 125M		30.	
4-MTthyl-2-pF t, o. (MIBK)I	112M	125M	40 - 151	,11	, 30.	
MTthyl t, t-butyl ethM	102M	97I	77 - 121,	5M	30.	
m-Xyl, & p-Xyl,	106.	106.	3 - 11,	0.	30.	
N. phthM,	97I	95M	4I - 135M	3,	30.	
-Butylbe. zF	106.	104I	4 - 13,	2M	30.	
N-. opylbe. zF	112M	111,	0 - 12M	1,	30.	
o-Xyl,	105M	107I	3 - 119M	2M	30.	
p-IsopFopyltolue.	102M	104I	3 - 139M	2M	30.	
se. -Butylbe. zF	112M	114I	77 - 12M	2M	30.	
StyT		9M	2 - 122M	1,	30.	
t, t-Butylbe. zF	94I	94I	0 - 124I	0.	30.	
1,1,2M-TI t, hloroethM	103,	106.	9 - 129M	3,	30.	
1,1,1,2-TI t, hloroethM	103,	100.	1 - 12M	2M	30.	
TI t, hloroethM	99M	92M	7I - 12M	7I	30.	
Tolue.	107I	11,	1 - 117I		30.	
t, s-1,2- icloroethM	104I	101,	72 - 131,	3,	30.	
t, s-1,3- icloropFpF	112M	113,	73 - 12M	1,	30.	
1,2M-Tlichlorobe. zF	7I	2M	0 - 135M		30.	
1,2,3-Tlichlorobe. zF	91,		0 - 132M	4I	30.	
1,1,1-TlichloroethM	106.	109M	7I - 127I	3,	30.	
1,1,2-TlichloroethM	104I	111,	75 - 121,	7I	30.	
TlichloroethM	9M	101,	4 - 115M	5M	30.	
TlichlorofluoromethM	121,	12M	5M 149M		50.	
1,2,3-TlichloropFpF	105M	109M	70 - 130.	4I	30.	
1,2M-Tlimethylbe. zF	9M	97I	72 - 132M	1,	30.	
1,3,5-Tlimethylbe. zF	102M	104I	72 - 133,	2M	30.	
Vinyl. t, t,	120.	9M	10 - 217I	23,	30.	

Client: A, A, IS U.S., Inc.,

Job Number: 680-6202M1,

Lab: ConrouSmp/V  
 Lab: ConrouSmp/V pucv e Recovery Reporu- Bv ch: 680-183T9I

Method: 8660Bv  
 Prepuration: 6030Bv

LFS LFb S, mpl, I, li, t MTt,ixT ilutio. t, An, lyzFdM t, . pF dM	LFS 680-1, 3229/9M W, t, 1.0. 10/15/2010 1049M 10/15/2010 1049M	An, lysis BMchM 680-1, 3229M p BMchMN/A, Units: ug/LF	Inst,ume.t I, MSOM LFb Fil, I, oq343.dM Initi, I W, ight/Volume: 5 mL Fin, I W, ight/Volume: 5 mL
---	---	---	--

LFS LFb S, mpl, I, li, t MTt,ixT ilutio. t, An, lyzFdM t, . pF dM	LFS 680-1, 3229/12M W, t, 1.0. 10/15/2010 2003, 10/15/2010 2003,	An, lysis BMchM 680-1, 3229M p BMch: N/A, Units: ug/LF	Inst,ume.t I, MSOM LFb Fil, I, oq351.dM Initi, I W, ight/Volume: 5 mL Fin, I W, ight/Volume: 5 mL
---	--	--	--

A, lyt,	LFS,	% . . . , LFS,	Limit,	Limit,	LFS Qu I,	LFS, Qu I,
Vinyl . hloridM	121,	119M	59 - 144I	2M	50.	
Xyl, es. Tot, I,	106.	106.	4 - 11,	1,	30.	
Surrog t,	LFS % .	LFS, % .	Acc, pt,	Limits.		
4-BMmofluorobe. zF	105M	104I	75 - 120.			
ibromofluoromethM	102M	95M	75 - 121,			
Tolue. - dM(Surr)l	106.	112M	75 - 120.			

Client: A, A, IS U.S., Inc.,

Job Number: 680-6202M1,

Method Book - Batch: 680-183T45I

Method: 8660Bv  
Preparation: 6030Bv

LFb S, mpl, I, MB 680-1, 3245/9M  
 Initial Method, W, t,  
 Dilution: 1.0.  
 Initial, lyzFdm 10/1, /2010 1212M  
 Initial, pF dM 10/1, /2010 1212M

Analysis Method 680-1, 3245M  
 p BMchMN/A,  
 Units: ug/LF

Instrument: MSOM  
 LFb File, I, oq3, 3.dM  
 Initial, I W, ight/Volume: 5 mL  
 Final, I W, ight/Volume: 5 mL

Analysis	Concentration	Quality	Limit
A, to.	25M	U	25M
BM zF	1.0.	U	1.0.
BM mobe. zF	1.0.	U	1.0.
BM mo. hloromethM	1.0.	U	1.0.
BM moform.	1.0.	U	1.0.
BM momethM	1.0.	U	1.0.
2-But, o. (MEK)l	10.	U	10.
bo. disulfidM	2.0.	U	2.0.
bo. t, t, hloridM	1.0.	U	1.0.
hlorobe. zF	1.0.	U	1.0.
hlorodibromomethM	1.0.	U	1.0.
hloroethM	1.0.	U	1.0.
hloroform.	1.0.	U	1.0.
hloromethM	1.0.	U	1.0.
2-. hlorotolue.	1.0.	U	1.0.
4-. hlorotolue.	1.0.	U	1.0.
i s-1,2-. ichloroethM	1.0.	U	1.0.
i s-1,3-. ichloropFpF	1.0.	U	1.0.
1,2-. ibromo-3-. hloropFpF	1.0.	U	1.0.
1,2-. ibromoethM	1.0.	U	1.0.
ibromomethM	1.0.	U	1.0.
1,3-. ichlorobe. zF	1.0.	U	1.0.
1,2-. ichlorobe. zF	1.0.	U	1.0.
1,4-. ichlorobe. zF	1.0.	U	1.0.
ichlorobromomethM	1.0.	U	1.0.
ichlorodifluoromethM	1.0.	U	1.0.
1,1-. ichloroethM	1.0.	U	1.0.
1,2-. ichloroethM	1.0.	U	1.0.
1,1-. ichloroethM	1.0.	U	1.0.
1,2-. ichloroethM Tot, I,	2.0.	U	2.0.
1,2-. ichloropFpF	1.0.	U	1.0.
2M-. ichloropFpF	1.0.	U	1.0.
1,3-. ichloropFpF	1.0.	U	1.0.
1,1-. ichloropFpF	1.0.	U	1.0.
i, thyl ethM	10.	U	10.
Ethylbe. zF	1.0.	U	1.0.
HI xT hlorobut, d i,	1.0.	U	1.0.
2-HI xT o.	10.	U	10.
IsopFpylbe. zF	1.0.	U	1.0.
MTthyl, . hloridM	5.0.	U	5.0.
4-MTthyl-2-pF t, o. (MIBK)l	10.	U	10.
MTthyl t, t-butyl ethM	10.	U	10.
m-Xyl, & p-Xyl,	2.0.	U	2.0.

Client: A, A, IS U.S., Inc.,

Job Number: 680-6202M1,

Method Book - Batch: 680-183T45I

Method: 8660Bv  
Preparation: 6030Bv

LFb S, mpl, I, MB 680-1, 3245/9M  
 li, t MTt,ixT W, t,  
 ilutio. 1.0.  
 t, An, lyzFdM 10/1, /2010 1212M  
 t, . pF dM 10/1, /2010 1212M

An, lysis BMchM 680-1, 3245M  
 p BMchMN/A,  
 Units: ug/LF

Inst,ume.t I, MSOM  
 LFb Fil, I, oq3, 3.dM  
 Initi, I W, ight/Volume: 5 mL  
 Fin, I W, ight/Volume: 5 mL

A, lyt,	su lt,	Qu. I,	LF
N. phthM,	5.0.	U	5.0.
-Butylbe. zF	1.0.	U	1.0.
N-. opylbe. zF	1.0.	U	1.0.
o-Xyl,	1.0.	U	1.0.
p-Isopropyltolue.	1.0.	U	1.0.
se. -Butylbe. zF	1.0.	U	1.0.
StyT	1.0.	U	1.0.
t, t-Butylbe. zF	1.0.	U	1.0.
1,1,2-Tl t, hloroethM	1.0.	U	1.0.
1,1,1,2-Tl t, hloroethM	1.0.	U	1.0.
Tl t, hloroethM	1.0.	U	1.0.
Tolue.	1.0.	U	1.0.
t, s-1,2-. ichloroethM	1.0.	U	1.0.
t, s-1,3-. ichloropF	1.0.	U	1.0.
1,2-Tlichlorobe. zF	1.0.	U	1.0.
1,2,3-Tlichlorobe. zF	1.0.	U	1.0.
1,1,1-TlichloroethM	1.0.	U	1.0.
1,1,2-TlichloroethM	1.0.	U	1.0.
TlichloroethM	1.0.	U	1.0.
TlichlorofluoromethM	1.0.	U	1.0.
1,2,3-TlichloropF	1.0.	U	1.0.
1,2-Tlimethylbe. zF	1.0.	U	1.0.
1,3,5-Tlimethylbe. zF	1.0.	U	1.0.
Vinyl . t, t,	2.0.	U	2.0.
Vinyl . hloridM	1.0.	U	1.0.
Xyl, es. Tot, I,	2.0.	U	2.0.

Surrog t,	% .	Acc, pt,	Limits.
4-Bromofluorobe. zF	101,	75 - 120.	
ibromofluoromethM	95M	75 - 121,	
Tolue. - dM(Surr)l	110.	75 - 120.	



Client: A, A, IS U.S., Inc.,

Job Number: 680-6202M1,

Lab Control Sample

Lab Control Sample Description: Recovery Report - Batch: 680-183T451

Method: 8660Bv

Preparation: 6030Bv

LFS LFB S, mpl, I,	LFS 680-1, 3245/4I	An, lysis BMchM 680-1, 3245M	Inst, ume.t I,	MSOM
li, t MTt, ixT	W, t,	p BMchMN/A,	LFb Fil, I,	oq355.dM
ilutio.	1.0.	Units:.. ug/LF	Initi, I W, ight/Volume:..	5 mLF
t, An, lyzFdM	10/1, /2010 1019M		Fin, I W, ight/Volume:..	5 mLF
t, . pF dM	10/1, /2010 1019M			

LFS LFB S, mpl, I,	LFS 680-1, 3245/5M	An, lysis BMchM 680-1, 3245M	Inst, ume.t I,	MSOM
li, t MTt ixT	W, t,	p BMch: N/A,	LFb Fil, I,	oq357.dM
ilutio.	1.0.	Units:.. ug/LF	Initi, I W, ight/Volume:..	5 mLF
t, An, lyzFdM	10/1, /2010 1047I		Fin, I W, ight/Volume:..	5 mLF
t, . pF dM	10/1, /2010 1047I			

A, lyt,	LFS,	% . . . . LFS,	Limit,	Limit,	LFS Qu I,	LFS, Qu I,
A, to.	119M	108.	17 - 175M	9M	50.	
BM zF	104I	103,	77 - 119M	1,	30.	
BMmobe. zF	106.	106.	0 - 124I	0.	30.	
BMmo. hloromethM	107I	109M	10 - 150.	2M	30.	
BMmoform.	91,	94I	2 - 133,	3,	30.	
BMmomethM	109M	19M	12 - 1, 4I	5M	50.	*I
2-But, o. (MEK)I	107I	103,	33 - 157I	4I	30.	
bo. disulfidM	11,	113,	55 - 131,	2M	30.	
bo. t, t, hloridM	110.	109M	71 - 135M	1,	30.	
hlorobe. zF	99M	102M	5 - 11,	2M	30.	
hlorodibromomethM	110.	110.	75 - 133,	0.	30.	
hloroethM	12M	15M	40 - 1, 5M	22M	50.	
hloroform.	101,	103,	2 - 120.	2M	30.	
hloromethM	120.	124I	41 - 142M	3,	50.	
2- hlorotolue.	107I	110.	2 - 123,	2M	30.	
4- hlorotolue.	107I	110.	3 - 122M	2M	30.	
i s-1,2- i chloroethM	101,	103,	9 - 134I	2M	30.	
i s-1,3- i chloroFopF	113,	109M	71 - 12M	3,	30.	
1,2- ibromo-3- hloroFopF	103,	109M	49 - 140.	5M	30.	
1,2- ibromoethM	108.	104I	0 - 121,	3,	30.	
ibromomethM	105M	104I	71 - 119M	2M	30.	
1,3- i chlorobe. zF	105M	108.	71 - 125M	2M	30.	
1,2- i chlorobe. zF	105M	106.	79 - 124I	1,	30.	
1,4- i chlorobe. zF	103,	108.	1 - 122M	4I	30.	
i chlorobromomethM	111,	106.	71 - 127I	4I	30.	
i chlorodifluoromethM	139M	142M	34 - 154I	2M	30.	
1,1- i chloroethM	103,	104I	74 - 127I	1,	30.	
1,2- i chloroethM	104I	102M	- 132M	2M	30.	
1,1- i chloroethM	11,	110.	2 - 141,		30.	
1,2- i chloroethM Tot, I,	103,	104I	- 134I	1,	30.	
1,2- i chloroFopF	103,	101,	73 - 124I	2M	30.	
2- i chloroFopF	121,	122M	55 - 157I	1,	30.	
1,3- i chloroFopF	107I	103,	75 - 120.	4I	30.	

li, t, A, A, IS U.S., Inc.,

Job Number: 680-6202M1,

**LubConrouSVmpue/V**

**LubConrouSVmpueDVpucv eVRecovery Reporu- Bv ch: 680-183T45I**

**MeVhod: 0660Bv**

**Prepuru on: 0030Bv**

LFS LFb S, mpl, I, LFS 680-1, 3245/4I  
 li, t MTt,ixT W, t,  
 ilutio. 1.0.  
 t, An, lyzFdM 10/1, /2010 1019M  
 t, . pF dM 10/1, /2010 1019M

An, lysis BMchM 680-1, 3245M  
 p BMchMN/A,  
 Units:.. ug/LF

Inšt,ume.t I, MSOM  
 LFb Fil, I, oq355.dM  
 Initi, I W, ight/Volume:.. 5 mLF  
 Fin, I W, ight/Volume:.. 5 mLF

LFS, LFb S, mpl, I, LFS, 680-1, 3245/5M  
 li, t MTt ixT W, t,  
 ilutio. 1.0.  
 t, An, lyzFdM 10/1, /2010 1047I  
 t, . pF dM 10/1, /2010 1047I

An, lysis BMchM 680-1, 3245M  
 p BMch: N/A,  
 Units:.. ug/LF

Inšt,ume.t I, MSOM  
 LFb Fil, I, oq357.dM  
 Initi, I W, ight/Volume:.. 5 mLF  
 Fin, I W, ight/Volume:.. 5 mLF

A, lyt,	LFS,	% . . . . LFS,	Limit,	Limit,	LFS Qu I,	LFS, Qu I,
1,1- icloropFpF	108.	109M	77 - 122M	0.	30.	
i, thyl ethM	0.	0.	70 - 130.	N.	3 0.	U U
Ethylbe. zF	107I	107I	- 11,	0.	30.	
HI xT hlorobut,d i,	104I	105M	2 - 142M	1,	30.	
2-HI xT o.	11,	11,	34 - 1, 1,	0.	30.	
IsopFopylbe. zF	93,	94I	2 - 121,	2M	30.	
MTthyl, . hloridM	104I	104I	70 - 125M	0.	30.	
4-MTthyl-2-pF t, o. (MIBK)I	111,	109M	40 - 151,	2M	30.	
MTthyl t, t-butyl ethM	103,	104I	77 - 121,	0.	30.	
m-Xyl, & p-Xyl,	105M	107I	3 - 11,	2M	30.	
N. phthM,	97I	100.	4I - 135M	3,	30.	
-Butylbe. zF	105M	107I	4 - 13,	2M	30.	
N-. opylbe. zF	111,	113,	0 - 12M	2M	30.	
o-Xyl,	106.	110.	3 - 119M	4I	30.	
p-IsopFopyltolue.	101,	103,	3 - 139M	2M	30.	
se. -Butylbe. zF	110.	113,	77 - 12M	3,	30.	
StyT	7I	90.	2 - 122M	3,	30.	
t, t-Butylbe. zF	94I	95M	0 - 124I	1,	30.	
1,1,2M-TI t, hloroethM	103,	104I	9 - 129M	1,	30.	
1,1,1,2-TI t, hloroethM	103,	104I	1 - 12M	1,	30.	
TI t, hloroethM	99M	104I	7I - 12M	5M	30.	
Tolue.	106.	106.	1 - 117I	0.	30.	
t, s-1,2- icloroethM	104I	104I	72 - 131,	0.	30.	
t, s-1,3- icloropFpF	114I	113,	73 - 12M	1,	30.	
1,2M-TIiclorobe. zF	9M	92M	0 - 135M	3,	30.	
1,2,3-TIiclorobe. zF	93,	95M	0 - 132M	2M	30.	
1,1,1-TIicloroethM	107I	106.	7I - 127I	1,	30.	
1,1,2-TIicloroethM	101,	103,	75 - 121,	2M	30.	
TIicloroethM	100.	100.	4 - 115M	0.	30.	
TIiclorofluoromethM	121,	102M	5M 149M	17I	50.	
1,2,3-TIicloropFpF	105M	106.	70 - 130.	1,	30.	
1,2M-TIimethylbe. zF	9M	9M	72 - 132M	2M	30.	
1,3,5-TIimethylbe. zF	102M	105M	72 - 133,	3,	30.	

Client: A, A, IS U.S., Inc.,

Job Number: 680-6202M1,

Lab Control Sample

Lab Control Sample Recovery Report - Batch: 680-183T45I

Method: 8660Bv

Preparation: 6030Bv

LFS LFb S, mpl, I,	LFS 680-1, 3245/4I	An, lysis BMchM 680-1, 3245M	Inst, ume.t I,	MSOM
li, t MTt,ixT	W, t,	p BMchMN/A,	LFb Fil, I,	oq355.dM
ilutio.	1.0.	Units:.. ug/LF	Initi, I W, ight/Volume:..	5 mL
t, An, lyzFdM	10/1, /2010 1019M		Fin, I W, ight/Volume:..	5 mL
t, . pF dM	10/1, /2010 1019M			

LFS LFb S, mpl, I,	LFS 680-1, 3245/5M	An, lysis BMchM 680-1, 3245M	Inst, ume.t I,	MSOM
li, t MTt,ixT	W, t,	p BMch: N/A,	LFb Fil, I,	oq357.dM
ilutio.	1.0.	Units:.. ug/LF	Initi, I W, ight/Volume:..	5 mL
t, An, lyzFdM	10/1, /2010 1047I		Fin, I W, ight/Volume:..	5 mL
t, . pF dM	10/1, /2010 1047I			

A, lyt,	% . . . .		Limit,	Limit,	LFS Qu I,	LFS, Qu I,
	LFS,	LFS,				
Vinyl . t t,	172M	1 9M	10 - 217I	2M	30.	
Vinyl . hloridM	11,	11,	59 - 144I	0.	50.	
Xyl, es. Tot, I,	105M	108.	4 - 11,	2M	30.	
Surrog t,	LFS % .	LFS, % .	Acc, pt,	Limits.		
4-BMmofluorobe. zF	105M	108.	75 - 120.			
ibromofluoromethM	103,	103,	75 - 121,			
Tolue. - dM(Surr)l	107I	107I	75 - 120.			

Client: A, A, IS U.S., Inc.,

Job Number: 680-6202M1,

**Method Book - Batch: 680-186 13T**

**Method: 6010Cu  
Preparation: 8030Cu**

LFb S, mpl, I, MB 680-1, 2513/1-A,  
 li, t MTt,ixT W, t,  
 ilutio. 1.0.  
 t, An, lyzFdM 10/12/2010 2131,  
 t, . pF dM 10/11/2010 1141

An, lysis BMchM 680-1, 2792M  
 p BMchM 680-1, 2513,  
 Units: ug/LF

Inst,ume.t I, IC,  
 LFb Fil, I, 1012101012105.chM  
 Initi, I W, ight/Volume: 50 mL  
 Fin, I W, ight/Volume: 50 mL

A, lyt,	su lt,	Qu. I,	LF
A,se.ic,	20.	U	20.
BMium.	50.	U	50.
d mium.	5.0.	U	5.0.
hMmium.	10.	U	10.
I,o.	100.	U	100.
LF dM	10.	U	10.
S, I, i um.	20.	U	20.
Silvl	10.	U	10.
Sodium.	1000.	U	1000.

**Method Book - Batch: 680-186 13T**

**Method: 6010Cu  
Preparation: 8030Cu**

LFb S, mpl, I, LFS 680-1, 2513/2-A,  
 li, t MTt,ixT W, t,  
 ilutio. 1.0.  
 t, An, lyzFdM 10/12/2010 213,  
 t, . pF dM 10/11/2010 1141

An, lysis BMchM 680-1, 2792M  
 p BMchM 680-1, 2513,  
 Units: ug/LF

Inst,ume.t I, IC,  
 LFb Fil, I, 1012101012105.chM  
 Initi, I W, ight/Volume: 50 mL  
 Fin, I W, ight/Volume: 50 mL

A, lyt,	Spike Amou.t,	su lt,	% . .,	Limit,	Qu. I,
A,se.ic,	2000.	2000.	100.	75 - 125M	
BMium.	2000.	2070.	104I	75 - 125M	
d mium.	50.0.	50.4I	101,	75 - 125M	
hMmium.	200.	204I	102M	75 - 125M	
I,o.	1000.	9M	99M	75 - 125M	
LF dM	500.	510.	102M	75 - 125M	
S, I, i um.	2000.	2050.	102M	75 - 125M	
Silvl	50.0.	4I .5M	97I	75 - 125M	
Sodium.	5000.	4I 20.	9M	75 - 125M	

Client: A, A, IS U.S., Inc.,

Job Number: 680-6202M1,

**Method: 6010Cu**

**Preparation: 8030Cu**

MS LFB S, mpl, I, 0-6. 202M1,  
 li, t MTt,ixT W, t,  
 ilutio. 1.0.  
 t, An, lyzFdM 10/12/2010 215M  
 t, . pF dM 10/11/2010 114I

An, lysis BMchM 680-1, 2792M  
 p BMchM 680-1, 2513,

Inst,ume.t I, IC,  
 LFB Fil, I, 1012101012105.chM  
 Initi, I W, ight/Volume:. 50 mL  
 Fin, I W, ight/Volume:. 50 mL

MS, LFB S, mpl, I, 0-6. 202M1,  
 li, t MTt,ixT W, t,  
 ilutio. 1.0.  
 t, An, lyzFdM 10/12/2010 2203,  
 t, . pF dM 10/11/2010 114I

An, lysis BMchM 680-1, 2792M  
 p BMchM 680-1, 2513,

Inst,ume.t I, IC,  
 LFB Fil, I, 1012101012105.chM  
 Initi, I W, ight/Volume:. 50 mL  
 Fin, I W, ight/Volume:. 50 mL

A, lyt,	% . . . .		Limit,	Limit,	MS Qu. I,	MS, Qu. I,
	MS,	MS,				
A,se.ic,	107I	109M	75 - 125M	2M	20.	
BMium.	103,	105M	75 - 125M	2M	20.	
d mium.	104I	106.	75 - 125M	2M	20.	
hMium.	104I	106.	75 - 125M	2M	20.	
I,o.		5M	75 - 125M	0.	20.	4I 4I
LF dM	103,	105M	75 - 125M	3,	20.	
S, I, i um.	107I	109M	75 - 125M	2M	20.	
Silvl	99M	100.	75 - 125M	2M	20.	

**Method: 6010Cu**

**Preparation: 8030Cu**

MS LFB S, mpl, I, 0-6. 202M1,  
 li, t MTt,ixT W, t,  
 ilutio. 10.  
 t, An, lyzFdM 10/2M2010 1435M  
 t, . pF dM 10/11/2010 114I

An, lysis BMchM 680-1, 4533,  
 p BMchM 680-1, 2513,

Inst,ume.t I, VMI, IC,  
 LFB Fil, I, E102M2010.csvl  
 Initi, I W, ight/Volume:. 50 mL  
 Fin, I W, ight/Volume:. 50 mL

MS, LFB S, mpl, I, 0-6. 202M1,  
 li, t MTt,ixT W, t,  
 ilutio. 10.  
 t, An, lyzFdM 10/2M2010 1439M  
 t, . pF dM 10/11/2010 114I

An, lysis BMchM 680-1, 4533,  
 p BMchM 680-1, 2513,

Inst,ume.t I, VMI, IC,  
 LFB Fil, I, E102M2010.csvl  
 Initi, I W, ight/Volume:. 50 mL  
 Fin, I W, ight/Volume:. 50 mL

A, lyt,	% . . . .		Limit,	Limit,	MS Qu. I,	MS, Qu. I,
	MS,	MS,				
Sodium.	-115M	-64I	75 - 125M	1,	20.	4I 4I

li, t, A, A, IS U.S., Inc.,

Job Number: 680-6202M1,

**Method Benchmark - Batch: 680-1866516**

**Method: 470AV**  
**Preparation: 470AV**

LFb S, mpl, I, MB 680-1, 2M51/1-A,  
li, t MTt,ixT W, t,  
ilutio. 1.0.  
t, An, lyzFdM 10/13/2010 13571  
t, . pF dM 10/12/2010 10471

An, lysis BMchM 680-1, 2M1,  
p BMchM 680-1, 2M51,  
Units: ug/LF

Inst,ume.t I, LEEMAN1,  
LFb Fil, I, b101210.chM  
Initi, I W, ight/Volume: 50 mL  
Fin, I W, ight/Volume: 50 mL

A, lyt,	su lt,	Qu. I,	LF
MT uryT	0.20.	U	0.20.

**Substance Name Batch: 680-1866516**

**Method: 470AV**  
**Preparation: 470AV**

LFb S, mpl, I, LFS 680-1, 2M51/2-A,  
li, t MTt,ixT W, t,  
ilutio. 1.0.  
t, An, lyzFdM 10/13/2010 1400.  
t, . pF dM 10/12/2010 10471

An, lysis BMchM 680-1, 2M1,  
p BMchM 680-1, 2M51,  
Units: ug/LF

Inst,ume.t I, LEEMAN1,  
LFb Fil, I, b101210.chM  
Initi, I W, ight/Volume: 50 mL  
Fin, I W, ight/Volume: 50 mL

A, lyt,	Spike Amou.t,	su lt,	% . .,	Limit,	Qu. I,
MT uryT	2.50.	2.11,	5M	0 - 120.	

**Method Spike/V**

**Method: 470AV**  
**Preparation: 470AV**

**Method Spike/V Recovery Report - Batch: 680-1866516**

MS LFb S, mpl, I, 0-6. 202M5M  
li, t MTt,ixT W, t,  
ilutio. 1.0.  
t, An, lyzFdM 10/13/2010 14241  
t, . pF dM 10/12/2010 10471

An, lysis BMchM 680-1, 2M1,  
p BMchM 680-1, 2M51,

Inst,ume.t I, LEEMAN1,  
LFb Fil, I, b101210.chM  
Initi, I W, ight/Volume: 50 mL  
Fin, I W, ight/Volume: 50 mL

MS, LFb S, mpl, I, 0-6. 202M5M  
li, t MTt,ixT W, t,  
ilutio. 1.0.  
t, An, lyzFdM 10/13/2010 142M  
t, . pF dM 10/12/2010 10471

An, lysis BMchM 680-1, 2M1,  
p BMchM 680-1, 2M51,

Inst,ume.t I, LEEMAN1,  
LFb Fil, I, b101210.chM  
Initi, I W, ight/Volume: 50 mL  
Fin, I W, ight/Volume: 50 mL

A, lyt,	MS,	% . .,	MS,	Limit,	Limit,	MS Qu. I,	MS, Qu. I,
MT uryT	41			0 - 120.	3,	20.	

li, t, A, A, IS U.S., Inc.,

Job Number: 680-6202M1,

**Method Book - Batch: 680-183526T**

**Method: 90386**  
**Preparation: N/A**

LFb S, mpl, I, MB 680-1, 352M1,  
li, t MTt,ixT W, t,  
ilutio. 1.0.  
t, An, lyzFdM 10/20/2010 113,  
t, . pF dM N/A,

An, lysis BMchM 680-1, 352M  
p BMchMN/A,  
Units: mg/LF

Inst,ume.t I, KONELAB1,  
LFb Fil, I, KONE11020101SO4B.xls.  
Initi, I W, ight/Volume: 2 mLF  
Fin, I W, ight/Volume: 2 mLF

A, lyt,	su lt,	Qu. I,	LF
Sulfl t,	5.0.	U	5.0.

**Method Book - Batch: 680-183526T**

**Method: 90386**  
**Preparation: N/A**

LFb S, mpl, I, LFS 680-1, 352M2M  
li, t MTt,ixT W, t,  
ilutio. 1.0.  
t, An, lyzFdM 10/20/2010 113,  
t, . pF dM N/A,

An, lysis BMchM 680-1, 352M  
p BMchMN/A,  
Units: mg/LF

Inst,ume.t I, KONELAB1,  
LFb Fil, I, KONE11020101SO4B.xls.  
Initi, I W, ight/Volume: 2 mLF  
Fin, I W, ight/Volume: 2 mLF

A, lyt,	Spike Amou.t,	su lt,	% . .,	Limit,	Qu. I,
Sulfl t,	20.0.	1, .5M	92M	75 - 125M	

**Method Book - Batch: 680-183526T**

**Method: 90386**  
**Preparation: N/A**

LFb S, mpl, I, 0-6. 202M4I  
li, t MTt,ixT W, t,  
ilutio. 1.0.  
t, An, lyzFdM 10/20/2010 1231,  
t, . pF dM N/A,

An, lysis BMchM 680-1, 352M  
p BMchMN/A,  
Units: mg/LF

Inst,ume.t I, KONELAB1,  
LFb Fil, I, KONE11020101SO4B.xls.  
Initi, I W, ight/Volume: 2 mLF  
Fin, I W, ight/Volume: 2 mLF

A, lyt,	S, mpl, . su lt/Qu. I,	su lt,	Limit,	Qu. I,
Sulfl t,	2M	2M2M	71	30.





# Login Sample Report Checklist

Client: ARCADIS U.S., Inc.

Job Number: 680-62026-1M

**Login Number:** c 0T  
**Creator:** Daughtery, Beth  
**List Number:** 1/

**List Source:** cesterVasannah

Question	Pass/Fail	Comments
Radioactivity was not measured, if measured is above background	True	
cooler is used, if present, is intact	True	
cooler or sample do not appear to have been compromised or ampaled with MM	True	
Samples were received on ice	True	
Cooler Manufacturer is acceptable	True	
Cooler Manufacturer is recorded	True	
COC is present	True	
COC is filled out in ink and legible	True	
COC is filled out with pertinent information	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

## ANALYTICAL REPORT

Job Number: 680-62283-1

Job Description: UNC Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
10/29/2010 4:43 PM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
10/29/2010

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404

Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



**Comments:**

No additional comments. M

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

Method(s) 826y A full list spike was utilized for this method. The laboratory's SOP allows for four analytes to recover outside criteria for this method when a full list spike is utilized. The LCS/LCSD associated with batch 184244 had one analyte outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8260B: A full list spike was utilized for this method. The laboratory's SOP allows for 4 analytes to recover outside criteria for this method when a full list spike is utilized. The LCS/LCSD associated with batch 184306 had 1 analyte outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

No other analytical or quality issues were noted.

**Metals**

No analytical or quality issues were noted.

**General Chemistry**

No analytical or quality issues were noted.

**VOA Prep**

No analytical or quality issues were noted.

**METHOD SUMMARY:**

Cli/ . CADIS U.S., Inc.)

Job Number: 680-622MB-1.

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: Water:</b>			
Volatiles (GC/MS)	L SAYM	SWM#M620 BM	
Purgatives (apF)	L SAYM		SWM#M5030BM
Metals (ICP)	L SAYM	SWM#M6010 C)	
P, pesticides, Extractables	L SAYM		SM 3030C)
Mercury (CVM)	L SAYM	SWM#M7470.	
P, pesticides, Mercury	L SAYM		SWM#M7470.
Sulfamethoxazole	L SAYM	SWM#M903U	

**Lab References:**

L SAY = TestAmerica Savannah

**Method References:**

SM = "Standard Methods for the Examination of Water and Wastewater",)

SWM#M= "Standard Methods for Evaluating Solid Waste, Physical/Chemical Methods", 19th Edition, November 1998, 19th Edition Update.)

METHOD / ANALYST SUMMARY

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

<b>Method</b>	<b>Analyst</b>	<b>Analyst ID:</b>
SW846 8260BI	Soyler, Elaine	ESy
SW846 60M0Cy	Blind, Brianna	BCBI
SW846 7470Ay	V. Squez, Juan	JV.
SW846 9038M	Ross, JM	JRM

**SeMPLe SUMMÉR Y2**

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Client Matrix</b>	<b>Date/Time : Sample</b>	<b>Date/Time : Received</b>
680-62283-M	MW-M	Water	0/8/2009 3:51	0/9/2009 0934A
680-62283-2M	MW-2M	Water	0/8/2009 2:51	0/9/2009 0934A
680-62283-3,	MW-3,	Water	0/8/2009 3:50M	0/9/2009 0934A
680-62283-4A	MW-38M	Water	0/8/2009 5:51	0/9/2009 0934A
680-62283-5I	MW-39I	Water	0/8/2009 3:51	0/9/2009 0934A
680-62283-6y	MW-M4A	Water	0/8/2009 4:51	0/9/2009 0934A
680-62283-7TBU	Trip Blank	Water	0/8/2009 0000M	0/9/2009 0934A

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: MW-1T  
 Lab Sample ID: 680-62283-M  
 Client Matrix: Watery

Date Sampled: 01/20/2003, 5U  
 Date Received: 01/20/2003, 0934U

8260B Volatile Organic Compounds (GC/MS)

Methanol: 8260BM  
 Preparation: 5030BM  
 Dilution: 50M  
 Date Analyzed: 01/27/2003, y459S  
 Date Prepared: 01/27/2003, y459S  
 Analysis Batch: 680-M84306y  
 Instrument ID: MSO2M  
 Lab File ID: 0M8.dl  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Quality	RL0
Acetone	300M	UM	300M
Benzene	720M		50M
Bromobenzene	50M	UM	50M
Bromochloroethane	50M	UM	50M
Bromoform	50M	UM	50M
Bromomethane	50M	UM	50M
2-Butanol (MEK)	500M	UM	500M
Carbon disulfide	00M	UM	00M
Carbon tetrachloride	50M	UM	50M
Chlorobenzene	50M	UM	50M
Chlorobromomethane	50M	UM	50M
Chloroethane	50M	UM	50M
Chloroform	4900M		50M
Chloroethane	50M	U *y	50M
2-Chlorotoluene	50M	UM	50M
4-Chlorotoluene	50M	UM	50M
cis-1,2-Dichloroethane	50M	UM	50M
cis-1,3-Dichloropropane	50M	UM	50M
1,2-Dibromoethane	50M	UM	50M
1,2-Dibromopropane	50M	UM	50M
Dibromomethane	50M	UM	50M
1,3-Dichlorobenzene	50M	UM	50M
1,2-Dichlorobenzene	50M	UM	50M
1,4-Dichlorobenzene	50M	UM	50M
Dichlorobromomethane	50M	UM	50M
Dichlorodifluoroethane	50M	UM	50M
1,1-Dichloroethane	50M	UM	50M
1,2-Dichloroethane	550M		50M
1,1-Dichloroethane	50M	UM	50M
1,2-Dichloroethane, Total	00M	UM	00M
1,2-Dichloropropane	50M	UM	50M
2,2-Dichloropropane	50M	UM	50M
1,3-Dichloropropane	50M	UM	50M
1,1-Dichloropropane	50M	UM	50M
Diethyl ether	3900M		500M
Ethylbenzene	50M	UM	50M
Hexachlorobutadiene	50M	UM	50M
2-Hexanone	500M	UM	500M
Isopropylbenzene	50M	UM	50M
Methylene Chloride	540M		250M
4-Methyl-2-pentanone (MIBK)	500M	UM	500M
Methyl tert-butyl ether	500M	UM	500M
m-Xylene & p-Xylene	00M	UM	00M
Naphthalene	250M	UM	250M
n-Butylbenzene	50M	UM	50M
n-Propylbenzene	50M	UM	50M

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: MW-1T  
 Lab Sample ID: 680-62283-M  
 Client Matrix: Watery

Date Sampled: y0/M6/20M0 y3, 5U  
 Date Received: y0/M6/20M0 0934U

8260B Volatile Organic Compounds (GC/MS)

Meth M: 8260BM      Analysis Batch: 680-M64306y      Instrument ID: MSO2M  
 Preparation: 5030BM      Lab File ID: 0M8.dl  
 Dilution: 50M      Initial Weight/Volume: 5 mL  
 Date Analyzed: 0/27/20M0 y459S      Final Weight/Volume: 5 mL  
 Date Prepared: 0/27/20M0 y459S

Analyte	Result (ug/L)	Quality	RL0
-Xylene	50M	UM	50M
p-Isopropyltoluene	50M	UM	50M
sec-Butylbenzene	50M	UM	50M
Styrene	50M	UM	50M
tert-Butylbenzene	50M	UM	50M
,y,2,2-Tetrachloroethene	620M		50M
,y,y,2-Tetrachloroethene	50M	UM	50M
Tetrachloroethene	50M	UM	50M
Toluene	50M	UM	50M
trans-1,2-Dichloroethene	50M	UM	50M
trans-1,3-Dichloropropene	50M	UM	50M
,2,4-Trichlorobenzene	88M		50M
,2,3-Trichlorobenzene	50M	UM	50M
,y,y-Trichloroethene	50M	UM	50M
,y,2-Trichloroethene	50M	UM	50M
Trichloroethene	50M		50M
Trichlorofluoromethene	50M	UM	50M
,2,3-Trichloropropene	50M	UM	50M
,2,4-Trimethylbenzene	50M	UM	50M
,3,5-Trimethylbenzene	50M	UM	50M
Vinyl acetate	00M	UM	00M
Vinyl chloride	50M	UM	50M
Xylenes, Total	00M	UM	00M

Surrogate	%Recy	Quality	Acceptance Limits
4-Bromofluorobenzene	00M		75 - y20M
Dibromofluoromethene	85U		75 - y2M
Toluene-d8 (Surrogate)	09S		75 - y20M



Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: MW-2T  
 Lab Sample ID: 680-62283-2M  
 Client Matrix: Watery

Date Sampled: 01/20/2005  
 Date Received: 01/20/2005 09:34U

8260B Volatile Organic Compounds (GC/MS)

Methan: 8260BM  
 Preparation: 5030BM  
 Dilution: 200M  
 Date Analyzed: 01/27/2005  
 Date Prepared: 01/27/2005  
 Analysis Batch: 680-M84306y  
 Instrument ID: MSO2M  
 Lab File ID: 04.dl  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	RL0
Acetone	5000M	UM	5000M
Benzene	7000M		200M
Bromobenzene	200M	UM	200M
Bromochloroethane	200M	UM	200M
Bromoform	200M	UM	200M
Bromomethane	200M	UM	200M
2-Butanol (MEK)	2000M	UM	2000M
Carbon disulfide	400M	UM	400M
Carbon tetrachloride	200M	UM	200M
Chlorobenzene	200M		200M
Chlorobromomethane	200M	UM	200M
Chloroethane	200M	UM	200M
Chloroform	920M		200M
Chloroethane	200M	U *y	200M
2-Chlorotoluene	200M	UM	200M
4-Chlorotoluene	200M	UM	200M
cis-1,2-Dichloroethane	200M	UM	200M
cis-1,3-Dichloropropane	200M	UM	200M
1,2-Dibromoethane	200M	UM	200M
1,2-Dibromopropane	200M	UM	200M
Dibromomethane	200M	UM	200M
1,3-Dichlorobenzene	200M	UM	200M
1,2-Dichlorobenzene	200M	UM	200M
1,4-Dichlorobenzene	200M	UM	200M
Dichlorobromomethane	200M	UM	200M
Dichlorodifluoroethane	200M	UM	200M
1,1-Dichloroethane	200M	UM	200M
1,2-Dichloroethane	600M		200M
1,1-Dichloroethane	200M	UM	200M
1,2-Dichloroethane, Total	400M	UM	400M
1,2-Dichloropropane	200M	UM	200M
2,2-Dichloropropane	200M	UM	200M
1,3-Dichloropropane	200M	UM	200M
1,1-Dichloropropane	200M	UM	200M
Diethyl ether	3000M		2000M
Ethylbenzene	370M		200M
Hexachlorobutadiene	200M	UM	200M
2-Hexanone	2000M	UM	2000M
Isopropylbenzene	200M	UM	200M
Methylene Chloride	000M		000M
4-Methyl-2-pentanone (MIBK)	2000M	UM	2000M
Methyl tert-butyl ether	2000M	UM	2000M
m-Xylene & p-Xylene	400M	UM	400M
Naphthalene	000M	UM	000M
n-Butylbenzene	200M	UM	200M
n-Propylbenzene	200M	UM	200M

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: MW-2T

Lab Sample ID: 680-62283-2M

Date Sampled: 10/16/2009 12:50

Client Matrix: Watery

Date Received: 10/19/2009 09:34

8260B Volatile Organic Compounds (GC/MS)

Methanol	8260BM	Analysis Batch: 680-M84306y	Instrument ID: M	MS02M
Preparation	5030BM		Lab File ID: M	0M4.dl
Dilution	200M		Initial Weight/Volume: M	5 mL
Date Analyzed: M	10/27/2009 15:20		Final Weight/Volume: M	5 mL
Date Prepared: M	10/27/2009 15:20			

Analyte	Result (ug/L)	Quality	RL0
-Xylene	470M		200M
p-Isopropyltoluene	200M	UM	200M
sec-Butylbenzene	200M	UM	200M
Styrene	200M	UM	200M
tert-Butylbenzene	200M	UM	200M
1,2,4-Trichlorobenzene	200M	UM	200M
1,2,3-Trichlorobenzene	200M	UM	200M
Toluene	200M	UM	200M
trans-1,2-Dichlorobenzene	200M	UM	200M
trans-1,3-Dichlorobenzene	200M	UM	200M
1,2,4-Trichlorobenzene	350M		200M
1,2,3-Trichlorobenzene	200M	UM	200M
1,2-Dichlorobenzene	200M	UM	200M
1,3-Dichlorobenzene	200M	UM	200M
Trichlorobenzene	620M		200M
Trichloroethylene	200M	UM	200M
1,2,3-Trichloropropane	200M	UM	200M
1,2,4-Trimethylbenzene	200M	UM	200M
1,3,5-Trimethylbenzene	200M	UM	200M
Vinyl acetate	400M	UM	400M
Vinyl chloride	200M	UM	200M
Xylenes, Total	860M		400M

Surrogate	%Recy	Quality	Acceptance Limits
4-Bromofluorobenzene	0M		75 - 120M
Dibromofluorobenzene	85U		75 - 120M
Toluene-d8 (Surr)	09S		75 - 120M

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: MW-3e

Lab Sample ID: 680-62283-3,  
Client Matrix: Watery

Date Sampled: 01/16/2009 13:50M  
Date Received: 01/19/2009 09:34U

8260B Volatile Organic Compounds (GC/MS)

Methan: 8260BM      Analysis Batch: 680-M84244U      Instrument ID: MSO2M  
Preparation: 5030BM      Lab File ID: 0994.dl  
Dilution: .0M      Initial Weight/Volume: 5 mL  
Date Analyzed: 01/26/2009 17:22M      Final Weight/Volume: 5 mL  
Date Prepared: 01/26/2009 17:22M

Analyte	Result (ug/L)	Quality	RL0
Acetone	25.0	UM	25.0
Benzene	.0	UM	.0
Bromobenzene	.0	UM	.0
Bromochloroform	.0	UM	.0
Bromoform	.0	UM	.0
Bromomethane	.0	UM	.0
2-Butanone (MEK)	0.0	UM	0.0
Carbon disulfide	2.0	UM	2.0
Carbon tetrachloride	.0	UM	.0
Chlorobenzene	.0	UM	.0
Chlorobromomethane	.0	UM	.0
Chloroform	.0	UM	.0
Chloroform	.0	UM	.0
Chloroform	.0	UM	.0
2-Chlorotoluene	.0	UM	.0
4-Chlorotoluene	.0	UM	.0
cis-1,2-Dichloroethane	.0	UM	.0
cis-1,3-Dichloropropane	.0	UM	.0
1,2-Dibromoethane	.0	UM	.0
1,2-Dibromoethane	.0	UM	.0
Dibromomethane	.0	UM	.0
1,3-Dichlorobenzene	.0	UM	.0
1,2-Dichlorobenzene	.0	UM	.0
1,4-Dichlorobenzene	.0	UM	.0
Dichlorobromomethane	.0	UM	.0
Dichlorodifluoromethane	.0	UM	.0
1,1-Dichloroethane	.0	UM	.0
1,2-Dichloroethane	.0	UM	.0
1,1-Dichloroethane	.0	UM	.0
1,2-Dichloroethane, Total	2.0	UM	2.0
1,2-Dichloropropane	.0	UM	.0
2,2-Dichloropropane	.0	UM	.0
1,3-Dichloropropane	.0	UM	.0
1,1-Dichloropropane	.0	UM	.0
Diethyl ether	0.0	UM	0.0
Ethylbenzene	.0	UM	.0
Hexachlorobutadiene	.0	UM	.0
2-Hexanone	0.0	UM	0.0
Isopropylbenzene	.0	UM	.0
Methylene Chloride	5.0	UM	5.0
4-Methyl-2-pentanone (MIBK)	0.0	UM	0.0
Methyl tert-butyl ether	0.0	UM	0.0
m-Xylene & p-Xylene	2.0	UM	2.0
Naphthalene	5.0	UM	5.0
n-Butylbenzene	.0	UM	.0
n-Propylbenzene	.0	UM	.0

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: MW-3e

Lab Sample ID: 680-62283-3,  
 Client Matrix: Watery

Date Sampled: y0/M6/20M0 y350M  
 Date Received: y0/M6/20M0 0934U

8260B Volatile Organic Compounds (GC/MS)

Methanol	8260BM	Analysis Batch: 680-M64244U	Instrument ID: MS02M
Preparation	5030BM		Lab File ID: 0994.dl
Dilution	.0M		Initial Weight/Volume: 5 mL
Date Analyzed	0/26/20M0 y7M2M		Final Weight/Volume: 5 mL
Date Prepared	0/26/20M0 y7M2M		

Analyte	Result (ug/L)	Qual/flag	RL0
-Xylene	.0M	UM	.0M
p-Isopropyltoluene	.0M	UM	.0M
sec-Butylbenzene	.0M	UM	.0M
Styrene	.0M	UM	.0M
tert-Butylbenzene	.0M	UM	.0M
,y,2,2-Tetrachloroethane	.0M	UM	.0M
,y,y,2-Tetrachloroethane	.0M	UM	.0M
Tetrachloroethane	.0M	UM	.0M
Toluene	.0M	UM	.0M
trans-1,2-Dichloroethane	.0M	UM	.0M
trans-1,3-Dichloropropane	.0M	UM	.0M
,2,4-Trichlorobenzene	.0M	UM	.0M
,2,3-Trichlorobenzene	.0M	UM	.0M
,y,y-Trichloroethane	.0M	UM	.0M
,y,2-Trichloroethane	.0M	UM	.0M
Trichloroethane	.0M	UM	.0M
Trichlorofluoromethane	.0M	UM	.0M
,2,3-Trichloropropane	.0M	UM	.0M
,2,4-Trimethylbenzene	.0M	UM	.0M
,3,5-Trimethylbenzene	.0M	UM	.0M
Vinyl acetate	2.0M	UM	2.0M
Vinyl chloride	.0M	UM	.0M
Xylenes, Total	2.0M	UM	2.0M

Surrogate	%Recy	Qual/flag	Acceptance Limits
4-Bromofluorobenzene	95U		75 - y20M
Dibromofluoromethane	87M		75 - y2M
Toluene-d8 (Surr)	0M		75 - y20M

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: MW-38T

Lab Sample ID: 680-62283-4U

Date Sampled: 01/16/2010 5U

Client Matrix: Watery

Date Received: 01/19/2010 0934U

8260B Volatile Organic Compounds (GC/MS)

MethM:	8260BM	Analysis Batch:	680-M84244U	Instrument ID:	M502M
Preparation:	5030BM	Lab File ID:		Lab File ID:	0996.dl
Dilution:	.0M	Initial Weight/Volume:		Initial Weight/Volume:	5 mL
Date Analyzed:	01/26/2010 74U	Final Weight/Volume:		Final Weight/Volume:	5 mL
Date Prepared:	01/26/2010 74U				

Analyte	Result (ug/L)	Quality	RL0
Acetone	25U	UM	25U
Benzene	.0M	UM	.0M
Bromobenzene	.0M	UM	.0M
Bromochloroethane	.0M	UM	.0M
Bromoform	.0M	UM	.0M
Bromomethane	.0M	UM	.0M
2-Butanol (MEK)	0M	UM	0M
Carbon disulfide	2.0M	UM	2.0M
Carbon tetrachloride	.0M	UM	.0M
Chlorobenzene	.0M	UM	.0M
Chlorobromomethane	.0M	UM	.0M
Chloroethane	.0M	UM	.0M
Chloroform	.0M	UM	.0M
Chloroethane	.0M	U *y	.0M
2-Chlorotoluene	.0M	UM	.0M
4-Chlorotoluene	.0M	UM	.0M
cis-1,2-Dichloroethane	.0M	UM	.0M
cis-1,3-Dichloropropane	.0M	UM	.0M
1,2-Dibromoethane	.0M	UM	.0M
1,2-Dibromoethane	.0M	UM	.0M
Dibromomethane	.0M	UM	.0M
1,3-Dichlorobenzene	.0M	UM	.0M
1,2-Dichlorobenzene	.0M	UM	.0M
1,4-Dichlorobenzene	.0M	UM	.0M
Dichlorobromomethane	.0M	UM	.0M
Dichlorodifluoroethane	.0M	UM	.0M
1,1-Dichloroethane	.0M	UM	.0M
1,2-Dichloroethane	22M		.0M
1,1-Dichloroethane	.0M	UM	.0M
1,2-Dichloroethane, Total	2.0M	UM	2.0M
1,2-Dichloropropane	.0M	UM	.0M
2,2-Dichloropropane	.0M	UM	.0M
1,3-Dichloropropane	.0M	UM	.0M
1,1-Dichloropropane	.0M	UM	.0M
Diethyl ether	491S		0M
Ethylbenzene	.0M	UM	.0M
Hexachlorobutadiene	.0M	UM	.0M
2-Hexanone	0M	UM	0M
Isopropylbenzene	.0M	UM	.0M
Methylene Chloride	5.0M	UM	5.0M
4-Methyl-2-pentanone (MIBK)	0M	UM	0M
Methyl tert-butyl ether	0M	UM	0M
m-Xylene & p-Xylene	2.0M	UM	2.0M
Naphthalene	5.0M	UM	5.0M
n-Butylbenzene	.0M	UM	.0M
n-Propylbenzene	.0M	UM	.0M

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: MW-38T

Lab Sample ID: 680-62283-4U

Date Sampled: 01/16/2009 5U

Client Matrix: Watery

Date Received: 01/19/2009 0934U

8260B Volatile Organic Compounds (GC/MS)

Methanol	8260BM	Analysis Batch: 680-M84244U	Instrument ID: MS02M
Preparation	5030BM		Lab File ID: 0996.dl
Dilution	.0M		Initial Weight/Volume: 5 mL
Date Analyzed	01/26/2009 y74U		Final Weight/Volume: 5 mL
Date Prepared	01/26/2009 y74U		

Analyte	Result (ug/L)	Quality	RL0
-Xylene	.0M	UM	.0M
p-Isopropyltoluene	.0M	UM	.0M
sec-Butylbenzene	.0M	UM	.0M
Styrene	.0M	UM	.0M
tert-Butylbenzene	.0M	UM	.0M
,y,2,2-Tetrachloroethane	.0M	UM	.0M
,y,y,2-Tetrachloroethane	.0M	UM	.0M
Tetrachloroethane	.0M	UM	.0M
Toluene	.0M	UM	.0M
trans-1,2-Dichloroethane	.0M	UM	.0M
trans-1,3-Dichloropropane	.0M	UM	.0M
,2,4-Trichlorobenzene	.0M	UM	.0M
,2,3-Trichlorobenzene	.0M	UM	.0M
,y,y-Trichloroethane	.0M	UM	.0M
,y,2-Trichloroethane	.0M	UM	.0M
Trichloroethane	.0M	UM	.0M
Trichlorofluoromethane	.0M	UM	.0M
,2,3-Trichloropropane	.0M	UM	.0M
,2,4-Trimethylbenzene	.0M	UM	.0M
,3,5-Trimethylbenzene	.0M	UM	.0M
Vinyl acetate	2.0M	UM	2.0M
Vinyl chloride	.0M	UM	.0M
Xylenes, Total	2.0M	UM	2.0M

Surrogate	%Recy	Quality	Acceptance Limits
4-Bromofluorobenzene	99S		75 - y20M
Dibromofluoromethane	86y		75 - y2M
Toluene-d8 (Surrogate)			75 - y20M

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: MW-39e

Lab Sample ID: 680-62283-5U

Date Sampled: 10/16/2008 3:35U

Client Matrix: Watery

Date Received: 10/16/2008 09:34U

8260B Volatile Organic Compounds (GC/MS)

Meth Method:	8260BM	Analysis Batch:	680-M84244U	Instrument ID:	M	MSO2M
Preparation:	5030BM	Lab File ID:				0998.dl
Dilution:	.0M	Initial Weight/Volume:				5 mL
Date Analyzed:	10/26/2008 8:00M	Final Weight/Volume:				5 mL
Date Prepared:	10/26/2008 8:00M					

Analyte	Result (ug/L)	Quality	RL
Acetone	25.0	UM	25.0
Benzene	.0	UM	.0
Bromobenzene	.0	UM	.0
Bromochloroform	.0	UM	.0
Bromoform	.0	UM	.0
Bromomethane	.0	UM	.0
2-Butanol (MEK)	0.0	UM	0.0
Carbon disulfide	2.0	UM	2.0
Carbon tetrachloride	.0	UM	.0
Chlorobenzene	.0	UM	.0
Chlorobromomethane	.0	UM	.0
Chloroethane	.0	UM	.0
Chloroform	.0	UM	.0
Chloroform	.0	U *y	.0
2-Chlorotoluene	.0	UM	.0
4-Chlorotoluene	.0	UM	.0
cis-1,2-Dichloroethane	.0	UM	.0
cis-1,3-Dichloropropane	.0	UM	.0
1,2-Dibromoethane	.0	UM	.0
1,2-Dibromoethane	.0	UM	.0
Dibromomethane	.0	UM	.0
1,3-Dichlorobenzene	.0	UM	.0
1,2-Dichlorobenzene	.0	UM	.0
1,4-Dichlorobenzene	.0	UM	.0
Dichlorobromomethane	.0	UM	.0
Dichlorodifluoromethane	.0	UM	.0
1,1-Dichloroethane	.0	UM	.0
1,2-Dichloroethane	.0	UM	.0
1,1-Dichloroethane	.0	UM	.0
1,2-Dichloroethane, Total	2.0	UM	2.0
1,2-Dichloropropane	.0	UM	.0
2,2-Dichloropropane	.0	UM	.0
1,3-Dichloropropane	.0	UM	.0
1,1-Dichloropropane	.0	UM	.0
Diethyl ether	0.0	UM	0.0
Ethylbenzene	.0	UM	.0
Hexachlorobutadiene	.0	UM	.0
2-Hexanone	0.0	UM	0.0
Isopropylbenzene	.0	UM	.0
Methylene Chloride	5.0	UM	5.0
4-Methyl-2-pentanone (MIBK)	0.0	UM	0.0
Methyl tert-butyl ether	0.0	UM	0.0
m-Xylene & p-Xylene	2.0	UM	2.0
Naphthalene	5.0	UM	5.0
n-Butylbenzene	.0	UM	.0
n-Propylbenzene	.0	UM	.0

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: MW-39e

Lab Sample ID: 680-62283-5U

Date Sampled: 10/16/2010 10:35U

Client Matrix: Watery

Date Received: 10/19/2010 09:34U

8260B Volatile Organic Compounds (GC/MS)

Methanol	8260BM	Analysis Batch: 680-M84244U	Instrument ID: MS02M
Preparation	5030BM		Lab File ID: 0998.dl
Dilution	.0M		Initial Weight/Volume: 5 mL
Date Analyzed	10/26/2010 10:35U		Final Weight/Volume: 5 mL
Date Prepared	10/26/2010 10:35U		

Analyte	Result (ug/L)	Quality	RL0
-Xylene	.0M	UM	.0M
p-Isopropyltoluene	.0M	UM	.0M
sec-Butylbenzene	.0M	UM	.0M
Styrene	.0M	UM	.0M
tert-Butylbenzene	.0M	UM	.0M
,y,2,2-Tetrachloroethane	.0M	UM	.0M
,y,y,2-Tetrachloroethane	.0M	UM	.0M
Tetrachloroethane	.0M	UM	.0M
Toluene	.0M	UM	.0M
trans-1,2-Dichloroethane	.0M	UM	.0M
trans-1,3-Dichloropropane	.0M	UM	.0M
,2,4-Trichlorobenzene	.0M	UM	.0M
,2,3-Trichlorobenzene	.0M	UM	.0M
,y,y-Trichloroethane	.0M	UM	.0M
,y,2-Trichloroethane	.0M	UM	.0M
Trichloroethane	.0M	UM	.0M
Trichlorofluoromethane	.0M	UM	.0M
,2,3-Trichloropropane	.0M	UM	.0M
,2,4-Trimethylbenzene	.0M	UM	.0M
,3,5-Trimethylbenzene	.0M	UM	.0M
Vinyl acetate	2.0M	UM	2.0M
Vinyl chloride	.0M	UM	.0M
Xylenes, Total	2.0M	UM	2.0M

Surrogate	%Recy	Quality	Acceptance Limits
4-Bromofluorobenzene	97M		75 - 120M
Dibromofluoromethane	85U		75 - 120M
Toluene-d8 (Surr)	2M		75 - 120M



Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: MW-14

Lab Sample ID: 680-62283-6y

Date Sampled: 01/28/2004 04:50

Client Matrix: Watery

Date Received: 01/29/2004 09:34

8260B Volatile Organic Compounds (GC/MS)

Methanol	8260BM	Analysis Batch: 680-M84440M	Instrument ID: MSO2M
Preparation	5030BM		Lab File ID: 027.dl
Dilution	20M		Initial Weight/Volume: 5 mL
Date Analyzed	01/28/2004 04:08		Final Weight/Volume: 5 mL
Date Prepared	01/28/2004 04:08		

Analyte	Result (ug/L)	Quality	RL
Acetone	500M	UM	500M
Benzene	38		ND
Bromobenzene	20M	UM	20M
Bromochloroethane	20M	UM	20M
Bromoform	20M	UM	20M
Bromomethane	20M	UM	20M
2-Butanol (MEK)	200M	UM	200M
Carbon disulfide	40M	UM	40M
Carbon tetrachloride	20M	UM	20M
Chlorobenzene	20M	UM	20M
Chlorobromomethane	20M	UM	20M
Chloroethane	20M	UM	20M
Chloroform	20M	UM	20M
Chloroethane	20M	UM	20M
2-Chlorotoluene	20M	UM	20M
4-Chlorotoluene	20M	UM	20M
cis-1,2-Dichloroethane	20M	UM	20M
cis-1,3-Dichloropropane	20M	UM	20M
1,2-Dibromoethane	20M	UM	20M
1,2-Dibromoethane	20M	UM	20M
Dibromomethane	20M	UM	20M
1,3-Dichlorobenzene	20M	UM	20M
1,2-Dichlorobenzene	20M	UM	20M
1,4-Dichlorobenzene	20M	UM	20M
Dichlorobromomethane	20M	UM	20M
Dichlorodifluoromethane	20M	UM	20M
1,1-Dichloroethane	20M	UM	20M
1,2-Dichloroethane	20M	UM	20M
1,1-Dichloroethane	20M	UM	20M
1,2-Dichloroethane, Total	40M	UM	40M
1,2-Dichloropropane	20M	UM	20M
2,2-Dichloropropane	20M	UM	20M
1,3-Dichloropropane	20M	UM	20M
1,1-Dichloropropane	20M	UM	20M
Diethyl ether	770M		200M
Ethylbenzene	20M	UM	20M
Hexachlorobutadiene	20M	UM	20M
2-Hexanone	200M	UM	200M
Isopropylbenzene	20M	UM	20M
Methylene Chloride	00M	UM	00M
4-Methyl-2-pentanone (MIBK)	200M	UM	200M
Methyl tert-butyl ether	200M	UM	200M
m-Xylene & p-Xylene	40M	UM	40M
Naphthalene	00M	UM	00M
n-Butylbenzene	20M	UM	20M
n-Propylbenzene	20M	UM	20M

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: MW-14

Lab Sample ID: 680-62283-6y

Date Sampled: y0/M6/20M y045U

Client Matrix: Watery

Date Received: y0/M6/20M 0934U

8260B Volatile Organic Compounds (GC/MS)

Methanol	8260BM	Analysis Batch: 680-M64440M	Instrument ID: MSO2M
Preparation	5030BM		Lab File ID: 027.dl
Dilution	20M		Initial Weight/Volume: 5 mL
Date Analyzed	0/28/20M y408M		Final Weight/Volume: 5 mL
Date Prepared	0/28/20M y408M		

Analyte	Result (ug/L)	Quality	RL0
-Xylene	20M	UM	20M
p-Isopropyltoluene	20M	UM	20M
sec-Butylbenzene	20M	UM	20M
Styrene	20M	UM	20M
tert-Butylbenzene	20M	UM	20M
,y,2,2-Tetrachloroethane	20M	UM	20M
,y,y,2-Tetrachloroethane	20M	UM	20M
Tetrachloroethane	20M	UM	20M
Toluene	20M	UM	20M
trans-1,2-Dichloroethane	20M	UM	20M
trans-1,3-Dichloropropane	20M	UM	20M
,2,4-Trichlorobenzene	20M	UM	20M
,2,3-Trichlorobenzene	20M	UM	20M
,y,y-Trichloroethane	20M	UM	20M
,y,2-Trichloroethane	20M	UM	20M
Trichloroethane	20M	UM	20M
Trichlorofluoromethane	20M	UM	20M
,2,3-Trichloropropane	20M	UM	20M
,2,4-Trimethylbenzene	20M	UM	20M
,3,5-Trimethylbenzene	20M	UM	20M
Vinyl acetate	40M	UM	40M
Vinyl chloride	20M	UM	20M
Xylenes, Total	40M	UM	40M

Surrogate	%Recy	Quality	Acceptance Limits
4-Bromofluorobenzene	98M		75 - y20M
Dibromofluoromethane	86y		75 - y2M
Toluene-d8 (Surrogate)	06y		75 - y20M

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: Trip Blanke  
 Lab Sample ID: 680-62283-7TBM  
 Client Matrix: Watery

Date Sampled: 01/20/2000  
 Date Received: 01/20/2000 0934U

8260B Volatile Organic Compounds (GC/MS)

Methanol: 8260BM  
 Preparation: 5030BM  
 Dilution: .0M  
 Date Analyzed: 01/28/2000 y346y  
 Date Prepared: 01/28/2000 y346y  
 Analysis Batch: 680-M84440M  
 Instrument ID: MSO2M  
 Lab File ID: 026.dl  
 Initial Weight/Volume: 5 mL  
 Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Quality	RL0
Acetone	25.0	UM	25.0
Benzene	.0	UM	.0
Bromobenzene	.0	UM	.0
Bromochloroform	.0	UM	.0
Bromoform	.0	UM	.0
Bromomethane	.0	UM	.0
2-Butanol (MEK)	0.0	UM	0.0
Carbon disulfide	2.0	UM	2.0
Carbon tetrachloride	.0	UM	.0
Chlorobenzene	.0	UM	.0
Chlorobromomethane	.0	UM	.0
Chloroform	.0	UM	.0
Chloroform	.0	UM	.0
2-Chlorotoluene	.0	UM	.0
4-Chlorotoluene	.0	UM	.0
cis-1,2-Dichloroethane	.0	UM	.0
cis-1,3-Dichloropropane	.0	UM	.0
1,2-Dibromoethane	.0	UM	.0
1,2-Dibromoethane	.0	UM	.0
Dibromomethane	.0	UM	.0
1,3-Dichlorobenzene	.0	UM	.0
1,2-Dichlorobenzene	.0	UM	.0
1,4-Dichlorobenzene	.0	UM	.0
Dichlorobromomethane	.0	UM	.0
Dichlorodifluoromethane	.0	UM	.0
1,1-Dichloroethane	.0	UM	.0
1,2-Dichloroethane	.0	UM	.0
1,1-Dichloroethane	.0	UM	.0
1,2-Dichloroethane, Total	2.0	UM	2.0
1,2-Dichloropropane	.0	UM	.0
2,2-Dichloropropane	.0	UM	.0
1,3-Dichloropropane	.0	UM	.0
1,1-Dichloropropane	.0	UM	.0
Diethyl ether	0.0	UM	0.0
Ethylbenzene	.0	UM	.0
Hexachlorobutadiene	.0	UM	.0
2-Hexanone	0.0	UM	0.0
Isopropylbenzene	.0	UM	.0
Methylene Chloride	5.0	UM	5.0
4-Methyl-2-pentanone (MIBK)	0.0	UM	0.0
Methyl tert-butyl ether	0.0	UM	0.0
m-Xylene & p-Xylene	2.0	UM	2.0
Naphthalene	5.0	UM	5.0
n-Butylbenzene	.0	UM	.0
n-Propylbenzene	.0	UM	.0

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: Trip Blanke  
 Lab Sample ID: 680-62283-7TBM  
 Client Matrix: Watery

Date Sampled: y0/M6/20M 0000M  
 Date Received: y0/M6/20M 0934U

8260B Volatile Organic Compounds (GC/MS)

Meth M: 8260BM      Analysis Batch: 680-M84440M      Instrument ID: MS02M  
 Preparation: 5030BM      Lab File ID: 026.dl  
 Dilution: .0M      Initial Weight/Volume: 5 mL  
 Date Analyzed: 0/28/20M y346y      Final Weight/Volume: 5 mL  
 Date Prepared: 0/28/20M y346y

Analyte	Result (ug/L)	Qual/flag	RL0
-Xylene	.0M	UM	.0M
p-Isopropyltoluene	.0M	UM	.0M
sec-Butylbenzene	.0M	UM	.0M
Styrene	.0M	UM	.0M
tert-Butylbenzene	.0M	UM	.0M
,y,2,2-Tetrachloroethene	.0M	UM	.0M
,y,y,2-Tetrachloroethene	.0M	UM	.0M
Tetrachloroethene	.0M	UM	.0M
Toluene	.0M	UM	.0M
trans-1,2-Dichloroethene	.0M	UM	.0M
trans-1,3-Dichloropropene	.0M	UM	.0M
,2,4-Trichlorobenzene	.0M	UM	.0M
,2,3-Trichlorobenzene	.0M	UM	.0M
,y,y-Trichloroethene	.0M	UM	.0M
,y,2-Trichloroethene	.0M	UM	.0M
Trichloroethene	.0M	UM	.0M
Trichlorofluoromethane	.0M	UM	.0M
,2,3-Trichloropropene	.0M	UM	.0M
,2,4-Trimethylbenzene	.0M	UM	.0M
,3,5-Trimethylbenzene	.0M	UM	.0M
Vinyl acetate	2.0M	UM	2.0M
Vinyl chloride	.0M	UM	.0M
Xylenes, Total	2.0M	UM	2.0M

Surrogate	%Recy	Qual/flag	Acceptance Limits
4-Bromofluorobenzene	96y		75 - y20M
Dibromofluoromethane	89S		75 - y2M
Toluene-d8 (Surr)	0M		75 - y20M

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: MW-1T

Lab Sample ID: 680-62283-M  
 Client Matrix: Watery

Date Sampled: 01/16/2008, 5U  
 Date Received: 01/16/2008 09:34U

6010C Metals (ICP)

Meth: 6010C  
 Prep: 3030C  
 Dilution: .0M  
 Date Analyzed: 01/26/2008 y8M  
 Date Prepared: 01/16/2008 y6y8M

Analysis Batch: 680-M84233,  
 Prep Batch: 680-M83426y

Instrument ID: Variable  
 Lab File ID: Ey026200.csvJ  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Analyte	Result (ug/L)	Quality	RL
Silver	0M	UM	0M
Arsenic	20M	UM	20M
Barium	50M	UM	50M
Cadmium	5.0M	UM	5.0M
Chromium	0M	UM	0M
Iron	4700M	UM	00M
Lead	0M	UM	0M
Selenium	20M	UM	20M

Meth: 6010C  
 Prep: 3030C  
 Dilution: .0M  
 Date Analyzed: 01/26/2008 y825U  
 Date Prepared: 01/16/2008 y6y8M

Analysis Batch: 680-M84233,  
 Prep Batch: 680-M83426y

Instrument ID: Variable  
 Lab File ID: Ey026200.csvJ  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Analyte	Result (ug/L)	Quality	RL
Selenium	3,000M		0000M

7470A Mercury (CVAA)

Meth: 7470A  
 Prep: 7470A  
 Dilution: .0M  
 Date Analyzed: 01/28/2008 y3, 8M  
 Date Prepared: 01/25/2008 y537M

Analysis Batch: 680-M84540M  
 Prep Batch: 680-M8407M

Instrument ID: LEEMAN  
 Lab File ID: by02800b.chry  
 Initial Weight/Volume: 50 mL  
 Final Weight/Volume: 50 mL

Analyte	Result (ug/L)	Quality	RL
Mercury	0.20M	UM	0.20M

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: **MW-2T**

Lab Sample ID: 680-62283-2M  
 Client Matrix: Watery

Date Sampled: 01/26/2006 09:38 AM  
 Date Received: 01/26/2006 09:34 AM

**6010C Metals (ICP)**

Meth No:	6010C	Analysis Batch:	680-M84233,	Instrument ID:	Variable
Preparation:	3030C	Prep Batch:	680-M83426y	Lab File ID:	Ey02620M0.csv
Dilution:	.0M			Initial Weight/Volume:	50 mL
Date Analyzed:	01/26/2006 09:38 AM			Final Weight/Volume:	50 mL
Date Prepared:	01/26/2006 09:38 AM				

Analyte	Result (ug/L)	Quality	RL
Silver	0	UM	0M
Arsenic	20M	UM	20M
Barium	50M	UM	50M
Cadmium	5.0M	UM	5.0M
Chromium	0M	UM	0M
Iron	8200M		00M
Selenium	65000M		000M
Lead	0	UM	0M
Selenium	20M	UM	20M

**7470A Mercury (CVAA)**

Meth No:	7470A	Analysis Batch:	680-M84540M	Instrument ID:	LEEMAN
Preparation:	7470A	Prep Batch:	680-M8407M	Lab File ID:	by028M0b.chry
Dilution:	.0M			Initial Weight/Volume:	50 mL
Date Analyzed:	01/28/2006 09:32 AM			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2006 09:37 AM				

Analyte	Result (ug/L)	Quality	RL
Mercury	0.20M	UM	0.20M

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: MW-3e

Lab Sample ID: 680-62283-3,  
Client Matrix: Watery

Date Sampled: 01/16/2008 13:50  
Date Received: 01/16/2008 09:34

6010C Metals (ICP)

Meth No:	6010C	Analysis Batch:	680-M84233,	Instrument ID:	Variable
Preparation:	3030C	Prep Batch:	680-M83426	Lab File ID:	Ey026200.csv
Dilution:	.0M			Initial Weight/Volume:	50 mL
Date Analyzed:	01/26/2008 18:54			Final Weight/Volume:	50 mL
Date Prepared:	01/16/2008 16:08				

Analyte	Result (ug/L)	Quality	RL
Silver	0	UM	0M
Arsenic	20M	UM	20M
Barium	230M		50M
Cadmium	5.0M	UM	5.0M
Chromium	33,		0M
Iron	0		00M
Selenium	88000M		000M
Lead	0	UM	0M
Selenium	20M	UM	20M

7470A Mercury (CVAA)

Meth No:	7470A	Analysis Batch:	680-M84540M	Instrument ID:	LEEMAN
Preparation:	7470A	Prep Batch:	680-M8407M	Lab File ID:	by02800b.chry
Dilution:	.0M			Initial Weight/Volume:	50 mL
Date Analyzed:	01/28/2008 13:24			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2008 15:37				

Analyte	Result (ug/L)	Quality	RL
Mercury	0.20M	UM	0.20M

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: **MW-38T**

Lab Sample ID: 680-62283-4U  
 Client Matrix: Watery

Date Sampled: 01/26/2006 5U  
 Date Received: 01/19/2006 0934U

**6010C Metals (ICP)**

Meth No:	6010C	Analysis Batch:	680-M84233,	Instrument ID:	Variable
Preparation:	3030C	Prep Batch:	680-M83426y	Lab File ID:	Ey02620M0.csvJ
Dilution:	.0M			Initial Weight/Volume:	50 mL0
Date Analyzed:	01/26/2006 5858M			Final Weight/Volume:	50 mL0
Date Prepared:	01/19/2006 6y8M				

Analyte	Result (ug/L)	Quality	RL0
Silver	0	UM	0M
Arsenic	20M	UM	20M
Barium	50M	UM	50M
Cadmium	5.0M	UM	5.0M
Chromium	0M	UM	0M
Iron	40M		00M
Selenium	43000M		000M
Lead	0	UM	0M
Selenium	20M	UM	20M

**7470A Mercury (CVAA)**

Meth No:	7470A	Analysis Batch:	680-M84540M	Instrument ID:	LEEMAN
Preparation:	7470A	Prep Batch:	680-M8407M	Lab File ID:	by028M0b.chry
Dilution:	.0M			Initial Weight/Volume:	50 mL0
Date Analyzed:	01/28/2006 327M			Final Weight/Volume:	50 mL0
Date Prepared:	01/25/2006 537M				

Analyte	Result (ug/L)	Quality	RL0
Mercury	0.20M	UM	0.20M



Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: MW-39e

Lab Sample ID: 680-62283-5U  
 Client Matrix: Watery

Date Sampled: 10/16/2009 3:50 PM  
 Date Received: 10/19/2009 09:34 AM

6010C Metals (ICP)

Meth No:	6010C	Analysis Batch:	680-M84233,	Instrument ID:	Variable
Preparation:	3030C	Prep Batch:	680-M83426y	Lab File ID:	Ey02620M0.csv
Dilution:	.0M			Initial Weight/Volume:	50 mL
Date Analyzed:	10/26/2009 02:00			Final Weight/Volume:	50 mL
Date Prepared:	10/19/2009 06:08				

Analyte	Result (ug/L)	Quality	RL
Silver	0	UM	0M
Arsenic	20M	UM	20M
Barium	65U		50M
Cadmium	5.0M	UM	5.0M
Chromium	0M	UM	0M
Iron	00	UM	00M
Selenium	2000M		000M
Lead	0	UM	0M
Selenium	20M	UM	20M

7470A Mercury (CVAA)

Meth No:	7470A	Analysis Batch:	680-M84540M	Instrument ID:	LEEMAN
Preparation:	7470A	Prep Batch:	680-M8407M	Lab File ID:	by028M0b.chry
Dilution:	.0M			Initial Weight/Volume:	50 mL
Date Analyzed:	10/28/2009 03:30			Final Weight/Volume:	50 mL
Date Prepared:	10/25/2009 05:37				

Analyte	Result (ug/L)	Quality	RL
Mercury	0.20M	UM	0.20M

**Analytical Data**

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Client Sample ID: **MW-14**

Lab Sample ID: 680-62283-6y  
 Client Matrix: Watery

Date Sampled: 01/16/2009 04:50  
 Date Received: 01/19/2009 09:34

**6010C Metals (ICP)**

Meth No:	6010C	Analysis Batch:	680-M84233,	Instrument ID:	Variable
Preparation:	3030C	Prep Batch:	680-M83426y	Lab File ID:	Ey02620M0.csv
Dilution:	.0M			Initial Weight/Volume:	50 mL
Date Analyzed:	01/26/2009 06y			Final Weight/Volume:	50 mL
Date Prepared:	01/19/2009 6y8M				

Analyte	Result (ug/L)	Quality	RL
Silver	0	UM	0M
Arsenic	20M	UM	20M
Barium	50M	UM	50M
Cadmium	5.0M	UM	5.0M
Chromium	0M	UM	0M
Iron	50M		00M
Selenium	9.000M		000M
Lead	0	UM	0M
Selenium	20M	UM	20M

**7470A Mercury (CVAA)**

Meth No:	7470A	Analysis Batch:	680-M84540M	Instrument ID:	LEEMAN
Preparation:	7470A	Prep Batch:	680-M8407M	Lab File ID:	by028M0b.chry
Dilution:	.0M			Initial Weight/Volume:	50 mL
Date Analyzed:	01/28/2009 333,			Final Weight/Volume:	50 mL
Date Prepared:	01/25/2009 538M				

Analyte	Result (ug/L)	Quality	RL
Mercury	0.20M	UM	0.20M

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

---

General Chemistry

Client Sample ID: MW-1T

Lab Sample ID: 680-62283-M

Date Sampled: 10/18/2020 9:50

Client Matrix: Watery

Date Received: 10/19/2020 09:34

Analyte	Result	Qual	Unit	RL	Dil	Meth
Sulfate	3.0M		mg/L	0.0M	20M	9038M

Analysis Batch: 680-M84334U Date Analyzed: 10/27/2020 9:45

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

---

General Chemistry

Client Sample ID: MW-2T

Lab Sample ID: 680-62283-2M

Date Sampled: 10/18/2020 12:50

Client Matrix: Watery

Date Received: 10/19/2020 09:34

Analyte	Result	Qual/	UM	RL	Di	Meth
Sulfate	270M		mg/L	00M	20M	9038M

Analysis Batch: 680-M84334U Date Analyzed: 10/27/2020 9:45

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

---

General Chemistry

Client Sample ID: MW-3e

Lab Sample ID: 680-62283-3,  
Client Matrix: Watery

Date Sampled: 10/18/2020 13:50M  
Date Received: 10/19/2020 09:34U

Analyte	Result	Qual	UM	RL	Dil	Meth
Sulfate	6		mg/L	25	5.0	9038

Analysis Batch: 680-M84334U Date Analyzed: 10/27/2020 09:46

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

---

General Chemistry

Client Sample ID: MW-38T

Lab Sample ID: 680-62283-4U

Date Sampled: 10/18/2020 5U

Client Matrix: Watery

Date Received: 10/19/2020 0934U

Analyte	Result	Qual/	UM	RL	Di	Meth
Sulfate	26		mg/L	5.0	.0	9038

Analysis Batch: 680-184334U Date Analyzed: 10/27/2020 9 4U

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

---

General Chemistry

Client Sample ID: MW-39e

Lab Sample ID: 680-62283-5U

Date Sampled: 10/18/2010 10:35U

Client Matrix: Watery

Date Received: 10/19/2010 09:34U

Analyte	Result	Qual	UM	RL	Di	Meth
Sulfate	2M		mg/L	5.0M	.0M	9038M

Analysis Batch: 680-184334U Date Analyzed: 10/27/2010 09:11S

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

---

General Chemistry

Client Sample ID: MW-14

Lab Sample ID: 680-62283-6y

Date Sampled: 10/18/2020 10:45U

Client Matrix: Watery

Date Received: 10/19/2020 09:34U

Analyte	Result	Qual	UM	RL	Di	Meth
Sulfate	2M		mg/L	5.0M	.0M	9038M

Analysis Batch: 680-184334U Date Analyzed: 10/27/2020 09:39S



**D T R P O R T N e L I F a R S h**

Client: ARCADIS U.S., Inc.

Job Number: 680-62283-M

Lab Section	Qualifier	Description
GC/RS VOA	UM	<p>Indicate the analyte was analyzed but not detected.</p> <p>LCS or LCSD exceed the control/mity</p>
etal/	UM	<p>Indicate the analyte was analyzed but not detected.</p> <p>4. S, y SD: The analyte present in the original sample is 4 y timey greater than the matrix spike concentration; therefore, y control/mity are not applicable.</p>
General Chemistry	UM	<p>Indicate the analyte was analyzed but not detected.</p>

Client: CADIS U.S., Inc.)

Job Number: 680-622MB-1.

Method Book - Batch: 680-1841441

Method: 8660Bv  
Preparation: 6030Bv

Lab Sample ID) B 680-184244/18.      Analysis Batch: 680-184244U  
 Client: abixM Wab      Prep Batch: N/F  
 Volume: 1.0.      Units: ug/LR  
 Sample ID) 10/2M2010 1145B  
 Sample ID) 10/2M2010 1145B

Injection ID) SO2M  
 Lab File ID) oqy7F.dl  
 Injection Volume: 5 mL  
 Final Volume: 5 mL

Sample	Result	Quality	LR
Acetone	25	U	25B
Benzene	1.0	U	1.0
Bromobenzene	1.0	U	1.0
Bromochlorobenzene	1.0	U	1.0
Bromoform	1.0	U	1.0
Bromobenzene	1.0	U	1.0
2-Butanone (MEK)	10	U	10
Carbon disulfide	2.0	U	2.0
Carbon tetrachloride	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
Chlorodibromobenzene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
Chloroform	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
2-Chlorobenzene	1.0	U	1.0
4-Chlorobenzene	1.0	U	1.0
cis-1,2-Dichlorobenzene	1.0	U	1.0
cis-1,3-Dichlorobenzene	1.0	U	1.0
1,2-Dibromo-3-Chlorobenzene	1.0	U	1.0
1,2-Dibromobenzene	1.0	U	1.0
1,2-Dibromobenzene	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0
Dichlorobromobenzene	1.0	U	1.0
Dichlorodifluorobenzene	1.0	U	1.0
1,1-Dichlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
1,2-Dichloroethane (Total)	2.0	U	2.0
1,2-Dichlorobenzene	1.0	U	1.0
2,2-Dichlorobenzene	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,1-Dichlorobenzene	1.0	U	1.0
Dichloroethane	10	U	10
Dichlorobenzene	1.0	U	1.0
Dichlorobenzene	1.0	U	1.0
2-Hexanone	10	U	10
Isopropylbenzene	1.0	U	1.0
Isopropylbenzene Chloride	5.0	U	5.0
4-Isopropyl-2-pentanone (MIBK)	10	U	10
Isopropylbenzene	10	U	10
m-Xylene & p-Xylene	2.0	U	2.0

Client: CADIS U.S., Inc.)

Job Number: 680-622MB-1.

Method Book - Batch: 680-1841441

Method: 8660Bv  
Preparation: 6030Bv

Lab Sample ID) B 680-184244/18.      Analysis Batch: 680-184244U  
 Client: abixM Wab      Prep Batch: N/F  
 Volume: 1.0.      Units: ug/LR  
 Analytical 10/2M2010 1145B  
 Preparation 10/2M2010 1145B

Injection ID) SO2M  
 Lab File ID) oqy7F.dl  
 Initial Volume: 5 mL  
 Final Volume: 5 mL

Sample	Result	Quality	LR
Naphthalene	5.0	U	5.0
n-Butylbenzene	1.0	U	1.0
N-Propylbenzene	1.0	U	1.0
o-Xylene	1.0	U	1.0
p-Isopropyltoluene	1.0	U	1.0
sec-Butylbenzene	1.0	U	1.0
Styrene	1.0	U	1.0
n-Butylbenzene	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
1,1,1,2-Tetrachloroethane	1.0	U	1.0
Tetrachloroethane	1.0	U	1.0
Toluene	1.0	U	1.0
abs-1,2-Dichloroethane	1.0	U	1.0
abs-1,3-Dichloropropene	1.0	U	1.0
1,2,4-Trichlorobenzene	1.0	U	1.0
1,2,3-Trichlorobenzene	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
1,1,2-Trichloroethane	1.0	U	1.0
Trichloroethane	1.0	U	1.0
Trichlorofluoromethane	1.0	U	1.0
1,2,3-Trichloropropane	1.0	U	1.0
1,2,4-Trimehylbenzene	1.0	U	1.0
1,3,5-Trimehylbenzene	1.0	U	1.0
Vinyl acetate	2.0	U	2.0
Vinyl chloride	1.0	U	1.0
Xylenes, Total	2.0	U	2.0

Surrogate	% Recovery	Acceptance Limit
4-Bromofluorobenzene	99	75 - 120
ibromofluoromethane	90	75 - 121
Toluene - dl (Surr)	111	75 - 120

Cli/ . CADIS U.S., Inc.)

Job Number: 680-622MB-1.

**Lub ConrouSVmp e/V**  
**Lub ConrouSVmp e/V p6cv eV Recovery Reporu- Bv ch: 680-1841441**

**Method: 8660Bv**  
**Prep6ru on: 6030Bv**

LCS Lab Sampl) ID)	LCS 680-184244/15B	alysis Batçh.	680-184244U	Inšbume. ID)	SO2M
Cli/ . abixM	Wab	P p Batçh. N/F		Lab Fil) ID)	oq470.dl
ilu.io.	1.0.	Unŷsb ug/LR		Inŷial WMgh./Volume:.	5 mL
ab . alyzUdl	10/2M2010 1019y			Fi/ al WMgh./Volume:.	5 mL
ab P pab dl	10/2M2010 1019y				

LCSD)Lab Sampl) ID)	LCSD)680-184244/16.	alysis Batçh.	680-184244U	Inšbume. ID)	SO2M
Cli/ . abixM	Wab	P p Batçh. N/F		Lab Fil) ID)	oq472.dl
ilu.io.	1.0.	Unŷsb ug/LR		Inŷial WMgh./Volume:.	5 mL
ab . alyzUdl	10/2M2010 1047F			Fi/ al WMgh./Volume:.	5 mL
ab P pab dl	10/2M2010 1047F				

alyS	% . c.)		Limi/	P	P Limi/	LCS Qual)	LCSD)Qual)
	LCS)	LCSD)					
c) o.	125B	12M	17 - 175B	2M	50.		
B. zU	107F	105B	77 - 119y	2M	30.		
B.omobe. zU	93U	94U	0 - 1 24U	1.	30.		
B.omochlorome.hab	108.	109y	10 - 150.	1.	30.		
B.omoform.	3U	4U	2 - 133U	1.	30.		
B.omome.hab	113U	131.	12 - 184U	15B	50.		
2-Bu.abo. (MEK)	117F	109y	33 - 157F	7F	30.		
Całbo. disulfidl	94U	97F	55 - 131.	3U	30.		
Całbo. . achloridl	110.	111.	71 - 135B	1.	30.		
Chlorobe. zU	94U	95B	5 - 116.	0.	30.		
Chlorodibromome.hab	102M	102M	75 - 133U	0.	30.		
Chloroe.hab	108.	127F	40 - 165B	16.	50.		
Chloroform.	103U	101.	2 - 120.	1.	30.		
Chlorome.hab	151.	142M	4U- 1 42M		50.	*y	
2-Chloro.olue.	100.	101.	2 - 123U	1.	30.		
4-Chloro.olue.	105B	108.	3 - 122M	3U	30.		
cis-1,2-. ichloroe.h.	9y	97F	9 - 134U	1.	30.		
cis-1,3-. ichlorop2p2	115B	114U	7F- 1 2M	1.	30.		
1,2-. ibromo-3-Chlorop2pab	105B	106.	49 - 140.	1.	30.		
1,2-. ibromoe.hab	109y	108.	0 - 1 21.	1.	30.		
ibromome.hab	114U	111.	7F- 11 9y	2M	30.		
1,3-. ichlorobe. zU	101.	102M	7F- 1 25B	1.	30.		
1,2-. ichlorobe. zU	104U	103U	79 - 124U	1.	30.		
1,4-. ichlorobe. zU	104U	104U	1 - 1 22M	0.	30.		
ichlorobromome.hab	115B	112M	7F- 1 27F	2M	30.		
ichlorodifluorome.hab	127F	135B	34 - 154U		30.		
1,1-. ichloroe.hab	97F	99y	74 - 127F	2M	30.		
1,2-. ichloroe.hab	122M	117F	- 1 32M	4U	30.		
1,1-. ichloroe.h.	113U	116.	2 - 141.	3U	30.		
1,2-. ichloroe.h. , To.al)	9y	9y	- 1 34U	2M	30.		
1,2-. ichlorop2pab	111.	111.	73 - 124U	0.	30.		
2,2-. ichlorop2pab	110.	109y	55 - 157F	0.	30.		
1,3-. ichlorop2pab	112M	111.	75 - 120.	1.	30.		

Cli/ . CADIS U.S., Inc.)

Job Number: 680-622MB-1.

Lub ConrouSVmp e/V  
 LubConrouSVmp e/Vp6cv eVRecovery Reporu- Bv ch: 680-1841441

Method: 8660Bv  
 Preparation: 6030Bv

LCS Lab Sampl) ID) LCS 680-184244/15B      alysis Batch. 680-184244U      Inšbume. ID) SO2M  
 Cli/ . abixM      Wab      P p Batch. N/F      Lab Fil) ID) oq470.dl  
 ilu.io.      1.0.      Unšsb ug/LR      Inšial WMgh./Volume:. 5 mL  
 ab . alyzUdl      10/2M2010 1019y      Fi/ al WMgh./Volume:. 5 mL  
 ab P pab dl      10/2M2010 1019y

LCSD)Lab Sampl) ID) LCSD)680-184244/16.      alysis Batch. 680-184244U      Inšbume. ID) SO2M  
 Cli/ . abixM      Wab      P p Batch. N/F      Lab Fil) ID) oq472.dl  
 ilu.io.      1.0.      Unšsb ug/LR      Inšial WMgh./Volume:. 5 mL  
 ab . alyzUdl      10/2M2010 1047F      Fi/ al WMgh./Volume:. 5 mL  
 ab P pab dl      10/2M2010 1047F

alyS	% . c.)		Limi/	P	P Limi/	LCS Qual)	LCSD)Qual)
	LCS)	LCSD)					
1,1- ichlorop2p2	118.	118.	77 - 122M	0.	30.		
E.hylbe. zU	103U	105B	- 116.	2M	30.		
HI xachlorobu.adi/	99y	9y	2 - 142M	1.	30.		
2-HI xabo.	155B	14U	34 - 161.		30.		
Isop2pylbe. zU	92M	94U	2 - 121.	2M	30.		
hyl) Chloridl	97F	9y	70 - 125B	1.	30.		
4- hyl-2-p2 abo. (MIBK)	12M	120.	40 - 151.	5B	30.		
hyl . -bu.yl e.h.	90.	9y	77 - 121.	1.	30.		
m-Xyl) & p-Xyl)	102M	104U	3 - 118.	1.	30.		
Naph.hal)	99y	103U	4U- 1 35B	4U	30.		
-Bu.ylbe. zU	108.	108.	4 - 13U	0.	30.		
N-P opylbe. zU	110.	112M	0 - 1 2M	2M	30.		
o-Xyl)	102M	104U	3 - 119y	1.	30.		
p-Isop2pyltplue.	103U	104U	3 - 139y	1.	30.		
sbc-Bu.ylbe. zU	109y	112M	77 - 12M	3U	30.		
StyS	5B	5B	2 - 122M	1.	30.		
-Bu.ylbe. zU	111.	113U	0 - 1 24U	2M	30.		
1,1,2,2-Ty achloroe.hab	106.	104U	9 - 129y	1.	30.		
1,1,1,2-Ty achloroe.hab	9y	99y	1 - 1 2M	1.	30.		
Ty achloroe.h.	90.	91.	7F- 1 2M	2M	30.		
Tolue.	106.	104U	1 - 11 7F	2M	30.		
abs-1,2- ichloroe.h.	97F	99y	72 - 131.	2M	30.		
abs-1,3- ichlorop2p2	121.	117F	73 - 12M	4U	30.		
1,2,4-Ty chlorobe. zU	102M	101.	0 - 1 35B	1.	30.		
1,2,3-Ty chlorobe. zU	112M	113U	0 - 1 32M	1.	30.		
1,1,1-Ty chloroe.hab	112M	111.	7F- 1 27F	1.	30.		
1,1,2-Ty chloroe.hab	112M	107F	75 - 121.	5B	30.		
Ty chloroe.h.	102M	102M	4 - 115B	0.	30.		
Ty chlorofluorome.hab	117F	120.	5B- 1 49y	3U	50.		
1,2,3-Ty chlorop2pab	105B	104U	70 - 130.	0.	30.		
1,2,4-Tyme.hylbe. zU	115B	114U	72 - 132M	1.	30.		
1,3,5-Tyme.hylbe. zU	111.	113U	72 - 133U	2M	30.		
Vi/ yl ac) ab	105B	101.	10 - 217F	4U	30.		

Cli/ . CADIS U.S., Inc.)

Job Number: 680-622MB-1.

**Lub ConrouSVmp e/V**  
**Lub ConrouSVmp e/V p6cv eV Recovery Reporu- Bv ch: 680-1841441**

**Method: 8660Bv**  
**Prep6ru on: 6030Bv**

LCS Lab Sampl) ID) LCS 680-184244/15B      alysis Batch. 680-184244U      In\$bume. ID) SO2M  
 Cli/ . abixM      Wab      P p Batch. N/F      Lab Fil) ID) oq470.dl  
 ilu.io.      1.0.      Un\$sb ug/LR      In\$ial WMgh./Volume:. 5 mL  
 ab . alyzUdl      10/2M2010 1019y      Fi/ al WMgh./Volume:. 5 mL  
 ab P pab dl      10/2M2010 1019y

LCSD)Lab Sampl) ID) LCSD)680-184244/16.      alysis Batch. 680-184244U      In\$bume. ID) SO2M  
 Cli/ . abixM      Wab      P p Batch. N/F      Lab Fil) ID) oq472.dl  
 ilu.io.      1.0.      Un\$sb ug/LR      In\$ial WMgh./Volume:. 5 mL  
 ab . alyzUdl      10/2M2010 1047F      Fi/ al WMgh./Volume:. 5 mL  
 ab P pab dl      10/2M2010 1047F

alyS	% . c.)		Limi/	P	P Limi/	LCS Qual)	LCSD)Qual)
	LCS)	LCSD)					
Vi/ yl chlorid)	103U	109y	59 - 144U		50.		
Xyl) s, To.al)	102M	104U	4 - 118.	1.	30.		
Surrogab	LCS % . c)		LCSD)% . c)		cc) p2atc) Limi/sb		
4-B.omofluorobe. zU e	102M		101.		75 - 120.		
ibromofluorome.hab	92M		95B		75 - 121.		
Tolue. - dl (Surr)l	105B		103U		75 - 120.		

Client: CADIS U.S., Inc.)

Job Number: 680-622MB-1.

Method Book - Batch: 680-184306T

Method: 8660Bv  
Preparation: 6030Bv

Lab Sample ID) B 680-184306/F  
 Client: abixM Wab  
 Analysis Batch: 680-184306.  
 Prep Batch: N/F  
 Units: ug/LR  
 Volume: 1.0.  
 Analysis Date: 10/27/2010 1143U  
 Print Date: 10/27/2010 1143U

Injection ID) SO2M  
 Lab File ID) oqy .dl  
 Injection Volume: 5 mL  
 Final Volume: 5 mL

Sample Name	Result	Quality	LR
Acetone	25	U	25B
Benzene	1.0	U	1.0
Bromobenzene	1.0	U	1.0
Bromochlorobenzene	1.0	U	1.0
Bromobenzofuran	1.0	U	1.0
Bromobenzene	1.0	U	1.0
2-Butanone (MEK)	10	U	10
Carbon disulfide	2.0	U	2.0
Carbon tetrachloride	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
Chlorodibromobenzene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
Chloroform	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
2-Chlorophenol	1.0	U	1.0
4-Chlorophenol	1.0	U	1.0
cis-1,2-Dichlorobenzene	1.0	U	1.0
cis-1,3-Dichlorobenzene	1.0	U	1.0
1,2-Dibromo-3-Chlorobenzene	1.0	U	1.0
1,2-Dibromobenzene	1.0	U	1.0
1,2-Dibromobenzene	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0
Dichlorobromobenzene	1.0	U	1.0
Dichlorodifluorobenzene	1.0	U	1.0
1,1-Dichlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
1,2-Dichloroethane (Total)	2.0	U	2.0
1,2-Dichloropropane	1.0	U	1.0
2,2-Dichloropropane	1.0	U	1.0
1,3-Dichloropropane	1.0	U	1.0
1,1-Dichloropropane	1.0	U	1.0
Dichloroethane	10	U	10
Dichlorobenzene	1.0	U	1.0
Dichlorobenzene	1.0	U	1.0
2-Hexanone	10	U	10
Isopropylbenzene	1.0	U	1.0
Isopropylbenzene Chloride	5.0	U	5.0
4-Isopropyl-2-pentanone (MIBK)	10	U	10
Isopropylbenzene	10	U	10
m-Xylene & p-Xylene	2.0	U	2.0

Client: CADIS U.S., Inc.)

Job Number: 680-622MB-1.

Method Book - Batch: 680-184306T

Method: 8660Bv  
Preparation: 6030Bv

Lab Sample ID) B 680-184306/F  
 Client: abixM Wab  
 Volume: 1.0.  
 Analysis Date: 10/27/2010 1143U  
 Preparation Date: 10/27/2010 1143U

Analysis Batch: 680-184306.  
 Preparation Batch: N/F  
 Units: ug/LR

Injection ID) SO2M  
 Lab File ID) oqy .dl  
 Injection Volume: 5 mL  
 Final Volume: 5 mL

Sample	Result	Quality	LR
Naphthalene	5.0	U	5.0
n-Butylbenzene	1.0	U	1.0
N-Propylbenzene	1.0	U	1.0
o-Xylene	1.0	U	1.0
p-Isopropyltoluene	1.0	U	1.0
sec-Butylbenzene	1.0	U	1.0
Styrene	1.0	U	1.0
n-Butylbenzene	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
1,1,1,2-Tetrachloroethane	1.0	U	1.0
Tetrachloroethane	1.0	U	1.0
Toluene	1.0	U	1.0
1,2-Dichloroethane	1.0	U	1.0
1,3-Dichloropropane	1.0	U	1.0
1,2,4-Trichlorobenzene	1.0	U	1.0
1,2,3-Trichlorobenzene	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
1,1,2-Trichloroethane	1.0	U	1.0
Trichloroethane	1.0	U	1.0
Trichlorofluoromethane	1.0	U	1.0
1,2,3-Trichloropropane	1.0	U	1.0
1,2,4-Trimehylbenzene	1.0	U	1.0
1,3,5-Trimehylbenzene	1.0	U	1.0
Vinyl acetate	2.0	U	2.0
Vinyl chloride	1.0	U	1.0
Xylenes, Total	2.0	U	2.0

Surrogate	% Recovery	Acceptance Limit
4-Bromofluorobenzene	97	75 - 120
1-Bromofluorobenzene	90	75 - 121
Toluene - d1 (Surr)	108	75 - 120



Client: CADIS U.S., Inc.)

Job Number: 680-622MB-1.

Lub ConrouSVmp e/V

Lub ConrouSVmp e/V p6cv eV Recovery Reporu- Bv ch: 680-184306T

Method: 8660Bv

Preparation: 6030Bv

LCS Lab Sampl) ID)	LCS 680-184306/5B	Analysis Batch.	680-184306.	Institute ID)	SO2M
Client . abixM	Wab	Prep Batch. N/F		Lab File ID)	oq4U4.dl
Initial	1.0.	Units ug/LR		Initial WMgh./Volume:.	5 mL
Analysis Date	10/27/2010 1018.			Final WMgh./Volume:.	5 mL
Analysis Date	10/27/2010 1018.				

LCSD)Lab Sampl) ID)	LCSD)680-184306/F	Analysis Batch.	680-184306.	Institute ID)	SO2M
Client . abixM	Wab	Prep Batch. N/F		Lab File ID)	oq4U4.dl
Initial	1.0.	Units ug/LR		Initial WMgh./Volume:.	5 mL
Analysis Date	10/27/2010 104U			Final WMgh./Volume:.	5 mL
Analysis Date	10/27/2010 104U				

Analysis	%. c.)		Limit	P	P	Limit	LCS Qual)	LCSD)Qual)
	LCS)	LCSD)						
c) o.	110.	115B	17 - 175B	4U	50.			
B. zU	109y	107F	77 - 119y	2M	30.			
B. omobe. zU	95B	9y	0 - 124U	1.	30.			
B. omochlorome.hab	106.	107F	10 - 150.	2M	30.			
B. omoform.	77F	1.	2 - 133U	5B	30.			
B. omome.hab	106.	119y	12 - 184U	12M	50.			
2-Bu.abo. (MEK)	104U	105B	33 - 157F	1.	30.			
Carbo. disulfid	103U	105B	55 - 131.	1.	30.			
Carbo. . achlorid	114U	112M	71 - 135B	1.	30.			
Chlorobe. zU	93U	9y	5 - 116.	2M	30.			
Chlorodibromome.hab	9y	103U	75 - 133U		30.			
Chloroe.hab	124U	119y	40 - 165B	4U	50.			
Chloroform.	101.	100.	2 - 120.	2M	30.			
Chlorome.hab	151.	151.	4U- 142M	0.	50.	*y		*y
2-Chloro.olue.	102M	105B	2 - 123U	3U	30.			
4-Chloro.olue.	105B	104U	3 - 122M	1.	30.			
cis-1,2-. ichloroe.h.	101.	9y	9 - 134U	3U	30.			
cis-1,3-. ichlorop2p2	115B	116.	7F- 12M	0.	30.			
1,2-. ibromo-3-Chlorop2pab	9y	105B	49 - 140.	9y	30.			
1,2-. ibromoe.hab	102M	105B	0 - 121.	3U	30.			
ibromome.hab	108.	110.	7F- 119y	1.	30.			
1,3-. ichlorobe. zU	100.	102M	7F- 125B	2M	30.			
1,2-. ichlorobe. zU	102M	104U	79 - 124U	2M	30.			
1,4-. ichlorobe. zU	103U	104U	1 - 122M	1.	30.			
ichlorobromome.hab	112M	113U	7F- 127F	1.	30.			
ichlorodifluorome.hab	131.	13U	34 - 154U	3U	30.			
1,1-. ichloroe.hab	101.	99y	74 - 127F	2M	30.			
1,2-. ichloroe.hab	116.	115B	- 132M	1.	30.			
1,1-. ichloroe.h.	103U	103U	2 - 141.	0.	30.			
1,2-. ichloroe.h. , To.al)	101.	9y	- 134U	3U	30.			
1,2-. ichlorop2pab	110.	109y	73 - 124U	1.	30.			
2,2-. ichlorop2pab	118.	114U	55 - 157F	4U	30.			
1,3-. ichlorop2pab	106.	108.	75 - 120.	2M	30.			

Clients: CADIS U.S., Inc.)

Job Number: 680-622MB-1.

Lab Control Sample / Recovery Report - Batch: 680-184306T

Method: 8660Bv  
Preparation: 6030Bv

LCS Lab Sample ID) LCS 680-184306/5B	Analysis Batch. 680-184306.	Instrument ID) SO2M
Clients: abixM Wab	Preparation Batch. N/F	Lab File ID) oq4U4.dl
Lot No. 1.0.	Units: ug/LR	Injection Volume: 5 mL
Analysis Date: 10/27/2010 1018.		Final Volume: 5 mL
Analysis Date: 10/27/2010 1018.		

LCSD Lab Sample ID) LCSD)680-184306/F	Analysis Batch. 680-184306.	Instrument ID) SO2M
Clients: abixM Wab	Preparation Batch. N/F	Lab File ID) oq4U4.dl
Lot No. 1.0.	Units: ug/LR	Injection Volume: 5 mL
Analysis Date: 10/27/2010 104U		Final Volume: 5 mL
Analysis Date: 10/27/2010 104U		

Analyte	% (c.)		Limit	P	P	Limit	LCS Qual)	LCSD)Qual)
	LCS)	LCSD)						
1,1-dichloroethane	119y	116.	77 - 122M	2M	30.			
Ethylbenzene	104U	105B	- 116.	0.	30.			
Hexachlorobenzene	106.	105B	2 - 142M	1.	30.			
2-Hexanone	114U	120.	34 - 161.	5B	30.			
Isopropylbenzene	918.	92M	2 - 121.	1.	30.			
Hydrochloride	100.	97F	70 - 125B	3U	30.			
4-Hydroxy-2-pentanone (MIBK)	118.	121.	40 - 151.	3U	30.			
Hydroxybenzene	101.	99y	77 - 121.	2M	30.			
m-Xylene & p-Xylene	102M	102M	3 - 118.	0.	30.			
Naphthalene	94U	103U	4U - 135B		30.			
Benzene	113U	112M	4 - 13U	1.	30.			
N-Pentane	109y	111.	0 - 12M	2M	30.			
o-Xylene	102M	103U	3 - 119y	0.	30.			
p-Isopropyltoluene	105B	106.	3 - 139y	1.	30.			
sec-Butylbenzene	114U	115B	77 - 12M	1.	30.			
Styrene	5B		2 - 122M	3U	30.			
Benzene	110.	112M	0 - 124U	2M	30.			
1,1,2,2-Tetrachloroethane	100.	102M	9 - 129y	3U	30.			
1,1,1,2-Tetrachloroethane	95B	9y	1 - 12M	3U	30.			
Tetrachloroethane	90.	92M	7F - 12M	3U	30.			
Toluene	109y	106.	1 - 117F	2M	30.			
1,2-Dichloroethane	101.	97F	72 - 131.	4U	30.			
1,3-Dichloroethane	116.	117F	73 - 12M	0.	30.			
1,2,4-Trichlorobenzene	99y	102M	0 - 135B	3U	30.			
1,2,3-Trichlorobenzene	106.	112M	0 - 132M		30.			
1,1,1-Trichloroethane	115B	111.	7F - 127F	4U	30.			
1,1,2-Trichloroethane	104U	107F	75 - 121.	3U	30.			
Trichloroethane	9y	102M	4 - 115B	4U	30.			
Trichlorofluoromethane	120.	121.	5B - 149y	1.	50.			
1,2,3-Trichloropropane	97F	106.	70 - 130.	9y	30.			
1,2,4-Trimethylbenzene	112M	113U	72 - 132M	1.	30.			
1,3,5-Trimethylbenzene	113U	112M	72 - 133U	0.	30.			
Vinyl acetate	122M	120.	10 - 217F	2M	30.			

Cli/ . CADIS U.S., Inc.)

Job Number: 680-622MB-1.

**Lub ConrouSVmp e/V**  
**Lub ConrouSVmp e/V p6cv eV Recovery Reporu- Bv ch: 680-184306T**

**Method: 8660Bv**  
**Preprou on: 6030Bv**

LCS Lab Sampl) ID) LCS 680-184306/5B  
 Cli/ . abixM Wab  
 ilu.io. 1.0.  
 ab . alyzUdl 10/27/2010 1018.  
 ab P pab dl 10/27/2010 1018.

alysis Batrh. 680-184306.  
 P p Batrh. N/F  
 Unysb ug/LR

Insbume. ID) SO2M  
 Lab Fil) ID) oq4U4.dl  
 Inyal WMgh./Volume:. 5 mL  
 Fi/ al WMgh./Volume:. 5 mL

LCSD)Lab Sampl) ID) LCSD)680-184306/F  
 Cli/ . abixM Wab  
 ilu.io. 1.0.  
 ab . alyzUdl 10/27/2010 104U  
 ab P pab dl 10/27/2010 104U

alysis Batrh. 680-184306.  
 P p Batrh. N/F  
 Unysb ug/LR

Insbume. ID) SO2M  
 Lab Fil) ID) oq4U4.dl  
 Inyal WMgh./Volume:. 5 mL  
 Fi/ al WMgh./Volume:. 5 mL

alyS	% . c.)		Limi/	P	P Limi/	LCS Qual)	LCSD)Qual)
	LCS)	LCSD)					
Vi/ yl chlorid)	121.	123U	59 - 144U	2M	50.		
Xyl) s, To.al)	102M	103U	4 - 118.	0.	30.		
Surrogab	LCS % . c)		LCSD)% . c)		cc) p2atc) Limi/sb		
4-B.omofluorobe. zU e	102M		104U		75 - 120.		
ibromofluorome.hab	9y		97F		75 - 121.		
Tolue. - dl (Surr)l	107F		105B		75 - 120.		

Client: CADIS U.S., Inc.)

Job Number: 680-622MB-1.

Method Book - Batch: 680-1844406

Method: 8660Bv  
Preparation: 6030Bv

Lab Sample ID) B 680-184440/9y  
 Client: abixM Wab  
 Analysis Batch: 680-184440.  
 Prep Batch: N/F  
 Units: ug/LR  
 Volume: 1.0.  
 Analyzed: 10/2M2010 1323U  
 Prepared: 10/2M2010 1323U

Injection ID) SO2M  
 Lab File ID) oqy97.dl  
 Injection Volume: 5 mL  
 Final Volume: 5 mL

Sample	Result	Quality	LR
Acetone	25	U	25B
Benzene	1.0	U	1.0
Bromobenzene	1.0	U	1.0
Bromochlorobenzene	1.0	U	1.0
Bromoform	1.0	U	1.0
Bromobenzene	1.0	U	1.0
2-Butanone (MEK)	10	U	10
Carbon disulfide	2.0	U	2.0
Carbon tetrachloride	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
Chlorodibromobenzene	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
Chloroform	1.0	U	1.0
Chlorobenzene	1.0	U	1.0
2-Chlorobenzene	1.0	U	1.0
4-Chlorobenzene	1.0	U	1.0
cis-1,2-Dichlorobenzene	1.0	U	1.0
cis-1,3-Dichlorobenzene	1.0	U	1.0
1,2-Dibromo-3-Chlorobenzene	1.0	U	1.0
1,2-Dibromobenzene	1.0	U	1.0
1,2-Dibromobenzene	1.0	U	1.0
1,3-Dichlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,4-Dichlorobenzene	1.0	U	1.0
1,2-Dichlorobromobenzene	1.0	U	1.0
1,2-Dichlorodifluorobenzene	1.0	U	1.0
1,1-Dichlorobenzene	1.0	U	1.0
1,2-Dichlorobenzene	1.0	U	1.0
1,1-Dichloroethane	1.0	U	1.0
1,2-Dichloroethane (Total)	2.0	U	2.0
1,2-Dichloropropane	1.0	U	1.0
2,2-Dichloropropane	1.0	U	1.0
1,3-Dichloropropane	1.0	U	1.0
1,1-Dichloropropane	1.0	U	1.0
Dichloroethane	10	U	10
Dichlorobenzene	1.0	U	1.0
Dichlorobenzene	1.0	U	1.0
2-Hexanone	10	U	10
Isopropylbenzene	1.0	U	1.0
Isopropylbenzene Chloride	5.0	U	5.0
4-Isopropyl-2-pentanone (MIBK)	10	U	10
Isopropylbenzene	10	U	10
m-Xylene & p-Xylene	2.0	U	2.0

Client: . CADIS U.S., Inc.)

Job Number: 680-622MB-1.

Method Book - Batch: 680-1844406

Method: 8660Bv  
Preparation: 6030Bv

Lab Sample ID) B 680-184440/9y  
Client: . abixM Wab  
Inlet: 1.0.  
Sample ID) 10/2M2010 1323U  
Sample ID) 10/2M2010 1323U

Analysis Batch: 680-184440.  
Preparation Batch: N/F  
Injection Volume: ug/LR

Injection Volume: SO2M  
Lab File ID) oqy97.dl  
Injection Volume: 5 mL  
Injection Volume: 5 mL

Sample	Result	Quality	LR
Naphthalene	5.0	U	5.0
n-Butylbenzene	1.0	U	1.0
N-Propylbenzene	1.0	U	1.0
o-Xylene	1.0	U	1.0
p-Isopropyltoluene	1.0	U	1.0
sec-Butylbenzene	1.0	U	1.0
Styrene	1.0	U	1.0
n-Butylbenzene	1.0	U	1.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0
1,1,1,2-Tetrachloroethane	1.0	U	1.0
Tetrachloroethane	1.0	U	1.0
Toluene	1.0	U	1.0
1,2-Dichloroethane	1.0	U	1.0
1,3-Dichloropropane	1.0	U	1.0
1,2,4-Trichlorobenzene	1.0	U	1.0
1,2,3-Trichlorobenzene	1.0	U	1.0
1,1,1-Trichloroethane	1.0	U	1.0
1,1,2-Trichloroethane	1.0	U	1.0
Trichloroethane	1.0	U	1.0
Trichlorofluoromethane	1.0	U	1.0
1,2,3-Trichloropropane	1.0	U	1.0
1,2,4-Trimehylbenzene	1.0	U	1.0
1,3,5-Trimehylbenzene	1.0	U	1.0
Vinyl acetate	2.0	U	2.0
Vinyl chloride	1.0	U	1.0
Xylenes, Total	2.0	U	2.0

Surrogate	% Recovery	Acceptance Limit
4-Bromofluorobenzene	99	75 - 120
1-Bromofluorobenzene	99	75 - 121
Toluene - d1 (Surr)	108	75 - 120

Client: CADIS U.S., Inc.)

Job Number: 680-622MB-1.

Lab Sample ID: LCS 680-184440/F  
 Analysis Batch: 680-184440.  
 Client: abixM Wab  
 P/p Batch: N/F  
 Inj. Volume: 1.0  
 Un/sb ug/LR  
 Sample Name: ab. alyzUdl 10/2M2010 1115B  
 Sample Name: ab P pab dl 10/2M2010 1115B

Method: 8660Bv  
 Prep Run on: 6030Bv

LCS Lab Sample ID) LCS 680-184440/F  
 Client: abixM Wab  
 Inj. Volume: 1.0  
 Sample Name: ab. alyzUdl 10/2M2010 1115B  
 Sample Name: ab P pab dl 10/2M2010 1115B

Analysis Batch: 680-184440.  
 P/p Batch: N/F  
 Un/sb ug/LR

Inj. Volume: 5 mL  
 Lab File ID) oq492.dl  
 Inj. Volume: 5 mL  
 Final Volume: 5 mL

LCSD Lab Sample ID) LCSD 680-184440/7F  
 Client: abixM Wab  
 Inj. Volume: 1.0  
 Sample Name: ab. alyzUdl 10/2M2010 1137F  
 Sample Name: ab P pab dl 10/2M2010 1137F

Analysis Batch: 680-184440.  
 P/p Batch: N/F  
 Un/sb ug/LR

Inj. Volume: 5 mL  
 Lab File ID) oq493.dl  
 Inj. Volume: 5 mL  
 Final Volume: 5 mL

alyS	% . c.)		Limi/	P	P Limi/	LCS Qual)	LCSD)Qual)
	LCS)	LCSD)					
c) o.	103U	104U	17 - 175B	1.	50.		
B. zU	106.	105B	77 - 119y	1.	30.		
B. omobe. zU	95B	95B	0 - 1 24U	1.	30.		
B. omochlorome.hab	102M	102M	10 - 150.	1.	30.		
B. omoform.	4U	2M	2 - 133U	3U	30.		
B. omome.hab	108.	120.	12 - 184U	10.	50.		
2-Bu.abo. (MEK)I	104U	100.	33 - 157F	4U	30.		
Catbo. disulfidI	90.	9y	55 - 1316.		30.		
Catbo. . achloridI	106.	106.	71 - 135B	0.	30.		
Chlorobe. zU	95B	94U	5 - 116.	1.	30.		
Chlorodibromome.hab	107F	102M	75 - 133U	4U	30.		
Chloroe.hab	107F	102M	40 - 165B	4U	50.		
Chloroform.	93U	93U	2 - 120.	0.	30.		
Chlorome.hab	134U	139y	4U- 1 42M	3U	50.		
2-Chloro.olue.	102M	102M	2 - 123U	0.	30.		
4-Chloro.olue.	104U	103U	3 - 122M	1.	30.		
cis-1,2-. ichloroe.h.	916.	91.	9 - 134U	0.	30.		
cis-1,3-. ichlorop2p2	117F	115B	7F- 1 2M	2M	30.		
1,2-. ibromo-3-Chlorop2pab	104U	103U	49 - 140.	1.	30.		
1,2-. ibromoe.hab	107F	102M	0 - 1 21.	4U	30.		
ibromome.hab	113U	107F	7F- 11 9y		30.		
1,3-. ichlorobe. zU	101.	100.	7F- 1 25B	1.	30.		
1,2-. ichlorobe. zU	105B	100.	79 - 124U	4U	30.		
1,4-. ichlorobe. zU	105B	101.	1 - 1 22M	3U	30.		
ichlorobromome.hab	113U	111.	7F- 1 27F	2M	30.		
ichlorodifluorome.hab	113U	122M	34 - 154U		30.		
1,1-. ichloroe.hab	94U	95B	74 - 127F	1.	30.		
1,2-. ichloroe.hab	117F	112M	- 1 32M	4U	30.		
1,1-. ichloroe.h.	906.	95B	2 - 141.	5B	30.		
1,2-. ichloroe.h. , To.al)	91.	91.	- 1 34U	1.	30.		
1,2-. ichlorop2pab	113U	108.	73 - 124U	5B	30.		
2,2-. ichlorop2pab	103U	111.	55 - 157F	7F	30.		
1,3-. ichlorop2pab	111.	108.	75 - 120.	2M	30.		

Clients: CADIS U.S., Inc.)

Job Number: 680-622MB-1.

Lab Control Sample / Recovery Report - Batch: 680-1844406

Method: 8660Bv  
Preparation: 6030Bv

LCS Lab Sample ID) LCS 680-184440/F  
Client: abixM Wab  
Lot: 1.0  
Sample: alyzUdl 10/2M2010 1115B  
Sample: pab dl 10/2M2010 1115B

Analysis Batch: 680-184440.  
Prep Batch: N/F  
Units: ug/LR

Instrument ID) SO2M  
Lab File ID) oq492.dl  
Injection Volume: 5 mL  
Final Volume: 5 mL

LCSD Lab Sample ID) LCSD)680-184440/7F  
Client: abixM Wab  
Lot: 1.0  
Sample: alyzUdl 10/2M2010 1137F  
Sample: pab dl 10/2M2010 1137F

Analysis Batch: 680-184440.  
Prep Batch: N/F  
Units: ug/LR

Instrument ID) SO2M  
Lab File ID) oq493.dl  
Injection Volume: 5 mL  
Final Volume: 5 mL

alyS	% . c.)		Limit	P	P	Limit	LCS Qual)	LCSD)Qual)
	LCS)	LCSD)						
1,1-dichloroethane	114U	111.	77 - 122M	2M	30.			
Ethylbenzene	104U	102M	- 116.	1.	30.			
Hexachlorobenzene	100.	9y	2 - 142M	4U	30.			
2-Hexanone	125B	119y	34 - 161.	5B	30.			
Isopropylbenzene	908.	9y	2 - 121.	1.	30.			
Methyl Chloride	92M	94U	70 - 125B	2M	30.			
4-Methyl-2-pentanone (MIBK)	12M	120.	40 - 151.	5B	30.			
Methyl Ethyl Ketone	9y	99y	77 - 121.	1.	30.			
m-Xylene & p-Xylene	101.	101.	3 - 118.	0.	30.			
Naphthalene	104U	100.	4U - 135B	5B	30.			
n-Butylbenzene	110.	108.	4 - 13U	2M	30.			
N-Pentylbenzene	105B	107F	0 - 12M	1.	30.			
o-Xylene	100.	100.	3 - 119y	1.	30.			
p-Isopropyltoluene	104U	102M	3 - 139y	2M	30.			
sec-Butylbenzene	112M	111.	77 - 12M	1.	30.			
Styrene		5B	2 - 122M	1.	30.			
n-Butylbenzene	110.	105B	0 - 124U	5B	30.			
1,1,2,2-Tetrachloroethane	107F	104U	9 - 129y	3U	30.			
1,1,1,2-Tetrachloroethane	100.	99y	1 - 12M	1.	30.			
Tylenol	92M	90.	7F - 12M	2M	30.			
Toluene	104U	104U	1 - 117F	0.	30.			
m,p-Dichloroethane	90.	92M	72 - 131.	2M	30.			
m,p-Dichlorobenzene	121.	117F	73 - 12M	3U	30.			
1,2,4-Trichlorobenzene	101.	9y	0 - 135B	3U	30.			
1,2,3-Trichlorobenzene	114U	108.	0 - 132M		30.			
1,1,1-Trichloroethane	109y	106.	7F - 127F	2M	30.			
1,1,2-Trichloroethane	111.	108.	75 - 121.	3U	30.			
Trichloroethane	9y	94U	4 - 115B	4U	30.			
Trichlorofluoromethane	110.	114U	5B - 149y	3U	50.			
1,2,3-Trichloropropane	104U	103U	70 - 130.	1.	30.			
1,2,4-Trimehylbenzene	115B	109y	72 - 132M	5B	30.			
1,3,5-Trimehylbenzene	113U	112M	72 - 133U	1.	30.			
Vinyl acetate	118.	121.	10 - 217F	3U	30.			

Cli/ . CADIS U.S., Inc.)

Job Number: 680-622MB-1.

**Lub ConrouSVmp e/V**  
**Lub ConrouSVmp e/V p6cv eV Recovery Reporu- Bv ch: 680-1844406**

**Method: 8660Bv**  
**Prep6ru on: 6030Bv**

LCS Lab Sampl) ID)	LCS 680-184440/F	alysis Batçh. 680-184440.	Inšbume. ID)	SO2M
Cli/ . abixM	Wab	P p Batçh. N/F	Lab Fil) ID)	oq492.dl
ilu.io.	1.0.	Unšsb ug/LR	Inšial WMgh./Volume:.	5 mL
ab . alyzUdl	10/2M2010 1115B		Fi/ al WMgh./Volume:.	5 mL
ab P pab dl	10/2M2010 1115B			

LCSD)Lab Sampl) ID)	LCSD)680-184440/7F	alysis Batçh. 680-184440.	Inšbume. ID)	SO2M
Cli/ . abixM	Wab	P p Batçh. N/F	Lab Fil) ID)	oq493.dl
ilu.io.	1.0.	Unšsb ug/LR	Inšial WMgh./Volume:.	5 mL
ab . alyzUdl	10/2M2010 1137F		Fi/ al WMgh./Volume:.	5 mL
ab P pab dl	10/2M2010 1137F			

alyS	% . c.)		Limi/	P	P Limi/	LCS Qual)	LCSD)Qual)
	LCS)	LCSD)					
Vi/ yl chlorid)	107F	113U	59 - 144U		50.		
Xyl) s, To.al)	101.	100.	4 - 118.	0.	30.		
Surrogab	LCS % . c)		LCSD)% . c)		cc) p2atç) Limi/sb		
4-B.omofluorobe. zU e	103U		99y		75 - 120.		
ibromofluorome.hab	908.		9y		75 - 121.		
Tolue. - dl (Surr)l	104U		102M		75 - 120.		



Client: . CADIS U.S., Inc.)

Job Number: 680-622MB-1.

**Method Book - Batch: 680-183416T**

**Method: 6010Cu**  
**Preparation: 8030Cu**

Lab Sample ID) B 680-18342M7-  
 Client: . abixM Wab  
 File No. 1.0.  
 Analysis Date 10/2M2010 1805B  
 Analysis Date 10/19/2010 1618.

Analysis Batch. 680-184233U  
 Preparation Batch. 680-18342M  
 Units: ug/LR

Instrument ID) Variab ICP  
 Lab File ID) E102M2010.csv/  
 Initial Weight./Volume.: 50 mL  
 Final Weight./Volume.: 50 mL

Element	Result	Quality	Limit
Silver	10.	U)	10.
Silver (spike)	20.	U)	20.
Barium	50.	U)	50.
Cadmium	5.0.	U)	5.0.
Chromium	10.	U)	10.
Lead	100.	U)	100.
Sodium	1000.	U)	1000.
LRad	10.	U)	10.
Selenium	20.	U)	20.

**Method Book - Batch: 680-183416T**

**Method: 6010Cu**  
**Preparation: 8030Cu**

Lab Sample ID) LCS 680-18342MF.  
 Client: . abixM Wab  
 File No. 1.0.  
 Analysis Date 10/2M2010 1809y  
 Analysis Date 10/19/2010 1618.

Analysis Batch. 680-184233U  
 Preparation Batch. 680-18342M  
 Units: ug/LR

Instrument ID) Variab ICP  
 Lab File ID) E102M2010.csv/  
 Initial Weight./Volume.: 50 mL  
 Final Weight./Volume.: 50 mL

Element	Spike	Result	% Rec.	Limit	Quality
Silver	50.0.	44.18.		75 - 125B	
Silver (spike)	2000.	2050.	103U	75 - 125B	
Barium	2000.	2040.	102M	75 - 125B	
Cadmium	50.0.	52.2M	104U	75 - 125B	
Chromium	200.	204U	102M	75 - 125B	
Lead	1000.	1020.	102M	75 - 125B	
Sodium	5000.	4U.	97F	75 - 125B	
LRad	500.	508.	102M	75 - 125B	
Selenium	2000.	2030.	101.	75 - 125B	

Client: CADIS U.S., Inc.)

Job Number: 680-622MB-1.

Method: 6010Cu  
 Preparation: 8030Cu

Lab Sample ID) 0-6.22MB-1.  
 Client: abixM Wab  
 ILS: 1.0  
 Analysis Date: 10/2M2010 1817F  
 Analysis Date: 10/19/2010 1618.

Analysis Batch: 680-184233U  
 Preparation Batch: 680-18342M

Instrument ID) Vatiab ICP  
 Lab File ID) E102M2010.csv/  
 Initial Volume: 50 mL  
 Final Volume: 50 mL

Lab Sample ID) 0-6.22MB-1.  
 Client: abixM Wab  
 ILS: 1.0  
 Analysis Date: 10/2M2010 1821.  
 Analysis Date: 10/19/2010 1618.

Analysis Batch: 680-184233U  
 Preparation Batch: 680-18342M

Instrument ID) Vatiab ICP  
 Lab File ID) E102M2010.csv/  
 Initial Volume: 50 mL  
 Final Volume: 50 mL

Element	% Rec.)		Limit	P	P Limit	S Qual	SD Qual
	S	SD					
Silver	92M	90.	75 - 125B	2M	20.		
Silver (sb ic)	110.	107F	75 - 125B	2M	20.		
Barium	101.	100.	75 - 125B	2M	20.		
Cadmium	103U	101.	75 - 125B	2M	20.		
Chromium	101.	99y	75 - 125B	2M	20.		
Lead		1.	75 - 125B	1.	20.	4U	4U
Radon	99y	97F	75 - 125B	3U	20.		
Selenium	109y	107F	75 - 125B	2M	20.		

Method: 6010Cu  
 Preparation: 8030Cu

Lab Sample ID) 0-6.22MB-1.  
 Client: abixM Wab  
 ILS: 1.0  
 Analysis Date: 10/2M2010 1829y  
 Analysis Date: 10/19/2010 1618.

Analysis Batch: 680-184233U  
 Preparation Batch: 680-18342M

Instrument ID) Vatiab ICP  
 Lab File ID) E102M2010.csv/  
 Initial Volume: 50 mL  
 Final Volume: 50 mL

Lab Sample ID) 0-6.22MB-1.  
 Client: abixM Wab  
 ILS: 1.0  
 Analysis Date: 10/2M2010 1833U  
 Analysis Date: 10/19/2010 1618.

Analysis Batch: 680-184233U  
 Preparation Batch: 680-18342M

Instrument ID) Vatiab ICP  
 Lab File ID) E102M2010.csv/  
 Initial Volume: 50 mL  
 Final Volume: 50 mL

Element	% Rec.)		Limit	P	P Limit	S Qual	SD Qual
	S	SD					
Sodium	123U	2M	75 - 125B	1.	20.	4U	4U

Client: . CADIS U.S., Inc.)

Job Number: 680-622MB-1.

**Method Book - Batch: 680-184017U**

**Method: 470AV**  
**Preparation: 470AV**

Lab Sample ID) B 680-184017/1-.  
 Client: . abixM Wab  
 Inlet Flow: 1.0.  
 Sample Analyzed 10/25/2010 1207F  
 Sample Preparation 10/25/2010 1537F

Analysis Batch. 680-184540.  
 Preparation Batch. 680-184017F  
 Units: ug/LR

Inlet Volume. ID) LEE. N1.  
 Lab File ID) b102M0b.ch.  
 Inlet Volume: 50 mL  
 Inlet Volume: 50 mL

alyS	sult)	QualR)	LR
curyS	0.20.	U)	0.20.

**Method Book - Batch: 680-184017U**

**Method: 470AV**  
**Preparation: 470AV**

Lab Sample ID) LCS 680-184017/2-.  
 Client: . abixM Wab  
 Inlet Flow: 1.0.  
 Sample Analyzed 10/25/2010 1211.  
 Sample Preparation 10/25/2010 1537F

Analysis Batch. 680-184540.  
 Preparation Batch. 680-184017F  
 Units: ug/LR

Inlet Volume. ID) LEE. N1.  
 Lab File ID) b102M0b.ch.  
 Inlet Volume: 50 mL  
 Inlet Volume: 50 mL

alyS	Spike . mou.	sult)	% . c.)	Limi/	Qual)
curyS	2.50.	2.72M	109y	0 - 120.	





## Login Sample Report Checklist

Client: ARCADIS U.S., Inc.

JM Number: 680-62283-M

**Login Number:** c 83T  
**Creator:** Coe er, Keatoe  
**List Number:** c

**List Source:** TestAmerica Savannah

Question	Y / N / NA	Comments
Randomly either was not measured or, if measured, is it or below w/y background/ dc	N/A	
the cooler's custody seal, if present, is intact.	Y	
the cooler or samples do not appear to have been compromised or tampered with.	Y	
Samples were received on ice.	Y	
Cooler temperature is acceptable.	Y	
Cooler temperature is recorded.	Y	
COC is present.	Y	
COC is filled out in ink and legible.	Y	
COC is filled out with all pertinent information.	Y	
Is the Field Sampler's name present on COC? U	N/A	
there are no discrepancies between the sample IDs on the containers and the COC.	Y	
Samples were received with H. Idc g y me.	Y	
Sample containers have legible labels.	Y	
Containers are not broken or leaky.	Y	
Sample collection dates are provided.	Y	
Appropriate sample containers are used.	Y	
Sample bottles are completely filled.	Y	
Sample Preservation Verified	Y	
there is sufficient vsl. for all requested analyses, including requested MS/MSDs	Y	
VOA sample vsls do not have headspace or bubble is <6mm (M4") in y dc meter.	Y	
If necessary, staff have been informed of any short hold time or quack/any y ee dsT	Y	
Multiple samples are not present.	N/A	
Samples do not require splitting or comparison.	N/A	

y

## ANALYTICAL REPORT

Job Number: 680-62923-1

Job Description: UNC Airport Road

For:  
ARCADIS U.S., Inc.  
801 Corporate Center Drive  
Suite 300  
Raleigh, NC 27607-5073  
Attention: Mr. Alan Pinnix

*Kathryn Smith*

Approved for release.  
Kathryn Smith  
Project Manager I  
11/19/2010 2:11 PM

---

Kathryn Smith  
Project Manager I  
kathye.smith@testamericainc.com  
11/19/2010

The test results in this report meet NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted. Results pertain only to samples listed in this report. This report may not be reproduced, except in full, without the written approval of the laboratory. Questions should be directed to the person who signed this report.

Savannah Certifications and ID #: A2LA: 0399.01; AL: 41450; ARDEQ: 88-0692; ARDOH; CA: 03217CA; CO; CT: PH0161; DE; FL: E87052; GA: 803; Guam; HI; IL: 200022; IN; IA: 353; KS: E-10322; KY EPPC: 90084; KY UST; LA DEQ: 30690; LA DHH: LA080008; ME: 2008022; MD: 250; MA: M-GA006; MI: 9925; MS; NFESC: 249; NV: GA00006; NJ: GA769; NM; NY: 10842; NC DWQ: 269; NC DHHS: 13701; PA: 68-00474; PR: GA00006; RI: LAO00244; SC: 98001001; TN: TN0296; TX: T104704185; USEPA: GA00006; VT: VT-87052; VA: 00302; WA; WV DEP: 094; WV DHHR: 9950 C; WI DNR: 999819810; WY/EPAR8: 8TMS-Q

**TestAmerica Laboratories, Inc.**

TestAmerica Savannah 5102 LaRoche Avenue, Savannah, GA 31404  
Tel (912) 354-7858 Fax (912) 352-0165 [www.testamericainc.com](http://www.testamericainc.com)



**Job Narrative**  
**680-62923-1M**

**Comments**

No additional comments. /

**Receipt**

All samples were received in good condition within temperature requirements. /

**GC/MS VOA**

Method(s) 8260B: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for four analytes to recover outside criteria for this method when a full list spike is utilized. The LCS/LCSD associated with batch 186027 had one analyte outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8260B: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for four analytes to recover outside criteria for this method when a full list spike is utilized. LCS associated with batch 186094 had one analyte outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

Method(s) 8260B: A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for four analytes to recover outside criteria for this method when a full list spike is utilized. The LCSD associated with batch 186055 had one analyte outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

No other analytical or quality issues were noted.

**VOA Prep**

No analytical or quality issues were noted.



## METHOD SUMMARY:

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-15

<b>Description:</b>	<b>Lab Location:</b>	<b>Method:</b>	<b>Preparation Method:</b>
<b>Matrix: Water:</b>			
Volatil Organic Compounds (GC/MS)	TAL SAV2	SWJ4, 8.20 B2	
Purge and Trap	TAL SAV2		SWJ4, 5030B2

### Lab References:

TAL SAV = TestAmerica Savannah.

### Method References:

SWJ4, = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1996 And Its Updates.

**METHOD / ANALYST SUMMARY**

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-1S

<b>Method</b>	<b>Analyst</b>	<b>Analyst ID:</b>
Sy 846 8260Bb	Beyrden, R	RB,
SW846 8260Bb	erty r, Carolynb	CLb

**SM PLE SU2 R Y2**

Client: ARCADIS U.S., Inc.b

Job Number: 680-62923-1b

<b>Lab Sa: ple IDe</b>	<b>Client Sa: ple IDe</b>	<b>Client : atrix2</b>	<b>Date/Time : Sa: pledb</b>	<b>Date/Time : ReVeivedb</b>
680-62923-1b	SW-3b	Waterb	11/02/2010 1000b	11/06/2010 1034,
680-62923-2b	SW-2b	Waterb	11/02/2010 1010b	11/06/2010 1034,
680-62923-3b	SW-4,	Waterb	11/02/2010 1100b	11/06/2010 1034,
680-62923-4,	SW-5c	Waterb	11/02/2010 1105c	11/06/2010 1034,
680-62923-5c	SW-6b	Waterb	11/02/2010 1130b	11/06/2010 1034,
680-62923-6I	MW-36I	WaterI	11/02/2010 1409b	11/06/2010 1034,
680-62923-7I	MW-4I	WaterI	11/02/2010 1410I	11/06/2010 1034I
680-62923-8I	MW-30I	WaterI	11/02/2010 1500I	11/06/2010 1034I
680-62923-9I	MW-31I	WaterI	11/02/2010 1501I	11/06/2010 1034I
680-62923-10I	MW-5I	WaterI	11/02/2010 1515I	11/06/2010 1034I
680-62923-11I	MW-32I	WaterI	11/02/2010 1550I	11/06/2010 1034I
680-62923-12I	MW-35I	WaterI	11/02/2010 1555I	11/06/2010 1034I
680-62923-13I	MW-33I	WaterI	11/02/2010 1636I	11/06/2010 1034I
680-62923-14I	MW-25I	WaterI	11/03/2010 1015I	11/06/2010 1034I
680-62923-15I	MW-26I	WaterI	11/03/2010 1120I	11/06/2010 1034I
680-62923-16I	MW-11I	WaterI	11/03/2010 1140I	11/06/2010 1034I
680-62923-17I	MW-9I	WaterI	11/03/2010 1335I	11/06/2010 1034I
680-62923-18I	MW-6I	WaterI	11/03/2010 1425I	11/06/2010 1034I
680-62923-19I	MW-7I	WaterI	11/03/2010 1435I	11/06/2010 1034I
680-62923-20I	SRW-1I	WaterI	11/03/2010 1600I	11/06/2010 1034I
680-62923-21I	SRW-2I	WaterI	11/03/2010 1610I	11/06/2010 1034I
680-62923-22I	SRW-3I	WaterI	11/03/2010 1620I	11/06/2010 1034I
680-62923-23I	DRW-1I	WaterI	11/03/2010 1630I	11/06/2010 1034I
680-62923-24I	DRW-2I	WaterI	11/03/2010 1640I	11/06/2010 1034I
680-62923-25I	DRW-3I	WaterI	11/03/2010 1650I	11/06/2010 1034I
680-62923-26I	MW-12I	WaterI	11/04/2010 0920I	11/06/2010 1034I
680-62923-27I	MW-22I	WaterI	11/04/2010 1000I	11/06/2010 1034I
680-62923-28I	MW-2I	WaterI	11/04/2010 1055I	11/06/2010 1034I
680-62923-29I	MW-15I	WaterI	11/04/2010 0911I	11/06/2010 1034I
680-62923-30I	MW-1I	WaterI	11/04/2010 1155I	11/06/2010 1034I
680-62923-31I	DUP-1I	WaterI	11/04/2010 0000I	11/06/2010 1034I
680-62923-32I	MW-28I	WaterI	11/04/2010 1403I	11/06/2010 1034I
680-62923-33I	MW-3I	WaterI	11/04/2010 1412I	11/06/2010 1034I
680-62923-34I	MW-14I	WaterI	11/05/2010 0830I	11/06/2010 1034I
680-62923-35I	MW-23I	WaterI	11/05/2010 1235I	11/06/2010 1034I
680-62923-36I	MW-17I	WaterI	11/05/2010 1350I	11/06/2010 1034I
680-62923-37I	VER-1I	WaterI	11/05/2010 1045I	11/06/2010 1034I
680-62923-38I	VER-2I	WaterI	11/05/2010 1100I	11/06/2010 1034I
680-62923-39I	VER-3I	WaterI	11/05/2010 1115I	11/06/2010 1034I
680-62923-40I	VER-4I	WaterI	11/05/2010 1130I	11/06/2010 1034I
680-62923-41I	MW-16I	WaterI	11/05/2010 1540I	11/06/2010 1034I
680-62923-42I	Trip BlankI	WaterI	11/05/2010 0000I	11/06/2010 1034I

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: SW-3M

L2b Sample ID: 680-62923-11

DI Sample ID: 11/02/10 10001

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch:	680-18599#b	Instrument ID:	MSO21
Preparation:	5030B	L2b File ID:			01526.d,
Dilution:	1.0l	Initial Volume:			5 mL2
DI Analysis:	11/12/10 1231l	Final Volume:			5 mL2
DI Preparation:	11/12/10 1231l				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M SW-3M

L2b Sample ID: 680-62923-11  
 Client Matrix: rl

DI Sample ID: 11/02/10 10001  
 DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B Analysis Batch: 680-18599#b Instrument ID: MS021  
 PrepTrieon: 5030B L2b File ID: o1526.d,  
 Dilution: 1.0 Initial Inj Volume: 5 mL2  
 DI Analyzed: 11/12/10 1231I Final Inj Volume: 5 mL2  
 DI Prepped: 11/12/10 1231I

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0	UI	1.0
Hexachlorobutadiene	1.0	UI	1.0
Isopropylbenzene	1.0	UI	1.0
Methyl tert-butyl ether	10	UI	10
Methylene Chloride	5.0	UI	5.0
m-Xylene & p-Xylene	.0	UI	.0
Naphthalene	5.0	UI	5.0
n-Butylbenzene	1.0	UI	1.0
N-Propylbenzene	1.0	UI	1.0
o-Xylene	1.0	UI	1.0
p-Isopropyltoluene	1.0	UI	1.0
sec-Butylbenzene	1.0	UI	1.0
Styrene	1.0	UI	1.0
tert-Butylbenzene	1.0	UI	1.0
Tetrachloroethene	1.0	UI	1.0
Toluene	1.0	UI	1.0
trans-1,2-Dichloroethene	1.0	UI	1.0
trans-1,3-Dichloropropene	1.0	UI	1.0
Trichloroethene	1.0	UI	1.0
Trichlorofluoromethane	1.0	UI	1.0
Vinyl acetate	.0	UI	.0
Vinyl chloride	1.0	UI	1.0
Xylenes, Total	.0	UI	.0

Surrogate	%Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	88		75 - 120
Dibromofluoromethane	101		75 - 121
Toluene-d8 (Surrogate)	102		75 - 120

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M SW-2M

L2b Sample ID:l 680-62923-2l

DI SampleID: 11/02/10 1010l

Client Matrix:l rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:l	8260Bl	Analysis Batch: 680-18599#b	Instrument ID:l	MSO2l
Preparation:l	5030Bl		L2b File ID:l	o1528.d,
Dilution:l	1.0l		Injection Volume:l	5 mL2
DI AnalysisID:l	11/12/10 1259l		Final Injection Volume:l	5 mL2
DI Preparation:l	11/12/10 1259l			

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M SW-2M

L2b Sample ID:l 680-62923-2l

DI Sample ID: 11/02/10 1010l

Client Matrix:l rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:l	8260B	Analysis Batch: 680-18599#b	Instrument ID:l	MS02l
PrepTrieon:l	5030B		L2b File ID:l	o1528.d,
Dilution:l	1.0l		Initial Inj Volume:l	5 mL2
DI Analysis Date:l	11/12/10 1259l		Final Inj Volume:l	5 mL2
DI Prep Date:l	11/12/10 1259l			

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0l	UI	1.0l
Hexachlorobutadiene	1.0l	UI	1.0l
Isopropylbenzene	1.0l	UI	1.0l
Methyl tert-butyl ether	10l	UI	10l
Methylene Chloride	5.0l	UI	5.0l
m-Xylene & p-Xylene	.0l	UI	.0l
Naphthalene	5.0l	UI	5.0l
n-Butylbenzene	1.0l	UI	1.0l
N-Propylbenzene	1.0l	UI	1.0l
o-Xylene	1.0l	UI	1.0l
p-Isopropyltoluene	1.0l	UI	1.0l
sec-Butylbenzene	1.0l	UI	1.0l
Styrene	1.0l	UI	1.0l
tert-Butylbenzene	1.0l	UI	1.0l
Tetrachloroethene	1.0l	UI	1.0l
Toluene	1.0l	UI	1.0l
trans-1,2-Dichloroethene	1.0l	UI	1.0l
trans-1,3-Dichloropropene	1.0l	UI	1.0l
Trichloroethene	1.0l	UI	1.0l
Trichlorofluoromethane	1.0l	UI	1.0l
Vinyl Acetate	.0l	UI	.0l
Vinyl chloride	1.0l	UI	1.0l
Xylenes, Total	.0l	UI	.0l

Surrogate	%Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	87l		75 - 120l
Dibromofluoromethane	7l		75 - 121l
Toluene-d8 (Surrogate)	103l		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M SW-4M

L2b Sample ID: 680-62923-31

DI Sample ID: 11/02/10 11001

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-18599#b	Instrument ID:	MSO21
Preparation:	5030B1	L2b File ID:			01530.d,
Dilution:	1.0l	Initial Volume:			5 mL2
DI Analysis:	11/12/10 1328l	Final Volume:			5 mL2
DI Preparation:	11/12/10 1328l				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l



Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M SW-4M

L2b Sample ID:l 680-62923-3l

DI Sample ID: 11/02/10 1100l

Client Matrix:l rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:l	8260B	Analysis Batch: 680-18599#b	Instrument ID:l	MS02l
PrepTrieon:l	5030B		L2b File ID:l	01530.d,
Dilution:l	1.0l		Initial Inj Volume:l	5 mL2
DI Analysis Date:l	11/12/10 1328l		Final Inj Volume:l	5 mL2
DI Prep Date:l	11/12/10 1328l			

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0l	UI	1.0l
Hexachlorobutadiene	1.0l	UI	1.0l
Isopropylbenzene	1.0l	UI	1.0l
Methyl tert-butyl ether	10l	UI	10l
Methylene Chloride	5.0l	UI	5.0l
m-Xylene & p-Xylene	.0l	UI	.0l
Naphthalene	5.0l	UI	5.0l
n-Butylbenzene	1.0l	UI	1.0l
N-Propylbenzene	1.0l	UI	1.0l
o-Xylene	1.0l	UI	1.0l
p-Isopropyltoluene	1.0l	UI	1.0l
sec-Butylbenzene	1.0l	UI	1.0l
Styrene	1.0l	UI	1.0l
tert-Butylbenzene	1.0l	UI	1.0l
Tetrachloroethene	1.0l	UI	1.0l
Toluene	1.0l	UI	1.0l
trans-1,2-Dichloroethene	1.0l	UI	1.0l
trans-1,3-Dichloropropene	1.0l	UI	1.0l
Trichloroethene	1.0l	UI	1.0l
Trichlorofluoromethane	1.0l	UI	1.0l
Vinyl Acetate	.0l	UI	.0l
Vinyl chloride	1.0l	UI	1.0l
Xylenes, Total	.0l	UI	.0l

Surrogate	%Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	89l		75 - 120l
Dibromofluoromethane	8l		75 - 121l
Toluene-d8 (Surrogate)	101l		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M SW-5M

L2b Sample ID:l 680-62923-4b

DI Sample ID: 11/02/10 1105l

Client Matrix:l rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:l	8260B	Analysis Batch: 680-18599#b	Instrument ID:l	MSO2I
Preparation:l	5030B		L2b File ID:l	0154b d,
Dilution:l	1.0l		Initial Volume:l	5 mL2
DI Analysis:l	11/12/10 1619l		Final Volume:l	5 mL2
DI Preparation:l	11/12/10 1619l			

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
o-Chlorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M SW-5M

L2b Sample ID: 680-62923-4b  
 Client Matrix: rl

DI Sample ID: 11/02/10 11051  
 DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B Analysis Batch: 680-18599#b Instrument ID: MS021  
 PrepTrieon: 5030B L2b File ID: 0154b d,  
 Dilution: 1.0 Initial Inj Volume: 5 mL2  
 DI Analyzed: 11/12/10 1619 Final Inj Volume: 5 mL2  
 DI Prepped: 11/12/10 1619

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0	UI	1.0
Hexachlorobutadiene	1.0	UI	1.0
Isopropylbenzene	1.0	UI	1.0
Methyl tert-butyl ether	10	UI	10
Methylene Chloride	5.0	UI	5.0
m-Xylene & p-Xylene	.0	UI	.0
Naphthalene	5.0	UI	5.0
n-Butylbenzene	1.0	UI	1.0
N-Propylbenzene	1.0	UI	1.0
o-Xylene	1.0	UI	1.0
p-Isopropyltoluene	1.0	UI	1.0
sec-Butylbenzene	1.0	UI	1.0
Styrene	1.0	UI	1.0
tert-Butylbenzene	1.0	UI	1.0
Tetrachloroethene	1.0	UI	1.0
Toluene	1.0	UI	1.0
trans-1,2-Dichloroethene	1.0	UI	1.0
trans-1,3-Dichloropropene	1.0	UI	1.0
Trichloroethene	1.0	UI	1.0
Trichlorofluoromethane	1.0	UI	1.0
Vinyl acetate	.0	UI	.0
Vinyl chloride	1.0	UI	1.0
Xylenes, Total	.0	UI	.0

Surrogate	%Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	84	b	75 - 120
Dibromofluoromethane	5		75 - 121
Toluene-d8 (Surrogate)	100		75 - 120

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M SW-6M

L2b Sample ID:l 680-62923-5l

DI SampleID: 11/02/10 1130l

Client Matrix:l rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:l	8260Bl	Analysis Batch: 680-186273l	Instrument ID:l	MSOI
PrepTion:l	5030Bl		L2b File ID:l	o1706.d,
Dilution:l	1.0l		Initial Volume:l	5 mL2
DI Analysis:l	11/16/10 13 40l		Final Volume:l	5 mL2
DI PrepTion:l	11/16/10 13 40l			

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
m-Chlorotoluene	1.0l	UI	1.0l
p-Chlorotoluene	1.0l	UI	1.0l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M SW-6M

L2b Sample ID: 680-62923-51  
 Client Matrix: rl

DI Sample Date: 11/02/10 1130L  
 DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B1 Analysis Batch: 680-1862731 Instrument ID: MS01  
 Prep/Injection: 5030B1 L2b File ID: 01706.d,  
 Dilution: 1.0l Initial Inj Volume: 5 mL2  
 DI Analysis Date: 11/16/10 13:40l Final Inj Volume: 5 mL2  
 DI Prep/Ret: 11/16/10 13:40l

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0l	UI	1.0l
Hexachlorobutadiene	1.0l	UI	1.0l
Isopropylbenzene	1.0l	UI	1.0l
Methyl tert-butyl ether	10l	UI	10l
Methylene Chloride	5.0l	UI	5.0l
m-Xylene & p-Xylene	.0l	UI	.0l
Naphthalene	5.0l	UI	5.0l
n-Butylbenzene	1.0l	UI	1.0l
N-Propylbenzene	1.0l	UI	1.0l
o-Xylene	1.0l	UI	1.0l
p-Isopropyltoluene	1.0l	UI	1.0l
sec-Butylbenzene	1.0l	UI	1.0l
Styrene	1.0l	UI	1.0l
tert-Butylbenzene	1.0l	UI	1.0l
Tetrachloroethene	1.0l	UI	1.0l
Toluene	1.0l	UI	1.0l
trans-1,2-Dichloroethene	1.0l	UI	1.0l
trans-1,3-Dichloropropene	1.0l	UI	1.0l
Trichloroethene	1.0l	UI	1.0l
Trichlorofluoromethane	1.0l	UI	1.0l
Vinyl Acetate	.0l	UI	.0l
Vinyl Chloride	1.0l	UI	1.0l
Xylenes, Total	.0l	UI	.0l

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene			75 - 120l
Dibromofluoromethane			75 - 120l
Toluene-d8 (Surr)	1l		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-36M

L2b Sample ID: 680-62923-61  
 Client Matrix: rl

DI Sample ID: 11/02/10 14091  
 DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260BI Analysis Batch: 680-1860551 Instrument ID: MS01  
 PrepTion: 5030BI L2b File ID: 01581.d,  
 Dilution: 1.0I Initial Volume: 5 mL2  
 DI Analyzed: 11/13/10 1736I Final Volume: 5 mL2  
 DI Prepped: 11/13/10 1736I

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0I	UI	1.0I
1,1,1-Trichloroethane	1.0I	UI	1.0I
1,1,2,2-Tetrachloroethane	1.0I	UI	1.0I
1,1,2-Trichloroethane	1.0I	UI	1.0I
1,1-Dichloroethane	1.0I	UI	1.0I
1,1-Dichloroethane	1.0I	U*1	1.0I
1,1-Dichloropropane	1.0I	UI	1.0I
1,2,3-Trichlorobenzene	1.0I	UI	1.0I
1,2,3-Trichloropropane	1.0I	UI	1.0I
1,2,4-Trichlorobenzene	1.0I	UI	1.0I
1,2,4-Trimethylbenzene	1.0I	UI	1.0I
1,2-Dibromo-3-Chloropropane	1.0I	UI	1.0I
1,2-Dibromoethane	1.0I	UI	1.0I
1,2-Dichlorobenzene	1.0I	UI	1.0I
1,2-Dichloroethane	1.0I	UI	1.0I
1,2-Dichloroethane, Total	.0I	UI	.0I
1,2-Dichloropropane	1.0I	UI	1.0I
1,3,5-Trimethylbenzene	1.0I	UI	1.0I
1,3-Dichlorobenzene	1.0I	UI	1.0I
1,3-Dichloropropane	1.0I	UI	1.0I
1,4-Dichlorobenzene	1.0I	UI	1.0I
1,2-Dichloropropane	1.0I	UI	1.0I
n-Butane	10I	UI	10I
n-Clorotoluene	1.0I	UI	1.0I
n-Hexane	10I	UI	10I
4-Chlorotoluene	1.0I	UI	1.0I
4-Methyl-2-pentanone	10I	UI	10I
Acetone	5	UI	5I
Benzene	1.0I	UI	1.0I
Bromobenzene	1.0I	UI	1.0I
Bromochloromethane	1.0I	UI	1.0I
Bromodichloromethane	1.0I	UI	1.0I
Bromoform	1.0I	UI	1.0I
Bromomethane	1.0I	UI	1.0I
Carbon disulfide	.0I	UI	.0I
Carbon tetrachloride	1.0I	UI	1.0I
Chlorobenzene	1.0I	UI	1.0I
Chloroethane	1.0I	UI	1.0I
Chloroform	1.0I	UI	1.0I
Chloromethane	1.0I	UI	1.0I
cis-1,2-Dichloroethane	1.0I	UI	1.0I
cis-1,3-Dichloropropane	1.0I	UI	1.0I
Dibromochloromethane	1.0I	UI	1.0I
Dibromomethane	1.0I	UI	1.0I
Dichlorodifluoromethane	1.0I	UI	1.0I
Diethyl ether	10I	UI	10I

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-36M

L2b Sample ID: 680-62923-61

DI Sample ID: 11/02/10 14091

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860551	Instrument ID:	MS01
Prep/Injection:	5030B1	L2b File ID:		L2b File ID:	o1581.d,
Dilution:	1.01	Initial Inj Volume:		Initial Inj Volume:	5 mL2
DI Analysis:	11/13/10 17361	Final Inj Volume:		Final Inj Volume:	5 mL2
DI Prep/Ret:	11/13/10 17361				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.01	UI	1.01
Hexachlorobutadiene	1.01	UI	1.01
Isopropylbenzene	1.01	UI	1.01
Methyl tert-butyl ether	611		101
Methylene Chloride	5.01	UI	5.01
m-Xylene & p-Xylene	.01	UI	.01
Naphthalene	5.01	UI	5.01
n-Butylbenzene	1.01	UI	1.01
N-Propylbenzene	1.01	UI	1.01
o-Xylene	1.01	UI	1.01
p-Isopropyltoluene	1.01	UI	1.01
sec-Butylbenzene	1.01	UI	1.01
Styrene	1.01	UI	1.01
tert-Butylbenzene	1.01	UI	1.01
Tetrachloroethene	1.01	UI	1.01
Toluene	1.01	UI	1.01
trans-1,2-Dichloroethene	1.01	UI	1.01
trans-1,3-Dichloropropene	1.01	UI	1.01
Trichloroethene	1.01	UI	1.01
Trichlorofluoromethane	1.01	UI	1.01
Vinyl Acetate	.01	UI	.01
Vinyl chloride	1.01	UI	1.01
Xylenes, Total	.01	UI	.01

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	881		75 - 1201
Dibromofluoromethane	891		75 - 1211
Toluene-d8 (Surr)	4b		75 - 1201

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: W-4M

L2b Sample ID: 680-62923-71

DI Sample ID: 11/02/10 1410

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch:	680-18599#b	Instrument ID:	MSO21
Preparation:	5030B	L2b File ID:			01538.d,
Dilution:	1.0l	Initial Volume:			5 mL2
DI Analysis:	11/12/10 1522	Final Volume:			5 mL2
DI Preparation:	11/12/10 1522				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l



Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-4M

L2b Sample ID: 680-62923-71  
 Client Matrix: rl

DI Sample ID: 11/02/10 1410  
 DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B Analysis Batch: 680-18599#b Instrument ID: MS021  
 PrepTion: 5030B L2b File ID: o1538.d,  
 Dilution: 1.0 Initial Inj Volume: 5 mL2  
 DI Analyzed: 11/12/10 1522 Final Inj Volume: 5 mL2  
 DI Prepped: 11/12/10 1522

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0	UI	1.0
Hexachlorobutadiene	1.0	UI	1.0
Isopropylbenzene	1.0	UI	1.0
Methyl tert-butyl ether	10	UI	10
Methylene Chloride	5.0	UI	5.0
m-Xylene & p-Xylene	.0	UI	.0
Naphthalene	5.0	UI	5.0
n-Butylbenzene	1.0	UI	1.0
N-Propylbenzene	1.0	UI	1.0
o-Xylene	1.0	UI	1.0
p-Isopropyltoluene	1.0	UI	1.0
sec-Butylbenzene	1.0	UI	1.0
Styrene	1.0	UI	1.0
tert-Butylbenzene	1.0	UI	1.0
Tetrachloroethene	1.0	UI	1.0
Toluene	1.0	UI	1.0
trans-1,2-Dichloroethene	1.0	UI	1.0
trans-1,3-Dichloropropene	1.0	UI	1.0
Trichloroethene	1.0	UI	1.0
Trichlorofluoromethane	1.0	UI	1.0
Vinyl acetate	.0	UI	.0
Vinyl chloride	1.0	UI	1.0
Xylenes, Total	.0	UI	.0

Surrogate	%Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	89		75 - 120
Dibromofluoromethane	71		75 - 121
Toluene-d8 (Surrogate)	101		75 - 120

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-30M

L2b Sample ID: 680-62923-81

DI Sample ID: 11/02/10 15001

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-18599#b	Instrument ID:	MSO21
Preparation:	5030B1	L2b File ID:			01540.d,
Dilution:	1.0l	Initial Volume:			5 mL2
DI Analysis:	11/12/10 1550l	Final Volume:			5 mL2
DI Preparation:	11/12/10 1550l				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-30M

L2b Sample ID: 680-62923-81

DI Sample ID: 11/02/10 1501

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-18599#b	Instrument ID:	MS021
Prep/Injection:	5030B1	L2b File ID:			01540.d,
Dilution:	1.0l	Initial Inj Volume:			5 mL2
DI Analysis:	11/12/10 1550l	Final Inj Volume:			5 mL2
DI Prep/Ret:	11/12/10 1550l				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0l	UI	1.0l
Hexachlorobutadiene	1.0l	UI	1.0l
Isopropylbenzene	1.0l	UI	1.0l
Methyl tert-butyl ether	10l	UI	10l
Methylene Chloride	5.0l	UI	5.0l
m-Xylene & p-Xylene	.0l	UI	.0l
Naphthalene	5.0l	UI	5.0l
n-Butylbenzene	1.0l	UI	1.0l
N-Propylbenzene	1.0l	UI	1.0l
o-Xylene	1.0l	UI	1.0l
p-Isopropyltoluene	1.0l	UI	1.0l
sec-Butylbenzene	1.0l	UI	1.0l
Styrene	1.0l	UI	1.0l
tert-Butylbenzene	1.0l	UI	1.0l
Tetrachloroethene	1.0l	UI	1.0l
Toluene	1.0l	UI	1.0l
trans-1,2-Dichloroethene	1.0l	UI	1.0l
trans-1,3-Dichloropropene	1.0l	UI	1.0l
Trichloroethene	1.0l	UI	1.0l
Trichlorofluoromethane	1.0l	UI	1.0l
Vinyl acetate	.0l	UI	.0l
Vinyl chloride	1.0l	UI	1.0l
Xylenes, Total	.0l	UI	.0l

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	88l		75 - 120l
Dibromofluoromethane	8l		75 - 121l
Toluene-d8 (Surr)	103l		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-31

L2b Sample ID: 680-62923-91

DI Sample ID: 11/02/10 15011

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860551	Instrument ID:	MSOI
Preparation:	5030B1	L2b File ID:		L2b File ID:	o1571.d,
Dilution:	1.0l	Initial Volume:		Initial Volume:	5 mL2
DI Analysis:	11/13/10 1513l	Final Volume:		Final Volume:	5 mL2
DI Preparation:	11/13/10 1513l				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	U *I	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l		10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-31

L2b Sample ID: 680-62923-91

DI Sample ID: 11/02/10 15011

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860551	Instrument ID:	MS01
Prep/Injection:	5030B1			L2b File ID:	01571.d,
Dilution:	1.01			Injection Volume:	5 mL2
DI Analysis:	11/13/10 15131			Final Injection Volume:	5 mL2
DI Prep/Ret:	11/13/10 15131				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.01	UI	1.01
Hexachlorobutadiene	1.01	UI	1.01
Isopropylbenzene	1.01	UI	1.01
Methyl tert-butyl ether	101	UI	101
Methylene Chloride	5.01	UI	5.01
m-Xylene & p-Xylene	.01	UI	.01
Naphthalene	5.01	UI	5.01
n-Butylbenzene	1.01	UI	1.01
N-Propylbenzene	1.01	UI	1.01
o-Xylene	1.01	UI	1.01
p-Isopropyltoluene	1.01	UI	1.01
sec-Butylbenzene	1.01	UI	1.01
Styrene	1.01	UI	1.01
tert-Butylbenzene	1.01	UI	1.01
Tetrachloroethene	1.01	UI	1.01
Toluene	1.01	UI	1.01
trans-1,2-Dichloroethene	1.01	UI	1.01
trans-1,3-Dichloropropene	1.01	UI	1.01
Trichloroethene	1.01	UI	1.01
Trichlorofluoromethane	1.01	UI	1.01
Vinyl Acetate	.01	UI	.01
Vinyl chloride	1.01	UI	1.01
Xylenes, Total	.01	UI	.01

Surrogate	%Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	871		75 - 1201
Dibromofluoromethane	01		75 - 1211
Toluene-d8 (Surrogate)	31		75 - 1201

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: W-5M

L2b Sample ID: 680-62923-101  
 Client Matrix: rl

DI Sample Date: 11/02/10 15:15  
 DI Received: 11/06/10 10:34

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B Analysis Batch: 680-186055 Instrument ID: MS01  
 Prep Time: 5030B L2b File ID: 01573.d  
 Dilution: 1.0 Initial Inj Volume: 5 mL  
 DI Analysis Date: 11/13/10 15:41 Final Inj Volume: 5 mL  
 DI Prep Date: 11/13/10 15:41

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0	UI	1.0
1,1,1-Trichloroethane	1.0	UI	1.0
1,1,2,2-Tetrachloroethane	1.0	UI	1.0
1,1,2-Trichloroethane	1.0	UI	1.0
1,1-Dichloroethane	1.0	UI	1.0
1,1-Dichloroethane	1.0	U*I	1.0
1,1-Dichloropropane	1.0	UI	1.0
1,2,3-Trichlorobenzene	1.0	UI	1.0
1,2,3-Trichloropropane	1.0	UI	1.0
1,2,4-Trichlorobenzene	1.0	UI	1.0
1,2,4-Trimethylbenzene	1.0	UI	1.0
1,2-Dibromo-3-Chloropropane	1.0	UI	1.0
1,2-Dibromoethane	1.0	UI	1.0
1,2-Dichlorobenzene	1.0	UI	1.0
1,2-Dichloroethane	1.0	UI	1.0
1,2-Dichloroethane, Total	.0	UI	.0
1,2-Dichloropropane	1.0	UI	1.0
1,3,5-Trimethylbenzene	1.0	UI	1.0
1,3-Dichlorobenzene	1.0	UI	1.0
1,3-Dichloropropane	1.0	UI	1.0
1,4-Dichlorobenzene	1.0	UI	1.0
1,2-Dichloropropane	1.0	UI	1.0
n-Butane	10	UI	10
n-Clorotoluene	1.0	UI	1.0
n-Hexane	10	UI	10
4-Chlorotoluene	1.0	UI	1.0
4-Methyl-2-pentanone	10	UI	10
Acetone	5	UI	5
Benzene	1.0	UI	1.0
Bromobenzene	1.0	UI	1.0
Bromochloromethane	1.0	UI	1.0
Bromodichloromethane	1.0	UI	1.0
Bromoform	1.0	UI	1.0
Bromomethane	1.0	UI	1.0
Carbon disulfide	.0	UI	.0
Carbon tetrachloride	1.0	UI	1.0
Chlorobenzene	1.0	UI	1.0
Chloroethane	1.0	UI	1.0
Chloroform	1.0	UI	1.0
Chloromethane	1.0	UI	1.0
cis-1,2-Dichloroethane	1.0	UI	1.0
cis-1,3-Dichloropropane	1.0	UI	1.0
Dibromochloromethane	1.0	UI	1.0
Dibromomethane	1.0	UI	1.0
Dichlorodifluoromethane	1.0	UI	1.0
Diethyl ether	10	UI	10

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-5M

L2b Sample ID: 680-62923-101

DI Sample ID: 11/02/10 15151

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860551	Instrument ID:	MSOI
Prep/Injection:	5030B1			L2b File ID:	o1573.d,
Dilution:	1.01			Initial Inj Volume:	5 mL2
DI Analysis:	11/13/10 15 411			Final Inj Volume:	5 mL2
DI Prep/Ret:	11/13/10 15 411				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.01	UI	1.01
Hexachlorobutadiene	1.01	UI	1.01
Isopropylbenzene	1.01	UI	1.01
Methyl tert-butyl ether	101	UI	101
Methylene Chloride	5.01	UI	5.01
m-Xylene & p-Xylene	.01	UI	.01
Naphthalene	5.01	UI	5.01
n-Butylbenzene	1.01	UI	1.01
N-Propylbenzene	1.01	UI	1.01
o-Xylene	1.01	UI	1.01
p-Isopropyltoluene	1.01	UI	1.01
sec-Butylbenzene	1.01	UI	1.01
Styrene	1.01	UI	1.01
tert-Butylbenzene	1.01	UI	1.01
Tetrachloroethene	1.01	UI	1.01
Toluene	1.01	UI	1.01
trans-1,2-Dichloroethene	1.01	UI	1.01
trans-1,3-Dichloropropene	1.01	UI	1.01
Trichloroethene	1.01	UI	1.01
Trichlorofluoromethane	1.01	UI	1.01
Vinyl Acetate	.01	UI	.01
Vinyl chloride	1.01	UI	1.01
Xylenes, Total	.01	UI	.01

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	871		75 - 1201
Dibromofluoromethane	881		75 - 1211
Toluene-d8 (Surr)	31		75 - 1201

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-32M

L2b Sample ID: 680-62923-111

DI Sample ID: 11/02/10 15501

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860551	Instrument ID:	MS01
Preparation:	5030B1	L2b File ID:			01575.d,
Dilution:	1.0l	Initial Volume:			5 mL2
DI Analysis:	11/13/10 1610l	Final Volume:			5 mL2
DI Preparation:	11/13/10 1610l				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	U *l	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l



Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-32M

L2b Sample ID: 680-62923-111

DI Sample ID: 11/02/10 15501

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860551	Instrument ID:	MSOI
Prep/Injection:	5030B1			L2b File ID:	o1575.d,
Dilution:	1.0l			Initial Inj Volume:	5 mL2
DI Analysis:	11/13/10 1610l			Final Inj Volume:	5 mL2
DI Prep/Ret:	11/13/10 1610l				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0l	UI	1.0l
Hexachlorobutadiene	1.0l	UI	1.0l
Isopropylbenzene	1.0l	UI	1.0l
Methyl tert-butyl ether	10l	UI	10l
Methylene Chloride	5.0l	UI	5.0l
m-Xylene & p-Xylene	.0l	UI	.0l
Naphthalene	5.0l	UI	5.0l
n-Butylbenzene	1.0l	UI	1.0l
N-Propylbenzene	1.0l	UI	1.0l
o-Xylene	1.0l	UI	1.0l
p-Isopropyltoluene	1.0l	UI	1.0l
sec-Butylbenzene	1.0l	UI	1.0l
Styrene	1.0l	UI	1.0l
tert-Butylbenzene	1.0l	UI	1.0l
Tetrachloroethene	1.0l	UI	1.0l
Toluene	1.0l	UI	1.0l
trans-1,2-Dichloroethene	1.0l	UI	1.0l
trans-1,3-Dichloropropene	1.0l	UI	1.0l
Trichloroethene	1.0l	UI	1.0l
Trichlorofluoromethane	1.0l	UI	1.0l
Vinyl Acetate	.0l	UI	.0l
Vinyl chloride	1.0l	UI	1.0l
Xylenes, Total	.0l	UI	.0l

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	1l		75 - 120l
Dibromofluoromethane	1l		75 - 121l
Toluene-d8 (Surrogate)	4b		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-35M

L2b Sample ID: 680-62923-121

DI Sample ID: 11/02/10 15551

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860571	Instrument ID:	MSO21
Preparation:	5030B1	L2b File ID:			01588.d,
Dilution:	1.0l	Initial Volume:			5 mL2
DI Analysis:	11/13/10 1916l	Final Volume:			5 mL2
DI Preparation:	11/13/10 1916l				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-35M

L2b Sample ID: 680-62923-121  
 Client Matrix: rl

DI Sample ID: 11/02/10 15551  
 DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B1      Analysis Batch: 680-1860571      Instrument ID: MS021  
 PrepTion: 5030B1      L2b File ID: o1588.d,  
 Dilution: 1.0l      Initial Volume: 5 mL2  
 DI Analyzed: 11/13/10 1916l      Final Volume: 5 mL2  
 DI Prepped: 11/13/10 1916l

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0l	UI	1.0l
Hexachlorobutadiene	1.0l	UI	1.0l
Isopropylbenzene	1.0l	UI	1.0l
Methyl tert-butyl ether	10l	UI	10l
Methylene Chloride	5.0l	UI	5.0l
m-Xylene & p-Xylene	.0l	UI	.0l
Naphthalene	5.0l	UI	5.0l
n-Butylbenzene	1.0l	UI	1.0l
N-Propylbenzene	1.0l	UI	1.0l
o-Xylene	1.0l	UI	1.0l
p-Isopropyltoluene	1.0l	UI	1.0l
sec-Butylbenzene	1.0l	UI	1.0l
Styrene	1.0l	UI	1.0l
tert-Butylbenzene	1.0l	UI	1.0l
Tetrachloroethene	1.0l	UI	1.0l
Toluene	1.0l	UI	1.0l
trans-1,2-Dichloroethene	1.0l	UI	1.0l
trans-1,3-Dichloropropene	1.0l	UI	1.0l
Trichloroethene	1.0l	UI	1.0l
Trichlorofluoromethane	1.0l	UI	1.0l
Vinyl acetate	.0l	UI	.0l
Vinyl chloride	1.0l	UI	1.0l
Xylenes, Total	.0l	UI	.0l

Surrogate	%Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	86l		75 - 120l
Dibromofluoromethane	7l		75 - 121l
Toluene-d8 (Surrogate)	104b		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: W-33M

L2b Sample ID: 680-62923-131

DI Sample ID: 11/02/10 16361

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860551	Instrument ID:	MSOI
Preparation:	5030B1	L2b File ID:			01577.d,
Dilution:	1.0l	Initial Volume:			5 mL2
DI Analysis:	11/13/10 1639l	Final Volume:			5 mL2
DI Preparation:	11/13/10 1639l				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	U *I	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-33M

L2b Sample ID: 680-62923-131

DI Sample ID: 11/02/10 16361

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860551	Instrument ID:	MSOI
PrepTrieon:	5030B1	L2b File ID:			o1577.d,
Dilution:	1.01	Initial Inj Volume:			5 mL2
DI Analysis:	11/13/10 16391	Final Inj Volume:			5 mL2
DI PrepTrieon:	11/13/10 16391				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.01	UI	1.01
Hexachlorobutadiene	1.01	UI	1.01
Isopropylbenzene	1.01	UI	1.01
Methyl tert-butyl ether	101	UI	101
Methylene Chloride	5.01	UI	5.01
m-Xylene & p-Xylene	.01	UI	.01
Naphthalene	5.01	UI	5.01
n-Butylbenzene	1.01	UI	1.01
N-Propylbenzene	1.01	UI	1.01
o-Xylene	1.01	UI	1.01
p-Isopropyltoluene	1.01	UI	1.01
sec-Butylbenzene	1.01	UI	1.01
Styrene	1.01	UI	1.01
tert-Butylbenzene	1.01	UI	1.01
Tetrachloroethene	1.01	UI	1.01
Toluene	1.01	UI	1.01
trans-1,2-Dichloroethene	1.01	UI	1.01
trans-1,3-Dichloropropene	1.01	UI	1.01
Trichloroethene	1.01	UI	1.01
Trichlorofluoromethane	1.01	UI	1.01
Vinyl acetate	.01	UI	.01
Vinyl chloride	1.01	UI	1.01
Xylenes, Total	.01	UI	.01

Surrogate	%Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	881		75 - 1201
Dibromofluoromethane	881		75 - 1211
Toluene-d8 (Surrogate)	51		75 - 1201

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-25M

L2b Sample ID: 680-62923-14b

DI Sample ID: 11/03/10 10151

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860551	Instrument ID:	MSOI
Preparation:	5030B1	L2b File ID:			01579.d,
Dilution:	1.0l	Initial Volume:			5 mL2
DI Analysis:	11/13/10 17071	Final Volume:			5 mL2
DI Preparation:	11/13/10 17071				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	U *I	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-25M

L2b Sample ID: 680-62923-14b

DI Sample ID: 11/03/10 1015

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B	Analysis Batch:	680-186055	Instrument ID:	MS01
Prep/Injection:	5030B	L2b File ID:			01579.d,
Dilution:	1.0	Initial Inj Volume:			5 mL
DI Analysis:	11/13/10 1707	Final Inj Volume:			5 mL
DI Prep/Ret:	11/13/10 1707				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0	UI	1.0
Hexachlorobutadiene	1.0	UI	1.0
Isopropylbenzene	1.0	UI	1.0
Methyl tert-butyl ether	10	UI	10
Methylene Chloride	5.0	UI	5.0
m-Xylene & p-Xylene	.0	UI	.0
Naphthalene	5.0	UI	5.0
n-Butylbenzene	1.0	UI	1.0
N-Propylbenzene	1.0	UI	1.0
o-Xylene	1.0	UI	1.0
p-Isopropyltoluene	1.0	UI	1.0
sec-Butylbenzene	1.0	UI	1.0
Styrene	1.0	UI	1.0
tert-Butylbenzene	1.0	UI	1.0
Tetrachloroethene	1.0	UI	1.0
Toluene	1.0	UI	1.0
trans-1,2-Dichloroethene	1.0	UI	1.0
trans-1,3-Dichloropropene	1.0	UI	1.0
Trichloroethene	1.0	UI	1.0
Trichlorofluoromethane	1.0	UI	1.0
Vinyl Acetate	.0	UI	.0
Vinyl chloride	1.0	UI	1.0
Xylenes, Total	.0	UI	.0

Surrogate	%Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	0		75 - 120
Dibromofluoromethane			75 - 120
Toluene-d8 (Surrogate)	5		75 - 120

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-26M

L2b Sample ID: 680-62923-151

DI Sample ID: 11/03/10 11201

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860551	Instrument ID:	MSOI
Preparation:	5030B1	L2b File ID:			o1583.d,
Dilution:	1.0l	Initial Volume:			5 mL2
DI Analysis:	11/13/10 180 4b	Final Volume:			5 mL2
DI Preparation:	11/13/10 180 4b				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	U*1	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l



Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-26M

L2b Sample ID: 680-62923-151

DI Sample ID: 11/03/10 11201

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860551	Instrument ID:	MSOI
Prep/Injection:	5030B1			L2b File ID:	o1583.d,
Dilution:	1.0l			Initial Inj Volume:	5 mL2
DI Analysis:	11/13/10 180 4b			Final Inj Volume:	5 mL2
DI Prep/Ret:	11/13/10 180 4b				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0l	UI	1.0l
Hexachlorobutadiene	1.0l	UI	1.0l
Isopropylbenzene	1.0l	UI	1.0l
Methyl tert-butyl ether	10l	UI	10l
Methylene Chloride	5.0l	UI	5.0l
m-Xylene & p-Xylene	.0l	UI	.0l
Naphthalene	5.0l	UI	5.0l
n-Butylbenzene	1.0l	UI	1.0l
N-Propylbenzene	1.0l	UI	1.0l
o-Xylene	1.0l	UI	1.0l
p-Isopropyltoluene	1.0l	UI	1.0l
sec-Butylbenzene	1.0l	UI	1.0l
Styrene	1.0l	UI	1.0l
tert-Butylbenzene	1.0l	UI	1.0l
Tetrachloroethene	1.0l	UI	1.0l
Toluene	1.0l	UI	1.0l
trans-1,2-Dichloroethene	1.0l	UI	1.0l
trans-1,3-Dichloropropene	1.0l	UI	1.0l
Trichloroethene	1.0l	UI	1.0l
Trichlorofluoromethane	1.0l	UI	1.0l
Vinyl acetate	.0l	UI	.0l
Vinyl chloride	1.0l	UI	1.0l
Xylenes, Total	.0l	UI	.0l

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	89l		75 - 120l
Dibromofluoromethane	1l		75 - 121l
Toluene-d8 (Surrogate)	5l		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: M W-11

L2b Sample ID: 680-62923-161

DI Sample Date: 11/03/2010 11:40

Client Matrix: rl

DI Received: 11/06/2010 10:34

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860551	Instrument ID:	MSOI
Preparation:	5030B1	L2b File ID:			01585.d,
Dilution:	1.0l	Initial Volume:			5 mL2
DI Analysis Date:	11/13/2010 18:33	Final Volume:			5 mL2
DI Prep Date:	11/13/2010 18:33				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	U *I	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	3.2l		1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	00l	EI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: M W-11

L2b Sample ID: 680-62923-161  
 Client Matrix: rl

DI Sample Date: 11/03/10 11:40  
 DI Received: 11/06/10 10:34

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B Analysis Batch: 680-186055 Instrument ID: MS01  
 Prep Train: 5030B L2b File ID: 01585.d  
 Dilution: 1.0 Initial Inj Volume: 5 mL  
 DI Analyzed: 11/13/10 18:33 Final Inj Volume: 5 mL  
 DI Prep Time: 11/13/10 18:33

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0	UI	1.0
Hexachlorobutadiene	1.0	UI	1.0
Isopropylbenzene	1.0	UI	1.0
Methyl tert-butyl ether	10	UI	10
Methylene Chloride	5.0	UI	5.0
m-Xylene & p-Xylene	.0	UI	.0
Naphthalene	5.0	UI	5.0
n-Butylbenzene	1.0	UI	1.0
N-Propylbenzene	1.0	UI	1.0
o-Xylene	1.0	UI	1.0
p-Isopropyltoluene	1.0	UI	1.0
sec-Butylbenzene	1.0	UI	1.0
Styrene	1.0	UI	1.0
tert-Butylbenzene	1.0	UI	1.0
Tetrachloroethene	1.0	UI	1.0
Toluene	1.0	UI	1.0
trans-1,2-Dichloroethene	1.0	UI	1.0
trans-1,3-Dichloropropene	1.0	UI	1.0
Trichloroethene	1.0	UI	1.0
Trichlorofluoromethane	1.0	UI	1.0
Vinyl acetate	.0	UI	.0
Vinyl chloride	1.0	UI	1.0
Xylenes, Total	.0	UI	.0

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	3		75 - 120
Dibromofluoromethane	1		75 - 121
Toluene-d8 (Surrogate)	5		75 - 120

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: W-11

L2b Sample ID: 680-62923-161  
 Client Matrix: rl

DI Sample Date: 11/03/10 11:40  
 DI Received: 11/06/10 10:34

8260B Volatile Organic Compounds (GC/MS)

Method: 8260B Analysis Batch: 680-1861471 Instrument ID: MS01  
 Prep Time: 5030B L2b File ID: 01597.d  
 Dilution: 5.0 Initial Inj Volume: 5 mL  
 DI Analyzed: 11/14/10 14:00 Run Type: DL2 Final Inj Volume: 5 mL  
 DI Prep Time: 11/14/10 14:00

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	5.0	UI	5.0
1,1,1-Trichloroethane	5.0	UI	5.0
1,1,2,2-Tetrachloroethane	5.0	UI	5.0
1,1,2-Trichloroethane	5.0	UI	5.0
1,1-Dichloroethane	5.0	UI	5.0
1,1-Dichloroethene	5.0	UI	5.0
1,1-Dichloropropene	5.0	UI	5.0
1,2,3-Trichlorobenzene	5.0	UI	5.0
1,2,3-Trichloropropene	5.0	UI	5.0
1,2,4-Trichlorobenzene	5.0	UI	5.0
1,2,4-Trimethylbenzene	5.0	UI	5.0
1,2-Dibromo-3-Chloropropene	5.0	UI	5.0
1,2-Dibromoethane	5.0	UI	5.0
1,2-Dichlorobenzene	5.0	UI	5.0
1,2-Dichloroethane	5.0	UI	5.0
1,2-Dichloroethene, Total	10	UI	10
1,2-Dichloropropene	5.0	UI	5.0
1,3,5-Trimethylbenzene	5.0	UI	5.0
1,3-Dichlorobenzene	5.0	UI	5.0
1,3-Dichloropropene	5.0	UI	5.0
1,4-Dichlorobenzene	5.0	UI	5.0
1,2-Dichloropropene	5.0	UI	5.0
n-Butane	50	UI	50
m-Cresol	5.0	UI	5.0
Hexane	50	UI	50
4-Chlorotoluene	5.0	UI	5.0
4-Methyl-2-pentanone	50	UI	50
Acetone	130	UI	130
Benzene	5.0	UI	5.0
Bromobenzene	5.0	UI	5.0
Bromochloromethane	5.0	UI	5.0
Bromodichloromethane	5.0	UI	5.0
Bromoform	5.0	UI	5.0
Bromomethane	5.0	UI	5.0
Carbon disulfide	10	UI	10
Carbon tetrachloride	5.0	UI	5.0
Chlorobenzene	5.0	UI	5.0
Chloroethane	5.0	UI	5.0
Chloroform	5.0	UI	5.0
Chloromethane	5.0	UI	5.0
cis-1,2-Dichloroethene	5.0	UI	5.0
cis-1,3-Dichloropropene	5.0	UI	5.0
Dibromochloromethane	5.0	UI	5.0
Dibromomethane	5.0	UI	5.0
Dichlorodifluoromethane	5.0	UI	5.0
Diethyl ether	100	UI	50

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: M W-11

L2b Sample ID: 680-62923-161  
 Client Matrix: rl

DI Sample Date: 11/03/10 11:40  
 DI Received: 11/06/10 10:34

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B Analysis Batch: 680-1861471 Instrument ID: MS01  
 Prep Time: 5030B L2b File ID: 01597.d  
 Dilution: 5.0 Initial Inj Volume: 5 mL  
 DI Analyzed: 11/14/10 14:00 Run Type: DL2 Final Inj Volume: 5 mL  
 DI Prep Time: 11/14/10 14:00

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	5.0	UI	5.0
Hexachlorobutadiene	5.0	UI	5.0
Isopropylbenzene	5.0	UI	5.0
Methyl tert-butyl ether	5.0	UI	5.0
Methylene Chloride	5.0	UI	5.0
m-Xylene & p-Xylene	10.0	UI	10.0
Naphthalene	5.0	UI	5.0
n-Butylbenzene	5.0	UI	5.0
N-Propylbenzene	5.0	UI	5.0
o-Xylene	5.0	UI	5.0
p-Isopropyltoluene	5.0	UI	5.0
sec-Butylbenzene	5.0	UI	5.0
Styrene	5.0	UI	5.0
tert-Butylbenzene	5.0	UI	5.0
Tetrachloroethene	5.0	UI	5.0
Toluene	5.0	UI	5.0
trans-1,2-Dichloroethene	5.0	UI	5.0
trans-1,3-Dichloropropene	5.0	UI	5.0
Trichloroethene	5.0	UI	5.0
Trichlorofluoromethane	5.0	UI	5.0
Vinyl acetate	10.0	UI	10.0
Vinyl chloride	5.0	UI	5.0
Xylenes, Total	10.0	UI	10.0

Surrogate	%Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	46		75 - 120
Dibromofluoromethane	86		75 - 121
Toluene-d8 (Surrogate)	61		75 - 120

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: W-9M

L2b Sample ID: 680-62923-171

DI Sample ID: 11/03/10 13351

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1861471	Instrument ID:	MSOI
Preparation:	5030B1	L2b File ID:			01599.d,
Dilution:	1.0l	Initial Volume:			5 mL2
DI Analysis:	11/14/10 14b	Final Volume:			5 mL2
DI Preparation:	11/14/10 14b				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	65l		10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-9M

L2b Sample ID: 680-62923-171

DI Sample ID: 11/03/10 13351

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1861471	Instrument ID:	MS01
Prep/Injection:	5030B1			L2b File ID:	01599.d,
Dilution:	1.01			Initial Inj Volume:	5 mL2
DI Analysis:	11/14/10 14b			Final Inj Volume:	5 mL2
DI Prep/Ret:	11/14/10 14b				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.01	UI	1.01
Hexachlorobutadiene	1.01	UI	1.01
Isopropylbenzene	1.01	UI	1.01
Methyl tert-butyl ether	101	UI	101
Methylene Chloride	5.01	UI	5.01
m-Xylene & p-Xylene	.01	UI	.01
Naphthalene	5.01	UI	5.01
n-Butylbenzene	1.01	UI	1.01
N-Propylbenzene	1.01	UI	1.01
o-Xylene	1.01	UI	1.01
p-Isopropyltoluene	1.01	UI	1.01
sec-Butylbenzene	1.01	UI	1.01
Styrene	1.01	UI	1.01
tert-Butylbenzene	1.01	UI	1.01
Tetrachloroethene	1.01	UI	1.01
Toluene	1.01	UI	1.01
trans-1,2-Dichloroethene	1.01	UI	1.01
trans-1,3-Dichloropropene	1.01	UI	1.01
Trichloroethene	1.01	UI	1.01
Trichlorofluoromethane	1.01	UI	1.01
Vinyl acetate	.01	UI	.01
Vinyl chloride	1.01	UI	1.01
Xylenes, Total	.01	UI	.01

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene			75 - 1201
Dibromofluoromethane	891		75 - 1211
Toluene-d8 (Surrogate)	51		75 - 1201

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-6M

L2b Sample ID: 680-62923-181

DI Sample ID: 11/03/10 14b1

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1862731	Instrument ID:	MSOI
Preparation:	5030B1	L2b File ID:			01709.d,
Dilution:	50l	Initial Volume:			5 mL2
DI Analysis:	11/16/10 144b	Final Volume:			5 mL2
DI Preparation:	11/16/10 144b				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	50l	UI	50l
1,1,1-Trichloroethane	50l	UI	50l
1,1,2,2-Tetrachloroethane	50l	UI	50l
1,1,2-Trichloroethane	50l	UI	50l
1,1-Dichloroethane	50l	UI	50l
1,1-Dichloroethane	50l	UI	50l
1,1-Dichloropropane	50l	UI	50l
1,2,3-Trichlorobenzene	50l	UI	50l
1,2,3-Trichloropropane	50l	UI	50l
1,2,4-Trichlorobenzene	50l	UI	50l
1,2,4-Trimethylbenzene	50l	UI	50l
1,2-Dibromo-3-Chloropropane	50l	UI	50l
1,2-Dibromoethane	50l	UI	50l
1,2-Dichlorobenzene	50l	UI	50l
1,2-Dichloroethane	50l	UI	50l
1,2-Dichloroethane, Total	100l	UI	100l
1,2-Dichloropropane	50l	UI	50l
1,3,5-Trimethylbenzene	50l	UI	50l
1,3-Dichlorobenzene	50l	UI	50l
1,3-Dichloropropane	50l	UI	50l
1,4-Dichlorobenzene	50l	UI	50l
1,2-Dichloropropane	50l	UI	50l
n-Butanol	500l	UI	500l
m-Cresol	50l	UI	50l
n-Hexane	500l	UI	500l
4-Chlorotoluene	50l	UI	50l
4-Methyl-2-pentanone	500l	UI	500l
Acetone	1300l	UI	1300l
Benzene	50l	UI	50l
Bromobenzene	50l	UI	50l
Bromochloromethane	50l	UI	50l
Bromodichloromethane	50l	UI	50l
Bromoform	50l	UI	50l
Bromomethane	50l	UI	50l
Carbon disulfide	100l	UI	100l
Carbon tetrachloride	50l	UI	50l
Chlorobenzene	50l	UI	50l
Chloroethane	50l	UI	50l
Chloroform	50l	UI	50l
Chloromethane	50l	UI	50l
cis-1,2-Dichloroethane	50l	UI	50l
cis-1,3-Dichloropropane	50l	UI	50l
Dibromochloromethane	50l	UI	50l
Dibromomethane	50l	UI	50l
Dichlorodifluoromethane	50l	UI	50l
Diethyl ether	400l		500l



Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: **M W-6M**

L2b Sample ID: 680-62923-181  
 Client Matrix: rl

DI Sample Date: 11/03/2010 14:51  
 DI Received: 11/06/2010 10:34

**8260B Volatile Organic Compounds (GC/MS)M**

Method: 8260B1      Analysis Batch: 680-1862731      Instrument ID: MS01  
 Prep/Injection: 5030B1      L2b File ID: 01709.d,  
 Dilution: 501      Initial Inj Volume: 5 mL2  
 DI Analysis Date: 11/16/2010 14:46      Final Inj Volume: 5 mL2  
 DI Prep/Ret: 11/16/2010 14:46

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	501	UI	501
Hexachlorobutadiene	501	UI	501
Isopropylbenzene	501	UI	501
Methyl tert-butyl ether	5001	UI	5001
Methylene Chloride	501	UI	501
m-Xylene & p-Xylene	1001	UI	1001
Naphthalene	501	UI	501
n-Butylbenzene	501	UI	501
N-Propylbenzene	501	UI	501
o-Xylene	501	UI	501
p-Isopropyltoluene	501	UI	501
sec-Butylbenzene	501	UI	501
Styrene	501	UI	501
tert-Butylbenzene	501	UI	501
Tetrachloroethene	501	UI	501
Toluene	501	UI	501
trans-1,2-Dichloroethene	501	UI	501
trans-1,3-Dichloropropene	501	UI	501
Trichloroethene	501	UI	501
Trichlorofluoromethane	501	UI	501
Vinyl Acetate	1001	UI	1001
Vinyl chloride	501	UI	501
Xylenes, Total	1001	UI	1001

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	51		75 - 1201
Dibromofluoromethane	881		75 - 1211
Toluene-d8 (Surrogate)			75 - 1201

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-7M

L2b Sample ID: 680-62923-191

DI Sample ID: 11/03/10 14351

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1862731	Instrument ID:	MS01
Preparation:	5030B1	L2b File ID:			01714.d,
Dilution:	501	Initial Volume:			5 mL2
DI Analysis:	11/16/10 16281	Final Volume:			5 mL2
DI Preparation:	11/16/10 16281				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	501	UI	501
1,1,1-Trichloroethane	501	UI	501
1,1,2,2-Tetrachloroethane	501	UI	501
1,1,2-Trichloroethane	501	UI	501
1,1-Dichloroethane	501	UI	501
1,1-Dichloroethane	501	UI	501
1,1-Dichloropropane	501	UI	501
1,2,3-Trichlorobenzene	501	UI	501
1,2,3-Trichloropropane	501	UI	501
1,2,4-Trichlorobenzene	501	UI	501
1,2,4-Trimethylbenzene	501	UI	501
1,2-Dibromo-3-Chloropropane	501	UI	501
1,2-Dibromoethane	501	UI	501
1,2-Dichlorobenzene	501	UI	501
1,2-Dichloroethane	501	UI	501
1,2-Dichloroethane, Total	1001	UI	1001
1,2-Dichloropropane	501	UI	501
1,3,5-Trimethylbenzene	501	UI	501
1,3-Dichlorobenzene	501	UI	501
1,3-Dichloropropane	501	UI	501
1,4-Dichlorobenzene	501	UI	501
1,2-Dichloropropane	501	UI	501
n-Butanol	5001	UI	5001
n-Butanol	501	UI	501
n-Butanol	5001	UI	5001
4-Chlorotoluene	501	UI	501
4-Methyl-2-pentanone	5001	UI	5001
Acetone	13001	UI	13001
Benzene	501	UI	501
Bromobenzene	501	UI	501
Bromochloromethane	501	UI	501
Bromodichloromethane	501	UI	501
Bromoform	501	UI	501
Bromomethane	501	UI	501
Carbon disulfide	1001	UI	1001
Carbon tetrachloride	501	UI	501
Chlorobenzene	501	UI	501
Chloroethane	501	UI	501
Chloroform	501	UI	501
Chloromethane	501	UI	501
cis-1,2-Dichloroethane	501	UI	501
cis-1,3-Dichloropropane	501	UI	501
Dibromochloromethane	501	UI	501
Dibromomethane	501	UI	501
Dichlorodifluoromethane	501	UI	501
Diethyl ether	33001		5001

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: M W-7M

L2b Sample ID: 680-62923-191  
 Client Matrix: rl

DI Sample Date: 11/03/2010 14:35  
 DI Received: 11/06/2010 10:34

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B  
 Analysis Batch: 680-186273  
 Instrument ID: MS01  
 Prep/Injection: 5030B  
 L2b File ID: 01714.d  
 Dilution: 50  
 Initial Inj Volume: 5 mL  
 DI Analyzed: 11/16/2010 16:28  
 Final Inj Volume: 5 mL  
 DI Prep/Ret: 11/16/2010 16:28

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	50	UI	50
Hexachlorobutadiene	50	UI	50
Isopropylbenzene	50	UI	50
Methyl tert-butyl ether	500	UI	500
Methylene Chloride	50	UI	50
m-Xylene & p-Xylene	100	UI	100
Naphthalene	50	UI	50
n-Butylbenzene	50	UI	50
N-Propylbenzene	50	UI	50
o-Xylene	50	UI	50
p-Isopropyltoluene	50	UI	50
sec-Butylbenzene	50	UI	50
Styrene	50	UI	50
tert-Butylbenzene	50	UI	50
Tetrachloroethene	50	UI	50
Toluene	50	UI	50
trans-1,2-Dichloroethene	50	UI	50
trans-1,3-Dichloropropene	50	UI	50
Trichloroethene	50	UI	50
Trichlorofluoromethane	50	UI	50
Vinyl Acetate	100	UI	100
Vinyl Chloride	50	UI	50
Xylenes, Total	100	UI	100

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	11		75 - 120
Dibromofluoromethane	89		75 - 121
Toluene-d8 (Surrogate)	51		75 - 120

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M SRW-1

L2b Sample ID:l 680-62923-20l

DI SampleID: 11/03/10 1600l

Client Matrix:l rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:l	8260Bl	Analysis Batch: 680-186273l	Instrument ID:l	MSOI
Preparation:l	5030Bl		L2b File ID:l	o1710.d,
Dilution:l	1.0l		Injection Volume:l	5 mL2
DI Analysis:l	11/16/10 1503l		Final Injection Volume:l	5 mL2
DI Preparation:l	11/16/10 1503l			

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.5l		1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
m-Cresol	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	6.5l		1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	50l		10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M SRW-1

L2b Sample ID: 680-62923-201  
 Client Matrix: rl

DI Sample Date: 11/03/10 1601  
 DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B  
 Analysis Batch: 680-186273  
 Instrument ID: MS01  
 Prep/Injection: 5030B  
 L2b File ID: 01710.d,  
 Dilution: 1.0  
 Initial Inj Volume: 5 mL2  
 DI Analysis Date: 11/16/10 1503  
 Final Inj Volume: 5 mL2  
 DI Prep/Ret: 11/16/10 1503

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.01	UI	1.01
Hexachlorobutadiene	1.01	UI	1.01
Isopropylbenzene	1.01	UI	1.01
Methyl tert-butyl ether	101	UI	101
Methylene Chloride	5.01	UI	5.01
m-Xylene & p-Xylene	.01	UI	.01
Naphthalene	5.01	UI	5.01
n-Butylbenzene	1.01	UI	1.01
N-Propylbenzene	1.01	UI	1.01
o-Xylene	1.01	UI	1.01
p-Isopropyltoluene	1.01	UI	1.01
sec-Butylbenzene	1.01	UI	1.01
Styrene	1.01	UI	1.01
tert-Butylbenzene	1.01	UI	1.01
Tetrachloroethene	1.01	UI	1.01
Toluene	1.01	UI	1.01
trans-1,2-Dichloroethene	1.01	UI	1.01
trans-1,3-Dichloropropene	1.01	UI	1.01
Trichloroethene	1.01	UI	1.01
Trichlorofluoromethane	1.01	UI	1.01
Vinyl acetate	.01	UI	.01
Vinyl chloride	1.01	UI	1.01
Xylenes, Total	.01	UI	.01

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	01		75 - 1201
Dibromofluoromethane			75 - 1211
Toluene-d8 (Surrogate)	31		75 - 1201

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M SRW-2M

L2b Sample ID: 680-62923-211

DI Sample Date: 11/03/10 1610

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B1	Analysis Batch: 680-1860311	Instrument ID: MSP
Preparation: 5030B1	L2b File ID: p0128.d,	
Dilution: 01	Injection Volume: 5 mL2	
DI Analysis Date: 11/12/10 1915	Final Injection Volume: 5 mL2	
DI Preparation Date: 11/12/10 1915		

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	01	UI	01
1,1,1-Trichloroethane	01	UI	01
1,1,2,2-Tetrachloroethane	01	UI	01
1,1,2-Trichloroethane	01	UI	01
1,1-Dichloroethane	01	UI	01
1,1-Dichloroethane	01	UI	01
1,1-Dichloropropane	01	UI	01
1,2,3-Trichlorobenzene	01	UI	01
1,2,3-Trichloropropane	01	UI	01
1,2,4-Trichlorobenzene	01	UI	01
1,2,4-Trimethylbenzene	01	UI	01
1,2-Dibromo-3-Chloropropane	01	UI	01
1,2-Dibromoethane	01	UI	01
1,2-Dichlorobenzene	01	UI	01
1,2-Dichloroethane	4521		01
1,2-Dichloroethane, Total	401	UI	401
1,2-Dichloropropane	01	UI	01
1,3,5-Trimethylbenzene	01	UI	01
1,3-Dichlorobenzene	01	UI	01
1,3-Dichloropropane	01	UI	01
1,4-Dichlorobenzene	01	UI	01
1,2-Dichloropropane	01	UI	01
n-Butane	001	UI	001
o-Chlorotoluene	01	UI	01
n-Hexane	001	UI	001
4-Chlorotoluene	01	UI	01
4-Methyl-2-pentanone	001	UI	001
Acetone	5001	UI	5001
Benzene	0	UI	01
Bromobenzene	01	UI	01
Bromochloromethane	01	UI	01
Bromodichloromethane	01	UI	01
Bromoform	01	UI	01
Bromomethane	01	UI	01
Carbon disulfide	401	UI	401
Carbon tetrachloride	01	UI	01
Chlorobenzene	01	UI	01
Chloroethane	01	UI	01
Chloroform	01	UI	01
Chloromethane	01	UI	01
cis-1,2-Dichloroethane	01	UI	01
cis-1,3-Dichloropropane	01	UI	01
Dibromochloromethane	01	UI	01
Dibromomethane	01	UI	01
Dichlorodifluoromethane	01	UI	01
Diethyl ether	10001		001

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M SRW-2M

L2b Sample ID: 680-62923-211

DI Sample Date: 11/03/10 1610

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860311	Instrument ID:	MSP
Prep/Injection:	5030B1	L2b File ID:			p0128.d,
Dilution:	01	Initial Inj Volume:			5 mL2
DI Analysis Date:	11/12/10 1915	Final Inj Volume:			5 mL2
DI Prep/Ret:	11/12/10 1915				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	01	UI	01
Hexachlorobutadiene	01	UI	01
Isopropylbenzene	01	UI	01
Methyl tert-butyl ether	001	UI	001
Methylene Chloride	1001	UI	1001
m-Xylene & p-Xylene	401	UI	401
Naphthalene	1001	UI	1001
n-Butylbenzene	01	UI	01
N-Propylbenzene	01	UI	01
o-Xylene	01	UI	01
p-Isopropyltoluene	01	UI	01
sec-Butylbenzene	01	UI	01
Styrene	01	UI	01
tert-Butylbenzene	01	UI	01
Tetrachloroethene	01	UI	01
Toluene	01	UI	01
trans-1,2-Dichloroethene	01	UI	01
trans-1,3-Dichloropropene	01	UI	01
Trichloroethene	01	UI	01
Trichlorofluoromethane	01	UI	01
Vinyl acetate	401	UI	401
Vinyl chloride	01	UI	01
Xylenes, Total	401	UI	401

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	1031		75 - 1201
Dibromofluoromethane	4b		75 - 1211
Toluene-d8 (Surr)	1081		75 - 1201

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M SRW-3M

L2b Sample ID:l 680-62923-22l

DI Sample Date: 11/03/10 1620l

Client Matrix:l rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:l	8260Bl	Analysis Batch: 680-186031l	Instrument ID:l	MSP
Preparation:l	5030Bl		L2b File ID:l	p0130.d,
Dilution:l	10l		Injection Volume:l	5 mL2
DI Analysis Date:l	11/12/10 19144b		Final Injection Volume:l	5 mL2
DI Preparation Date:l	11/12/10 19144b			

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	10l	UI	10l
1,1,1-Trichloroethane	10l	UI	10l
1,1,2,2-Tetrachloroethane	10l	UI	10l
1,1,2-Trichloroethane	10l	UI	10l
1,1-Dichloroethane	10l	UI	10l
1,1-Dichloroethane	10l	UI	10l
1,1-Dichloropropane	10l	UI	10l
1,2,3-Trichlorobenzene	10l	UI	10l
1,2,3-Trichloropropane	10l	UI	10l
1,2,4-Trichlorobenzene	10l	UI	10l
1,2,4-Trimethylbenzene	10l	UI	10l
1,2-Dibromo-3-Chloropropane	10l	UI	10l
1,2-Dibromoethane	10l	UI	10l
1,2-Dichlorobenzene	10l	UI	10l
1,2-Dichloroethane	10l	UI	10l
1,2-Dichloroethane, Total	0l	UI	0l
1,2-Dichloropropane	10l	UI	10l
1,3,5-Trimethylbenzene	10l	UI	10l
1,3-Dichlorobenzene	10l	UI	10l
1,3-Dichloropropane	10l	UI	10l
1,4-Dichlorobenzene	10l	UI	10l
1,2-Dichloropropane	10l	UI	10l
n-Butanol	100l	UI	100l
o-Chlorotoluene	10l	UI	10l
p-Chlorotoluene	10l	UI	10l
4-Methyl-2-pentanone	100l	UI	100l
Acetone	50l	UI	50l
Benzene	10l	UI	10l
Bromobenzene	10l	UI	10l
Bromochloromethane	10l	UI	10l
Bromodichloromethane	10l	UI	10l
Bromoform	10l	UI	10l
Bromomethane	10l	UI	10l
Carbon disulfide	0l	UI	0l
Carbon tetrachloride	10l	UI	10l
Chlorobenzene	10l	UI	10l
Chloroethane	10l	UI	10l
Chloroform	10l	UI	10l
Chloromethane	10l	UI	10l
cis-1,2-Dichloroethane	10l	UI	10l
cis-1,3-Dichloropropane	10l	UI	10l
Dibromochloromethane	10l	UI	10l
Dibromomethane	10l	UI	10l
Dichlorodifluoromethane	10l	UI	10l
Diethyl ether	440l		100l



Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M SRW-3M

L2b Sample ID: 680-62923-221

DI Sample ID: 11/03/10 16201

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860311	Instrument ID:	MSP
Prep/Injection:	5030B1	L2b File ID:		L2b File ID:	p0130.d,
Dilution:	101	Initial Inj Volume:		Initial Inj Volume:	5 mL2
DI Analysis:	11/12/10 19144b	Final Inj Volume:		Final Inj Volume:	5 mL2
DI Prep/Ret:	11/12/10 19144b				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	101	UI	101
Hexachlorobutadiene	101	UI	101
Isopropylbenzene	101	UI	101
Methyl tert-butyl ether	1001	UI	1001
Methylene Chloride	501	UI	501
m-Xylene & p-Xylene	01	UI	01
Naphthalene	501	UI	501
n-Butylbenzene	101	UI	101
N-Propylbenzene	101	UI	101
o-Xylene	101	UI	101
p-Isopropyltoluene	101	UI	101
sec-Butylbenzene	101	UI	101
Styrene	101	UI	101
tert-Butylbenzene	101	UI	101
Tetrachloroethene	101	UI	101
Toluene	101	UI	101
trans-1,2-Dichloroethene	101	UI	101
trans-1,3-Dichloropropene	101	UI	101
Trichloroethene	101	UI	101
Trichlorofluoromethane	101	UI	101
Vinyl Acetate	01	UI	01
Vinyl chloride	101	UI	101
Xylenes, Total	01	UI	01

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	1021		75 - 1201
Dibromofluoromethane	61		75 - 1211
Toluene-d8 (Surrogate)	1071		75 - 1201

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M DRW-1

L2b Sample ID: 680-62923-231

DI Sample Date: 11/03/10 1630

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860311	Instrument ID:	MSP
Preparation:	5030B1	L2b File ID:			p0132.d,
Dilution:	1001	Injection Volume:			5 mL2
DI Analysis Date:	11/12/10 2013	Final Injection Volume:			5 mL2
DI Preparation Date:	11/12/10 2013				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1001	UI	1001
1,1,1-Trichloroethane	1001	UI	1001
1,1,2,2-Tetrachloroethane	1001	UI	1001
1,1,2-Trichloroethane	1001	UI	1001
1,1-Dichloroethane	1001	UI	1001
1,1-Dichloroethane	1001	UI	1001
1,1-Dichloropropane	1001	UI	1001
1,2,3-Trichlorobenzene	1001	UI	1001
1,2,3-Trichloropropane	1001	UI	1001
1,2,4-Trichlorobenzene	1001	UI	1001
1,2,4-Trimethylbenzene	1001	UI	1001
1,2-Dibromo-3-Chloropropane	1001	UI	1001
1,2-Dibromoethane	1001	UI	1001
1,2-Dichlorobenzene	1001	UI	1001
1,2-Dichloroethane	1001	UI	1001
1,2-Dichloroethane, Total	001	UI	001
1,2-Dichloropropane	1001	UI	1001
1,3,5-Trimethylbenzene	1001	UI	1001
1,3-Dichlorobenzene	1001	UI	1001
1,3-Dichloropropane	1001	UI	1001
1,4-Dichlorobenzene	1001	UI	1001
1,2-Dichloropropane	1001	UI	1001
n-Butanol	10001	UI	10001
n-Clorotoluene	1001	UI	1001
n-Hexane	10001	UI	10001
4-Chlorotoluene	1001	UI	1001
4-Methyl-2-pentanone	10001	UI	10001
Acetone	5001	UI	5001
Benzene	1001	UI	1001
Bromobenzene	1001	UI	1001
Bromochloromethane	1001	UI	1001
Bromodichloromethane	1001	UI	1001
Bromoform	1001	UI	1001
Bromomethane	1001	UI	1001
Carbon disulfide	001	UI	001
Carbon tetrachloride	1001	UI	1001
Chlorobenzene	1001	UI	1001
Chloroethane	1001	UI	1001
Chloroform	1001	UI	1001
Chloromethane	1001	UI	1001
cis-1,2-Dichloroethane	1001	UI	1001
cis-1,3-Dichloropropane	1001	UI	1001
Dibromochloromethane	1001	UI	1001
Dibromomethane	1001	UI	1001
Dichlorodifluoromethane	1001	UI	1001
Diethyl ether	39001		10001

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M DRW-1

L2b Sample ID: 680-62923-231

DI Sample Date: 11/03/2010 1630

Client Matrix: rl

DI Received: 11/06/2010 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860311	Instrument ID:	MSP
Prep/Injection:	5030B1	L2b File ID:			p0132.d,
Dilution:	1001	Initial Inj Volume:			5 mL2
DI Analysis Date:	11/12/2010 20131	Final Inj Volume:			5 mL2
DI Prep/Ret:	11/12/2010 20131				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1001	UI	1001
Hexachlorobutadiene	1001	UI	1001
Isopropylbenzene	1001	UI	1001
Methyl tert-butyl ether	10001	UI	10001
Methylene Chloride	5001	UI	5001
m-Xylene & p-Xylene	001	UI	001
Naphthalene	5001	UI	5001
n-Butylbenzene	1001	UI	1001
N-Propylbenzene	1001	UI	1001
o-Xylene	1001	UI	1001
p-Isopropyltoluene	1001	UI	1001
sec-Butylbenzene	1001	UI	1001
Styrene	1001	UI	1001
tert-Butylbenzene	1001	UI	1001
Tetrachloroethene	1001	UI	1001
Toluene	1001	UI	1001
trans-1,2-Dichloroethene	1001	UI	1001
trans-1,3-Dichloropropene	1001	UI	1001
Trichloroethene	1001	UI	1001
Trichlorofluoromethane	1001	UI	1001
Vinyl Acetate	001	UI	001
Vinyl Chloride	1001	UI	1001
Xylenes, Total	001	UI	001

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene			75 - 1201
Dibromofluoromethane	61		75 - 1211
Toluene-d8 (Surr)	104b		75 - 1201

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M DRW-2M

L2b Sample ID: 680-62923-2#b  
 Client Matrix: rl

DI Sample Date: 11/03/10 16:40  
 DI Received: 11/06/10 10:34

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B  
 Analysis Batch: 680-186031  
 Instrument ID: MSP  
 Prep/Injection: 5030B  
 L2b File ID: p0134.d  
 Dilution: 1.0  
 Initial Inj Volume: 5 mL  
 DI Analysis Date: 11/12/10 20:43  
 Final Inj Volume: 5 mL  
 DI Prep/Ret: 11/12/10 20:43

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0	UI	1.0
1,1,1-Trichloroethane	1.0	UI	1.0
1,1,2,2-Tetrachloroethane	1.0	UI	1.0
1,1,2-Trichloroethane	1.0	UI	1.0
1,1-Dichloroethane	1.0	UI	1.0
1,1-Dichloroethane	1.0	UI	1.0
1,1-Dichloropropane	1.0	UI	1.0
1,2,3-Trichlorobenzene	1.0	UI	1.0
1,2,3-Trichloropropane	1.0	UI	1.0
1,2,4-Trichlorobenzene	1.0	UI	1.0
1,2,4-Trimethylbenzene	1.0	UI	1.0
1,2-Dibromo-3-Chloropropane	1.0	UI	1.0
1,2-Dibromoethane	1.0	UI	1.0
1,2-Dichlorobenzene	1.0	UI	1.0
1,2-Dichloroethane	1.0	UI	1.0
1,2-Dichloroethane, Total	.0	UI	.0
1,2-Dichloropropane	1.0	UI	1.0
1,3,5-Trimethylbenzene	1.0	UI	1.0
1,3-Dichlorobenzene	1.0	UI	1.0
1,3-Dichloropropane	1.0	UI	1.0
1,4-Dichlorobenzene	1.0	UI	1.0
1,2-Dichloropropane	1.0	UI	1.0
n-Butane	10	UI	10
n-Clorotoluene	1.0	UI	1.0
n-Hexane	10	UI	10
4-Chlorotoluene	1.0	UI	1.0
4-Methyl-2-pentanone	10	UI	10
Acetone	5	UI	5
Benzene	1.0	UI	1.0
Bromobenzene	1.0	UI	1.0
Bromochloromethane	1.0	UI	1.0
Bromodichloromethane	1.0	UI	1.0
Bromoform	1.0	UI	1.0
Bromomethane	1.0	UI	1.0
Carbon disulfide	.0	UI	.0
Carbon tetrachloride	1.0	UI	1.0
Chlorobenzene	1.0	UI	1.0
Chloroethane	1.0	UI	1.0
Chloroform	1.0	UI	1.0
Chloromethane	1.0	UI	1.0
cis-1,2-Dichloroethane	1.0	UI	1.0
cis-1,3-Dichloropropane	1.0	UI	1.0
Dibromochloromethane	1.0	UI	1.0
Dibromomethane	1.0	UI	1.0
Dichlorodifluoromethane	1.0	UI	1.0
Diethyl ether	40		10

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M DRW-2M

L2b Sample ID: 680-62923-24b  
 Client Matrix: rl

DI Sample Date: 11/03/10 16:40  
 DI Received: 11/06/10 10:34

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B Analysis Batch: 680-186031 Instrument ID: MSP  
 Prep/Injection: 5030B L2b File ID: p0134.d  
 Dilution: 1.0 Initial Inj Volume: 5 mL  
 DI Analysis Date: 11/12/10 20:43 Final Inj Volume: 5 mL  
 DI Prep/Ret: 11/12/10 20:43

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0	UI	1.0
Hexachlorobutadiene	1.0	UI	1.0
Isopropylbenzene	1.0	UI	1.0
Methyl tert-butyl ether	10	UI	10
Methylene Chloride	5.0	UI	5.0
m-Xylene & p-Xylene	.0	UI	.0
Naphthalene	5.0	UI	5.0
n-Butylbenzene	1.0	UI	1.0
N-Propylbenzene	1.0	UI	1.0
o-Xylene	1.0	UI	1.0
p-Isopropyltoluene	1.0	UI	1.0
sec-Butylbenzene	1.0	UI	1.0
Styrene	1.0	UI	1.0
tert-Butylbenzene	1.0	UI	1.0
Tetrachloroethene	1.0	UI	1.0
Toluene	1.0	UI	1.0
trans-1,2-Dichloroethene	1.0	UI	1.0
trans-1,3-Dichloropropene	1.0	UI	1.0
Trichloroethene	1.0	UI	1.0
Trichlorofluoromethane	1.0	UI	1.0
Vinyl acetate	.0	UI	.0
Vinyl chloride	1.0	UI	1.0
Xylenes, Total	.0	UI	.0

Surrogate	%Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	100		75 - 120
Dibromofluoromethane	100		75 - 120
Toluene-d8 (Surrogate)	103		75 - 120

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M DRW-3M

L2b Sample ID: 680-62923-251

DI Sample Date: 11/03/10 1650

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860271	Instrument ID:	MSP
Preparation:	5030B1	L2b File ID:		L2b File ID:	p0123.d,
Dilution:	1.0l	Initial Volume:		Initial Volume:	5 mL2
DI Analysis Date:	11/12/10 1802	Final Volume:		Final Volume:	5 mL2
DI Prep Date:	11/12/10 1802				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M DRW-3M

L2b Sample ID: 680-62923-251  
 Client Matrix: rl

DI Sample Date: 11/03/10 1650  
 DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B Analysis Batch: 680-1860271 Instrument ID: MSP  
 PrepTion: 5030B L2b File ID: p0123.d  
 Dilution: 1.0 Initial Inj Volume: 5 mL  
 DI Analyzed: 11/12/10 1802 Final Inj Volume: 5 mL  
 DI Prepped: 11/12/10 1802

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0	UI	1.0
Hexachlorobutadiene	1.0	UI	1.0
Isopropylbenzene	1.0	UI	1.0
Methyl tert-butyl ether	10	UI	10
Methylene Chloride	5.0	UI	5.0
m-Xylene & p-Xylene	.0	UI	.0
Naphthalene	5.0	UI	5.0
n-Butylbenzene	1.0	UI	1.0
N-Propylbenzene	1.0	UI	1.0
o-Xylene	1.0	UI	1.0
p-Isopropyltoluene	1.0	UI	1.0
sec-Butylbenzene	1.0	UI	1.0
Styrene	1.0	UI	1.0
tert-Butylbenzene	1.0	UI	1.0
Tetrachloroethene	1.0	UI	1.0
Toluene	1.0	UI	1.0
trans-1,2-Dichloroethene	1.0	UI	1.0
trans-1,3-Dichloropropene	1.0	UI	1.0
Trichloroethene	1.0	UI	1.0
Trichlorofluoromethane	1.0	U*	1.0
Vinyl acetate	.0	UI	.0
Vinyl chloride	1.0	UI	1.0
Xylenes, Total	.0	UI	.0

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	89		75 - 120
Dibromofluoromethane	6		75 - 121
Toluene-d8 (Surrogate)	7		75 - 120

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: W-12M

L2b Sample ID: 680-62923-261

DI Sample ID: 11/04/10 09201

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860271	Instrument ID:	MSP
Preparation:	5030B1	L2b File ID:		L2b File ID:	p0125.d,
Dilution:	1.0l	Initial Volume:		Initial Volume:	5 mL2
DI Analysis:	11/12/10 1831l	Final Volume:		Final Volume:	5 mL2
DI Preparation:	11/12/10 1831l				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l



Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: **M W-12M**

L2b Sample ID: 680-62923-261

DI Sample ID: 11/04/10 09201

Client Matrix: rl

DI Received: 11/06/10 1034b

**8260B Volatile Organic Compounds (GC/MS)M**

Method:	8260B1	Analysis Batch:	680-1860271	Instrument ID:	MSP
Prep/Injection:	5030B1	L2b File ID:		L2b File ID:	p0125.d,
Dilution:	1.0l	Initial Inj Volume:		Initial Inj Volume:	5 mL2
DI Analysis:	11/12/10 1831l	Final Inj Volume:		Final Inj Volume:	5 mL2
DI Prep/Ret:	11/12/10 1831l				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0l	UI	1.0l
Hexachlorobutadiene	1.0l	UI	1.0l
Isopropylbenzene	1.0l	UI	1.0l
Methyl tert-butyl ether	10l	UI	10l
Methylene Chloride	5.0l	UI	5.0l
m-Xylene & p-Xylene	.0l	UI	.0l
Naphthalene	5.0l	UI	5.0l
n-Butylbenzene	1.0l	UI	1.0l
N-Propylbenzene	1.0l	UI	1.0l
o-Xylene	1.0l	UI	1.0l
p-Isopropyltoluene	1.0l	UI	1.0l
sec-Butylbenzene	1.0l	UI	1.0l
Styrene	1.0l	UI	1.0l
tert-Butylbenzene	1.0l	UI	1.0l
Tetrachloroethene	1.0l	UI	1.0l
Toluene	1.0l	UI	1.0l
trans-1,2-Dichloroethene	1.0l	UI	1.0l
trans-1,3-Dichloropropene	1.0l	UI	1.0l
Trichloroethene	1.0l	UI	1.0l
Trichlorofluoromethane	1.0l	U*1	1.0l
Vinyl Acetate	.0l	UI	.0l
Vinyl Chloride	1.0l	UI	1.0l
Xylenes, Total	.0l	UI	.0l

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	89l		75 - 120l
Dibromofluoromethane	6l		75 - 121l
Toluene-d8 (Surrogate)	8l		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: W-22M

L2b Sample ID: 680-62923-271

DI Sample ID: 11/04/10 10001

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860271	Instrument ID:	MSP
Prep/Injection:	5030B1	L2b File ID:			p0127.d,
Dilution:	1.0l	Initial Inj Volume:			5 mL2
DI Analysis:	11/12/10 19001	Final Inj Volume:			5 mL2
DI Prep/Ret:	11/12/10 19001				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	3.4b		1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-22M

L2b Sample ID: 680-62923-271

DI Sample ID: 11/04/10 10001

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860271	Instrument ID:	MSP
Prep/Injection:	5030B1	L2b File ID:		L2b File ID:	p0127.d,
Dilution:	1.0l	Initial Inj Volume:		Initial Inj Volume:	5 mL2
DI Analysis:	11/12/10 1900l	Final Inj Volume:		Final Inj Volume:	5 mL2
DI Prep/Ret:	11/12/10 1900l				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0l	UI	1.0l
Hexachlorobutadiene	1.0l	UI	1.0l
Isopropylbenzene	1.0l	UI	1.0l
Methyl tert-butyl ether	10l	UI	10l
Methylene Chloride	5.0l	UI	5.0l
m-Xylene & p-Xylene	.0l	UI	.0l
Naphthalene	5.0l	UI	5.0l
n-Butylbenzene	1.0l	UI	1.0l
N-Propylbenzene	1.0l	UI	1.0l
o-Xylene	1.0l	UI	1.0l
p-Isopropyltoluene	1.0l	UI	1.0l
sec-Butylbenzene	1.0l	UI	1.0l
Styrene	1.0l	UI	1.0l
tert-Butylbenzene	1.0l	UI	1.0l
Tetrachloroethene	1.0l	UI	1.0l
Toluene	1.0l	UI	1.0l
trans-1,2-Dichloroethene	1.0l	UI	1.0l
trans-1,3-Dichloropropene	1.0l	UI	1.0l
Trichloroethene	1.0l	UI	1.0l
Trichlorofluoromethane	1.0l	U*	1.0l
Vinyl acetate	.0l	UI	.0l
Vinyl chloride	1.0l	UI	1.0l
Xylenes, Total	.0l	UI	.0l

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene			75 - 120l
Dibromofluoromethane	8l		75 - 121l
Toluene-d8 (Surrogate)	8l		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-2M

L2b Sample ID: 680-62923-281

DI Sample ID: 11/04/10 10551

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860271	Instrument ID:	MSP
Preparation:	5030B1	L2b File ID:		L2b File ID:	p0129.d,
Dilution:	001	Initial Volume:		Initial Volume:	5 mL2
DI Analysis:	11/12/10 19301	Final Volume:		Final Volume:	5 mL2
DI Preparation:	11/12/10 19301				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	001	UI	001
1,1,1-Trichloroethane	001	UI	001
1,1,2,2-Tetrachloroethane	001	UI	001
1,1,2-Trichloroethane	001	UI	001
1,1-Dichloroethane	001	UI	001
1,1-Dichloroethane	001	UI	001
1,1-Dichloropropane	001	UI	001
1,2,3-Trichlorobenzene	001	UI	001
1,2,3-Trichloropropane	001	UI	001
1,2,4-Trichlorobenzene	001	UI	001
1,2,4-Trimethylbenzene	001	UI	001
1,2-Dibromo-3-Chloropropane	001	UI	001
1,2-Dibromoethane	001	UI	001
1,2-Dichlorobenzene	001	UI	001
1,2-Dichloroethane	701		001
1,2-Dichloroethane, Total	4001	UI	4001
1,2-Dichloropropane	001	UI	001
1,3,5-Trimethylbenzene	001	UI	001
1,3-Dichlorobenzene	001	UI	001
1,3-Dichloropropane	001	UI	001
1,4-Dichlorobenzene	001	UI	001
1,2-Dichloropropane	001	UI	001
n-Butanol	0001	UI	0001
m-Chlorotoluene	001	UI	001
p-Heptanol	0001	UI	0001
4-Chlorotoluene	001	UI	001
4-Methyl-2-pentanone	0001	UI	0001
Acetone	50001	UI	50001
Benzene	59001		001
Bromobenzene	001	UI	001
Bromochloromethane	001	UI	001
Bromodichloromethane	001	UI	001
Bromoform	001	UI	001
Bromomethane	001	UI	001
Carbon disulfide	4001	UI	4001
Carbon tetrachloride	001	UI	001
Chlorobenzene	01		001
Chloroethane	001	UI	001
Chloroform	8001		001
Chloromethane	001	UI	001
cis-1,2-Dichloroethane	001	UI	001
cis-1,3-Dichloropropane	001	UI	001
Dibromochloromethane	001	UI	001
Dibromomethane	001	UI	001
Dichlorodifluoromethane	001	UI	001
Diethyl ether	130001		0001

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-2M

L2b Sample ID: 680-62923-281

DI Sample ID: 11/04/10 10551

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860271	Instrument ID:	MSP
Prep/Injection:	5030B1			L2b File ID:	p0129.d,
Dilution:	001			Injection Volume:	5 mL2
DI Analysis:	11/12/10 1930I			Final Injection Volume:	5 mL2
DI Prep/Ret:	11/12/10 1930I				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	340I		00I
Hexachlorobutadiene	00I	UI	00I
Isopropylbenzene	00I	UI	00I
Methyl tert-butyl ether	000I	UI	000I
Methylene Chloride	1000I	UI	1000I
m-Xylene & p-Xylene	400I		400I
Naphthalene	1000I	UI	1000I
n-Butylbenzene	00I	UI	00I
N-Propylbenzene	00I	UI	00I
o-Xylene	520I		00I
p-Isopropyltoluene	00I	UI	00I
sec-Butylbenzene	00I	UI	00I
Styrene	00I	UI	00I
tert-Butylbenzene	00I	UI	00I
Tetrachloroethene	00I	UI	00I
Toluene	00I	UI	00I
trans-1,2-Dichloroethene	00I	UI	00I
trans-1,3-Dichloropropene	00I	UI	00I
Trichloroethene	00I	UI	00I
Trichlorofluoromethane	00I	U*I	00I
Vinyl acetate	400I	UI	400I
Vinyl chloride	00I	UI	00I
Xylenes, Total	0I		400I

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	88I		75 - 120I
Dibromofluoromethane	4b		75 - 121I
Toluene-d8 (Surr)			75 - 120I

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: W-15M

L2b Sample ID: 680-62923-291

DI Sample Date: 11/04/2010 0911

Client Matrix: rl

DI Received: 11/06/2010 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1860271	Instrument ID:	MSP
Preparation:	5030B1	L2b File ID:			p0131.d,
Dilution:	1001	Initial Volume:			5 mL2
DI Analysis Date:	11/12/2010 19591	Final Volume:			5 mL2
DI Prep Date:	11/12/2010 19591				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1001	UI	1001
1,1,1-Trichloroethane	1001	UI	1001
1,1,2,2-Tetrachloroethane	1001	UI	1001
1,1,2-Trichloroethane	1001	UI	1001
1,1-Dichloroethane	1001	UI	1001
1,1-Dichloroethane	1001	UI	1001
1,1-Dichloropropane	1001	UI	1001
1,2,3-Trichlorobenzene	1001	UI	1001
1,2,3-Trichloropropane	1001	UI	1001
1,2,4-Trichlorobenzene	1001	UI	1001
1,2,4-Trimethylbenzene	1001	UI	1001
1,2-Dibromo-3-Chloropropane	1001	UI	1001
1,2-Dibromoethane	1001	UI	1001
1,2-Dichlorobenzene	1001	UI	1001
1,2-Dichloroethane	1001	UI	1001
1,2-Dichloroethane, Total	001	UI	001
1,2-Dichloropropane	1001	UI	1001
1,3,5-Trimethylbenzene	1001	UI	1001
1,3-Dichlorobenzene	1001	UI	1001
1,3-Dichloropropane	1001	UI	1001
1,4-Dichlorobenzene	1001	UI	1001
1,2-Dichloropropane	1001	UI	1001
n-Butanol	10001	UI	10001
n-Clorotoluene	1001	UI	1001
n-Hexane	10001	UI	10001
4-Chlorotoluene	1001	UI	1001
4-Methyl-2-pentanone	10001	UI	10001
Acetone	5001	UI	5001
Benzene	1001	UI	1001
Bromobenzene	1001	UI	1001
Bromochloromethane	1001	UI	1001
Bromodichloromethane	1001	UI	1001
Bromoform	1001	UI	1001
Bromomethane	1001	UI	1001
Carbon disulfide	001	UI	001
Carbon tetrachloride	1001	UI	1001
Chlorobenzene	1001	UI	1001
Chloroethane	1001	UI	1001
Chloroform	1001	UI	1001
Chloromethane	1001	UI	1001
cis-1,2-Dichloroethane	1001	UI	1001
cis-1,3-Dichloropropane	1001	UI	1001
Dibromochloromethane	1001	UI	1001
Dibromomethane	1001	UI	1001
Dichlorodifluoromethane	1001	UI	1001
Diethyl ether	30001		10001

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-15M

L2b Sample ID: 680-62923-291  
 Client Matrix: rl

DI Sample Date: 11/04/2010 09:11  
 DI Received: 11/06/2010 10:34

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B Analysis Batch: 680-1860271 Instrument ID: MSP  
 Prep Time: 5030B L2b File ID: p0131.d  
 Dilution: 100 Initial Inj Volume: 5 mL  
 DI Analyzed: 11/12/2010 19:59 Final Inj Volume: 5 mL  
 DI Prep Time: 11/12/2010 19:59

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	100	UI	100
Hexachlorobutadiene	100	UI	100
Isopropylbenzene	100	UI	100
Methyl tert-butyl ether	1000	UI	1000
Methylene Chloride	500	UI	500
m-Xylene & p-Xylene	00	UI	00
Naphthalene	500	UI	500
n-Butylbenzene	100	UI	100
N-Propylbenzene	100	UI	100
o-Xylene	100	UI	100
p-Isopropyltoluene	100	UI	100
sec-Butylbenzene	100	UI	100
Styrene	100	UI	100
tert-Butylbenzene	100	UI	100
Tetrachloroethene	100	UI	100
Toluene	100	UI	100
trans-1,2-Dichloroethene	100	UI	100
trans-1,3-Dichloropropene	100	UI	100
Trichloroethene	100	UI	100
Trichlorofluoromethane	100	U*	100
Vinyl Acetate	00	UI	00
Vinyl Chloride	100	UI	100
Xylenes, Total	00	UI	00

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene			75 - 120
Dibromofluoromethane	5		75 - 121
Toluene-d8 (Surrogate)			75 - 120

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-1

L2b Sample ID: 680-62923-301

DI Sample ID: 11/04/10 11551

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1863851	Instrument ID:	MSP
Preparation:	5030B1	L2b File ID:			p0037.d,
Dilution:	1001	Initial Volume:			5 mL2
DI Analysis:	11/16/10 13131	Final Volume:			5 mL2
DI Preparation:	11/16/10 13131				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1001	UI	1001
1,1,1-Trichloroethane	1001	UI	1001
1,1,2,2-Tetrachloroethane	3901		1001
1,1,2-Trichloroethane	1001	UI	1001
1,1-Dichloroethane	1001	UI	1001
1,1-Dichloroethane	1001	UI	1001
1,1-Dichloropropane	1001	UI	1001
1,2,3-Trichlorobenzene	1001	UI	1001
1,2,3-Trichloropropane	1001	UI	1001
1,2,4-Trichlorobenzene	1001	UI	1001
1,2,4-Trimethylbenzene	1001	UI	1001
1,2-Dibromo-3-Chloropropane	1001	UI	1001
1,2-Dibromoethane	1001	UI	1001
1,2-Dichlorobenzene	1001	UI	1001
1,2-Dichloroethane	3601		1001
1,2-Dichloroethane, Total	001	UI	001
1,2-Dichloropropane	1001	UI	1001
1,3,5-Trimethylbenzene	1001	UI	1001
1,3-Dichlorobenzene	1001	UI	1001
1,3-Dichloropropane	1001	UI	1001
1,4-Dichlorobenzene	1001	UI	1001
1,2-Dichloropropane	1001	UI	1001
n-Butanol	10001	UI	10001
n-Propyltoluene	1001	UI	1001
o-Xylene	10001	UI	10001
4-Chlorotoluene	1001	UI	1001
4-Methyl-2-pentanone	10001	UI	10001
Acetone	5001	UI	5001
Benzene	10001		1001
Bromobenzene	1001	UI	1001
Bromochloromethane	1001	UI	1001
Bromodichloromethane	1001	UI	1001
Bromoform	1001	UI	1001
Bromomethane	1001	UI	1001
Carbon disulfide	001	UI	001
Carbon tetrachloride	1001	UI	1001
Chlorobenzene	1001	UI	1001
Chloroethane	1001	UI	1001
Chloroform	34001		1001
Chloromethane	1001	UI	1001
cis-1,2-Dichloroethane	1001	UI	1001
cis-1,3-Dichloropropane	1001	UI	1001
Dibromochloromethane	1001	UI	1001
Dibromomethane	1001	UI	1001
Dichlorodifluoromethane	1001	UI	1001
Diethyl ether	52001		10001



Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: M W-1

L2b Sample ID: 680-62923-301

DI Sample ID: 11/04/10 11551

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1863851	Instrument ID:	MSP
Prep/Injection:	5030B1	L2b File ID:		L2b File ID:	p0037.d,
Dilution:	1001	Initial Inj Volume:		Initial Inj Volume:	5 mL2
DI Analysis:	11/16/10 13131	Final Inj Volume:		Final Inj Volume:	5 mL2
DI Prep/Ret:	11/16/10 13131				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1001	UI	1001
Hexachlorobutadiene	1001	UI	1001
Isopropylbenzene	1001	UI	1001
Methyl tert-butyl ether	10001	UI	10001
Methylene Chloride	5001	UI	5001
m-Xylene & p-Xylene	001	UI	001
Naphthalene	5001	UI	5001
n-Butylbenzene	1001	UI	1001
N-Propylbenzene	1001	UI	1001
o-Xylene	1001	UI	1001
p-Isopropyltoluene	1001	UI	1001
sec-Butylbenzene	1001	UI	1001
Styrene	1001	UI	1001
tert-Butylbenzene	1001	UI	1001
Tetrachloroethene	1001	UI	1001
Toluene	1001	UI	1001
trans-1,2-Dichloroethene	1001	UI	1001
trans-1,3-Dichloropropene	1001	UI	1001
Trichloroethene	1401		1001
Trichlorofluoromethane	1001	UI	1001
Vinyl Acetate	001	UI	001
Vinyl Chloride	1001	UI	1001
Xylenes, Total	001	UI	001

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	891		75 - 1201
Dibromofluoromethane	881		75 - 1211
Toluene-d8 (Surr)	61		75 - 1201

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M DUP-1

L2b Sample ID:l 680-62923-311

DI Sample ID: 11/04/10 00001

Client Matrix:l rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:l	8260B1	Analysis Batch: 680-18609#b	Instrument ID:l	MSP
Preparation:l	5030B1		L2b File ID:l	p0141.d,
Dilution:l	100l		Injection Volume:l	5 mL2
DI Analysis:l	11/13/10 131 4b		Final Injection Volume:l	5 mL2
DI Preparation:l	11/13/10 131 4b			

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	100l	UI	100l
1,1,1-Trichloroethane	100l	UI	100l
1,1,2,2-Tetrachloroethane	380l		100l
1,1,2-Trichloroethane	100l	UI	100l
1,1-Dichloroethane	100l	UI	100l
1,1-Dichloroethane	100l	UI	100l
1,1-Dichloropropane	100l	UI	100l
1,2,3-Trichlorobenzene	100l	UI	100l
1,2,3-Trichloropropane	100l	UI	100l
1,2,4-Trichlorobenzene	100l	UI	100l
1,2,4-Trimethylbenzene	100l	UI	100l
1,2-Dibromo-3-Chloropropane	100l	UI	100l
1,2-Dibromoethane	100l	UI	100l
1,2-Dichlorobenzene	100l	UI	100l
1,2-Dichloroethane	340l		100l
1,2-Dichloroethane, Total	00l	UI	00l
1,2-Dichloropropane	100l	UI	100l
1,3,5-Trimethylbenzene	100l	UI	100l
1,3-Dichlorobenzene	100l	UI	100l
1,3-Dichloropropane	100l	UI	100l
1,4-Dichlorobenzene	100l	UI	100l
1,2-Dichloropropane	100l	UI	100l
n-Butanol	1000l	UI	1000l
n-Clorotoluene	100l	UI	100l
n-Hexane	1000l	UI	1000l
4-Chlorotoluene	100l	UI	100l
4-Methyl-2-pentanone	1000l	UI	1000l
Acetone	500l	UI	500l
Benzene	0l		100l
Bromobenzene	100l	UI	100l
Bromochloromethane	100l	UI	100l
Bromodichloromethane	100l	UI	100l
Bromoform	100l	UI	100l
Bromomethane	100l	UI	100l
Carbon disulfide	00l	UI	00l
Carbon tetrachloride	100l	UI	100l
Chlorobenzene	100l	UI	100l
Chloroethane	100l	UI	100l
Chloroform	3500l		100l
Chloromethane	100l	UI	100l
cis-1,2-Dichloroethane	100l	UI	100l
cis-1,3-Dichloropropane	100l	UI	100l
Dibromochloromethane	100l	UI	100l
Dibromomethane	100l	UI	100l
Dichlorodifluoromethane	100l	UI	100l
Diethyl ether	4900l		1000l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M DUP-1

L2b Sample ID:l 680-62923-311

DI Sample ID: 11/04/10 00001

Client Matrix:l rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:l	8260B1	Analysis Batch: 680-18609#b	Instrument ID:l	MSP
PrepTrieon:l	5030B1		L2b File ID:l	p0141.d,
Dilution:l	100l		Initial Inj Volume:l	5 mL2
DI Analysis Date:l	11/13/10 131 4b		Final Inj Volume:l	5 mL2
DI PrepTrieon:l	11/13/10 131 4b			

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	100l	UI	100l
Hexachlorobutadiene	100l	UI	100l
Isopropylbenzene	100l	UI	100l
Methyl tert-butyl ether	1000l	UI	1000l
Methylene Chloride	500l	UI	500l
m-Xylene & p-Xylene	00l	UI	00l
Naphthalene	500l	UI	500l
n-Butylbenzene	100l	UI	100l
N-Propylbenzene	100l	UI	100l
o-Xylene	100l	UI	100l
p-Isopropyltoluene	100l	UI	100l
sec-Butylbenzene	100l	UI	100l
Styrene	100l	UI	100l
tert-Butylbenzene	100l	UI	100l
Tetrachloroethene	100l	UI	100l
Toluene	100l	UI	100l
trans-1,2-Dichloroethene	100l	UI	100l
trans-1,3-Dichloropropene	100l	UI	100l
Trichloroethene	140l		100l
Trichlorofluoromethane	100l	U *l	100l
Vinyl acetate	00l	UI	00l
Vinyl chloride	100l	UI	100l
Xylenes, Total	00l	UI	00l

Surrogate	%Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	88l		75 - 120l
Dibromofluoromethane	8l		75 - 121l
Toluene-d8 (Surrogate)	7l		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-28M

L2b Sample ID: 680-62923-321

DI Sample ID: 11/04/10 14031

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-18609#b	Instrument ID:	MSP
Preparation:	5030B1	L2b File ID:		L2b File ID:	p0143.d,
Dilution:	1.0l	Initial Volume:		Initial Volume:	5 mL2
DI Analysis:	11/13/10 1344b	Final Volume:		Final Volume:	5 mL2
DI Preparation:	11/13/10 1344b				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-28M

L2b Sample ID: 680-62923-321  
 Client Matrix: rl

DI Sample ID: 11/04/10 14031  
 DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B Analysis Batch: 680-18609#b Instrument ID: MSP  
 Prep/Injection: 5030B L2b File ID: p0143.d  
 Dilution: 1.0 Initial Inj Volume: 5 mL2  
 DI Analysis: 11/13/10 1344b Final Inj Volume: 5 mL2  
 DI Prep/Ret: 11/13/10 1344b

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0	UI	1.0
Hexachlorobutadiene	1.0	UI	1.0
Isopropylbenzene	1.0	UI	1.0
Methyl tert-butyl ether	10	UI	10
Methylene Chloride	5.0	UI	5.0
m-Xylene & p-Xylene	.0	UI	.0
Naphthalene	5.0	UI	5.0
n-Butylbenzene	1.0	UI	1.0
N-Propylbenzene	1.0	UI	1.0
o-Xylene	1.0	UI	1.0
p-Isopropyltoluene	1.0	UI	1.0
sec-Butylbenzene	1.0	UI	1.0
Styrene	1.0	UI	1.0
tert-Butylbenzene	1.0	UI	1.0
Tetrachloroethene	1.0	UI	1.0
Toluene	1.0	UI	1.0
trans-1,2-Dichloroethene	1.0	UI	1.0
trans-1,3-Dichloropropene	1.0	UI	1.0
Trichloroethene	1.0	UI	1.0
Trichlorofluoromethane	1.0	U*	1.0
Vinyl acetate	.0	UI	.0
Vinyl chloride	1.0	UI	1.0
Xylenes, Total	.0	UI	.0

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene			75 - 120
Dibromofluoromethane			75 - 121
Toluene-d8 (Surrogate)	5		75 - 120

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-3M

L2b Sample ID: 680-62923-331

DI Sample ID: 11/04/10 14121

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-18609#b	Instrument ID:	MSP
Preparation:	5030B1	L2b File ID:		L2b File ID:	p0145.d,
Dilution:	1.0l	Initial Volume:		Initial Volume:	5 mL2
DI Analysis:	11/13/10 14131	Final Volume:		Final Volume:	5 mL2
DI Preparation:	11/13/10 14131				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-3M

L2b Sample ID: 680-62923-331

DI Sample ID: 11/04/10 14121

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-18609#b	Instrument ID:	MSP
Prep/Injection:	5030B1	L2b File ID:		L2b File ID:	p0145.d,
Dilution:	1.0l	Initial Inj Volume:		Initial Inj Volume:	5 mL2
DI Analysis:	11/13/10 14131	Final Inj Volume:		Final Inj Volume:	5 mL2
DI Prep/Ret:	11/13/10 14131				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0l	UI	1.0l
Hexachlorobutadiene	1.0l	UI	1.0l
Isopropylbenzene	1.0l	UI	1.0l
Methyl tert-butyl ether	10l	UI	10l
Methylene Chloride	5.0l	UI	5.0l
m-Xylene & p-Xylene	.0l	UI	.0l
Naphthalene	5.0l	UI	5.0l
n-Butylbenzene	1.0l	UI	1.0l
N-Propylbenzene	1.0l	UI	1.0l
o-Xylene	1.0l	UI	1.0l
p-Isopropyltoluene	1.0l	UI	1.0l
sec-Butylbenzene	1.0l	UI	1.0l
Styrene	1.0l	UI	1.0l
tert-Butylbenzene	1.0l	UI	1.0l
Tetrachloroethene	1.0l	UI	1.0l
Toluene	1.0l	UI	1.0l
trans-1,2-Dichloroethene	1.0l	UI	1.0l
trans-1,3-Dichloropropene	1.0l	UI	1.0l
Trichloroethene	1.0l	UI	1.0l
Trichlorofluoromethane	1.0l	U*1	1.0l
Vinyl acetate	.0l	UI	.0l
Vinyl chloride	1.0l	UI	1.0l
Xylenes, Total	.0l	UI	.0l

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	89l		75 - 120l
Dibromofluoromethane	8l		75 - 121l
Toluene-d8 (Surr)	100l		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-14M

L2b Sample ID: 680-62923-34b

DI Sample ID: 11/05/10 0830I

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-18609#b	Instrument ID:	MSP
Preparation:	5030B1	L2b File ID:		L2b File ID:	p0147.d,
Dilution:	0I	Initial Volume:		Initial Volume:	5 mL2
DI Analysis:	11/13/10 144b	Final Volume:		Final Volume:	5 mL2
DI Preparation:	11/13/10 144b				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	0I	UI	0I
1,1,1-Trichloroethane	0I	UI	0I
1,1,2,2-Tetrachloroethane	0I	UI	0I
1,1,2-Trichloroethane	0I	UI	0I
1,1-Dichloroethane	0I	UI	0I
1,1-Dichloroethane	0I	UI	0I
1,1-Dichloropropane	0I	UI	0I
1,2,3-Trichlorobenzene	0I	UI	0I
1,2,3-Trichloropropane	0I	UI	0I
1,2,4-Trichlorobenzene	0I	UI	0I
1,2,4-Trimethylbenzene	0I	UI	0I
1,2-Dibromo-3-Chloropropane	0I	UI	0I
1,2-Dibromoethane	0I	UI	0I
1,2-Dichlorobenzene	0I	UI	0I
1,2-Dichloroethane	0I	UI	0I
1,2-Dichloroethane, Total	40I	UI	40I
1,2-Dichloropropane	0I	UI	0I
1,3,5-Trimethylbenzene	0I	UI	0I
1,3-Dichlorobenzene	0I	UI	0I
1,3-Dichloropropane	0I	UI	0I
1,4-Dichlorobenzene	0I	UI	0I
1,2-Dichloropropane	0I	UI	0I
n-Butane	00I	UI	00I
o-Chlorotoluene	0I	UI	0I
n-Hexane	00I	UI	00I
4-Chlorotoluene	0I	UI	0I
4-Methyl-2-pentanone	00I	UI	00I
Acetone	500I	UI	500I
Benzene	36I		0I
Bromobenzene	0I	UI	0I
Bromochloromethane	0I	UI	0I
Bromodichloromethane	0I	UI	0I
Bromoform	0I	UI	0I
Bromomethane	0I	UI	0I
Carbon disulfide	40I	UI	40I
Carbon tetrachloride	0I	UI	0I
Chlorobenzene	0I	UI	0I
Chloroethane	0I	UI	0I
Chloroform	0I	UI	0I
Chloromethane	0I	UI	0I
cis-1,2-Dichloroethane	0I	UI	0I
cis-1,3-Dichloropropane	0I	UI	0I
Dibromochloromethane	0I	UI	0I
Dibromomethane	0I	UI	0I
Dichlorodifluoromethane	0I	UI	0I
Diethyl ether	650I		00I



Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-14M

L2b Sample ID: 680-62923-34b  
 Client Matrix: rl

DI Sample ID: 11/05/10 0830  
 DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B Analysis Batch: 680-18609#b Instrument ID: MSP  
 PrepTion: 5030B L2b File ID: p0147.d  
 Dilution: 0 Initial Inj Volume: 5 mL  
 DI Analyzed: 11/13/10 144b Final Inj Volume: 5 mL  
 DI PrepTret: 11/13/10 144b

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	0	UI	0
Hexachlorobutadiene	0	UI	0
Isopropylbenzene	0	UI	0
Methyl tert-butyl ether	0	UI	0
Methylene Chloride	100	UI	100
m-Xylene & p-Xylene	40	UI	40
Naphthalene	100	UI	100
n-Butylbenzene	0	UI	0
N-Propylbenzene	0	UI	0
o-Xylene	0	UI	0
p-Isopropyltoluene	0	UI	0
sec-Butylbenzene	0	UI	0
Styrene	0	UI	0
tert-Butylbenzene	0	UI	0
Tetrachloroethene	0	UI	0
Toluene	0	UI	0
trans-1,2-Dichloroethene	0	UI	0
trans-1,3-Dichloropropene	0	UI	0
Trichloroethene	0	UI	0
Trichlorofluoromethane	0	U*	0
Vinyl acetate	40	UI	40
Vinyl chloride	0	UI	0
Xylenes, Total	40	UI	40

Surrogate	%Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	89		75 - 120
Dibromofluoromethane	3		75 - 120
Toluene-d8 (Surrogate)	101		75 - 120

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-23M

L2b Sample ID: 680-62923-351

DI Sample ID: 11/05/10 12351

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-18609#b	Instrument ID:	MSP
Preparation:	5030B1	L2b File ID:		L2b File ID:	p014b d,
Dilution:	1.0l	Initial Volume:		Initial Volume:	5 mL2
DI Analysis:	11/13/10 1511l	Final Volume:		Final Volume:	5 mL2
DI Preparation:	11/13/10 1511l				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-23M

L2b Sample ID: 680-62923-351

DI Sample ID: 11/05/10 12351

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-18609#b	Instrument ID:	MSP
Prep/Injection:	5030B1	L2b File ID:		L2b File ID:	p014b d,
Dilution:	1.0l	Initial Inj Volume:		Initial Inj Volume:	5 mL2
DI Analysis:	11/13/10 1511l	Final Inj Volume:		Final Inj Volume:	5 mL2
DI Prep/Ret:	11/13/10 1511l				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0l	UI	1.0l
Hexachlorobutadiene	1.0l	UI	1.0l
Isopropylbenzene	1.0l	UI	1.0l
Methyl tert-butyl ether	10l	UI	10l
Methylene Chloride	5.0l	UI	5.0l
m-Xylene & p-Xylene	.0l	UI	.0l
Naphthalene	5.0l	UI	5.0l
n-Butylbenzene	1.0l	UI	1.0l
N-Propylbenzene	1.0l	UI	1.0l
o-Xylene	1.0l	UI	1.0l
p-Isopropyltoluene	1.0l	UI	1.0l
sec-Butylbenzene	1.0l	UI	1.0l
Styrene	1.0l	UI	1.0l
tert-Butylbenzene	1.0l	UI	1.0l
Tetrachloroethene	1.0l	UI	1.0l
Toluene	1.0l	UI	1.0l
trans-1,2-Dichloroethene	1.0l	UI	1.0l
trans-1,3-Dichloropropene	1.0l	UI	1.0l
Trichloroethene	1.0l	UI	1.0l
Trichlorofluoromethane	1.0l	U*l	1.0l
Vinyl acetate	.0l	UI	.0l
Vinyl chloride	1.0l	UI	1.0l
Xylenes, Total	.0l	UI	.0l

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	88l		75 - 120l
Dibromofluoromethane	5l		75 - 121l
Toluene-d8 (Surrogate)	8l		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: W-17M

L2b Sample ID: 680-62923-361

DI Sample Date: 11/05/10 13501

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-18609#b	Instrument ID:	MSP
Preparation:	5030B1	L2b File ID:		L2b File ID:	p0151.d,
Dilution:	1.0l	Initial Volume:		Initial Volume:	5 mL2
DI Analysis:	11/13/10 15411	Final Volume:		Final Volume:	5 mL2
DI Preparation:	11/13/10 15411				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	6.7l		.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	3.3l		1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
m-Cresol	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.5l		1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	.2l		1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	6.4b		1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	46		10

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-17M

L2b Sample ID: 680-62923-361

DI Sample ID: 11/05/10 13501

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-18609#b	Instrument ID:	MSP
Prep/Injection:	5030B1	L2b File ID:		L2b File ID:	p0151.d,
Dilution:	1.0l	Initial Inj Volume:		Initial Inj Volume:	5 mL2
DI Analysis:	11/13/10 15 41l	Final Inj Volume:		Final Inj Volume:	5 mL2
DI Prep/Ret:	11/13/10 15 41l				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0l	UI	1.0l
Hexachlorobutadiene	1.0l	UI	1.0l
Isopropylbenzene	1.0l	UI	1.0l
Methyl tert-butyl ether	10l	UI	10l
Methylene Chloride	5.0l	UI	5.0l
m-Xylene & p-Xylene	.0l	UI	.0l
Naphthalene	5.0l	UI	5.0l
n-Butylbenzene	1.0l	UI	1.0l
N-Propylbenzene	1.0l	UI	1.0l
o-Xylene	1.0l	UI	1.0l
p-Isopropyltoluene	1.0l	UI	1.0l
sec-Butylbenzene	1.0l	UI	1.0l
Styrene	1.0l	UI	1.0l
tert-Butylbenzene	1.0l	UI	1.0l
Tetrachloroethene	1.0l	UI	1.0l
Toluene	1.0l	UI	1.0l
trans-1,2-Dichloroethene	1.0l	UI	1.0l
trans-1,3-Dichloropropene	1.0l	UI	1.0l
Trichloroethene	1.3l		1.0l
Trichlorofluoromethane	1.0l	U*1	1.0l
Vinyl acetate	.0l	UI	.0l
Vinyl chloride	6.6l		1.0l
Xylenes, Total	.0l	UI	.0l

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	0l		75 - 120l
Dibromofluoromethane	7l		75 - 121l
Toluene-d8 (Surrogate)	7l		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M ER-1

L2b Sample ID: 680-62923-371

DI Sample Date: 11/05/10 10:45

Client Matrix: rl

DI Received: 11/06/10 10:34

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1863851	Instrument ID:	MSP
Preparation:	5030B1	L2b File ID:		L2b File ID:	p0039.d,
Dilution:	5l	Initial Volume:	5 mL2	Final Volume:	5 mL2
DI Analysis:	11/16/10 13:4b				
DI Preparation:	11/16/10 13:4b				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	5l	UI	5l
1,1,1-Trichloroethane	5l	UI	5l
1,1,2,2-Tetrachloroethane	5l	UI	5l
1,1,2-Trichloroethane	5l	UI	5l
1,1-Dichloroethane	5l	UI	5l
1,1-Dichloroethane	5l	UI	5l
1,1-Dichloropropane	5l	UI	5l
1,2,3-Trichlorobenzene	5l	UI	5l
1,2,3-Trichloropropane	5l	UI	5l
1,2,4-Trichlorobenzene	5l	UI	5l
1,2,4-Trimethylbenzene	5l	UI	5l
1,2-Dibromo-3-Chloropropane	5l	UI	5l
1,2-Dibromoethane	5l	UI	5l
1,2-Dichlorobenzene	5l	UI	5l
1,2-Dichloroethane	150l		5l
1,2-Dichloroethane, Total	50l	UI	50l
1,2-Dichloropropane	5l	UI	5l
1,3,5-Trimethylbenzene	5l	UI	5l
1,3-Dichlorobenzene	5l	UI	5l
1,3-Dichloropropane	5l	UI	5l
1,4-Dichlorobenzene	5l	UI	5l
1,2-Dichloropropane	5l	UI	5l
n-Butane	50l	UI	50l
n-Clorotoluene	5l	UI	5l
n-Hexane	50l	UI	50l
4-Chlorotoluene	5l	UI	5l
4-Methyl-2-pentanone	50l	UI	50l
Acetone	630l	UI	630l
Benzene	460l		5l
Bromobenzene	5l	UI	5l
Bromochloromethane	5l	UI	5l
Bromodichloromethane	5l	UI	5l
Bromoform	5l	UI	5l
Bromomethane	5l	UI	5l
Carbon disulfide	50l	UI	50l
Carbon tetrachloride	5l	UI	5l
Chlorobenzene	54b		5l
Chloroethane	5l	UI	5l
Chloroform	5l	UI	5l
Chloromethane	5l	UI	5l
cis-1,2-Dichloroethane	5l	UI	5l
cis-1,3-Dichloropropane	5l	UI	5l
Dibromochloromethane	5l	UI	5l
Dibromomethane	5l	UI	5l
Dichlorodifluoromethane	5l	UI	5l
Diethyl ether	400l		50l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M ER-1

L2b Sample ID: 680-62923-371

DI Sample Date: 11/05/10 10:45

Client Matrix: rl

DI Received: 11/06/10 10:34

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1863851	Instrument ID:	MSP
Prep/Injection:	5030B1	L2b File ID:			p0039.d,
Dilution:	5l	Initial Inj Volume:			5 mL2
DI Analysis Date:	11/16/10 13:46	Final Inj Volume:			5 mL2
DI Prep/Ret:	11/16/10 13:46				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	35l		5l
Hexachlorobutadiene	5l	UI	5l
Isopropylbenzene	5l	UI	5l
Methyl tert-butyl ether	50l	UI	50l
Methylene Chloride	130l	UI	130l
m-Xylene & p-Xylene	50l	UI	50l
Naphthalene	130l	UI	130l
n-Butylbenzene	5l	UI	5l
N-Propylbenzene	5l	UI	5l
o-Xylene	5l	UI	5l
p-Isopropyltoluene	5l	UI	5l
sec-Butylbenzene	5l	UI	5l
Styrene	5l	UI	5l
tert-Butylbenzene	5l	UI	5l
Tetrachloroethene	5l	UI	5l
Toluene	5l	UI	5l
trans-1,2-Dichloroethene	5l	UI	5l
trans-1,3-Dichloropropene	5l	UI	5l
Trichloroethene	5l	UI	5l
Trichlorofluoromethane	5l	UI	5l
Vinyl Acetate	50l	UI	50l
Vinyl Chloride	5l	UI	5l
Xylenes, Total	50l	UI	50l

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	89l		75 - 120l
Dibromofluoromethane	87l		75 - 121l
Toluene-d8 (Surr)	101l		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M ER-2M

L2b Sample ID: 680-62923-381

DI Sample ID: 11/05/10 11001

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1863851	Instrument ID:	MSP
Preparation:	5030B1	L2b File ID:		L2b File ID:	p0041.d,
Dilution:	10001	Initial Volume:		Initial Volume:	5 mL2
DI Analysis:	11/16/10 14121	Final Volume:		Final Volume:	5 mL2
DI Preparation:	11/16/10 14121				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	10001	UI	10001
1,1,1-Trichloroethane	10001	UI	10001
1,1,2,2-Tetrachloroethane	10001	UI	10001
1,1,2-Trichloroethane	10001	UI	10001
1,1-Dichloroethane	10001	UI	10001
1,1-Dichloroethane	10001	UI	10001
1,1-Dichloropropane	10001	UI	10001
1,2,3-Trichlorobenzene	10001	UI	10001
1,2,3-Trichloropropane	10001	UI	10001
1,2,4-Trichlorobenzene	10001	UI	10001
1,2,4-Trimethylbenzene	10001	UI	10001
1,2-Dibromo-3-Chloropropane	10001	UI	10001
1,2-Dibromoethane	10001	UI	10001
1,2-Dichlorobenzene	10001	UI	10001
1,2-Dichloroethane	17001		10001
1,2-Dichloroethane, Total	0001	UI	0001
1,2-Dichloropropane	10001	UI	10001
1,3,5-Trimethylbenzene	10001	UI	10001
1,3-Dichlorobenzene	10001	UI	10001
1,3-Dichloropropane	10001	UI	10001
1,4-Dichlorobenzene	10001	UI	10001
1,2-Dichloropropane	10001	UI	10001
n-Butanol	100001	UI	100001
n-Clorotoluene	10001	UI	10001
n-Hexane	100001	UI	100001
4-Chlorotoluene	10001	UI	10001
4-Methyl-2-pentanone	100001	UI	100001
Acetone	50001	UI	50001
Benzene	140001		10001
Bromobenzene	10001	UI	10001
Bromochloromethane	10001	UI	10001
Bromodichloromethane	10001	UI	10001
Bromoform	10001	UI	10001
Bromomethane	10001	UI	10001
Carbon disulfide	0001	UI	0001
Carbon tetrachloride	10001	UI	10001
Chlorobenzene	10001	UI	10001
Chloroethane	10001	UI	10001
Chloroform	10001		10001
Chloromethane	10001	UI	10001
cis-1,2-Dichloroethane	10001	UI	10001
cis-1,3-Dichloropropane	10001	UI	10001
Dibromochloromethane	10001	UI	10001
Dibromomethane	10001	UI	10001
Dichlorodifluoromethane	10001	UI	10001
Diethyl ether	430001		100001



Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M ER-2M

L2b Sample ID: 680-62923-381

DI Sample Date: 11/05/10 1100

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-1863851	Instrument ID:	MSP
Prep/Injection:	5030B1	L2b File ID:		L2b File ID:	p0041.d,
Dilution:	10001	Initial Inj Volume:		Initial Inj Volume:	5 mL2
DI Analysis Date:	11/16/10 14121	Final Inj Volume:		Final Inj Volume:	5 mL2
DI Prep/Ret:	11/16/10 14121				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	10001	UI	10001
Hexachlorobutadiene	10001	UI	10001
Isopropylbenzene	10001	UI	10001
Methyl tert-butyl ether	100001	UI	100001
Methylene Chloride	120001		50001
m-Xylene & p-Xylene	0001	UI	0001
Naphthalene	50001	UI	50001
n-Butylbenzene	10001	UI	10001
N-Propylbenzene	10001	UI	10001
o-Xylene	10001	UI	10001
p-Isopropyltoluene	10001	UI	10001
sec-Butylbenzene	10001	UI	10001
Styrene	10001	UI	10001
tert-Butylbenzene	10001	UI	10001
Tetrachloroethene	10001	UI	10001
Toluene	10001	UI	10001
trans-1,2-Dichloroethene	10001	UI	10001
trans-1,3-Dichloropropene	10001	UI	10001
Trichloroethene	10001	UI	10001
Trichlorofluoromethane	10001	UI	10001
Vinyl Acetate	0001	UI	0001
Vinyl Chloride	10001	UI	10001
Xylenes, Total	0001	UI	0001

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	881		75 - 1201
Dibromofluoromethane	891		75 - 1211
Toluene-d8 (Surr)	1011		75 - 1201

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M ER-3M

L2b Sample ID: 680-62923-391

DI Sample ID: 11/05/10 11151

Client Matrix: rl

DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B1	Analysis Batch: 680-18609#b	Instrument ID: MSP
Prep/Injection: 5030B1	L2b File ID: p0157.d,	
Dilution: 50l	Initial Inj Volume: 5 mL2	
DI Analysis: 11/13/10 1709l	Final Inj Volume: 5 mL2	
DI Prep/Ret: 11/13/10 1709l		

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	50l	UI	50l
1,1,1-Trichloroethane	50l	UI	50l
1,1,2,2-Tetrachloroethane	50l	UI	50l
1,1,2-Trichloroethane	50l	UI	50l
1,1-Dichloroethane	50l	UI	50l
1,1-Dichloroethane	50l	UI	50l
1,1-Dichloropropane	50l	UI	50l
1,2,3-Trichlorobenzene	50l	UI	50l
1,2,3-Trichloropropane	50l	UI	50l
1,2,4-Trichlorobenzene	50l	UI	50l
1,2,4-Trimethylbenzene	50l	UI	50l
1,2-Dibromo-3-Chloropropane	50l	UI	50l
1,2-Dibromoethane	50l	UI	50l
1,2-Dichlorobenzene	50l	UI	50l
1,2-Dichloroethane	50l	UI	50l
1,2-Dichloroethane, Total	500l	UI	500l
1,2-Dichloropropane	50l	UI	50l
1,3,5-Trimethylbenzene	50l	UI	50l
1,3-Dichlorobenzene	50l	UI	50l
1,3-Dichloropropane	50l	UI	50l
1,4-Dichlorobenzene	50l	UI	50l
1,2-Dichloropropane	50l	UI	50l
n-Butanol	500l	UI	500l
m-Cresol	50l	UI	50l
Hexane	500l	UI	500l
4-Chlorotoluene	50l	UI	50l
4-Methyl-2-pentanone	500l	UI	500l
Acetone	6300l	UI	6300l
Benzene	510l		50l
Bromobenzene	50l	UI	50l
Bromochloromethane	50l	UI	50l
Bromodichloromethane	50l	UI	50l
Bromoform	50l	UI	50l
Bromomethane	50l	UI	50l
Carbon disulfide	500l	UI	500l
Carbon tetrachloride	50l	UI	50l
Chlorobenzene	50l	UI	50l
Chloroethane	50l	UI	50l
Chloroform	50l		50l
Chloromethane	50l	UI	50l
cis-1,2-Dichloroethane	50l	UI	50l
cis-1,3-Dichloropropane	50l	UI	50l
Dibromochloromethane	50l	UI	50l
Dibromomethane	50l	UI	50l
Dichlorodifluoromethane	50l	UI	50l
Diethyl ether	1000l		500l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M ER-3M

L2b Sample ID: 680-62923-391

DI Sample Date: 11/05/10 11151

Client Matrix: rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-18609#b	Instrument ID:	MSP
Prep/Injection:	5030B1	L2b File ID:		L2b File ID:	p0157.d,
Dilution:	50l	Initial Inj Volume:		Initial Inj Volume:	5 mL2
DI Analysis Date:	11/13/10 1709l	Final Inj Volume:		Final Inj Volume:	5 mL2
DI Prep/Ret:	11/13/10 1709l				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	50l	UI	50l
Hexachlorobutadiene	50l	UI	50l
Isopropylbenzene	50l	UI	50l
Methyl tert-butyl ether	500l	UI	500l
Methylene Chloride	1300l	UI	1300l
m-Xylene & p-Xylene	500l	UI	500l
Naphthalene	1300l	UI	1300l
n-Butylbenzene	50l	UI	50l
N-Propylbenzene	50l	UI	50l
o-Xylene	50l	UI	50l
p-Isopropyltoluene	50l	UI	50l
sec-Butylbenzene	50l	UI	50l
Styrene	50l	UI	50l
tert-Butylbenzene	50l	UI	50l
Tetrachloroethene	50l	UI	50l
Toluene	50l	UI	50l
trans-1,2-Dichloroethene	50l	UI	50l
trans-1,3-Dichloropropene	50l	UI	50l
Trichloroethene	50l	UI	50l
Trichlorofluoromethane	50l	U*l	50l
Vinyl acetate	500l	UI	500l
Vinyl chloride	50l	UI	50l
Xylenes, Total	500l	UI	500l

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	89l		75 - 120l
Dibromofluoromethane	4b		75 - 121l
Toluene-d8 (Surr)	100l		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M ER-4M

L2b Sample ID:l 680-62923-40l

DI Sample Date: 11/05/10 1130l

Client Matrix:l rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:l	8260Bl	Analysis Batch: 680-18609#b	Instrument ID:l	MSP
PrepTrieon:l	5030Bl		L2b File ID:l	p0159.d,
Dilution:l	1.0l		Initial Inj Volume:l	5 mL2
DI Analysis Date:l	11/13/10 1738l		Final Inj Volume:l	5 mL2
DI Prep Date:l	11/13/10 1738l			

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
o-Chlorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M ER-4M

L2b Sample ID:l 680-62923-40l

DI Sample ID: 11/05/10 1130l

Client Matrix:l rl

DI Received: 11/06/10 1034b

8260B Volatile Organic Compounds (GC/MS)M

Method:l	8260B	Analysis Batch: 680-18609#b	Instrument ID:l	MSP
PrepTrieon:l	5030B		L2b File ID:l	p0159.d,
Dilution:l	1.0l		Initial Inj Volume:l	5 mL2
DI Analysis Date:l	11/13/10 1738l		Final Inj Volume:l	5 mL2
DI PrepTrieon:l	11/13/10 1738l			

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0l	UI	1.0l
Hexachlorobutadiene	1.0l	UI	1.0l
Isopropylbenzene	1.0l	UI	1.0l
Methyl tert-butyl ether	10l	UI	10l
Methylene Chloride	5.0l	UI	5.0l
m-Xylene & p-Xylene	.0l	UI	.0l
Naphthalene	5.0l	UI	5.0l
n-Butylbenzene	1.0l	UI	1.0l
N-Propylbenzene	1.0l	UI	1.0l
o-Xylene	1.0l	UI	1.0l
p-Isopropyltoluene	1.0l	UI	1.0l
sec-Butylbenzene	1.0l	UI	1.0l
Styrene	1.0l	UI	1.0l
tert-Butylbenzene	1.0l	UI	1.0l
Tetrachloroethene	1.0l	UI	1.0l
Toluene	1.0l	UI	1.0l
trans-1,2-Dichloroethene	1.0l	UI	1.0l
trans-1,3-Dichloropropene	1.0l	UI	1.0l
Trichloroethene	1.0l	UI	1.0l
Trichlorofluoromethane	1.0l	U*l	1.0l
Vinyl acetate	.0l	UI	.0l
Vinyl chloride	1.0l	UI	1.0l
Xylenes, Total	.0l	UI	.0l

Surrogate	%Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	89l		75 - 120l
Dibromofluoromethane	8l		75 - 121l
Toluene-d8 (Surrogate)	7l		75 - 120l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M W-16M

L2b Sample ID: 680-62923-411

DI Sample Date: 11/05/10 15:40

Client Matrix: rl

DI Received: 11/06/10 10:34

8260B Volatile Organic Compounds (GC/MS)M

Method:	8260B1	Analysis Batch:	680-18609#b	Instrument ID:	MSP
Preparation:	5030B1	L2b File ID:		L2b File ID:	p0161.d,
Dilution:	1.0l	Initial Volume:		Initial Volume:	5 mL2
DI Analysis Date:	11/13/10 18:07	Final Volume:		Final Volume:	5 mL2
DI Prep Date:	11/13/10 18:07				

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
n-Clorotoluene	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID: **M W-16M**

L2b Sample ID: 680-62923-411  
 Client Matrix: rl

DI Sample Date: 11/05/10 15:40  
 DI Received: 11/06/10 10:34

**8260B Volatile Organic Compounds (GC/MS)**

Method:	8260B	Analysis Batch:	680-18609#b	Instrument ID:	MSP
Prep/Injection:	5030B	L2b File ID:		L2b File ID:	p0161.d,
Dilution:	1.0	Initial Inj Volume:		Initial Inj Volume:	5 mL
DI Analysis Date:	11/13/10 18:07	Final Inj Volume:		Final Inj Volume:	5 mL
DI Prep/Retention:	11/13/10 18:07				

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0	UI	1.0
Hexachlorobutadiene	1.0	UI	1.0
Isopropylbenzene	1.0	UI	1.0
Methyl tert-butyl ether	10	UI	10
Methylene Chloride	5.0	UI	5.0
m-Xylene & p-Xylene	.0	UI	.0
Naphthalene	5.0	UI	5.0
n-Butylbenzene	1.0	UI	1.0
N-Propylbenzene	1.0	UI	1.0
o-Xylene	1.0	UI	1.0
p-Isopropyltoluene	1.0	UI	1.0
sec-Butylbenzene	1.0	UI	1.0
Styrene	1.0	UI	1.0
tert-Butylbenzene	1.0	UI	1.0
Tetrachloroethene	1.0	UI	1.0
Toluene	1.0	UI	1.0
trans-1,2-Dichloroethene	1.0	UI	1.0
trans-1,3-Dichloropropene	1.0	UI	1.0
Trichloroethene	1.0	UI	1.0
Trichlorofluoromethane	1.0	U*	1.0
Vinyl acetate	.0	UI	.0
Vinyl chloride	1.0	UI	1.0
Xylenes, Total	.0	UI	.0

Surrogate	%Recovery	Qualifier	Acceptance Limits
4-Bromofluorobenzene	11		75 - 120
Dibromofluoromethane			75 - 120
Toluene-d8 (Surrogate)	71		75 - 120

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M Trip Blank:

L2b Sample ID: 680-62923-4b  
 Client Matrix: rl

DI Sample ID: 11/05/10 0001  
 DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260BI Analysis Batch: 680-18609#b Instrument ID: MSP  
 Prep/Injection: 5030BI L2b File ID: p0137.d  
 Dilution: 1.0l Initial Inj Volume: 5 mL2  
 DI Analysis Date: 11/13/10 12:16 Final Inj Volume: 5 mL2  
 DI Prep/Ret: 11/13/10 12:16

Analyte	Result (ug/L)	Qualifier	RL2
1,1,1,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,1-Trichloroethane	1.0l	UI	1.0l
1,1,2,2-Tetrachloroethane	1.0l	UI	1.0l
1,1,2-Trichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloroethane	1.0l	UI	1.0l
1,1-Dichloropropane	1.0l	UI	1.0l
1,2,3-Trichlorobenzene	1.0l	UI	1.0l
1,2,3-Trichloropropane	1.0l	UI	1.0l
1,2,4-Trichlorobenzene	1.0l	UI	1.0l
1,2,4-Trimethylbenzene	1.0l	UI	1.0l
1,2-Dibromo-3-Chloropropane	1.0l	UI	1.0l
1,2-Dibromoethane	1.0l	UI	1.0l
1,2-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloroethane	1.0l	UI	1.0l
1,2-Dichloroethane, Total	.0l	UI	.0l
1,2-Dichloropropane	1.0l	UI	1.0l
1,3,5-Trimethylbenzene	1.0l	UI	1.0l
1,3-Dichlorobenzene	1.0l	UI	1.0l
1,3-Dichloropropane	1.0l	UI	1.0l
1,4-Dichlorobenzene	1.0l	UI	1.0l
1,2-Dichloropropane	1.0l	UI	1.0l
n-Butane	10l	UI	10l
m-Cresol	1.0l	UI	1.0l
n-Hexane	10l	UI	10l
4-Chlorotoluene	1.0l	UI	1.0l
4-Methyl-2-pentanone	10l	UI	10l
Acetone	5	UI	5l
Benzene	1.0l	UI	1.0l
Bromobenzene	1.0l	UI	1.0l
Bromochloromethane	1.0l	UI	1.0l
Bromodichloromethane	1.0l	UI	1.0l
Bromoform	1.0l	UI	1.0l
Bromomethane	1.0l	UI	1.0l
Carbon disulfide	.0l	UI	.0l
Carbon tetrachloride	1.0l	UI	1.0l
Chlorobenzene	1.0l	UI	1.0l
Chloroethane	1.0l	UI	1.0l
Chloroform	1.0l	UI	1.0l
Chloromethane	1.0l	UI	1.0l
cis-1,2-Dichloroethane	1.0l	UI	1.0l
cis-1,3-Dichloropropane	1.0l	UI	1.0l
Dibromochloromethane	1.0l	UI	1.0l
Dibromomethane	1.0l	UI	1.0l
Dichlorodifluoromethane	1.0l	UI	1.0l
Diethyl ether	10l	UI	10l



Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Client Sample ID:M Trip Blank:

L2b Sample ID: 680-62923-4b  
 Client Matrix: rl

DI Sample ID: 11/05/10 0001  
 DI Received: 11/06/10 103 4b

8260B Volatile Organic Compounds (GC/MS)M

Method: 8260B Analysis Batch: 680-18609#b Instrument ID: MSP  
 PrepTrieon: 5030B L2b File ID: p0137.d  
 Dilution: 1.0 Initial Inj Volume: 5 mL  
 DI Analyzed: 11/13/10 1216 Final Inj Volume: 5 mL  
 DI Prepped: 11/13/10 1216

Analyte	Result (ug/L)	Qualifier	RL2
Ethylbenzene	1.0	UI	1.0
Hexachlorobutadiene	1.0	UI	1.0
Isopropylbenzene	1.0	UI	1.0
Methyl tert-butyl ether	10	UI	10
Methylene Chloride	5.0	UI	5.0
m-Xylene & p-Xylene	.0	UI	.0
Naphthalene	5.0	UI	5.0
n-Butylbenzene	1.0	UI	1.0
N-Propylbenzene	1.0	UI	1.0
o-Xylene	1.0	UI	1.0
p-Isopropyltoluene	1.0	UI	1.0
sec-Butylbenzene	1.0	UI	1.0
Styrene	1.0	UI	1.0
tert-Butylbenzene	1.0	UI	1.0
Tetrachloroethene	1.0	UI	1.0
Toluene	1.0	UI	1.0
trans-1,2-Dichloroethene	1.0	UI	1.0
trans-1,3-Dichloropropene	1.0	UI	1.0
Trichloroethene	1.0	UI	1.0
Trichlorofluoromethane	1.0	U*	1.0
Vinyl acetate	.0	UI	.0
Vinyl chloride	1.0	UI	1.0
Xylenes, Total	.0	UI	.0

Surrogate	%Recl	Qualifier	Acceptance Limits
4-Bromofluorobenzene	0		75 - 120
Dibromofluoromethane			75 - 121
Toluene-d8 (Surrogate)	8		75 - 120

Dh T: REPORT NM M LIF ERSh

Client: ARCADIS U.S., Inc.

Job Number: 680-62923-11

Lab Sectionp	u alifierM	Descriptionp
GC/MS VOAL		
	U	icates the analyte was analyzed for but not detected.L
	*L	CS or LCSD exceeds the control limitsL
	EL	Result exceeded calibration range.L
	*L	RPD of the LCS and LCSD exceeds the control limitsL

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

Method Blank - Batch: 680-185994I

L5b SLmpl5 IDL MB 680-1L5994L13T  
 CliLnt MLt ix5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L12M010 1201L  
 DLt5 PFp. d, 11L12M010 1201L

An5lysis Batchb 680-1L5994L  
 PFp Batch: N/A5  
 UnitsF ug/L5

Method: 8260BI  
 Preparation: 5030BI

Inst5ment IDL MSO2M  
 L5b . il5 IDL oq210.d,  
 InitiLl WJight5/volume.: 5 mL5  
 in5l WJight5/volume.: 5 mL5

An lyt5	R sult5	Qu l5	RL5
1,1,1,2-TLt5 chloroethab5	1.0.	U	1.0.
1,1,1-Tlchloroethab5	1.0.	U	1.0.
1,1,2,2-TLt5 chloroethab5	1.0.	U	1.0.
1,1,2-Tlchloroethab5	1.0.	U	1.0.
1,1-Dichloroethab5	1.0.	U	1.0.
1,1-Dichloroethbn5	1.0.	U	1.0.
1,1-Dichloropropen5	1.0.	U	1.0.
1,2,3-Tlchlorobenz5n5	1.0.	U	1.0.
1,2,3-Tlchloroprop. n5	1.0.	U	1.0.
1,2,4-Tlchlorobenz5n5	1.0.	U	1.0.
1,2,4-Tlimethylbenz5n5	1.0.	U	1.0.
1,2-Dibromo-3-Chloroprop. n5	1.0.	U	1.0.
1,2-Dibromoethab5	1.0.	U	1.0.
1,2-Dichlorobenz5n5	1.0.	U	1.0.
1,2-Dichloroethab5	1.0.	U	1.0.
1,2-Dichloroethbn5, Tot5l5	2.0.	UL	2.0.
1,2-Dichloroprop. n5	1.0.	U	1.0.
1,3,5-Tlimethylbenz5n5	1.0.	U	1.0.
1,3-Dichlorobenz5n5	1.0.	U	1.0.
1,3-Dichloroprop. n5	1.0.	U	1.0.
1,4-Dichlorobenz5n5	1.0.	U	1.0.
2,2-Dichloroprop. n5	1.0.	U	1.0.
2-But5non5	10.	UL	10.
2-Chlorotoluen5	1.0.	U	1.0.
2-H x non5	10.	UL	10.
4-Chlorotoluen5	1.0.	U	1.0.
4-MLthyl-2-pent5non5	10.	UL	10.
Ac ton5	25b	UL	25b
B nz n5	1.0.	U	1.0.
Btombenz5n5	1.0.	U	1.0.
Btomochloromethab5	1.0.	U	1.0.
Btomodichloromethab5	1.0.	U	1.0.
Btomofom.	1.0.	U	1.0.
Btomomethab5	1.0.	U	1.0.
C5 bon disulfid,	2.0.	UL	2.0.
C5 bon t5t5 chlorid,	1.0.	U	1.0.
Chlorobenz5n5	1.0.	U	1.0.
Chloroethab5	1.0.	U	1.0.
Chloroform.	1.0.	U	1.0.
Chloromethab5	1.0.	U	1.0.
cis-1,2-Dichloroethbn5	1.0.	U	1.0.
cis-1,3-Dichloropropen5	1.0.	U	1.0.
Dibromochloromethab5	1.0.	U	1.0.

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-185994I**

L5b SLmpl5 IDL MB 680-1L5994L13T  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L12M010 1201L  
 DLt5 PFp. d, 11L12M010 1201L

An5lysis Batchb 680-1L5994L  
 PFp BatchbN.A5  
 UnitsF ug/L5

**Method: 8260BI  
 Preparation: 5030BI**

Instrument IDL MSO2M  
 L5b . il5 IDL oq210.d,  
 InitiL WJight5 Volume:. 5 mL5  
 in5l WJight5 Volume:. 5 mL5

An5lyt5	RLsult5	Qu. I5	RL5
Dibromomethab5	1.0.	UL	1.0.
Dichlorodifluoromethab5	1.0.	UL	1.0.
DiLthyl ethb	10.	UL	10.
Ethylbenz5n5	1.0.	UL	1.0.
HLx5chlorobut5diLn5	1.0.	UL	1.0.
Isopropylbenz5n5	1.0.	UL	1.0.
MLthyl t5 t-butyl ethb	10.	UL	10.
MLthyl5n5 Chlorid,	5.0.	UL	5.0.
m-Xyl5n5 & p-Xyl5n5	2.0.	UL	2.0.
N. phthal5n5	5.0.	UL	5.0.
n-Butylbenz5n5	1.0.	UL	1.0.
N-Pföpylbenz5n5	1.0.	UL	1.0.
o-Xyl5n5	1.0.	UL	1.0.
p-Isopropyltoluen5	1.0.	UL	1.0.
sFc-Butylbenz5n5	1.0.	UL	1.0.
StyMn5	1.0.	UL	1.0.
t5 t-Butylbenz5n5	1.0.	UL	1.0.
Tlt5 chloroethbn5	1.0.	UL	1.0.
Toluen5	1.0.	UL	1.0.
t5 ns-1,2-Dichloroethbn5	1.0.	UL	1.0.
t5 ns-1,3-Dichloropropen5	1.0.	UL	1.0.
Tlchloroethbn5	1.0.	UL	1.0.
Tlchlorofluoromethab5	1.0.	UL	1.0.
Vinyl . cLt5t5	2.0.	UL	2.0.
Vinyl chlorid,	1.0.	UL	1.0.
Xyl5n5s, Tot5l5	2.0.	UL	2.0.

SurrogFt5	% RLcL	Acclp t5ncL LimitsF
4-Bömofluorobenz5n5	92M	75 - 120.
Dibromofluoromethab5	109L	75 - 121L
Toluen5 d, (Surr)L	105b	75 - 120.

Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-185994I

Method: 8260BI  
Preparation: 5030BI

LCS L5b SLmpI5 IDL LCS 680-1L5994L10. An5lysis Batchb 680-1L5994L Instrument IDL MSO2M  
 CliLnt MLt5x5 WJt5 PFp BatchbN.A5 L5b . il5 IDL oq202.d,  
 Dilution5 1.0. UnitsF ugFL5 InitiLI WJight/volume:. 5 mL5  
 DLt5 An5lyz5d, 11L12M010 1007L in5l WJight/volume:. 5 mL5  
 DLt5 PFp. d, 11L12M010 1007L

LCSD L5b SLmpI5 IDL LCSD 680-1L5994L11L An5lysis Batchb 680-1L5994L Instrument IDL MSO2M  
 CliLnt MLt5x5 WJt5 PFp BatchbN.A5 L5b . il5 IDL oq204.d,  
 Dilution5 1.0. UnitsF ugFL5 InitiLI WJight/volume:. 5 mL5  
 DLt5 An5lyz5d, 11L12M010 103T in5l WJight/volume:. 5 mL5  
 DLt5 PFp. d, 11L12M010 103T

An5lyt5	% RLC.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
1,1,1,2-TLt5 chloroethab5	100.	9L	1 - 12M	2M	30.		
1,1,1-Tlchloroethab5	9L	9L	7L- 127L	2M	30.		
1,1,2,2-TLt5 chloroethab5	9L	94L	9 - 129L	2M	30.		
1,1,2-Tlchloroethab5	90.		75 - 121L	4L	30.		
1,1-Dichloroethab5	95b	101L	74 - 127L		30.		
1,1-Dichloroethbn5	9L	97L	2 - 141L	1L	30.		
1,1-Dichloropropen5	99L	102M	77 - 122M	3T	30.		
1,2,3-Tlchlorobenz5n5	109L	107L	0 - 132M	2M	30.		
1,2,3-Tlchloroprop. n5	99L	9L	70 - 130.	1L	30.		
1,2,4-Tlchlorobenz5n5	110.	109L	0 - 135b	1L	30.		
1,2,4-Tlimethylbenz5n5	107L	105b	72 - 132M	1L	30.		
1,2-Dibromo-3-Chloroprop. n5	105b	99L	49 - 1406.		30.		
1,2-Dibromoethab5	97L	93T	0 - 121L	5b	30.		
1,2-Dichlorobenz5n5	102M	102M	79 - 124L	1L	30.		
1,2-Dichloroethab5	95b	93T	- 132M	3T	30.		
1,2-Dichloroethbn5, Tot5I5	100.	102M	- 134L	3T	30.		
1,2-Dichloroprop. n5	91L	90.	73 - 124L	0.	30.		
1,3,5-Tlimethylbenz5n5	102M	101L	72 - 133T	1L	30.		
1,3-Dichlorobenz5n5	104L	101L	7L- 125b	3T	30.		
1,3-Dichloroprop. n5	9L	93T	75 - 120.	3T	30.		
1,4-Dichlorobenz5n5	104L	102M	1 - 122M	2M	30.		
2,2-Dichloroprop. n5	108.	109L	55 - 157L	1L	30.		
2-But5non5	90.	93T	33 - 157L	4L	30.		
2-Chlorotoluen5	104L	104L	2 - 123T	0.	30.		
2-HLx5non5	9L	9L	34 - 1L1L	3T	30.		
4-Chlorotoluen5	103T	102M	3 - 122M	1L	30.		
4-MLthyl-2-pent5non5	95b	92M	40 - 151L	3T	30.		
AcLton5	9L	90.	17 - 175b		50.		
Bbnz5n5	91L	93T	77 - 119L	2M	30.		
Bbmobenz5n5	107L	105b	0 - 124L	2M	30.		
Bbmochloromethab5	93T	95b	10 - 150.	2M	30.		
Bbmodichloromethab5	94L	95b	7L- 127L	0.	30.		
Bbmoform.	99L	9L	2 - 133T	1L	30.		

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-185994I**

**Method: 8260BI**

**Preparation: 5030BI**

LCS L5b SLmpI5 IDL	LCS 680-1L5994L10.	An5lysis Batchb 680-1L5994L	Instūment IDL MSO2M
CiLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL oq202.d,
Dilution5	1.0.	UnitsF ugfl.5	InitiLI WJight/volume:. 5 mL5
DLt5 An5lyz5d,	11L12M010 1007L		in5l WJight/volume:. 5 mL5
DLt5 PFp. d,	11L12M010 1007L		

LCSD L5b SLmpI5 IDL	LCSD 680-1L5994L11L	An5lysis Batchb 680-1L5994L	Instūment IDL MSO2M
CiLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL oq204.d,
Dilution5	1.0.	UnitsF ugfl.5	InitiLI WJight/volume:. 5 mL5
DLt5 An5lyz5d,	11L12M010 103T		in5l WJight/volume:. 5 mL5
DLt5 PFp. d,	11L12M010 103T		

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
Bromomethab5	9L	9L	12 - 1L4L	2M	50.		
C5 bon disulfid,	91L	90.	55 - 131L	1L	30.		
C5 bon t5t5 chlorid,	9L	9L	71 - 135b	0.	30.		
Chlorobenz5n5	102M	100.	5 - 11L	2M	30.		
Chloroethab5	9L	97L	40 - 1L5b	1L	50.		
Chloroform.	99L	104L	2 - 120.	5b	30.		
Chloromethab5	101L	7L	4L- 142M	15b	50.		
cis-1,2-Dichloroethbn5	9L	104L	9 - 134L		30.		
cis-1,3-Dichloropropen5	99L	99L	7L- 12M	0.	30.		
Dibromochloromethab5	106.	102M	75 - 133T	4L	30.		
Dibromomethab5	92M	91L	7L- 119L	1L	30.		
Dichlorodifluoromethab5	101L	103T	34 - 154L	2M	30.		
Ethylbenz5n5	104L	102M	- 11L	2M	30.		
HLx5chlorobut5diLn5	122M	117L	2 - 142M	4L	30.		
Isopropylbenz5n5	9L	9L	2 - 121L	0.	30.		
MLthyl t5 t-butyl ethb	97L	97L	77 - 121L	1L	30.		
MLthyl5n5 Chlorid,	95b	95b	70 - 125b	0.	30.		
m-Xyl5n5 & p-Xyl5n5	103T	101L	3 - 11L	2M	30.		
N. phthal5n5	104L	102M	4L- 135b	2M	30.		
n-Butylbenz5n5	102M	102M	4 - 13T	0.	30.		
N-Pföpylbenz5n5	109L	109L	0 - 12M	0.	30.		
o-Xyl5n5	100.	99L	3 - 119L	2M	30.		
p-Isopropyltoluen5	104L	103T	3 - 139L	1L	30.		
sFc-Butylbenz5n5	107L	105b	77 - 12M	1L	30.		
StyMn5	102M	100.	2 - 122M	2M	30.		
t5 t-Butylbenz5n5	104L	101L	0 - 124L	3T	30.		
TLt5 chloroethbn5	108.	105b	7L- 12M	3T	30.		
Toluen5	94L	92M	1 - 117L	2M	30.		
t5 ns-1,2-Dichloroethbn5	101L	101L	72 - 131L	1L	30.		
t5 ns-1,3-Dichloropropen5	102M	9L	73 - 12M	4L	30.		
Tlichloroethbn5	101L	100.	4 - 115b	1L	30.		
Tlichlorofluoromethab5	9L	93T	5b- 149L	3T	50.		
Vinyl . clt5t5	7L		10 - 217L	2M	30.		

**Quality Control Results**

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-185994I**

**Method: 8260BI  
Preparation: 5030BI**

LCS L5b SLmpI5 IDL LCS 680-1L5994L10.  
 CliLnt MLt ix5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L12M010 1007L  
 DLt5 PFp. d, 11L12M010 1007L

An5lysis Batchb 680-1L5994L  
 PFp Batch: N/A5  
 UnitsF ug/L5

Instūment IDL MSO2M  
 L5b . il5 IDL oq202.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5I WJight/volume:. 5 mL5

LCSD L5b SLmpI5 IDL LCSD 680-1L5994L11L  
 CliLnt MLt ix5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L12M010 103T  
 DLt5 PFp. d, 11L12M010 103T

An5lysis Batchb 680-1L5994L  
 PFp Batch: N/A5  
 UnitsF ug/L5

Instūment IDL MSO2M  
 L5b . il5 IDL oq204.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5I WJight/volume:. 5 mL5

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LC5L	LC5DL					
Vinyl chlorid,	101L	97L	59 - 144L	4L	50.		
Xyl5n5s, Tot5I5	102M	101L	4 - 11L	2M	30.		
SurrogFt5	LCS % RLcL		LCSD % RLcL		Acclp t5ncL LimitsF		
4-Bromofluorobenz5n5	91L		91L		75 - 120.		
Dibromofluoromethab5	97L		103T		75 - 121L		
Toluen5 d, (Surr)	97		94		L 75 - 120. L		

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-1860271**

**Method: 8260BI**  
**Preparation: 5030BI**

L5b SLmpl5 IDL MB 680-1L0 27L24L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L12M010 1210.  
 DLt5 PFp. d, 11L12M010 1210.

An5lysis Batchb 680-1L0 27L  
 PFp BatchbN.A5  
 UnitsF ug/L5

Inst5ment IDL MSPF  
 L5b . il5 IDL pq373.d,  
 InitiL WJight5/Volume:. 5 mL5  
 in5l WJight5/Volume:. 5 mL5

An lyt5	R sult5	Qu I5	RL5
1,1,1,2-TLt5 chloroethab5	1.0.	U	1.0.
1,1,1-Tlchloroethab5	1.0.	U	1.0.
1,1,2,2-TLt5 chloroethab5	1.0.	U	1.0.
1,1,2-Tlchloroethab5	1.0.	U	1.0.
1,1-Dichloroethab5	1.0.	U	1.0.
1,1-Dichloroethbn5	1.0.	U	1.0.
1,1-Dichloropropen5	1.0.	U	1.0.
1,2,3-Tlchlorobenz5n5	1.0.	U	1.0.
1,2,3-Tlchloroprop. n5	1.0.	U	1.0.
1,2,4-Tlchlorobenz5n5	1.0.	U	1.0.
1,2,4-Tlimethylbenz5n5	1.0.	U	1.0.
1,2-Dibromo-3-Chloroprop. n5	1.0.	U	1.0.
1,2-Dibromoethab5	1.0.	U	1.0.
1,2-Dichlorobenz5n5	1.0.	U	1.0.
1,2-Dichloroethab5	1.0.	U	1.0.
1,2-Dichloroethbn5, Tot5l5	2.0.	UL	2.0.
1,2-Dichloroprop. n5	1.0.	U	1.0.
1,3,5-Tlimethylbenz5n5	1.0.	U	1.0.
1,3-Dichlorobenz5n5	1.0.	U	1.0.
1,3-Dichloroprop. n5	1.0.	U	1.0.
1,4-Dichlorobenz5n5	1.0.	U	1.0.
2,2-Dichloroprop. n5	1.0.	U	1.0.
2-But5non5	10.	UL	10.
2-Chlorotoluen5	1.0.	U	1.0.
2-H x non5	10.	UL	10.
4-Chlorotoluen5	1.0.	U	1.0.
4-MLthyl-2-pent5non5	10.	UL	10.
Ac ton5	25b	UL	25b
B nz n5	1.0.	U	1.0.
Bromobenz5n5	1.0.	U	1.0.
Bromochloromethab5	1.0.	U	1.0.
Bromodichloromethab5	1.0.	U	1.0.
Bromoform.	1.0.	U	1.0.
Bromomethab5	1.0.	U	1.0.
C5 bon disulfid,	2.0.	UL	2.0.
C5 bon t5t5 chlorid,	1.0.	U	1.0.
Chlorobenz5n5	1.0.	U	1.0.
Chloroethab5	1.0.	U	1.0.
Chloroform.	1.0.	U	1.0.
Chloromethab5	1.0.	U	1.0.
cis-1,2-Dichloroethbn5	1.0.	U	1.0.
cis-1,3-Dichloropropen5	1.0.	U	1.0.
Dibromochloromethab5	1.0.	U	1.0.



## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-1860271**

L5b SLmpl5 IDL MB 680-1L0 27L24L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L12M010 1210.  
 DLt5 PFp. d, 11L12M010 1210.

An5lysis Batchb 680-1L0 27L  
 PFp BatchbN.A5  
 UnitsF ug/L5

**Method: 8260BI  
 Preparation: 5030BI**

Inst5ment IDL MSPF  
 L5b . il5 IDL pq373.d,  
 InitiLl WJight5/Volume:. 5 mL5  
 in5l WJight5/Volume:. 5 mL5

An5lyt5	RLsult5	Qu. I5	RL5
Dibromomethab5	1.0.	U	1.0.
Dichlorodifluoromethab5	1.0.	U	1.0.
DiLthyl ethb	10.	UL	10.
Ethylbenz5n5	1.0.	U	1.0.
HLx5chlorobut5diLn5	1.0.	U	1.0.
Isopropylbenz5n5	1.0.	U	1.0.
MLthyl t5 t-butyl ethb	10.	UL	10.
MLthyl5n5 Chlorid,	5.0.	UL	5.0.
m-Xyl5n5 & p-Xyl5n5	2.0.	UL	2.0.
N. phthal5n5	5.0.	UL	5.0.
n-Butylbenz5n5	1.0.	U	1.0.
N-Pf5pylbenz5n5	1.0.	U	1.0.
o-Xyl5n5	1.0.	U	1.0.
p-Isopropyltoluen5	1.0.	U	1.0.
sFc-Butylbenz5n5	1.0.	U	1.0.
StyMn5	1.0.	U	1.0.
t5 t-Butylbenz5n5	1.0.	U	1.0.
Tl5 chloroethbn5	1.0.	U	1.0.
Toluen5	1.0.	U	1.0.
t5 ns-1,2-Dichloroethbn5	1.0.	U	1.0.
t5 ns-1,3-Dichloropropen5	1.0.	U	1.0.
Tlchloroethbn5	1.0.	U	1.0.
Tlchlorofluoromethab5	1.0.	U	1.0.
Vinyl . clt5t5	2.0.	UL	2.0.
Vinyl chlorid,	1.0.	U	1.0.
Xyl5n5s, Tot5l5	2.0.	UL	2.0.

SurrogFt5	% RLcL	Acclp t5ncL LimitsF
4-B5mofluorobenz5n5	92M	75 - 120.
Dibromofluoromethab5	9L	75 - 121L
Toluen5 d, (Surr)	87	75 - 120. L

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-1860271**

**Method: 8260BI**

**Preparation: 5030BI**

LCS L5b SLmpI5 IDL	LCS 680-1L0 27L21L	An5lysis Batchb 680-1L0 27L	Instūment IDL MSPF
CliLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL pq3T5.d,
Dilution5	1.0.	UnitsF ugfl5	InitiLI WJight/volume:. 5 mL5
DLt5 An5lyz5d,	11L12M010 1015b		in5l WJight/volume:. 5 mL5
DLt5 PFp. d,	11L12M010 1015b		

LCSD L5b SLmpI5 IDL	LCSD 680-1L0 27L22M	An5lysis Batchb 680-1L0 27L	Instūment IDL MSPF
CliLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL pq3T7.d,
Dilution5	1.0.	UnitsF ugfl5	InitiLI WJight/volume:. 5 mL5
DLt5 An5lyz5d,	11L12M010 1045b		in5l WJight/volume:. 5 mL5
DLt5 PFp. d,	11L12M010 1045b		

An5lyt5	% RLC.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
1,1,1,2-TLt5 chloroethab5	101L	105b	1 - 12M	4L	30.		
1,1,1-Tlchloroethab5	105b	110.	7L- 127L	4L	30.		
1,1,2,2-TLt5 chloroethab5	9L	93T	9 - 129L	5b	30.		
1,1,2-Tlchloroethab5	91L	92M	75 - 121L	1L	30.		
1,1-Dichloroethab5	101L	105b	74 - 127L	4L	30.		
1,1-Dichloroethbn5	109L	112M	2 - 141L	3T	30.		
1,1-Dichloropropen5	104L	107L	77 - 122M	2M	30.		
1,2,3-Tlchlorobenz5n5	1L	5b	0 - 132M	5b	30.		
1,2,3-Tlchloroprop. n5		91L	70 - 130.	7L	30.		
1,2,4-Tlchlorobenz5n5		9L	0 - 135b	3T	30.		
1,2,4-Tlimethylbenz5n5	95b	99L	72 - 132M	4L	30.		
1,2-Dibromo-3-Chloroprop. n5	90.	92M	49 - 140.	2M	30.		
1,2-Dibromoethab5	91L	94L	0 - 121L	4L	30.		
1,2-Dichlorobenz5n5	9L	100.	79 - 124L	2M	30.		
1,2-Dichloroethab5	91L	95b	- 132M	5b	30.		
1,2-Dichloroethbn5, Tot5I5	102M	107L	- 134L	5b	30.		
1,2-Dichloroprop. n5	95b	97L	73 - 124L	2M	30.		
1,3,5-Tlimethylbenz5n5	95b	100.	72 - 133T	5b	30.		
1,3-Dichlorobenz5n5	9L	99L	7L- 125b	3T	30.		
1,3-Dichloroprop. n5	90.	95b	75 - 120.	4L	30.		
1,4-Dichlorobenz5n5	9L	100.	1 - 122M	2M	30.		
2,2-Dichloroprop. n5	110.	112M	55 - 157L	2M	30.		
2-But5non5	90.	9L	33 - 157L	7L	30.		
2-Chlorotoluen5	9L	100.	2 - 123T	3T	30.		
2-HLx5non5	91L	94L	34 - 1L1L	3T	30.		
4-Chlorotoluen5	97L	100.	3 - 122M	3T	30.		
4-MLthyl-2-pent5non5	9L	94L	40 - 151L	5b	30.		
AcLton5	94L	107L	17 - 175b	13T	50.		
Bbnz5n5	97L	101L	77 - 119L	3T	30.		
Btōmobenz5n5	9L	100.	0 - 124L	4L	30.		
Btōmochloromethab5	90.	97L	10 - 1508.		30.		
Btōmodichloromethab5	97L	101L	7L- 127L	4L	30.		
Btōmoform.	101L	104L	2 - 133T	3T	30.		

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-1860271**

**Method: 8260BI**

**Preparation: 5030BI**

LCS L5b SLmpI5 IDL	LCS 680-1L0 27L21L	An5lysis Batchb 680-1L0 27L	Instūment IDL MSPF
CliLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL pq3T5.d,
Dilution5	1.0.	UnitsF ugFL5	InitiLI WJight5/Volume: 5 mL5
DLt5 An5lyz5d,	11L12M010 1015b		in5l WJight5/Volume: 5 mL5
DLt5 PFp. d,	11L12M010 1015b		

LCSD L5b SLmpI5 IDL	LCSD 680-1L0 27L22M	An5lysis Batchb 680-1L0 27L	Instūment IDL MSPF
CliLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL pq3T7.d,
Dilution5	1.0.	UnitsF ugFL5	InitiLI WJight5/Volume: 5 mL5
DLt5 An5lyz5d,	11L12M010 1045b		in5l WJight5/Volume: 5 mL5
DLt5 PFp. d,	11L12M010 1045b		

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LC5L	LC5DL					
Bromomethab5	7L	5b	12 - 1L4L	12M	50.		
C5 bon disulfid,	106.	111L	55 - 131L	5b	30.		
C5 bon t5t5 chlorid,	115b	115b	71 - 135b	0.	30.		
Chlorobenz5n5	9L	100.	5 - 11L	4L	30.		
Chloroethab5	99L	108.	40 - 1L5b	9L	50.		
Chloroform.	99L	103T	2 - 120.	4L	30.		
Chloromethab5	99L	101L	4L- 142M	1L	50.		
cis-1,2-Dichloroethbn5	99L	103T	9 - 134L	4L	30.		
cis-1,3-Dichloropropen5	9L	102M	7L- 12M	4L	30.		
Dibromochloromethab5	100.	104L	75 - 133T	3T	30.		
Dibromomethab5	91L	97L	7L- 119L	7L	30.		
Dichlorodifluoromethab5	103T	109L	34 - 154L		30.		
DiLthyl ethb	11L	112M	70 - 130.	4L	30.		
Ethylbenz5n5	9L	100.	- 11L	4L	30.		
HLx5chlorobut5diLn5	101L	106.	2 - 142M	4L	30.		
Isopropylbenz5n5	102M	105b	2 - 121L	2M	30.		
MLthyl t5 t-butyl ethb	9L	103T	77 - 121L		30.		
MLthyl5n5 Chlorid,	97L	103T	70 - 125b		30.		
m-Xyl5n5 & p-Xyl5n5	99L	103T	3 - 11L	4L	30.		
N. phthal5n5	75b	79L	4L- 135b	5b	30.		
n-Butylbenz5n5	95b	9L	4 - 13T	3T	30.		
N-Pfōpylbenz5n5	102M	104L	0 - 12M	2M	30.		
o-Xyl5n5	97L	101L	3 - 119L	4L	30.		
p-Isopropyltoluen5	9L	99L	3 - 139L	3T	30.		
sFc-Butylbenz5n5	97L	101L	77 - 12M	4L	30.		
StyMn5	9L	101L	2 - 122M	3T	30.		
t5 t-Butylbenz5n5	101L	104L	0 - 124L	2M	30.		
TLt5 chloroethbn5	106.	110.	7L- 12M	4L	30.		
Toluen5	99L	102M	1 - 117L	3T	30.		
t5 ns-1,2-Dichloroethbn5	105b	110.	72 - 131L	5b	30.		
t5 ns-1,3-Dichloropropen5	9L	102M	73 - 12M	4L	30.		
Tlchloroethbn5	101L	105b	4 - 115b	3T	30.		
Tlchlorofluoromethab5	155b	1L1L	5b- 149L	3T	50.	*L	*L

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-1860271**

**Method: 8260BI  
Preparation: 5030BI**

LCS L5b SLmpI5 IDL	LCS 680-1L0 27L21L	An5lysis Batchb 680-1L0 27L	Instūment IDL	MSPF
CliLnt MLt ix5	WJt5	PFp Batch: N/A5	L5b . il5 IDL	pq3T5.d,
Dilution5	1.0.	UnitsF ugfl5	InitiLI WJight/volume:.	5 mL5
DLt5 An5lyz5d,	11L12M010 1015b		in5l WJight/volume:.	5 mL5
DLt5 PFp. d,	11L12M010 1015b			

LCSD L5b SLmpI5 IDL	LCSD 680-1L0 27L22M	An5lysis Batchb 680-1L0 27L	Instūment IDL	MSPF
CliLnt MLt ix5	WJt5	PFp Batch: N/A5	L5b . il5 IDL	pq3T7.d,
Dilution5	1.0.	UnitsF ugfl5	InitiLI WJight/volume:.	5 mL5
DLt5 An5lyz5d,	11L12M010 1045b		in5l WJight/volume:.	5 mL5
DLt5 PFp. d,	11L12M010 1045b			

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
Vinyl . clt5t5	106.	111L	10 - 217L	5b	30.		
Vinyl chlorid,	109L	115b	59 - 144L	5b	50.		
Xyl5n5s, Tot5I5	9L	102M	4 - 11L	4L	30.		
SurrogFt5	LCS % RLcL		LCSD % RLcL		Acclp t5ncL LimitsF		
4-Bromofluorobenz5n5	91L		94L		75 - 120.		
Dibromofluoromethab5	9L		106.		75 - 121L		
Toluen5 d, (Surr)L	9L		103T		75 - 120.		

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-1860311**

**Method: 8260BI**

**Preparation: 5030BI**

L5b SLmpl5 IDL MB 680-1L0 31L20.  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L12M010 1255b  
 DLt5 PFp. d, 11L12M010 1255b

An5lysis Batchb 680-1L0 31L  
 PFp BatchbN.A5  
 UnitsF ug/L5

Inst5ment IDL MSP2M  
 L5b . il5 IDL pq374.d,  
 InitiLl WJight5/Volume:. 5 mL5  
 in5l WJight5/Volume:. 5 mL5

An5lyt5	RLsult5	Qu. I5	RL5
1,1,1,2-TLt5 chloroethab5	1.0.	U	1.0.
1,1,1-Tlchloroethab5	1.0.	U	1.0.
1,1,2,2-TLt5 chloroethab5	1.0.	U	1.0.
1,1,2-Tlchloroethab5	1.0.	U	1.0.
1,1-Dichloroethab5	1.0.	U	1.0.
1,1-Dichloroethbn5	1.0.	U	1.0.
1,1-Dichloropropen5	1.0.	U	1.0.
1,2,3-Tlchlorobenz5n5	1.0.	U	1.0.
1,2,3-Tlchloroprop. n5	1.0.	U	1.0.
1,2,4-Tlchlorobenz5n5	1.0.	U	1.0.
1,2,4-Tlimethylbenz5n5	1.0.	U	1.0.
1,2-Dibromo-3-Chloroprop. n5	1.0.	U	1.0.
1,2-Dibromoethab5	1.0.	U	1.0.
1,2-Dichlorobenz5n5	1.0.	U	1.0.
1,2-Dichloroethab5	1.0.	U	1.0.
1,2-Dichloroethbn5, Tot5l5	2.0.	UL	2.0.
1,2-Dichloroprop. n5	1.0.	U	1.0.
1,3,5-Tlimethylbenz5n5	1.0.	U	1.0.
1,3-Dichlorobenz5n5	1.0.	U	1.0.
1,3-Dichloroprop. n5	1.0.	U	1.0.
1,4-Dichlorobenz5n5	1.0.	U	1.0.
2,2-Dichloroprop. n5	1.0.	U	1.0.
2-But5non5	10.	UL	10.
2-Chlorotoluen5	1.0.	U	1.0.
2-H x non5	10.	UL	10.
4-Chlorotoluen5	1.0.	U	1.0.
4-MLthyl-2-pent5non5	10.	UL	10.
Ac ton5	25b	UL	25b
B nz n5	1.0.	U	1.0.
Bromobenz5n5	1.0.	U	1.0.
Bromochloromethab5	1.0.	U	1.0.
Bromodichloromethab5	1.0.	U	1.0.
Bromoform.	1.0.	U	1.0.
Bromomethab5	1.0.	U	1.0.
C5 bon disulfid,	2.0.	UL	2.0.
C5 bon t5t5 chlorid,	1.0.	U	1.0.
Chlorobenz5n5	1.0.	U	1.0.
Chloroethab5	1.0.	U	1.0.
Chloroform.	1.0.	U	1.0.
Chloromethab5	1.0.	U	1.0.
cis-1,2-Dichloroethbn5	1.0.	U	1.0.
cis-1,3-Dichloropropen5	1.0.	U	1.0.
Dibromochloromethab5	1.0.	U	1.0.

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-1860311**

L5b SLmpl5 IDL MB 680-1L0 31L20.  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L12M010 1255b  
 DLt5 PFp. d, 11L12M010 1255b

An5lysis Batchb 680-1L0 31L  
 PFp BatchbN.A5  
 UnitsF ug/L5

**Method: 8260BI  
 Preparation: 5030BI**

Inst5ment IDL MSP2M  
 L5b . il5 IDL pq374.d,  
 InitiL WJight5/Volume:. 5 mL5  
 in5l WJight5/Volume:. 5 mL5

An5lyt5	RLsult5	Qu. I5	RL5
Dibromomethab5	1.0.	UL	1.0.
Dichlorodifluoromethab5	1.0.	UL	1.0.
DiLthyl ethb	10.	UL	10.
Ethylbenz5n5	1.0.	UL	1.0.
HLx5chlorobut5diLn5	1.0.	UL	1.0.
Isopropylbenz5n5	1.0.	UL	1.0.
MLthyl t5 t-butyl ethb	10.	UL	10.
MLthyl5n5 Chlorid,	5.0.	UL	5.0.
m-Xyl5n5 & p-Xyl5n5	2.0.	UL	2.0.
N. phthal5n5	5.0.	UL	5.0.
n-Butylbenz5n5	1.0.	UL	1.0.
N-Pföpylbenz5n5	1.0.	UL	1.0.
o-Xyl5n5	1.0.	UL	1.0.
p-Isopropyltoluen5	1.0.	UL	1.0.
sFc-Butylbenz5n5	1.0.	UL	1.0.
StyMn5	1.0.	UL	1.0.
t5 t-Butylbenz5n5	1.0.	UL	1.0.
TLt5 chloroethbn5	1.0.	UL	1.0.
Toluen5	1.0.	UL	1.0.
t5 ns-1,2-Dichloroethbn5	1.0.	UL	1.0.
t5 ns-1,3-Dichloropropen5	1.0.	UL	1.0.
Tlchloroethbn5	1.0.	UL	1.0.
Tlchlorofluoromethab5	1.0.	UL	1.0.
Vinyl . cLt5t5	2.0.	UL	2.0.
Vinyl chlorid,	1.0.	UL	1.0.
Xyl5n5s, Tot5l5	2.0.	UL	2.0.

SurrogFt5	% RLcL	Acclp t5ncL LimitsF
4-Bömofluorobenz5n5	102M	75 - 120.
Dibromofluoromethab5	101L	75 - 121L
Toluen5 d, (Surr)L	105b	75 - 120.

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-1860311**

**Method: 8260BI  
Preparation: 5030BI**

LCS L5b SLmpI5 IDL	LCS 680-1L0 31L1L	An5lysis Batchb 680-1L0 31L	Instūment IDL	MSP2M
CliLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL	pq3T .d,
Dilution5	1.0.	UnitsF ugFL5	InitiLI WJight/Volume:.	5 mL5
DLt5 An5lyz5d,	11L12M010 1030.		in5l WJight/Volume:.	5 mL5
DLt5 PFp. d,	11L12M010 1030.			

LCSD L5b SLmpI5 IDL	LCSD 680-1L0 31L1L	An5lysis Batchb 680-1L0 31L	Instūment IDL	MSP2M
CliLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL	pq3T .d,
Dilution5	1.0.	UnitsF ugFL5	InitiLI WJight/Volume:.	5 mL5
DLt5 An5lyz5d,	11L12M010 1127L		in5l WJight/Volume:.	5 mL5
DLt5 PFp. d,	11L12M010 1127L			

An5lyt5	% RLC.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
1,1,1,2-TLt5 chloroethab5	103T	9L	1 - 12M		30.		
1,1,1-Tlichloroethab5	11L	108.	7L- 127L	7L	30.		
1,1,2,2-TLt5 chloroethab5	111L	102M	9 - 129L		30.		
1,1,2-Tlichloroethab5	109L	101L	75 - 121L	7L	30.		
1,1-Dichloroethab5	111L	101L	74 - 127L	10.	30.		
1,1-Dichloroethbn5	114L	102M	2 - 141L	10.	30.		
1,1-Dichloropropen5	114L	108.	77 - 122M		30.		
1,2,3-Tlichlorobenz5n5	110.	100.	0 - 132M	9L	30.		
1,2,3-Tlichloroprop. n5	111L	102M	70 - 130.	9L	30.		
1,2,4-Tlichlorobenz5n5	109L	100.	0 - 135b		30.		
1,2,4-Timethylbenz5n5	112M	104L	72 - 132M	7L	30.		
1,2-Dibromo-3-Chloroprop. n5	114L	100.	49 - 140.	13T	30.		
1,2-Dibromoethab5	110.	102M	0 - 121L		30.		
1,2-Dichlorobenz5n5	110.	103T	79 - 124L	7L	30.		
1,2-Dichloroethab5	103T	9L	- 132M	7L	30.		
1,2-Dichloroethbn5, Tot5I5	110.	104L	- 134L	5b	30.		
1,2-Dichloroprop. n5	105b	99L	73 - 124L	7L	30.		
1,3,5-Timethylbenz5n5	114L	105b	72 - 133T		30.		
1,3-Dichlorobenz5n5	110.	104L	7L- 125b		30.		
1,3-Dichloroprop. n5	107L	100.	75 - 120.	7L	30.		
1,4-Dichlorobenz5n5	111L	104L	1 - 122M		30.		
2,2-Dichloroprop. n5	120.	109L	55 - 157L	9L	30.		
2-But5non5	109L	100.	33 - 157L		30.		
2-Chlorotoluen5	108.	103T	2 - 123T	5b	30.		
2-HLx5non5	107L	99L	34 - 1L1L		30.		
4-Chlorotoluen5	1108.	101L	3 - 122M		30.		
4-MLthyl-2-pent5non5	105b	99L	40 - 151L		30.		
AcLton5	108.	9L	17 - 175b	9L	50.		
Bbnz5n5	108.	101L	77 - 119L	7L	30.		
Bbmobenz5n5	109L	101L	0 - 124L	7L	30.		
Bbmochloromethab5	11L	95b	10 - 150.	20.	30.		
Bbmodichloromethab5	110.	102M	7L- 127L	7L	30.		
Bbmoform.	113T	105b	2 - 133T	7L	30.		

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-1860311**

**Method: 8260BI**

**Preparation: 5030BI**

LCS L5b SLmpI5 IDL	LCS 680-1L0 31L1L	An5lysis Batchb 680-1L0 31L	Instūment IDL	MSP2M
CiLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL	pq3T .d,
Dilution5	1.0.	UnitsF ugFL5	InitiLI WJight/Volume:.	5 mL5
DLt5 An5lyz5d,	11L12M010 1030.		in5l WJight/Volume:.	5 mL5
DLt5 PFp. d,	11L12M010 1030.			

LCSD L5b SLmpI5 IDL	LCSD 680-1L0 31L1L	An5lysis Batchb 680-1L0 31L	Instūment IDL	MSP2M
CiLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL	pq3T .d,
Dilution5	1.0.	UnitsF ugFL5	InitiLI WJight/Volume:.	5 mL5
DLt5 An5lyz5d,	11L12M010 1127L		in5l WJight/Volume:.	5 mL5
DLt5 PFp. d,	11L12M010 1127L			

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
Bromomethab5	49L	1L	12 - 1L4L	22M	50.		
C5 bon disulfid,	113T	103T	55 - 131L	9L	30.		
C5 bon t5t5 chlorid,	107L	9L	71 - 135b	9L	30.		
Chlorobenz5n5	108.	103T	5 - 11L	5b	30.		
Chloroethab5	9L	7L	40 - 1L5b	2M	50.		
Chloroform.	108.	101L	2 - 120.	7L	30.		
Chloromethab5	5b		4L- 142M	2M	50.		
cis-1,2-Dichloroethbn5	109L	103T	9 - 134L		30.		
cis-1,3-Dichloropropen5	112M	105b	7L- 12M	7L	30.		
Dibromochloromethab5	114L	106.	75 - 133T		30.		
Dibromomethab5	104L	9L	7L- 119L		30.		
Dichlorodifluoromethab5	107L	99L	34 - 154L		30.		
DiLthyl ethb	100.	97L	70 - 130.	4L	30.		
Ethylbenz5n5	110.	101L	- 11L	9L	30.		
HLx5chlorobut5diLn5	122M	113T	2 - 142M		30.		
Isopropylbenz5n5	114L	106.	2 - 121L	7L	30.		
MLthyl t5 t-butyl ethb	113T	107L	77 - 121L		30.		
MLthyl5n5 Chlorid,	99L	93T	70 - 125b	7L	30.		
m-Xyl5n5 & p-Xyl5n5	111L	104L	3 - 11L	7L	30.		
N. phthal5n5	112M	102M	4L- 135b	9L	30.		
n-Butylbenz5n5	122M	112M	4 - 13T		30.		
N-Pfōpylbenz5n5	113T	107L	0 - 12M		30.		
o-Xyl5n5	109L	104L	3 - 119L	5b	30.		
p-Isopropyltoluen5	112M	104L	3 - 139L	7L	30.		
sFc-Butylbenz5n5	114L	105b	77 - 12M	9L	30.		
StyMn5	111L	104L	2 - 122M	7L	30.		
t5 t-Butylbenz5n5	11L	107L	0 - 124L		30.		
TLt5 chloroethbn5	122M	112M	7L- 12M		30.		
Toluen5	104L	97L	1 - 117L	7L	30.		
t5 ns-1,2-Dichloroethbn5	111L	106.	72 - 131L	5b	30.		
t5 ns-1,3-Dichloropropen5	101L	93T	73 - 12M	9L	30.		
Tlchloroethbn5	114L	105b	4 - 115b	9L	30.		
Tlchlorofluoromethab5	113T	99L	5b- 149L	13T	50.		



**Quality Control Results**

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-1860311**

**Method: 8260BI  
Preparation: 5030BI**

LCS L5b SLmpl5 IDL LCS 680-1L0 31L17L  
 CliLnt MLt ix5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L12M010 1030.  
 DLt5 PFp. d, 11L12M010 1030.

An5lysis Batchb 680-1L0 31L  
 PFp Batch: N/A5  
 UnitsF ugfl5

Instūment IDL MSP2M  
 L5b . il5 IDL pq3T .d,  
 InitiLI WJight/volume:. 5 mL5  
 in5l WJight/volume:. 5 mL5

LCSD L5b SLmpl5 IDL LCSD 680-1L0 31L1L  
 CliLnt MLt ix5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L12M010 1127L  
 DLt5 PFp. d, 11L12M010 1127L

An5lysis Batchb 680-1L0 31L  
 PFp Batch: N/A5  
 UnitsF ugfl5

Instūment IDL MSP2M  
 L5b . il5 IDL pq3T .d,  
 InitiLI WJight/volume:. 5 mL5  
 in5l WJight/volume:. 5 mL5

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
Vinyl . clt5t5	130.	117L	10 - 217L	10.	30.		
Vinyl chlorid,	110.	104L	59 - 144L	5b	50.		
Xyl5n5s, Tot5l5	111L	104L	4 - 11L	7L	30.		
SurrogFt5	LCS % RLcL		LCSD % RLcL		Acclp t5ncL LimitsF		
4-Bromofluorobenz5n5	104L		9L		75 - 120.		
Dibromofluoromethab5	109L		100.		75 - 121L		
Toluen5 d, (Surr)L	104L		9L		75 - 120.		

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-186055I**

L5b SLmpl5 IDL MB 680-1L0 55t22M  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T010 1154L  
 DLt5 PFp. d, 11L13T010 1154L

An5lysis Batchb 680-1L0 55b  
 PFp BatchbN.A5  
 UnitsF ug/L5

**Method: 8260BI  
 Preparation: 5030BI**

Inst5ment IDL MSOL  
 L5b . il5 IDL oq223.d,  
 InitiLl WJight5/Volume:. 5 mL5  
 in5l WJight5/Volume:. 5 mL5

An lyt5	R sult5	Qu l5	RL5
1,1,1,2-TLt5 chloroethab5	1.0.	U	1.0.
1,1,1-Tlchloroethab5	1.0.	U	1.0.
1,1,2,2-TLt5 chloroethab5	1.0.	U	1.0.
1,1,2-Tlchloroethab5	1.0.	U	1.0.
1,1-Dichloroethab5	1.0.	U	1.0.
1,1-Dichloroethbn5	1.0.	U	1.0.
1,1-Dichloroprop5	1.0.	U	1.0.
1,2,3-Tlchlorobenz5n5	1.0.	U	1.0.
1,2,3-Tlchloroprop. n5	1.0.	U	1.0.
1,2,4-Tlchlorobenz5n5	1.0.	U	1.0.
1,2,4-Tlimethylbenz5n5	1.0.	U	1.0.
1,2-Dibromo-3-Chloroprop. n5	1.0.	U	1.0.
1,2-Dibromoethab5	1.0.	U	1.0.
1,2-Dichlorobenz5n5	1.0.	U	1.0.
1,2-Dichloroethab5	1.0.	U	1.0.
1,2-Dichloroethbn5, Tot5l5	2.0.	UL	2.0.
1,2-Dichloroprop. n5	1.0.	U	1.0.
1,3,5-Tlimethylbenz5n5	1.0.	U	1.0.
1,3-Dichlorobenz5n5	1.0.	U	1.0.
1,3-Dichloroprop. n5	1.0.	U	1.0.
1,4-Dichlorobenz5n5	1.0.	U	1.0.
2,2-Dichloroprop. n5	1.0.	U	1.0.
2-But5non5	10.	UL	10.
2-Chlorotoluen5	1.0.	U	1.0.
2-H x non5	10.	UL	10.
4-Chlorotoluen5	1.0.	U	1.0.
4-MLthyl-2-pent5non5	10.	UL	10.
Ac ton5	25b	UL	25b
B nz n5	1.0.	U	1.0.
Btombenz5n5	1.0.	U	1.0.
Btomochloromethab5	1.0.	U	1.0.
Btomodichloromethab5	1.0.	U	1.0.
Btomofom.	1.0.	U	1.0.
Btomomethab5	1.0.	U	1.0.
C5 bon disulfid,	2.0.	UL	2.0.
C5 bon t5t5 chlorid,	1.0.	U	1.0.
Chlorobenz5n5	1.0.	U	1.0.
Chloroethab5	1.0.	U	1.0.
Chloroform.	1.0.	U	1.0.
Chloromethab5	1.0.	U	1.0.
cis-1,2-Dichloroethbn5	1.0.	U	1.0.
cis-1,3-Dichloroprop5	1.0.	U	1.0.
Dibromochloromethab5	1.0.	U	1.0.

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-186055I**

L5b SLmpl5 IDL MB 680-1L0 55t22M  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T2010 1154L  
 DLt5 PFp. d, 11L13T2010 1154L

An5lysis Batchb 680-1L0 55b  
 PFp BatchbN.A5  
 UnitsF ug/L5

**Method: 8260BI  
 Preparation: 5030BI**

Inst5ment IDL MSOL  
 L5b . il5 IDL oq223.d,  
 InitiL WJight5/Volume:. 5 mL5  
 in5l WJight5/Volume:. 5 mL5

An5lyt5	RLsult5	Qu. I5	RL5
Dibromomethab5	1.0.	U	1.0.
Dichlorodifluoromethab5	1.0.	U	1.0.
DiLthyl ethb	10.	UL	10.
Ethylbenz5n5	1.0.	U	1.0.
HLx5chlorobut5diLn5	1.0.	U	1.0.
Isopropylbenz5n5	1.0.	U	1.0.
MLthyl t5 t-butyl ethb	10.	UL	10.
MLthyl5n5 Chlorid,	5.0.	UL	5.0.
m-Xyl5n5 & p-Xyl5n5	2.0.	UL	2.0.
N. phthal5n5	5.0.	UL	5.0.
n-Butylbenz5n5	1.0.	U	1.0.
N-Pf5pylbenz5n5	1.0.	U	1.0.
o-Xyl5n5	1.0.	U	1.0.
p-Isopropyltoluen5	1.0.	U	1.0.
sFc-Butylbenz5n5	1.0.	U	1.0.
StyMn5	1.0.	U	1.0.
t5 t-Butylbenz5n5	1.0.	U	1.0.
TLt5 chloroethbn5	1.0.	U	1.0.
Toluen5	1.0.	U	1.0.
t5 ns-1,2-Dichloroethbn5	1.0.	U	1.0.
t5 ns-1,3-Dichloropropen5	1.0.	U	1.0.
Tlchloroethbn5	1.0.	U	1.0.
Tlchlorofluoromethab5	1.0.	U	1.0.
Vinyl . cLt5t5	2.0.	UL	2.0.
Vinyl chlorid,	1.0.	U	1.0.
Xyl5n5s, Tot5l5	2.0.	UL	2.0.

SurrogFt5	% RLcL	Acclp t5ncL LimitsF
4-B5mofluorobenz5n5	91L	75 - 120.
Dibromofluoromethab5	94L	75 - 121L
Toluen5 d, (Surr)L	92M	75 - 120.

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-1860551**

**Method: 8260BI**

**Preparation: 5030BI**

LCS L5b SLmpI5 IDL	LCS 680-1L0 55b19L	An5lysis Batchb 680-1L0 55b	Instūment IDL MSOL
CliLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL oq215.d,
Dilution5	1.0.	UnitsF ugfl.5	InitiLI WJight/volume:. 5 mL5
DLt5 An5lyz5d,	11L13T2010 0959L		in5l WJight/volume:. 5 mL5
DLt5 PFp. d,	11L13T2010 0959L		

LCSD L5b SLmpI5 IDL	LCSD 680-1L0 55b20.	An5lysis Batchb 680-1L0 55b	Instūment IDL MSOL
CliLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL oq217.d,
Dilution5	1.0.	UnitsF ugfl.5	InitiLI WJight/volume:. 5 mL5
DLt5 An5lyz5d,	11L13T2010 102M		in5l WJight/volume:. 5 mL5
DLt5 PFp. d,	11L13T2010 102M		

An5lyt5	% RLC.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
1,1,1,2-TLt5 chloroethab5	104L	105b	1 - 12M	1L	30.		
1,1,1-Tlchloroethab5	9L	100.	7L- 127L	2M	30.		
1,1,2,2-TLt5 chloroethab5	97L	9L	9 - 129L	1L	30.		
1,1,2-Tlchloroethab5	93T	9L	75 - 121L	3T	30.		
1,1-Dichloroethab5	100.	100.	74 - 127L	0.	30.		
1,1-Dichloroethbn5	906.	144L	2 - 141L	47L	30.		*L
1,1-Dichloropropen5	100.	99L	77 - 122M	1L	30.		
1,2,3-Tlchlorobenz5n5	111L	113T	0 - 132M	1L	30.		
1,2,3-Tlchloroprop. n5	106.	106.	70 - 130.	0.	30.		
1,2,4-Tlchlorobenz5n5	92M	91L	0 - 135b	1L	30.		
1,2,4-Tlimethylbenz5n5	108.	105b	72 - 132M	3T	30.		
1,2-Dibromo-3-Chloroprop. n5	99L	108.	49 - 140.	9L	30.		
1,2-Dibromoethab5	9L	9L	0 - 121L	1L	30.		
1,2-Dichlorobenz5n5	9L	93T	79 - 124L	3T	30.		
1,2-Dichloroethab5	9L	9L	- 132M	0.	30.		
1,2-Dichloroethbn5, Tot5I5	100.	99L	- 134L	1L	30.		
1,2-Dichloroprop. n5	9L	9L	73 - 124L	1L	30.		
1,3,5-Tlimethylbenz5n5	109L	106.	72 - 133T	3T	30.		
1,3-Dichlorobenz5n5	104L	103T	7L- 125b	1L	30.		
1,3-Dichloroprop. n5	93T	94L	75 - 120.	1L	30.		
1,4-Dichlorobenz5n5	106.	101L	1 - 122M	4L	30.		
2,2-Dichloroprop. n5	108.	106.	55 - 157L	2M	30.		
2-But5non5	91L	91L	33 - 157L	0.	30.		
2-Chlorotoluen5	106.	104L	2 - 123T	1L	30.		
2-HLx5non5	101L	102M	34 - 1L1	1L	30.		
4-Chlorotoluen5	104L	103T	3 - 122M	1L	30.		
4-MLthyl-2-pent5non5	94L	9L	40 - 151L	2M	30.		
AcLton5	1L	91L	17 - 175b	11L	50.		
Bbnz5n5	97L	9L	77 - 119L	1L	30.		
Bbmobenz5n5	107L	108.	0 - 124L	0.	30.		
Bbmochloromethab5	9L	95b	10 - 150.	1L	30.		
Bbmodichloromethab5	9L	100.	7L- 127L	2M	30.		
Bbmoform.	111L	111L	2 - 133T	0.	30.		

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-1860551**

**Method: 8260BI**

**Preparation: 5030BI**

LCS L5b SLmpI5 IDL	LCS 680-1L0 55b19L	An5lysis Batchb 680-1L0 55b	Instūment IDL MSOL
CliLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL oq215.d,
Dilution5	1.0.	UnitsF ugfl.5	InitiLI WJight/volume:. 5 mL5
DLt5 An5lyz5d,	11L13T2010 0959L		in5l WJight/volume:. 5 mL5
DLt5 PFp. d,	11L13T2010 0959L		

LCSD L5b SLmpI5 IDL	LCSD 680-1L0 55b20.	An5lysis Batchb 680-1L0 55b	Instūment IDL MSOL
CliLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL oq217.d,
Dilution5	1.0.	UnitsF ugfl.5	InitiLI WJight/volume:. 5 mL5
DLt5 An5lyz5d,	11L13T2010 102M		in5l WJight/volume:. 5 mL5
DLt5 PFp. d,	11L13T2010 102M		

An5lyt5	% RLC.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
Bromomethab5	14L	1L1L	12 - 1L4L	9L	50.		
C5 bon disulfid,	4L	7L	55 - 131L	10.	30.		
C5 bon t5t5 chlorid,	102M	103T	71 - 135b	1L	30.		
Chlorobenz5n5	102M	100.	5 - 11L	2M	30.		
Chloroethab5	13T	13T	40 - 1L5b	1L	50.		
Chloroform.	104L	104L	2 - 120.	1L	30.		
Chloromethab5	100.	9L	4L- 142M	1L	50.		
cis-1,2-Dichloroethbn5	101L	103T	9 - 134L	2M	30.		
cis-1,3-Dichloropropen5	101L	102M	7L- 12M	2M	30.		
Dibromochloromethab5	105b	106.	75 - 133T	1L	30.		
Dibromomethab5	94L	94L	7L- 119L	1L	30.		
Dichlorodifluoromethab5	105b	108.	34 - 154L	3T	30.		
Ethylbenz5n5	106.	103T	- 11L	2M	30.		
HLx5chlorobut5diLn5	1106.	112M	2 - 142M	1L	30.		
Isopropylbenz5n5	111L	109L	2 - 121L	1L	30.		
MLthyl t5 t-butyl ethb	100.	94L	77 - 121L		30.		
MLthyl5n5 Chlorid,	93T		70 - 125b		30.		
m-Xyl5n5 & p-Xyl5n5	105b	101L	3 - 11L	3T	30.		
N. phthal5n5	102M	104L	4L- 135b	2M	30.		
n-Butylbenz5n5	111L	107L	4 - 13T	3T	30.		
N-Pföpylbenz5n5	108.	105b	0 - 12M	4L	30.		
o-Xyl5n5	109L	108.	3 - 119L	1L	30.		
p-Isopropyltoluen5	1106.	108.	3 - 139L	2M	30.		
sFc-Butylbenz5n5	108.	106.	77 - 12M	2M	30.		
StyMn5	104L	101L	2 - 122M	2M	30.		
t5 t-Butylbenz5n5	114L	109L	0 - 124L	4L	30.		
TLt5 chloroethbn5	104L	106.	7L- 12M	2M	30.		
Toluen5	99L	9L	1 - 117L	1L	30.		
t5 ns-1,2-Dichloroethbn5	99L	95b	72 - 131L	5b	30.		
t5 ns-1,3-Dichloropropen5	104L	104L	73 - 12M	1L	30.		
Tlichloroethbn5	9L	9L	4 - 115b	0.	30.		
Tlichlorofluoromethab5	90.	94L	5b- 149L	4L	50.		
Vinyl . cLt5t5	103T	100.	10 - 217L	3T	30.		

**Quality Control Results**

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-1860551**

**Method: 8260BI  
Preparation: 5030BI**

LCS L5b SLmpI5 IDL	LCS 680-1L0 55b19L	An5lysis Batchb	680-1L0 55b	Instūment IDL	MSOL
CliLnt MLt5x5	WJt5	PFp Batchb	N.A5	L5b . il5 IDL	oq215.d,
Dilution5	1.0.	UnitsF	ugfL5	InitiLI WJight/volume:.	5 mL5
DLt5 An5lyz5d,	11L13T2010 0959L			in5l WJight/volume:.	5 mL5
DLt5 PFp. d,	11L13T2010 0959L				

LCSD L5b SLmpI5 IDL	LCSD 680-1L0 55b20.	An5lysis Batchb	680-1L0 55b	Instūment IDL	MSOL
CliLnt MLt5x5	WJt5	PFp Batchb	N.A5	L5b . il5 IDL	oq217.d,
Dilution5	1.0.	UnitsF	ugfL5	InitiLI WJight/volume:.	5 mL5
DLt5 An5lyz5d,	11L13T2010 102M			in5l WJight/volume:.	5 mL5
DLt5 PFp. d,	11L13T2010 102M				

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
Vinyl chlorid,	103T	106.	59 - 144L	3T	50.		
Xyl5n5s, Tot5l5	106.	103T	4 - 11L	2M	30.		
SurrogFt5	LCS % RLcL		LCSD % RLcL		Acclp t5ncL LimitsF		
4-Bromofluorobenz5n5	9L		94L			75 - 120.	
Dibromofluoromethab5	94L		9L			75 - 121L	
Toluen5 d, (Surr)	94		94		L	75 - 120. L	

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-1860571**

L5b SLmpl5 IDL MB 680-1L0 57L21L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T010 1208.  
 DLt5 PFp. d, 11L13T010 1208.

An5lysis Batchb 680-1L0 57L  
 PFp BatchbN.A5  
 UnitsF ugFL5

**Method: 8260BI  
 Preparation: 5030BI**

Instrument IDL MSO2M  
 L5b . il5 IDL oq224.d,  
 InitiLI WJight5/Volume:. 5 mL5  
 in5I WJight5/Volume:. 5 mL5

An5lyt5	RLsult5	Qu. I5	RL5
1,1,1,2-TLt5 chloroethab5	1.0.	U	1.0.
1,1,1-Tlchloroethab5	1.0.	U	1.0.
1,1,2,2-TLt5 chloroethab5	1.0.	U	1.0.
1,1,2-Tlchloroethab5	1.0.	U	1.0.
1,1-Dichloroethab5	1.0.	U	1.0.
1,1-Dichloroethbn5	1.0.	U	1.0.
1,1-Dichloropropen5	1.0.	U	1.0.
1,2,3-Tlchlorobenz5n5	1.0.	U	1.0.
1,2,3-Tlchloroprop. n5	1.0.	U	1.0.
1,2,4-Tlchlorobenz5n5	1.0.	U	1.0.
1,2,4-Tlimethylbenz5n5	1.0.	U	1.0.
1,2-Dibromo-3-Chloroprop. n5	1.0.	U	1.0.
1,2-Dibromoethab5	1.0.	U	1.0.
1,2-Dichlorobenz5n5	1.0.	U	1.0.
1,2-Dichloroethab5	1.0.	U	1.0.
1,2-Dichloroethbn5, Tot5I5	2.0.	UL	2.0.
1,2-Dichloroprop. n5	1.0.	U	1.0.
1,3,5-Tlimethylbenz5n5	1.0.	U	1.0.
1,3-Dichlorobenz5n5	1.0.	U	1.0.
1,3-Dichloroprop. n5	1.0.	U	1.0.
1,4-Dichlorobenz5n5	1.0.	U	1.0.
2,2-Dichloroprop. n5	1.0.	U	1.0.
2-But5non5	10.	UL	10.
2-Chlorotoluen5	1.0.	U	1.0.
2-H x non5	10.	UL	10.
4-Chlorotoluen5	1.0.	U	1.0.
4-MLthyl-2-pent5non5	10.	UL	10.
Ac ton5	25b	UL	25b
B nz n5	1.0.	U	1.0.
Bromobenz5n5	1.0.	U	1.0.
Bromochloromethab5	1.0.	U	1.0.
Bromodichloromethab5	1.0.	U	1.0.
Bromoform.	1.0.	U	1.0.
Bromomethab5	1.0.	U	1.0.
C5 bon disulfid,	2.0.	UL	2.0.
C5 bon t5t5 chlorid,	1.0.	U	1.0.
Chlorobenz5n5	1.0.	U	1.0.
Chloroethab5	1.0.	U	1.0.
Chloroform.	1.0.	U	1.0.
Chloromethab5	1.0.	U	1.0.
cis-1,2-Dichloroethbn5	1.0.	U	1.0.
cis-1,3-Dichloropropen5	1.0.	U	1.0.
Dibromochloromethab5	1.0.	U	1.0.

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-1860571**

L5b SLmpl5 IDL MB 680-1L0 57L21L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T010 1208.  
 DLt5 PFp. d, 11L13T010 1208.

An5lysis Batchb 680-1L0 57L  
 PFp BatchbN.A5  
 UnitsF ug/L5

**Method: 8260BI  
 Preparation: 5030BI**

Instrument IDL MSO2M  
 L5b . il5 IDL oq224.d,  
 InitiL WJight5 Volume: 5 mL5  
 in5l WJight5 Volume: 5 mL5

An5lyt5	RLsult5	Qu. I5	RL5
Dibromomethab5	1.0.	UL	1.0.
Dichlorodifluoromethab5	1.0.	UL	1.0.
DiLthyl ethb	10.	UL	10.
Ethylbenz5n5	1.0.	UL	1.0.
HLx5chlorobut5diLn5	1.0.	UL	1.0.
Isopropylbenz5n5	1.0.	UL	1.0.
MLthyl t5 t-butyl ethb	10.	UL	10.
MLthyl5n5 Chlorid,	5.0.	UL	5.0.
m-Xyl5n5 & p-Xyl5n5	2.0.	UL	2.0.
N. phthal5n5	5.0.	UL	5.0.
n-Butylbenz5n5	1.0.	UL	1.0.
N-Pföpylbenz5n5	1.0.	UL	1.0.
o-Xyl5n5	1.0.	UL	1.0.
p-Isopropyltoluen5	1.0.	UL	1.0.
sFc-Butylbenz5n5	1.0.	UL	1.0.
StyMn5	1.0.	UL	1.0.
t5 t-Butylbenz5n5	1.0.	UL	1.0.
TLt5 chloroethbn5	1.0.	UL	1.0.
Toluen5	1.0.	UL	1.0.
t5 ns-1,2-Dichloroethbn5	1.0.	UL	1.0.
t5 ns-1,3-Dichloropropen5	1.0.	UL	1.0.
Tlchloroethbn5	1.0.	UL	1.0.
Tlchlorofluoromethab5	1.0.	UL	1.0.
Vinyl . cLt5t5	2.0.	UL	2.0.
Vinyl chlorid,	1.0.	UL	1.0.
Xyl5n5s, Tot5l5	2.0.	UL	2.0.

SurrogFt5	% RLcL	Acclp t5ncL LimitsF
4-Bömofluorobenz5n5		75 - 120.
Dibromofluoromethab5	99L	75 - 121L
Toluen5 d, (Surr)L	103T	75 - 120.



## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-1860571**

**Method: 8260BI**

**Preparation: 5030BI**

LCS L5b SLmpI5 IDL LCS 680-1L0 57L1L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T2010 1014L  
 DLt5 PFp. d, 11L13T2010 1014L

An5lysis Batchb 680-1L0 57L  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSO2M  
 L5b . il5 IDL oq21L.d,  
 InitiLI WJight/Volume:. 5 mL5  
 in5l WJight/Volume:. 5 mL5

LCSD L5b SLmpI5 IDL LCSD 680-1L0 57L19L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T2010 1042M  
 DLt5 PFp. d, 11L13T2010 1042M

An5lysis Batchb 680-1L0 57L  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSO2M  
 L5b . il5 IDL oq21L.d,  
 InitiLI WJight/Volume:. 5 mL5  
 in5l WJight/Volume:. 5 mL5

An5lyt5	% RLC.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LC5L	LC5DL					
1,1,1,2-TLt5 chloroethab5	102M	101L	1 - 12M	2M	30.		
1,1,1-Tlichloroethab5	99L	99L	7L- 127L	0.	30.		
1,1,2,2-TLt5 chloroethab5	102M	9L	9 - 129L		30.		
1,1,2-Tlichloroethab5	9L	93T	75 - 121L	3T	30.		
1,1-Dichloroethab5	9L	97L	74 - 127L	1L	30.		
1,1-Dichloroethbn5	93T	92M	2 - 141L	1L	30.		
1,1-Dichloropropen5	100.	103T	77 - 122M	2M	30.		
1,2,3-Tlichlorobenz5n5	114L	108.	0 - 132M	5b	30.		
1,2,3-Tlichloroprop. n5	106.	100.	70 - 1306.		30.		
1,2,4-Tlichlorobenz5n5	112M	109L	0 - 135b	3T	30.		
1,2,4-Timethylbenz5n5	110.	109L	72 - 132M	1L	30.		
1,2-Dibromo-3-Chloroprop. n5	103T	104L	49 - 140.	1L	30.		
1,2-Dibromoethab5	102M	101L	0 - 121L	1L	30.		
1,2-Dichlorobenz5n5	107L	106.	79 - 124L	2M	30.		
1,2-Dichloroethab5	9L	97L	- 132M	2M	30.		
1,2-Dichloroethbn5, Tot5I5	100.	9L	- 134L	2M	30.		
1,2-Dichloroprop. n5	95b	95b	73 - 124L	0.	30.		
1,3,5-Timethylbenz5n5	105b	104L	72 - 133T	1L	30.		
1,3-Dichlorobenz5n5	108.	104L	7L- 125b	4L	30.		
1,3-Dichloroprop. n5	101L	100.	75 - 120.	1L	30.		
1,4-Dichlorobenz5n5	108.	105b	1 - 122M	3T	30.		
2,2-Dichloroprop. n5	108.	104L	55 - 157L	3T	30.		
2-But5non5	9L	93T	33 - 157L	3T	30.		
2-Chlorotoluen5	108.	106.	2 - 123T	1L	30.		
2-HLx5non5	107L	103T	34 - 1L1	4L	30.		
4-Chlorotoluen5	105b	108.	3 - 122M	2M	30.		
4-MLthyl-2-pent5non5	99L	9L	40 - 151L	1L	30.		
AcLton5	9L	90.	17 - 175b	0.	50.		
Bbnz5n5	95b	9L	77 - 119L	1L	30.		
Bbmobenz5n5	109L	108.	0 - 124L	1L	30.		
Bbmochloromethab5	101L	97L	10 - 150.	4L	30.		
Bbmodichloromethab5	101L	99L	7L- 127L	2M	30.		
Bbmoform.	104L	104L	2 - 133T	0.	30.		

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-1860571**

**Method: 8260BI**

**Preparation: 5030BI**

LCS L5b SLmpI5 IDL	LCS 680-1L0 57L1L	An5lysis Batchb 680-1L0 57L	Instūment IDL MSO2M
CiLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL oq21L.d,
Dilution5	1.0.	UnitsF ugFL5	InitiLI WJight/volume:. 5 mL5
DLt5 An5lyz5d,	11L13T2010 1014L		in5l WJight/volume:. 5 mL5
DLt5 PFp. d,	11L13T2010 1014L		

LCSD L5b SLmpI5 IDL	LCSD 680-1L0 57L19L	An5lysis Batchb 680-1L0 57L	Instūment IDL MSO2M
CiLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL oq21L.d,
Dilution5	1.0.	UnitsF ugFL5	InitiLI WJight/volume:. 5 mL5
DLt5 An5lyz5d,	11L13T2010 1042M		in5l WJight/volume:. 5 mL5
DLt5 PFp. d,	11L13T2010 1042M		

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LC5L	LC5DL					
Bromomethab5	7L	9L	12 - 1L4L	20.	50.		
C5 bon disulfid,	7L	5b	55 - 131L	1L	30.		
C5 bon t5t5 chlorid,	99L	100.	71 - 135b	1L	30.		
Chlorobenz5n5	103T	103T	5 - 11L	1L	30.		
Chloroethab5	105b	108.	40 - 1L5b	3T	50.		
Chloroform.	104L	100.	2 - 120.	4L	30.		
Chloromethab5	102M	95b	4L- 142M		50.		
cis-1,2-Dichloroethbn5	102M	100.	9 - 134L	3T	30.		
cis-1,3-Dichloropropen5	105b	102M	7L- 12M	3T	30.		
Dibromochloromethab5	110.	107L	75 - 133T	3T	30.		
Dibromomethab5	97L	93T	7L- 119L	4L	30.		
Dichlorodifluoromethab5	101L	99L	34 - 154L	1L	30.		
Ethylbenz5n5	106.	104L	- 11L	1L	30.		
HLx5chlorobut5diLn5	123T	11L	2 - 142M	5b	30.		
Isopropylbenz5n5	92M	92M	2 - 121L	0.	30.		
MLthyl t5 t-butyl ethb	95b	94L	77 - 121L	1L	30.		
MLthyl5n5 Chlorid,	91L	90.	70 - 125b	2M	30.		
m-Xyl5n5 & p-Xyl5n5	107L	103T	3 - 11L	3T	30.		
N. phthal5n5	107L	102M	4L- 135b	4L	30.		
n-Butylbenz5n5	106.	104L	4 - 13T	1L	30.		
N-PFopylbenz5n5	112M	112M	0 - 12M	0.	30.		
o-Xyl5n5	103T	102M	3 - 119L	1L	30.		
p-Isopropyltoluen5	108.	105b	3 - 139L	3T	30.		
sFc-Butylbenz5n5	111L	108.	77 - 12M	3T	30.		
StyMn5	104L	102M	2 - 122M	2M	30.		
t5 t-Butylbenz5n5	106.	104L	0 - 124L	2M	30.		
TLt5 chloroethbn5	108.	107L	7L- 12M	1L	30.		
Toluen5	9L	97L	1 - 117L	1L	30.		
t5 ns-1,2-Dichloroethbn5	97L	95b	72 - 131L	1L	30.		
t5 ns-1,3-Dichloropropen5	106.	105b	73 - 12M	0.	30.		
Tlichloroethbn5	103T	103T	4 - 115b	0.	30.		
Tlichlorofluoromethab5	101L	100.	5b- 149L	1L	50.		
Vinyl . cLt5t5	90.		10 - 217L	3T	30.		

**Quality Control Results**

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-1860571**

**Method: 8260BI  
Preparation: 5030BI**

LCS L5b SLmpI5 IDL LCS 680-1L0 57L1L  
 CliLnt MLt ix5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T2010 1014L  
 DLt5 PFp. d, 11L13T2010 1014L

An5lysis Batchb 680-1L0 57L  
 PFp Batch: N/A5  
 UnitsF ugFL5

Instūment IDL MSO2M  
 L5b . il5 IDL oq21L.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5I WJight/volume:. 5 mL5

LCSD L5b SLmpI5 IDL LCSD 680-1L0 57L19L  
 CliLnt MLt ix5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T2010 1042M  
 DLt5 PFp. d, 11L13T2010 1042M

An5lysis Batchb 680-1L0 57L  
 PFp Batch: N/A5  
 UnitsF ugFL5

Instūment IDL MSO2M  
 L5b . il5 IDL oq21L.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5I WJight/volume:. 5 mL5

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
Vinyl chlorid,	9L	99L	59 - 144L	1L	50.		
Xyl5n5s, Tot5I5	106.	103T	4 - 11L	3T	30.		
SurrogFt5	LCS % RLcL		LCSD % RLcL		Acclp t5ncL LimitsF		
4-Bromofluorobenz5n5	92M		92M		75 - 120.		
Dibromofluoromethab5	103T		101L		75 - 121L		
Toluen5 d, (Surr)	99		100.		L 75 - 120.		

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-186094I**

**Method: 8260BI**

**Preparation: 5030BI**

L5b SLmpl5 IDL MB 680-1L0 94L1L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T010 1147L  
 DLt5 PFp. d, 11L13T010 1147L

An5lysis Batchb 680-1L0 94L  
 PFp BatchbN.A5  
 UnitsF ug/L5

Inst5ment IDL MSPF  
 L5b . il5 IDL pq3T7.d,  
 InitiLl WJight5/Volume:. 5 mL5  
 in5l WJight5/Volume:. 5 mL5

An lyt5	R sult5	Qu I5	RL5
1,1,1,2-TLt5 chloroethab5	1.0.	U	1.0.
1,1,1-Tlchloroethab5	1.0.	U	1.0.
1,1,2,2-TLt5 chloroethab5	1.0.	U	1.0.
1,1,2-Tlchloroethab5	1.0.	U	1.0.
1,1-Dichloroethab5	1.0.	U	1.0.
1,1-Dichloroethbn5	1.0.	U	1.0.
1,1-Dichloropropen5	1.0.	U	1.0.
1,2,3-Tlchlorobenz5n5	1.0.	U	1.0.
1,2,3-Tlchloroprop. n5	1.0.	U	1.0.
1,2,4-Tlchlorobenz5n5	1.0.	U	1.0.
1,2,4-Tlimethylbenz5n5	1.0.	U	1.0.
1,2-Dibromo-3-Chloroprop. n5	1.0.	U	1.0.
1,2-Dibromoethab5	1.0.	U	1.0.
1,2-Dichlorobenz5n5	1.0.	U	1.0.
1,2-Dichloroethab5	1.0.	U	1.0.
1,2-Dichloroethbn5, Tot5l5	2.0.	UL	2.0.
1,2-Dichloroprop. n5	1.0.	U	1.0.
1,3,5-Tlimethylbenz5n5	1.0.	U	1.0.
1,3-Dichlorobenz5n5	1.0.	U	1.0.
1,3-Dichloroprop. n5	1.0.	U	1.0.
1,4-Dichlorobenz5n5	1.0.	U	1.0.
2,2-Dichloroprop. n5	1.0.	U	1.0.
2-But5non5	10.	UL	10.
2-Chlorotoluen5	1.0.	U	1.0.
2-H x non5	10.	UL	10.
4-Chlorotoluen5	1.0.	U	1.0.
4-MLthyl-2-pent5non5	10.	UL	10.
Ac ton5	25b	UL	25b
B nz n5	1.0.	U	1.0.
Btombenz5n5	1.0.	U	1.0.
Btomochloromethab5	1.0.	U	1.0.
Btomodichloromethab5	1.0.	U	1.0.
Btomoform.	1.0.	U	1.0.
Btomomethab5	1.0.	U	1.0.
C5 bon disulfid,	2.0.	UL	2.0.
C5 bon t5t5 chlorid,	1.0.	U	1.0.
Chlorobenz5n5	1.0.	U	1.0.
Chloroethab5	1.0.	U	1.0.
Chloroform.	1.0.	U	1.0.
Chloromethab5	1.0.	U	1.0.
cis-1,2-Dichloroethbn5	1.0.	U	1.0.
cis-1,3-Dichloropropen5	1.0.	U	1.0.
Dibromochloromethab5	1.0.	U	1.0.

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-186094I**

L5b SLmpl5 IDL MB 680-1L0 94L1L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T010 1147L  
 DLt5 PFp. d, 11L13T010 1147L

An5lysis Batchb 680-1L0 94L  
 PFp BatchbN.A5  
 UnitsF ug/L5

**Method: 8260BI  
 Preparation: 5030BI**

Instrument IDL MSPF  
 L5b . il5 IDL pq3T7.d,  
 InitiL WJight5 Volume: 5 mL5  
 in5l WJight5 Volume: 5 mL5

An5lyt5	RLsult5	Qu. I5	RL5
Dibromomethab5	1.0.	U	11.0.
Dichlorodifluoromethab5	1.0.	U	11.0.
DiLthyl ethb	10.	UL	10.
Ethylbenz5n5	1.0.	U	11.0.
HLx5chlorobut5diLn5	1.0.	U	11.0.
Isopropylbenz5n5	1.0.	U	11.0.
MLthyl t5 t-butyl ethb	10.	UL	10.
MLthyl5n5 Chlorid,	5.0.	UL	5.0.
m-Xyl5n5 & p-Xyl5n5	2.0.	UL	2.0.
N. phthal5n5	5.0.	UL	5.0.
n-Butylbenz5n5	1.0.	U	11.0.
N-Pföpylbenz5n5	1.0.	U	11.0.
o-Xyl5n5	1.0.	U	11.0.
p-Isopropyltoluen5	1.0.	U	11.0.
sFc-Butylbenz5n5	1.0.	U	11.0.
StyMn5	1.0.	U	11.0.
t5 t-Butylbenz5n5	1.0.	U	11.0.
TLt5 chloroethbn5	1.0.	U	11.0.
Toluen5	1.0.	U	11.0.
t5 ns-1,2-Dichloroethbn5	1.0.	U	11.0.
t5 ns-1,3-Dichloropropen5	1.0.	U	11.0.
Tlchloroethbn5	1.0.	U	11.0.
Tlchlorofluoromethab5	1.0.	U	11.0.
Vinyl . cLt5t5	2.0.	UL	2.0.
Vinyl chlorid,	1.0.	U	11.0.
Xyl5n5s, Tot5l5	2.0.	UL	2.0.

SurrogFt5	% RLcL	Acclp t5ncL LimitsF
4-Bömofluorobenz5n5	91L	75 - 120.
Dibromofluoromethab5	9L	75 - 121L
Toluen5 d, (Surr)L	95b	75 - 120.

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-186094I**

**Method: 8260BI  
Preparation: 5030BI**

LCS L5b SLmpI5 IDL LCS 680-1L0 94L4L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T2010 0949L  
 DLt5 PFp. d, 11L13T2010 0949L

An5lysis Batchb 680-1L0 94L  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSPF  
 L5b . il5 IDL pq379.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5l WJight/volume:. 5 mL5

LCSD L5b SLmpI5 IDL LCSD 680-1L0 94L5b  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T2010 1019L  
 DLt5 PFp. d, 11L13T2010 1019L

An5lysis Batchb 680-1L0 94L  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSPF  
 L5b . il5 IDL pq3T1.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5l WJight/volume:. 5 mL5

An5lyt5	% RLC.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LC5L	LC5DL					
1,1,1,2-TLt5 chloroethab5	101L	100.	1 - 12M	1L	30.		
1,1,1-Tlchloroethab5	105b	102M	7L- 127L	3T	30.		
1,1,2,2-TLt5 chloroethab5		9L	9 - 129L	1L	30.		
1,1,2-Tlchloroethab5		90.	75 - 121L	2M	30.		
1,1-Dichloroethab5	101L	9L	74 - 127L	3T	30.		
1,1-Dichloroethbn5	109L	103T	2 - 141L		30.		
1,1-Dichloropropen5	102M	99L	77 - 122M	3T	30.		
1,2,3-Tlchlorobenz5n5	0.	1L	0 - 132M	1L	30.		
1,2,3-Tlchloroprop. n5		7L	70 - 130.	2M	30.		
1,2,4-Tlchlorobenz5n5	3T	2M	0 - 135b	1L	30.		
1,2,4-Tlimethylbenz5n5	95b	94L	72 - 132M	1L	30.		
1,2-Dibromo-3-Chloroprop. n5		7L	49 - 140.	1L	30.		
1,2-Dibromoethab5	91L		0 - 121L	3T	30.		
1,2-Dichlorobenz5n5	9L	97L	79 - 124L	2M	30.		
1,2-Dichloroethab5	92M	92M	- 132M	1L	30.		
1,2-Dichloroethbn5, Tot5I5	102M	100.	- 134L	2M	30.		
1,2-Dichloroprop. n5	93T	91L	73 - 124L	2M	30.		
1,3,5-Tlimethylbenz5n5	95b	92M	72 - 133T	3T	30.		
1,3-Dichlorobenz5n5	97L	97L	7L- 125b	0.	30.		
1,3-Dichloroprop. n5	90.	90.	75 - 120.	0.	30.		
1,4-Dichlorobenz5n5	9L	9L	1 - 122M	0.	30.		
2,2-Dichloroprop. n5	111L	106.	55 - 157L	5b	30.		
2-But5non5	94L	9L	33 - 157L	5b	30.		
2-Chlorotoluen5	9L	95b	2 - 123T	1L	30.		
2-HLx5non5	7L	90.	34 - 1L1L	3T	30.		
4-Chlorotoluen5	97L	95b	3 - 122M	2M	30.		
4-MLthyl-2-pent5non5	5b	7L	40 - 151L	2M	30.		
AcLton5	97L	101L	17 - 175b	4L	50.		
Bbnz5n5	97L	9L	77 - 119L	1L	30.		
Bbmobenz5n5	9L	9L	0 - 124L	1L	30.		
Bbmochloromethab5	93T	9L	10 - 150.	4L	30.		
Bbmodichloromethab5	97L	9L	7L- 127L	2M	30.		
Bbmoform.	101L	100.	2 - 133T	1L	30.		

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-186094I**

**Method: 8260BI**

**Preparation: 5030BI**

LCS L5b SLmpI5 IDL LCS 680-1L0 94I4L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T2010 0949L  
 DLt5 PFp. d, 11L13T2010 0949L

An5lysis Batchb 680-1L0 94L  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSPF  
 L5b . il5 IDL pq379.d,  
 InitiLI WJight5/Volume:. 5 mL5  
 in5I WJight5/Volume:. 5 mL5

LCSD L5b SLmpI5 IDL LCSD 680-1L0 94I5b  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T2010 1019L  
 DLt5 PFp. d, 11L13T2010 1019L

An5lysis Batchb 680-1L0 94L  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSPF  
 L5b . il5 IDL pq3T1.d,  
 InitiLI WJight5/Volume:. 5 mL5  
 in5I WJight5/Volume:. 5 mL5

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
Bromomethab5	0.	45b	12 - 1L4L	29L	50.		
C5 bon disulfid,	106.	100.	55 - 131L		30.		
C5 bon t5t5 chlorid,	112M	106.	71 - 135b	5b	30.		
Chlorobenz5n5	95b	95b	5 - 11L	0.	30.		
Chloroethab5	99L	9L	40 - 1L5b	2M	50.		
Chloroform.	100.	9L	2 - 120.	2M	30.		
Chloromethab5	92M	7L	4L- 142M		50.		
cis-1,2-Dichloroethbn5	99L	97L	9 - 134L	2M	30.		
cis-1,3-Dichloropropen5	9L	9L	7L- 12M	0.	30.		
Dibromochloromethab5	100.	9L	75 - 133T	2M	30.		
Dibromomethab5	91L	91L	7L- 119L	0.	30.		
Dichlorodifluoromethab5	99L		34 - 154L	12M	30.		
DiLthyl ethb	110.	112M	70 - 130.	2M	30.		
Ethylbenz5n5	97L	93T	- 11L	4L	30.		
HLx5chlorobut5diLn5	101L	97L	2 - 142M	4L	30.		
Isopropylbenz5n5	102M	99L	2 - 121L	3T	30.		
MLthyl t5 t-butyl ethb	99L	9L	77 - 121L	1L	30.		
MLthyl5n5 Chlorid,	9L	9L	70 - 125b	0.	30.		
m-Xyl5n5 & p-Xyl5n5	9L	9L	3 - 11L	1L	30.		
N. phthal5n5	71L	74L	4L- 135b	3T	30.		
n-Butylbenz5n5	93T	91L	4 - 13T	2M	30.		
N-Pfōpylbenz5n5	101L	99L	0 - 12M	2M	30.		
o-Xyl5n5	97L	9L	3 - 119L	1L	30.		
p-Isopropyltoluen5	9L	93T	3 - 139L	3T	30.		
sFc-Butylbenz5n5	9L	94L	77 - 12M	3T	30.		
StyMn5	9L	9L	2 - 122M	0.	30.		
t5 t-Butylbenz5n5	101L	9L	0 - 124L	3T	30.		
TLt5 chloroethbn5	106.	102M	7L- 12M	4L	30.		
Toluen5	9L	9L	1 - 117L	1L	30.		
t5 ns-1,2-Dichloroethbn5	105b	103T	72 - 131L	2M	30.		
t5 ns-1,3-Dichloropropen5	97L	9L	73 - 12M	1L	30.		
Tlchloroethbn5	101L	97L	4 - 115b	4L	30.		
Tlchlorofluoromethab5	151L	14L	5b- 149L	2M	50.		*L

**Quality Control Results**

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-186094I**

**Method: 8260BI  
Preparation: 5030BI**

LCS L5b SLmpl5 IDL LCS 680-1L0 94L4L  
 CliLnt MLt ix5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T2010 0949L  
 DLt5 PFp. d, 11L13T2010 0949L

An5lysis Batchb 680-1L0 94L  
 PFp Batch: N/A5  
 UnitsF ugFL5

Instūment IDL MSPF  
 L5b . il5 IDL pq379.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5l WJight/volume:. 5 mL5

LCSD L5b SLmpl5 IDL LCSD 680-1L0 94L5b  
 CliLnt MLt ix5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L13T2010 1019L  
 DLt5 PFp. d, 11L13T2010 1019L

An5lysis Batchb 680-1L0 94L  
 PFp Batch: N/A5  
 UnitsF ugFL5

Instūment IDL MSPF  
 L5b . il5 IDL pq3T1.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5l WJight/volume:. 5 mL5

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
Vinyl . cLt5t5	105b	105b	10 - 217L	1L	30.		
Vinyl chlorid,	107L	101L	59 - 144L	5b	50.		
Xyl5n5s, Tot5l5	9L	97L	4 - 11L	1L	30.		
SurrogFt5	LCS % RLcL		LCSD % RLcL		Acclp t5ncL LimitsF		
4-Bromofluorobenz5n5	90.		90.		75 - 120.		
Dibromofluoromethab5	100.		99L		75 - 121L		
Toluen5 d, (Surr)	97		95b		L 75 - 120.		



## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-1861471**

**Method: 8260BI**

**Preparation: 5030BI**

L5b SLmpl5 IDL MB 680-1L 147L11L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L14L2010 1235b  
 DLt5 PFp. d, 11L14L2010 1235b

An5lysis Batchb 680-1L 147L  
 PFp BatchbN.A5  
 UnitsF ug/L5

Inst5ment IDL MSOL  
 L5b . il5 IDL oq237.d,  
 InitiLl WJight5/Volume:. 5 mL5  
 in5l WJight5/Volume:. 5 mL5

An5lyt5	RLsult5	Qu. I5	RL5
1,1,1,2-TLt5 chloroethab5	1.0.	U	11.0.
1,1,1-Tlchloroethab5	1.0.	U	11.0.
1,1,2,2-TLt5 chloroethab5	1.0.	U	11.0.
1,1,2-Tlchloroethab5	1.0.	U	11.0.
1,1-Dichloroethab5	1.0.	U	11.0.
1,1-Dichloroethbn5	1.0.	U	11.0.
1,1-Dichloropropen5	1.0.	U	11.0.
1,2,3-Tlchlorobenz5n5	1.0.	U	11.0.
1,2,3-Tlchloroprop. n5	1.0.	U	11.0.
1,2,4-Tlchlorobenz5n5	1.0.	U	11.0.
1,2,4-Tlimethylbenz5n5	1.0.	U	11.0.
1,2-Dibromo-3-Chloroprop. n5	1.0.	U	11.0.
1,2-Dibromoethab5	1.0.	U	11.0.
1,2-Dichlorobenz5n5	1.0.	U	11.0.
1,2-Dichloroethab5	1.0.	U	11.0.
1,2-Dichloroethbn5, Tot5l5	2.0.	UL	2.0.
1,2-Dichloroprop. n5	1.0.	U	11.0.
1,3,5-Tlimethylbenz5n5	1.0.	U	11.0.
1,3-Dichlorobenz5n5	1.0.	U	11.0.
1,3-Dichloroprop. n5	1.0.	U	11.0.
1,4-Dichlorobenz5n5	1.0.	U	11.0.
2,2-Dichloroprop. n5	1.0.	U	11.0.
2-But5non5	10.	UL	10.
2-Chlorotoluen5	1.0.	U	11.0.
2-H x non5	10.	UL	10.
4-Chlorotoluen5	1.0.	U	11.0.
4-MLthyl-2-pent5non5	10.	UL	10.
Ac ton5	25b	UL	25b
B nz n5	1.0.	U	11.0.
Bromobenz5n5	1.0.	U	11.0.
Bromochloromethab5	1.0.	U	11.0.
Bromodichloromethab5	1.0.	U	11.0.
Bromoform.	1.0.	U	11.0.
Bromomethab5	1.0.	U	11.0.
C5 bon disulfid,	2.0.	UL	2.0.
C5 bon t5t5 chlorid,	1.0.	U	11.0.
Chlorobenz5n5	1.0.	U	11.0.
Chloroethab5	1.0.	U	11.0.
Chloroform.	1.0.	U	11.0.
Chloromethab5	1.0.	U	11.0.
cis-1,2-Dichloroethbn5	1.0.	U	11.0.
cis-1,3-Dichloropropen5	1.0.	U	11.0.
Dibromochloromethab5	1.0.	U	11.0.

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-1861471**

L5b SLmpl5 IDL MB 680-1L 147L11L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L14L2010 1235b  
 DLt5 PFp. d, 11L14L2010 1235b

An5lysis Batchb 680-1L 147L  
 PFp BatchbN.A5  
 UnitsF ug/L5

**Method: 8260BI  
 Preparation: 5030BI**

Inst5ment IDL MSOL  
 L5b . il5 IDL oq237.d,  
 InitiL WJight5/Volume: 5 mL5  
 in5l WJight5/Volume: 5 mL5

An5lyt5	RLsult5	Qu. I5	RL5
Dibromomethab5	1.0.	UL	1.0.
Dichlorodifluoromethab5	1.0.	UL	1.0.
DiLthyl ethb	10.	UL	10.
Ethylbenz5n5	1.0.	UL	1.0.
HLx5chlorobut5diLn5	1.0.	UL	1.0.
Isopropylbenz5n5	1.0.	UL	1.0.
MLthyl t5 t-butyl ethb	10.	UL	10.
MLthyl5n5 Chlorid,	5.0.	UL	5.0.
m-Xyl5n5 & p-Xyl5n5	2.0.	UL	2.0.
N. phthal5n5	5.0.	UL	5.0.
n-Butylbenz5n5	1.0.	UL	1.0.
N-Pf5pylbenz5n5	1.0.	UL	1.0.
o-Xyl5n5	1.0.	UL	1.0.
p-Isopropyltoluen5	1.0.	UL	1.0.
sFc-Butylbenz5n5	1.0.	UL	1.0.
StyMn5	1.0.	UL	1.0.
t5 t-Butylbenz5n5	1.0.	UL	1.0.
Tl5 chloroethbn5	1.0.	UL	1.0.
Toluen5	1.0.	UL	1.0.
t5 ns-1,2-Dichloroethbn5	1.0.	UL	1.0.
t5 ns-1,3-Dichloropropen5	1.0.	UL	1.0.
Tlchloroethbn5	1.0.	UL	1.0.
Tlchlorofluoromethab5	1.0.	UL	1.0.
Vinyl . clt5t5	2.0.	UL	2.0.
Vinyl chlorid,	1.0.	UL	1.0.
Xyl5n5s, Tot5l5	2.0.	UL	2.0.

SurrogFt5	% RLcL	Acclp t5ncL LimitsF
4-B5mofluorobenz5n5	91L	75 - 120.
Dibromofluoromethab5	90.	75 - 121L
Toluen5 d, (Surr)L	91	75 - 120. L

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-1861471**

**Method: 8260BI**

**Preparation: 5030BI**

LCS L5b SLmpI5 IDL LCS 680-1L 147L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L14I2010 1041L  
 DLt5 PFp. d, 11L14I2010 1041L

An5lysis Batchb 680-1L 147L  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSOL  
 L5b . il5 IDL oq229.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5I WJight/volume:. 5 mL5

LCSD L5b SLmpI5 IDL LCSD 680-1L 147L9L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L14I2010 1109L  
 DLt5 PFp. d, 11L14I2010 1109L

An5lysis Batchb 680-1L 147L  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSOL  
 L5b . il5 IDL oq231.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5I WJight/volume:. 5 mL5

An5lyt5	% RLC.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
1,1,1,2-TLt5 chloroethab5	104L	106.	1 - 12M	2M	30.		
1,1,1-Tlūchloroethab5	9L	100.	7L- 127L	2M	30.		
1,1,2,2-TLt5 chloroethab5	9L	94L	9 - 129L	3T	30.		
1,1,2-Tlūchloroethab5	97L	94L	75 - 121L	2M	30.		
1,1-Dichloroethab5	97L	97L	74 - 127L	0.	30.		
1,1-Dichloroethbn5	906.	3T	2 - 141L		30.		
1,1-Dichloropropen5	99L	9L	77 - 122M	0.	30.		
1,2,3-Tlūchlorobenz5n5	112M	111L	0 - 132M	1L	30.		
1,2,3-Tlūchloroprop. n5	106.	100.	70 - 1306.		30.		
1,2,4-Tlūchlorobenz5n5	95b	93T	0 - 135b	2M	30.		
1,2,4-Tlūmethylbenz5n5	104L	106.	72 - 132M	2M	30.		
1,2-Dibromo-3-Chloroprop. n5	108.	103T	49 - 140.	4L	30.		
1,2-Dibromoethab5	99L	95b	0 - 121L	4L	30.		
1,2-Dichlorobenz5n5	95b	94L	79 - 124L	1L	30.		
1,2-Dichloroethab5	99L	99L	- 132M	1L	30.		
1,2-Dichloroethbn5, Tot5I5	95b	9L	- 134L	2M	30.		
1,2-Dichloroprop. n5	94L	94L	73 - 124L	0.	30.		
1,3,5-Tlūmethylbenz5n5	105b	109L	72 - 133T	4L	30.		
1,3-Dichlorobenz5n5	102M	103T	7L- 125b	1L	30.		
1,3-Dichloroprop. n5	95b	93T	75 - 120.	2M	30.		
1,4-Dichlorobenz5n5	102M	105b	1 - 122M	3T	30.		
2,2-Dichloroprop. n5	106.	105b	55 - 157L	1L	30.		
2-But5non5	9L	91L	33 - 157L		30.		
2-Chlorotoluen5	104L	105b	2 - 123T	1L	30.		
2-HLx5non5	106.	101L	34 - 1L1L	5b	30.		
4-Chlorotoluen5	104L	105b	3 - 122M	0.	30.		
4-MLthyl-2-pent5non5	9L	94L	40 - 151L	4L	30.		
AcLton5	2M	77L	17 - 175b		50.		
Bbnz5n5	9L	95b	77 - 119L	1L	30.		
Btōmobenz5n5	106.	109L	0 - 124L	3T	30.		
Btōmochloromethab5	95b	95b	10 - 150.	0.	30.		
Btōmodichloromethab5	100.	97L	7L- 127L	3T	30.		
Btōmoform.	1106.	109L	2 - 133T	1L	30.		

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-1861471**

**Method: 8260BI**

**Preparation: 5030BI**

LCS L5b SLmpI5 IDL	LCS 680-1L 147L	An5lysis Batchb 680-1L 147L	Instūment IDL MSOL
CliLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL oq229.d,
Dilution5	1.0.	UnitsF ugfl.5	InitiLI WJight/volume:. 5 mL5
DLt5 An5lyz5d,	11L14L2010 1041L		in5l WJight/volume:. 5 mL5
DLt5 PFp. d,	11L14L2010 1041L		

LCSD L5b SLmpI5 IDL	LCSD 680-1L 147L9L	An5lysis Batchb 680-1L 147L	Instūment IDL MSOL
CliLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL oq231.d,
Dilution5	1.0.	UnitsF ugfl.5	InitiLI WJight/volume:. 5 mL5
DLt5 An5lyz5d,	11L14L2010 1109L		in5l WJight/volume:. 5 mL5
DLt5 PFp. d,	11L14L2010 1109L		

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
Bromomethab5	113T	15b	12 - 1L4L	32M	50.		
C5 bon disulfid,		0.	55 - 131L		30.		
C5 bon t5t5 chlorid,	103T	102M	71 - 135b	1L	30.		
Chlorobenz5n5	9L	9L	5 - 11L	1L	30.		
Chloroethab5	111L	7L	40 - 1L5b	35b	50.		
Chloroform.	102M	101L	2 - 120.	1L	30.		
Chloromethab5	92M	92M	4L- 142M	0.	50.		
cis-1,2-Dichloroethbn5	9L	100.	9 - 134L	2M	30.		
cis-1,3-Dichloropropen5	103T	100.	7L- 12M	3T	30.		
Dibromochloromethab5	108.	106.	75 - 133T	2M	30.		
Dibromomethab5	9L	93T	7L- 119L	2M	30.		
Dichlorodifluoromethab5	102M	100.	34 - 154L	3T	30.		
Ethylbenz5n5	103T	104L	- 11L	1L	30.		
HLx5chlorobut5diLn5	115b	114L	2 - 142M	0.	30.		
Isopropylbenz5n5	108.	110.	2 - 121L	2M	30.		
MLthyl t5 t-butyl ethb	99L	9L	77 - 121L	1L	30.		
MLthyl5n5 Chlorid,	94L	9L	70 - 125b		30.		
m-Xyl5n5 & p-Xyl5n5	102M	103T	3 - 11L	1L	30.		
N. phthal5n5	105b	105b	4L- 135b	0.	30.		
n-Butylbenz5n5	107L	109L	4 - 13T	1L	30.		
N-Pfōpylbenz5n5	104L	104L	0 - 12M	1L	30.		
o-Xyl5n5	107L	108.	3 - 119L	1L	30.		
p-Isopropyltoluen5	107L	109L	3 - 139L	1L	30.		
sFc-Butylbenz5n5	106.	107L	77 - 12M	1L	30.		
StyMn5	102M	103T	2 - 122M	2M	30.		
t5 t-Butylbenz5n5	108.	111L	0 - 124L	4L	30.		
TLt5 chloroethbn5	105b	102M	7L- 12M	2M	30.		
Toluen5	97L	9L	1 - 117L	1L	30.		
t5 ns-1,2-Dichloroethbn5	93T	9L	72 - 131L	3T	30.		
t5 ns-1,3-Dichloropropen5	105b	104L	73 - 12M	1L	30.		
Tlichloroethbn5	9L	9L	4 - 115b	0.	30.		
Tlichlorofluoromethab5	93T	4L	5b- 149L	10.	50.		
Vinyl . cLt5t5	104L	100.	10 - 217L	4L	30.		

**Quality Control Results**

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-1861471**

**Method: 8260BI  
Preparation: 5030BI**

LCS L5b SLmpI5 IDL LCS 680-1L 147L  
 CliLnt MLt ix5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L14L2010 1041L  
 DLt5 PFp. d, 11L14L2010 1041L

An5lysis Batchb 680-1L 147L  
 PFp Batch: N/A5  
 UnitsF ugFL5

Instūment IDL MSOL  
 L5b . il5 IDL oq229.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5l WJight/volume:. 5 mL5

LCSD L5b SLmpI5 IDL LCSD 680-1L 147L9L  
 CliLnt MLt ix5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L14L2010 1109L  
 DLt5 PFp. d, 11L14L2010 1109L

An5lysis Batchb 680-1L 147L  
 PFp Batch: N/A5  
 UnitsF ugFL5

Instūment IDL MSOL  
 L5b . il5 IDL oq231.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5l WJight/volume:. 5 mL5

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
Vinyl chlorid,	9L	99L	59 - 144L	2M	50.		
Xyl5n5s, Tot5l5	103T	104L	4 - 11L	1L	30.		
SurrogFt5	LCS % RLcL		LCSD % RLcL		Acclp t5ncL LimitsF		
4-Bromofluorobenz5n5	94L		95b		75 - 120.		
Dibromofluoromethab5	93T		91L		75 - 121L		
Toluen5 d, (Surr)L	93T		93T		75 - 120.		

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-186273I**

L5b SLmpl5 IDL MB 680-1L 2739L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L1L 2010 1259L  
 DLt5 PFp. d, 11L1L 2010 1259L

An5lysis Batchb 680-1L 273T  
 PFp BatchbN.A5  
 UnitsF ug/L5

**Method: 8260BI  
 Preparation: 5030BI**

Inst5ment IDL MSOL  
 L5b . il5 IDL oq2Ml.d,  
 InitiLl WJight5/Volume:. 5 mL5  
 in5l WJight5/Volume:. 5 mL5

An lyt5	R sult5	Qu I5	RL5
1,1,1,2-TLt5 chloroethab5	1.0.	U	11.0.
1,1,1-Tlchloroethab5	1.0.	U	11.0.
1,1,2,2-TLt5 chloroethab5	1.0.	U	11.0.
1,1,2-Tlchloroethab5	1.0.	U	11.0.
1,1-Dichloroethab5	1.0.	U	11.0.
1,1-Dichloroethbn5	1.0.	U	11.0.
1,1-Dichloropropen5	1.0.	U	11.0.
1,2,3-Tlchlorobenz5n5	1.0.	U	11.0.
1,2,3-Tlchloroprop. n5	1.0.	U	11.0.
1,2,4-Tlchlorobenz5n5	1.0.	U	11.0.
1,2,4-Tlimethylbenz5n5	1.0.	U	11.0.
1,2-Dibromo-3-Chloroprop. n5	1.0.	U	11.0.
1,2-Dibromoethab5	1.0.	U	11.0.
1,2-Dichlorobenz5n5	1.0.	U	11.0.
1,2-Dichloroethab5	1.0.	U	11.0.
1,2-Dichloroethbn5, Tot5l5	2.0.	UL	2.0.
1,2-Dichloroprop. n5	1.0.	U	11.0.
1,3,5-Tlimethylbenz5n5	1.0.	U	11.0.
1,3-Dichlorobenz5n5	1.0.	U	11.0.
1,3-Dichloroprop. n5	1.0.	U	11.0.
1,4-Dichlorobenz5n5	1.0.	U	11.0.
2,2-Dichloroprop. n5	1.0.	U	11.0.
2-But5non5	10.	UL	10.
2-Chlorotoluen5	1.0.	U	11.0.
2-H x non5	10.	UL	10.
4-Chlorotoluen5	1.0.	U	11.0.
4-MLthyl-2-pent5non5	10.	UL	10.
Ac ton5	25b	UL	25b
B nz n5	1.0.	U	11.0.
Bromobenz5n5	1.0.	U	11.0.
Bromochloromethab5	1.0.	U	11.0.
Bromodichloromethab5	1.0.	U	11.0.
Bromoform.	1.0.	U	11.0.
Bromomethab5	1.0.	U	11.0.
C5 bon disulfid,	2.0.	UL	2.0.
C5 bon t5t5 chlorid,	1.0.	U	11.0.
Chlorobenz5n5	1.0.	U	11.0.
Chloroethab5	1.0.	U	11.0.
Chloroform.	1.0.	U	11.0.
Chloromethab5	1.0.	U	11.0.
cis-1,2-Dichloroethbn5	1.0.	U	11.0.
cis-1,3-Dichloropropen5	1.0.	U	11.0.
Dibromochloromethab5	1.0.	U	11.0.

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-186273I**

L5b SLmpl5 IDL MB 680-1L 2739L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L1L 2010 1259L  
 DLt5 PFp. d, 11L1L 2010 1259L

An5lysis Batchb 680-1L 273T  
 PFp BatchbN.A5  
 UnitsF ug/L5

**Method: 8260BI  
 Preparation: 5030BI**

Inst5ment IDL MSOL  
 L5b . il5 IDL oq2Ml.d,  
 InitiLl WJight5/Volume:. 5 mL5  
 in5l WJight5/Volume:. 5 mL5

An5lyt5	RLsult5	Qu. I5	RL5
Dibromomethab5	1.0.	U	1.0.
Dichlorodifluoromethab5	1.0.	U	1.0.
DiLthyl ethb	10.	UL	10.
Ethylbenz5n5	1.0.	U	1.0.
HLx5chlorobut5diLn5	1.0.	U	1.0.
Isopropylbenz5n5	1.0.	U	1.0.
MLthyl t5 t-butyl ethb	10.	UL	10.
MLthyl5n5 Chlorid,	5.0.	UL	5.0.
m-Xyl5n5 & p-Xyl5n5	2.0.	UL	2.0.
N. phthal5n5	5.0.	UL	5.0.
n-Butylbenz5n5	1.0.	U	1.0.
N-Pf5pylbenz5n5	1.0.	U	1.0.
o-Xyl5n5	1.0.	U	1.0.
p-Isopropyltoluen5	1.0.	U	1.0.
sFc-Butylbenz5n5	1.0.	U	1.0.
StyMn5	1.0.	U	1.0.
t5 t-Butylbenz5n5	1.0.	U	1.0.
TLt5 chloroethbn5	1.0.	U	1.0.
Toluen5	1.0.	U	1.0.
t5 ns-1,2-Dichloroethbn5	1.0.	U	1.0.
t5 ns-1,3-Dichloropropen5	1.0.	U	1.0.
Tlchloroethbn5	1.0.	U	1.0.
Tlchlorofluoromethab5	1.0.	U	1.0.
Vinyl . cLt5t5	2.0.	UL	2.0.
Vinyl chlorid,	1.0.	U	1.0.
Xyl5n5s, Tot5l5	2.0.	UL	2.0.

SurrogFt5	% RLcL	Acclp t5ncL LimitsF
4-B5mofluorobenz5n5	93T	75 - 120.
Dibromofluoromethab5	91L	75 - 121L
Toluen5 d, (Surr)L	92M	75 - 120.

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-186273I**

**Method: 8260BI  
Preparation: 5030BI**

LCS L5b SLmpI5 IDL LCS 680-1L 2737L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L1L 2010 0952M  
 DLt5 PFp. d, 11L1L 2010 0952M

An5lysis Batchb 680-1L 273T  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSOL  
 L5b . il5 IDL oq273.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5I WJight/volume:. 5 mL5

LCSD L5b SLmpI5 IDL LCSD 680-1L 2737L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L1L 2010 1021L  
 DLt5 PFp. d, 11L1L 2010 1021L

An5lysis Batchb 680-1L 273T  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSOL  
 L5b . il5 IDL oq275.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5I WJight/volume:. 5 mL5

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
1,1,1,2-TLt5 chloroethab5	100.	105b	1 - 12M	5b	30.		
1,1,1-Tlchloroethab5	93T	9L	7L- 127L	4L	30.		
1,1,2,2-TLt5 chloroethab5	94L	9L	9 - 129L	4L	30.		
1,1,2-Tlchloroethab5	92M	95b	75 - 121L	3T	30.		
1,1-Dichloroethab5	9L	9L	74 - 127L	0.	30.		
1,1-Dichloroethbn5	9L	91L	2 - 141L	2M	30.		
1,1-Dichloropropen5	93T	9L	77 - 122M	3T	30.		
1,2,3-Tlchlorobenz5n5	111L	11L	0 - 132M	4L	30.		
1,2,3-Tlchloroprop. n5	103T	106.	70 - 130.	3T	30.		
1,2,4-Tlchlorobenz5n5	91L	9L	0 - 135b	7L	30.		
1,2,4-Tlimethylbenz5n5	103T	104L	72 - 132M	1L	30.		
1,2-Dibromo-3-Chloroprop. n5	102M	106.	49 - 140.	3T	30.		
1,2-Dibromoethab5	93T	99L	0 - 121L		30.		
1,2-Dichlorobenz5n5	93T	95b	79 - 124L	3T	30.		
1,2-Dichloroethab5	93T	97L	- 132M	5b	30.		
1,2-Dichloroethbn5, Tot5I5	9L	9L	- 134L	1L	30.		
1,2-Dichloroprop. n5	91L	92M	73 - 124L	2M	30.		
1,3,5-Tlimethylbenz5n5	104L	106.	72 - 133T	1L	30.		
1,3-Dichlorobenz5n5	101L	103T	7L- 125b	2M	30.		
1,3-Dichloroprop. n5		94L	75 - 1206.		30.		
1,4-Dichlorobenz5n5	101L	102M	1 - 122M	1L	30.		
2,2-Dichloroprop. n5	104L	102M	55 - 157L	2M	30.		
2-But5non5	9L	91L	33 - 157L	2M	30.		
2-Chlorotoluen5	103T	104L	2 - 123T	1L	30.		
2-HLx5non5	97L	102M	34 - 1L1L		30.		
4-Chlorotoluen5	99L	104L	3 - 122M	4L	30.		
4-MLthyl-2-pent5non5	90.	95b	40 - 151L		30.		
AcLton5	74L	4L	17 - 175b	12M	50.		
Bbnz5n5	92M	9L	77 - 119L	4L	30.		
Bbmobenz5n5	105b	110.	0 - 124L	4L	30.		
Bbmochloromethab5	92M	94L	10 - 150.	3T	30.		
Bbmodichloromethab5	92M	9L	7L- 127L		30.		
Bbmoform.	106.	109L	2 - 133T	2M	30.		



## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-186273I**

**Method: 8260BI**

**Preparation: 5030BI**

LCS L5b SLmpI5 IDL LCS 680-1L 2737L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L1L 2010 0952M  
 DLt5 PFp. d, 11L1L 2010 0952M

An5lysis Batchb 680-1L 273T  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSOL  
 L5b . il5 IDL oq273.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5I WJight/volume:. 5 mL5

LCSD L5b SLmpI5 IDL LCSD 680-1L 2737L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L1L 2010 1021L  
 DLt5 PFp. d, 11L1L 2010 1021L

An5lysis Batchb 680-1L 273T  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSOL  
 L5b . il5 IDL oq275.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5I WJight/volume:. 5 mL5

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
Bromomethab5	3T	5b	12 - 1L4L	3T	50.		
C5 bon disulfid,	7L	5b	55 - 131L	2M	30.		
C5 bon t5t5 chlorid,	94L	99L	71 - 135b	5b	30.		
Chlorobenz5n5	97L	100.	5 - 11L	3T	30.		
Chloroethab5	7L	1L	40 - 1L5b	19L	50.		
Chloroform.	101L	103T	2 - 120.	2M	30.		
Chloromethab5			4L- 142M	0.	50.		
cis-1,2-Dichloroethbn5	100.	100.	9 - 134L	0.	30.		
cis-1,3-Dichloropropen5	9L	102M	7L- 12M		30.		
Dibromochloromethab5	104L	108.	75 - 133T	4L	30.		
Dibromomethab5	90.	95b	7L- 119L	5b	30.		
Dichlorodifluoromethab5	101L	9L	34 - 154L	3T	30.		
Ethylbenz5n5	100.	103T	- 11L	3T	30.		
HLx5chlorobut5diLn5	113T	11L	2 - 142M	3T	30.		
Isopropylbenz5n5	106.	109L	2 - 121L	2M	30.		
MLthyl t5 t-butyl ethb	99L	102M	77 - 121L	2M	30.		
MLthyl5n5 Chlorid,	9L	95b	70 - 125b	1L	30.		
m-Xyl5n5 & p-Xyl5n5	101L	102M	3 - 11L	2M	30.		
N. phthal5n5	102M	110.	4L- 135b	7L	30.		
n-Butylbenz5n5	104L	105b	4 - 13T	2M	30.		
N-Pfōpylbenz5n5	102M	105b	0 - 12M	3T	30.		
o-Xyl5n5	103T	107L	3 - 119L	3T	30.		
p-Isopropyltoluen5	105b	105b	3 - 139L	1L	30.		
sFc-Butylbenz5n5	103T	103T	77 - 12M	0.	30.		
StyMn5	102M	103T	2 - 122M	1L	30.		
t5 t-Butylbenz5n5	109L	109L	0 - 124L	1L	30.		
TLt5 chloroethbn5	101L	106.	7L- 12M	5b	30.		
Toluen5	94L	9L	1 - 117L	2M	30.		
t5 ns-1,2-Dichloroethbn5	97L	95b	72 - 131L	2M	30.		
t5 ns-1,3-Dichloropropen5	97L	101L	73 - 12M	4L	30.		
Tlchloroethbn5	91L	9L	4 - 115b	5b	30.		
Tlchlorofluoromethab5	77L	0.	5b- 149L	5b	50.		
Vinyl . clt5t5	101L	102M	10 - 217L	2M	30.		

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-186273I**

**Method: 8260BI  
Preparation: 5030BI**

LCS L5b SLmpI5 IDL LCS 680-1L 2737L  
 CliLnt MLt ix5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L1L 2010 0952M  
 DLt5 PFp. d, 11L1L 2010 0952M

An5lysis Batchb 680-1L 273T  
 PFp Batch: N/A5  
 UnitsF ugFL5

Instūment IDL MSOL  
 L5b . il5 IDL oq273.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5I WJight/volume:. 5 mL5

LCSD L5b SLmpI5 IDL LCSD 680-1L 2737L  
 CliLnt MLt ix5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L1L 2010 1021L  
 DLt5 PFp. d, 11L1L 2010 1021L

An5lysis Batchb 680-1L 273T  
 PFp Batch: N/A5  
 UnitsF ugFL5

Instūment IDL MSOL  
 L5b . il5 IDL oq275.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5I WJight/volume:. 5 mL5

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
Vinyl chlorid, Xyl5n5s, Tot5I5	102M	104L	59 - 144L 4 - 11L	1L 2M	50. 30.		
SurrogFt5	LCS % RLcL		LCSD % RLcL		Acclp t5ncL LimitsF		
4-Bromofluorobenz5n5	94L		9L		75 - 120.		
Dibromofluoromethab5	93T		97L		75 - 121L		
Toluen5 d, (Surr)	91		92M		L	75 - 120.	

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-186385I**

**Method: 8260BI**  
**Preparation: 5030BI**

L5b SLmpl5 IDL MB 680-1L 3T5t22M  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L1L 2010 1233T  
 DLt5 PFp. d, 11L1L 2010 1233T

An5lysis Batchb 680-1L 3T5b  
 PFp BatchbN.A5  
 UnitsF ug/L5

Inst5ment IDL MSPF  
 L5b . il5 IDL pq543.d,  
 InitiLl WJight5/Volume:. 5 mL5  
 in5l WJight5/Volume:. 5 mL5

An5lyt5	RLsult5	Qu. I5	RL5
1,1,1,2-TLt5 chloroethab5	1.0.	U	11.0.
1,1,1-Tlchloroethab5	1.0.	U	11.0.
1,1,2,2-TLt5 chloroethab5	1.0.	U	11.0.
1,1,2-Tlchloroethab5	1.0.	U	11.0.
1,1-Dichloroethab5	1.0.	U	11.0.
1,1-Dichloroethbn5	1.0.	U	11.0.
1,1-Dichloropropen5	1.0.	U	11.0.
1,2,3-Tlchlorobenz5n5	1.0.	U	11.0.
1,2,3-Tlchloroprop. n5	1.0.	U	11.0.
1,2,4-Tlchlorobenz5n5	1.0.	U	11.0.
1,2,4-Tlimethylbenz5n5	1.0.	U	11.0.
1,2-Dibromo-3-Chloroprop. n5	1.0.	U	11.0.
1,2-Dibromoethab5	1.0.	U	11.0.
1,2-Dichlorobenz5n5	1.0.	U	11.0.
1,2-Dichloroethab5	1.0.	U	11.0.
1,2-Dichloroethbn5, Tot5l5	2.0.	UL	2.0.
1,2-Dichloroprop. n5	1.0.	U	11.0.
1,3,5-Tlimethylbenz5n5	1.0.	U	11.0.
1,3-Dichlorobenz5n5	1.0.	U	11.0.
1,3-Dichloroprop. n5	1.0.	U	11.0.
1,4-Dichlorobenz5n5	1.0.	U	11.0.
2,2-Dichloroprop. n5	1.0.	U	11.0.
2-But5non5	10.	UL	10.
2-Chlorotoluen5	1.0.	U	11.0.
2-H x non5	10.	UL	10.
4-Chlorotoluen5	1.0.	U	11.0.
4-MLthyl-2-pent5non5	10.	UL	10.
Ac ton5	25b	UL	25b
B nz n5	1.0.	U	11.0.
Btombenz5n5	1.0.	U	11.0.
Btomochloromethab5	1.0.	U	11.0.
Btomodichloromethab5	1.0.	U	11.0.
Btomoform.	1.0.	U	11.0.
Btomomethab5	1.0.	U	11.0.
C5 bon disulfid,	2.0.	UL	2.0.
C5 bon t5t5 chlorid,	1.0.	U	11.0.
Chlorobenz5n5	1.0.	U	11.0.
Chloroethab5	1.0.	U	11.0.
Chloroform.	1.0.	U	11.0.
Chloromethab5	1.0.	U	11.0.
cis-1,2-Dichloroethbn5	1.0.	U	11.0.
cis-1,3-Dichloropropen5	1.0.	U	11.0.
Dibromochloromethab5	1.0.	U	11.0.

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Method Blank - Batch: 680-186385I**

L5b SLmpl5 IDL MB 680-1L 3T5t22M  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L1L 2010 1233T  
 DLt5 PFp. d, 11L1L 2010 1233T

An5lysis Batchb 680-1L 3T5b  
 PFp BatchbN.A5  
 UnitsF ug/L5

**Method: 8260BI  
 Preparation: 5030BI**

Inst5ment IDL MSPF  
 L5b . il5 IDL pq543.d,  
 InitiL WJight5/Volume: 5 mL5  
 in5l WJight5/Volume: 5 mL5

An5lyt5	RLsult5	Qu. I5	RL5
Dibromomethab5	1.0.	UL	1.0.
Dichlorodifluoromethab5	1.0.	UL	1.0.
DiLthyl ethb	10.	UL	10.
Ethylbenz5n5	1.0.	UL	1.0.
HLx5chlorobut5diLn5	1.0.	UL	1.0.
Isopropylbenz5n5	1.0.	UL	1.0.
MLthyl t5 t-butyl ethb	10.	UL	10.
MLthyl5n5 Chlorid,	5.0.	UL	5.0.
m-Xyl5n5 & p-Xyl5n5	2.0.	UL	2.0.
N. phthal5n5	5.0.	UL	5.0.
n-Butylbenz5n5	1.0.	UL	1.0.
N-Pföpylbenz5n5	1.0.	UL	1.0.
o-Xyl5n5	1.0.	UL	1.0.
p-Isopropyltoluen5	1.0.	UL	1.0.
sFc-Butylbenz5n5	1.0.	UL	1.0.
StyMn5	1.0.	UL	1.0.
t5 t-Butylbenz5n5	1.0.	UL	1.0.
TLt5 chloroethbn5	1.0.	UL	1.0.
Toluen5	1.0.	UL	1.0.
t5 ns-1,2-Dichloroethbn5	1.0.	UL	1.0.
t5 ns-1,3-Dichloropropen5	1.0.	UL	1.0.
Tlchloroethbn5	1.0.	UL	1.0.
Tlchlorofluoromethab5	1.0.	UL	1.0.
Vinyl . cLt5t5	2.0.	UL	2.0.
Vinyl chlorid,	1.0.	UL	1.0.
Xyl5n5s, Tot5l5	2.0.	UL	2.0.

SurrogFt5	% RLcL	Acclp t5ncL LimitsF
4-Bömofluorobenz5n5		75 - 120.
Dibromofluoromethab5	91L	75 - 121L
Toluen5 d, (Surr)L	100.	75 - 120.

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-186385I**

**Method: 8260BI**

**Preparation: 5030BI**

LCS L5b SLmpI5 IDL LCS 680-1L 3T5b19L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L1L 2010 1013T  
 DLt5 PFp. d, 11L1L 2010 1013T

An5lysis Batchb 680-1L 3T5b  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSPF  
 L5b . il5 IDL pq535.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5l WJight/volume:. 5 mL5

LCSD L5b SLmpI5 IDL LCSD 680-1L 3T5b20.  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L1L 2010 1043T  
 DLt5 PFp. d, 11L1L 2010 1043T

An5lysis Batchb 680-1L 3T5b  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSPF  
 L5b . il5 IDL pq537.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5l WJight/volume:. 5 mL5

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
1,1,1,2-TLt5 chloroethab5	9L	95b	1 - 12M	2M	30.		
1,1,1-Tlchloroethab5	95b	95b	7L- 127L	0.	30.		
1,1,2,2-TLt5 chloroethab5	9L	9L	9 - 129L	1L	30.		
1,1,2-Tlchloroethab5	102M	101L	75 - 121L	1L	30.		
1,1-Dichloroethab5	104L	102M	74 - 127L	2M	30.		
1,1-Dichloroethbn5	100.	100.	2 - 141L	1L	30.		
1,1-Dichloropropen5	100.	9L	77 - 122M	2M	30.		
1,2,3-Tlchlorobenz5n5	75b	75b	0 - 132M	0.	30.		
1,2,3-Tlchloroprop. n5	7L	9L	70 - 130.	3T	30.		
1,2,4-Tlchlorobenz5n5	7L	77L	0 - 135b	2M	30.		
1,2,4-Tlimethylbenz5n5	9L	97L	72 - 132M	1L	30.		
1,2-Dibromo-3-Chloroprop. n5	3T	5b	49 - 140.	3T	30.		
1,2-Dibromoethab5	99L	9L	0 - 121L	1L	30.		
1,2-Dichlorobenz5n5	90.	91L	79 - 124L	1L	30.		
1,2-Dichloroethab5	101L	9L	- 132M	3T	30.		
1,2-Dichloroethbn5, Tot5I5	95b	97L	- 134L	1L	30.		
1,2-Dichloroprop. n5	112M	111L	73 - 124L	2M	30.		
1,3,5-Tlimethylbenz5n5	9L	97L	72 - 133T	1L	30.		
1,3-Dichlorobenz5n5	91L	91L	7L- 125b	0.	30.		
1,3-Dichloroprop. n5	105b	105b	75 - 120.	1L	30.		
1,4-Dichlorobenz5n5	92M	92M	1 - 122M	0.	30.		
2,2-Dichloroprop. n5	106.	106.	55 - 157L	0.	30.		
2-But5non5	106.	108.	33 - 157L	2M	30.		
2-Chlorotoluen5	94L	93T	2 - 123T	1L	30.		
2-HLx5non5	114L	114L	34 - 1L1	1L	30.		
4-Chlorotoluen5	92M	94L	3 - 122M	2M	30.		
4-MLthyl-2-pent5non5	120.	117L	40 - 151L	3T	30.		
AcLton5	108.	106.	17 - 175b	2M	50.		
Bbnz5n5	103T	101L	77 - 119L	2M	30.		
Bbmobenz5n5		9L	0 - 124L	1L	30.		
Bbmochloromethab5	103T	102M	10 - 150.	1L	30.		
Bbmodichloromethab5	110.	110.	7L- 127L	1L	30.		
Bbmoform.	906.	90.	2 - 133T	0.	30.		

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/**

**Lab Control Sample Duplicate Recovery Report - Batch: 680-1863851**

**Method: 8260BI**

**Preparation: 5030BI**

LCS L5b SLmpI5 IDL LCS 680-1L 3T5b19L  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L1L 2010 1013T  
 DLt5 PFp. d, 11L1L 2010 1013T

An5lysis Batchb 680-1L 3T5b  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSPF  
 L5b . il5 IDL pq535.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5I WJight/volume:. 5 mL5

LCSD L5b SLmpI5 IDL LCSD 680-1L 3T5b20.  
 CliLnt MLt5x5 WJt5  
 Dilution5 1.0.  
 DLt5 An5lyz5d, 11L1L 2010 1043T  
 DLt5 PFp. d, 11L1L 2010 1043T

An5lysis Batchb 680-1L 3T5b  
 PFp BatchbN.A5  
 UnitsF ugFL5

Instūment IDL MSPF  
 L5b . il5 IDL pq537.d,  
 InitiLI WJight/volume:. 5 mL5  
 in5I WJight/volume:. 5 mL5

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
Bromomethab5	7L	0.	12 - 1L4L	3T	50.		
C5 bon disulfid,	101L	100.	55 - 131L	0.	30.		
C5 bon t5t5 chlorid,	103T	104L	71 - 135b	1L	30.		
Chlorobenz5n5	91L	92M	5 - 11L	1L	30.		
Chloroethab5	75b	70.	40 - 1L5b		50.		
Chloroform.	9L	97L	2 - 120.	0.	30.		
Chloromethab5	9L	9L	4L- 142M	0.	50.		
cis-1,2-Dichloroethbn5	94L	97L	9 - 134L	2M	30.		
cis-1,3-Dichloropropen5	114L	109L	7L- 12M	4L	30.		
Dibromochloromethab5	94L	94L	75 - 133T	0.	30.		
Dibromomethab5	103T	100.	7L- 119L	3T	30.		
Dichlorodifluoromethab5	101L	101L	34 - 154L	0.	30.		
DiLthyl ethb	120.	122M	70 - 130.	2M	30.		
Ethylbenz5n5	95b	93T	- 11L	2M	30.		
HLx5chlorobut5diLn5		5b	2 - 142M	1L	30.		
Isopropylbenz5n5	97L	97L	2 - 121L	0.	30.		
MLthyl t5 t-butyl ethb	9L	9L	77 - 121L	0.	30.		
MLthyl5n5 Chlorid,	9L	93T	70 - 125b	3T	30.		
m-Xyl5n5 & p-Xyl5n5	94L	93T	3 - 11L	1L	30.		
N. phthal5n5	2M		4L- 135b	5b	30.		
n-Butylbenz5n5	93T	94L	4 - 13T	1L	30.		
N-Pfōpylbenz5n5	95b	97L	0 - 12M	2M	30.		
o-Xyl5n5	9L	9L	3 - 119L	0.	30.		
p-Isopropyltoluen5	906.	90.	3 - 139L	0.	30.		
sFc-Butylbenz5n5	90.	92M	77 - 12M	2M	30.		
StyMn5	97L	9L	2 - 122M	1L	30.		
t5 t-Butylbenz5n5	9L	95b	0 - 124L	0.	30.		
TLt5 chloroethbn5	90.	9L	7L- 12M	1L	30.		
Toluen5	103T	102M	1 - 117L	1L	30.		
t5 ns-1,2-Dichloroethbn5	97L	97L	72 - 131L	0.	30.		
t5 ns-1,3-Dichloropropen5	110.	109L	73 - 12M	1L	30.		
Tlchloroethbn5	100.	100.	4 - 115b	0.	30.		
Tlchlorofluoromethab5	91L	90.	5b- 149L	1L	50.		

## Quality Control Results

CliLnt5 ARCADIS U.S., Inc.L

Job Number: 680-62923-1L

**Lab Control Sample/  
Lab Control Sample Duplicate Recovery Report - Batch: 680-1863851**

**Method: 8260BI  
Preparation: 5030BI**

LCS L5b SLmpI5 IDL	LCS 680-1L 3T5b19L	An5lysis Batchb 680-1L 3T5b	Instūment IDL	MSPF
CliLnt MLt5x5	W t5	PFp BatchbN.A5	L5b . il5 IDL	pq535.d,
Dilution5	1.0.	UnitsF ugfl5	InitiLI WJight/volume:.	5 mL5
DLt5 An5lyz5d,	11L1L 2010 1013T		in5l WJight/volume:.	5 mL5
D te P ep. d,	11L1L 2010 1013T			

LCSD L5b SLmpI5 IDL	LCSD 680-1L 3T5b20.	An5lysis Batchb 680-1L 3T5b	Instūment IDL	MSPF
CliLnt MLt5x5	WJt5	PFp BatchbN.A5	L5b . il5 IDL	pq537.d,
Dilution5	1.0.	UnitsF ugfl5	InitiLI WJight/volume:.	5 mL5
DLt5 An5lyz5d,	11L1L 2010 1043T		in5l WJight/volume:.	5 mL5
DLt5 PFp. d,	11L1L 2010 1043T			

An5lyt5	% RLc.L		Limit5	RPDL	RPD Limit5	LCS Qu. I5	LCSD Qu. I5
	LCSL	LCSDL					
Vinyl . clt5t5	110.	107L	10 - 217L	3T	30.		
Vinyl chlorid,	92M	91L	59 - 144L	1L	50.		
Xyl5n5s, Tot5I5	94L	94L	4 - 11L	0.	30.		
SurrogFt5	LCS % RLcL		LCSD % RLcL		Accp t5ncL LimitsF		
4-Bromofluorobenz5n5	93T		92M		75 - 120.		
Dibromofluoromethab5	95b		94L		75 - 121L		
Toluen5 d, (Surr)L	103T		101L		75 - 120.		

Serial Number 035087

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Website: www.testamericainc.com  
 Phone: (912) 354-7858  
 Fax: (912) 352-0165

TestAmerica Savannah  
 5102 LaRoche Avenue  
 Savannah, GA 31404

Alternate Laboratory Name/Location

Phone:  
 Fax:

PROJECT REFERENCE UNC - Airport Road		PROJECT NO. NC 000239.0018.00002	PROJECT LOCATION (STATE) NC	MATRIX TYPE	REQUIRED ANALYSIS	PAGE 1 OF 4
TAL (LAB) PROJECT MANAGER Kathy Smith		P.O. NUMBER	CONTRACT NO.	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	STANDARD REPORT DELIVERY	DATE DUE
CLIENT (SITE) PM. Alan Pinnix		CLIENT PHONE 919-854-1282	CLIENT FAX	AQUEOUS (WATER)	EXPEDITED REPORT DELIVERY (SURCHARGE)	DATE DUE
CLIENT NAME ARCADIS		CLIENT E-MAIL apinnix@arcadis-us.com		COMPOSITE (C) OR GRAB (G) INDICATE	NUMBER OF COOLERS SUBMITTED PER SHIPMENT:	
CLIENT ADDRESS 801 Corporate Center Dr., Ste. 300, Raleigh, NC 27607						
COMPANY CONTRACTING THIS WORK (if applicable)						
SAMPLE DATE		SAMPLE IDENTIFICATION				
11-2-2010	1000	SW-3				
	1010	SW-2				
	1100	SW-4				
	1105	SW-5				
	1130	SW-6				
	1409	MW-36				
	1410	MW-4				
	1500	MW-30				
	1501	MW-31				
	1515	MW-5				
	1550	MW-32				
	1555	MW-35				
RELINQUISHED BY: (SIGNATURE) <i>April Shanley</i>		DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE)		11-5-10	1700			
RECEIVED BY: (SIGNATURE)		DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>Beth A. Daugherty</i>	DATE 11/6/10	TIME 1034	CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO. 6800	LABORATORY REMARKS Temp 0.2
LABORATORY USE ONLY						
RECEIVED BY: (SIGNATURE)						
DATE						
TIME						
RELINQUISHED BY: (SIGNATURE)						
DATE						
TIME						
RECEIVED BY: (SIGNATURE)						
DATE						
TIME						



Serial Number 032149

Website: www.testamericainc.com  
 Phone: (912) 354-7858  
 Fax: (912) 352-0165

TestAmerica Savannah  
 5102 LaRoche Avenue  
 Savannah, GA 31404

Phone:  
 Fax:

Alternate Laboratory Name/Location

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD



THE LEADER IN ENVIRONMENTAL TESTING

PROJECT REFERENCE UNC - Airport Road		PROJECT NO. NC 000239.0018.00002	PROJECT LOCATION (STATE) NC	MATRIX TYPE	REQUIRED ANALYSIS	PAGE 2	OF 4
TAL (LAB) PROJECT MANAGER Kathy Smith		PO. NUMBER	CONTRACT NO.	NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	STANDARD REPORT DELIVERY	DATE DUE	
CLIENT (SITE) PM Alan Pinnix		CLIENT PHONE 919-854-1282	CLIENT FAX	AIR	EXPEDITED REPORT DELIVERY (SURCHARGE)	DATE DUE	
CLIENT NAME ARCADIS		CLIENT E-MAIL g.pinnix@arcadis-us.com		SOLID OR SEMISOLID	NUMBER OF COOLERS SUBMITTED PER SHIPMENT.		
CLIENT ADDRESS 801 Corporate Center Dr. #300, Raleigh, NC 27607				COMPOSITE (C) OR GRAB (G) INDICATE	REMARKS		
COMPANY CONTRACTING THIS WORK (if applicable)							
DATE	TIME	SAMPLE IDENTIFICATION					
11-2-2010	1636	MW-33					
11-3-2010	1015	MW-25					
11-3-2010	1120	MW-26					
11-3-2010	1140	MW-11					
11-3-2010	1335	MW-9					
11-3-2010	1425	MW-6					
11-3-2010	1435	MW-7					
11-3-2010	1600	SRW-1					
11-3-2010	1610	SRW-2					
11-3-2010	1620	SRW-3					
11-3-2010	1630	5 DRW-1					
11-3-2010	1640	DRW-2					
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE
<i>[Signature]</i>	11-5-10	1700					
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE
<i>[Signature]</i>							
LABORATORY USE ONLY				LABORATORY REMARKS			
RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT YES NO	SAVANNAH LOG NO.	Temp 0.2		
<i>[Signature]</i>	11/6/10	1034	YES <input type="radio"/> NO <input type="radio"/>	62923			

Serial Number 033273

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

TestAmerica Savannah  
5102 LaRoche Avenue  
Savannah, GA 31404

Website: www.testamericainc.com  
Phone: (912) 354-7858  
Fax: (912) 352-0165



THE LEADER IN ENVIRONMENTAL TESTING

Alternate Laboratory Name/Location

Phone:  
Fax:

PROJECT REFERENCE <i>WAL Airport Road</i>	PROJECT NO. <i>MC237-0518-0002</i>	PROJECT LOCATION (STATE) <i>NC</i>	MATRIX TYPE	REQUIRED ANALYSIS	PAGE 3 OF 4
TAL (LAB) PROJECT MANAGER <i>Kathy Smith</i>	P.O. NUMBER	CONTRACT NO.	AQUEOUS (WATER)	STANDARD REPORT DELIVERY	DATE DUE
CLIENT (SITE) PM <i>Alan Pinnix</i>	CLIENT PHONE <i>919-854-1282</i>	CLIENT FAX	SOLID OR SEMISOLID	EXPEDITED REPORT DELIVERY (SURCHARGE)	DATE DUE
CLIENT NAME <i>Arcadis</i>	CLIENT E-MAIL <i>apinnix@arcadis-us.com</i>		NONAQUEOUS LIQUID (OIL, SOLVENT, ...)	NUMBER OF COOLERS SUBMITTED PER SHIPMENT:	
CLIENT ADDRESS <i>801 Corporate Center Dr. #300, Raleigh, NC 27607</i>	COMPANY CONTRACTING THIS WORK (if applicable)				

Page	SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	MATRIX TYPE			NUMBER OF CONTAINERS SUBMITTED	REMARKS
				COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID		
1	11-3-2010	1650	DR W-3	X	X		3	
2	11-4-2010	0920	MW-12	X	X		3	
3		1000	MW-22	X	X		3	
4		1055	MW-2	X	X		3	
5		0911	MW-15	X	X		3	
6		1155	MW-1	X	X		3	
7		~	Dup-1	X	X		3	
8		1403	MW-28	X	X		3	
9		1412	MW-3	X	X		3	
10	11-5-2010	0830	MW-14	X	X		3	
11		1235	MW-23	X	X		3	
12		1350	MW-17	X	X		3	

RELINQUISHED BY: (SIGNATURE) <i>Alan Pinnix</i>	DATE 11-5-10	TIME 1700	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>Beth A Daugherty</i>	DATE 11/10/10	TIME 1034	CUSTODY INTACT YES <input type="radio"/> NO <input type="radio"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO. <i>600-62933</i>	LABORATORY REMARKS <i>Temp 6.2</i>
--	------------------	--------------	--	------------------	-----------------------------------	---------------------------------------

Serial Number 035436

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Website: www.testamericainc.com  
 Phone: (912) 354-7858  
 Fax: (912) 352-0165

TestAmerica Savannah  
 5102 LaRoche Avenue  
 Savannah, GA 31404

Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_



THE LEADER IN ENVIRONMENTAL TESTING

PROJECT REFERENCE <b>UNC-Airport Rd.</b>	PROJECT NO. <b>NC000239.0019.00002</b>	PROJECT LOCATION (STATE) <b>NC</b>	MATRIX TYPE	REQUIRED ANALYSIS	PAGE <b>4</b> OF <b>4</b>
TAL (LAB) PROJECT MANAGER <b>Kathy Smith</b>	P.O. NUMBER	CONTRACT NO.	NONAQUEOUS LIQUID (OIL SOLVENT)	STANDARD REPORT DELIVERY	DATE DUE
CLIENT (SITE) PM <b>Alan Pinnix</b>	CLIENT PHONE <b>919-854-1282</b>	CLIENT FAX	AIR	EXPEDITED REPORT DELIVERY (SURCHARGE)	DATE DUE
CLIENT NAME <b>ARCADIS</b>	CLIENT E-MAIL <b>apinnix@arcadis-us.com</b>		AGUEOUS (WATER)	NUMBER OF COOLERS SUBMITTED PER SHIPMENT	
CLIENT ADDRESS <b>801 Corporate Center Dr., Ste 300, Raleigh NC 27607</b>			COMPOSITE (C) OR GRAB (G) INDICATE		
COMPANY CONTRACTING THIS WORK (if applicable)					

Page	DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS SUBMITTED			REMARKS
				AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	
41	10-5-2010	1045	VER-1	X			
		1100	VER-2	X			
		1115	VER-3	X			
		1130	VER-4	X			
		1540	MW-16	X			
		0000	Trip Blank	X			

RELINQUISHED BY: (SIGNATURE) <i>Alan Pinnix</i>	DATE 11-5-10	TIME 1700	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>Beth A Daughtry</i>	DATE 11/6/10	TIME 1034	CUSTODY INTACT YES <input type="checkbox"/> NO <input type="checkbox"/>	CUSTODY SEAL NO.	SAVANNAH LOG NO. <b>680</b>	LABORATORY REMARKS <b>Temp 0.2</b>
---	-----------------	--------------	--	------------------	-----------------------------	---------------------------------------

## Login Sample ReMeM CheMk Listc

Client: ARCADIS U.S., Inc.L

Job Number: 680-62923-11

**Login Number: c 9c3T**  
**Creator: Daughlry, BeMI**  
**List Number: 1**

**List Source: TestAmerVa Sa vannahl**

Question	/ F / N AM	Comment
Radioactivity either L ab not meabured or, if meabured, iL at or beloL L background	TrueL	
The cooler/UcuLtoday Leal, if preLent, iL intact.L	TrueL	
The cooler or LampleL do not appear to have been compromiLed or L tampered L ith.L	TrueL	
SampleL L ere received on ice.L	TrueL	
Cooler Temperature iL acceptable.L	TrueL	
Cooler Temperature iL recorded.L	TrueL	
COC iL preLent.L	TrueL	
COC iL filled out in ink abd legible.L	TrueL	
COC iL filled out L ith all pertinent information.L	TrueL	
the Field Sampler'Uname preLent on COC?U	FalLeL	
There are no diLcrepanciel betL een the Lample IDL on the containerL abd L the COC.L	TrueL	
SampleL are received L ithin Holding Time.L	TrueL	
Sample containerL have legible label.L	TrueL	
ContainerL are not broken or leaking.L	TrueL	
Sample collection date/timeL are provided.L	TrueL	
ppropriate Lample containerL are uLed.L	TrueL	
Sample bottleL are completely filled.L	TrueL	
Sample PreLervation Verifiedc	TrueL	
There iL Lufficient vol. for all requeLted abalysL, incl. aby requeLted L MS/MSDL	TrueL	
VOcL ample vialL do not have headcpace or bubble iL <6mm (1/4") in L diameter.L	TrueL	
f neceL ary, Ltaff have been informed of aby Lh ort hold time or quick TI T L ee dc	TrueL	
Multiphabic LampleL are not preLent.L	N/T	
SampleL do not require LplittinL or compoLitinL.L	N/T	

**Appendix C**

Laboratory Analytical Data Reports  
for Air Discharge Samples

Research Triangle Park Laboratories, Inc.  
7201 ACC Blvd., Suite 104  
Raleigh, NC 27617



919 510-0228 Telephone  
919 510-0141 Fax

Web Site: [www.rtp-labs.com](http://www.rtp-labs.com)

---

February 17, 2010

ARCADIS G&M of North Carolina, Inc.  
801 Corporate Center, Suite 300  
Raleigh, NC 27607

Attn: Alan Pinnix

**PROJECT: "UNC Airport Road"; Contract Number: NC000239.0018**  
**RTP Labs ID: 10-036**

Enclosed with this letter is the report on the chemical analysis for the two Tedlar bag samples received on February 11, 2010 for a normal turnaround. The samples were analyzed by EPA Method TO-15 GC/MS for 60 VOC target compounds and included benzene, chloroform; 1,2-dichloroethane; methylene chloride; 1,1,2,2-tetrachloroethane; trichloroethylene; trichlorofluoromethane; and vinyl chloride.

Please call if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads 'Alston Sykes'.

Alston Sykes, Principal Chemist

Attachments: GC/MS reports, COC forms



919 510-0228 Telephone  
919 510-0141 Fax

Web Site: www.rtp-labs.com

**EPA Method TO-15**

**GC/MS VOLATILE ORGANICS**

Data File: c:\varian\sw\datafiles\voc060109\10-036-01.sms

Acquisition Date: 2/12/2010

Comment: Arcadis; UNC Airport; 2/1/10; Air Stripper; 10mL; DF=50

CAS NO.	COMPOUND	CONCENTRATION	UNITS	MDL and Reporting Limit
75-71-8	Dichlorodifluoromethane (Freon 12)	Not Found	ppbv	0.5
76-14-2	1,2-Chloro-1,1,2,2-Tetrafluoroethane	Not Found	ppbv	0.5
74-87-3	Chloromethane	Not Found	ppbv	0.5
75-01-4	Vinyl chloride	Not Found	ppbv	0.5
106-99-0	1,3-Butadiene	Not Found	ppbv	0.5
74-83-9	Bromomethane	Below MDL	ppbv	0.5
75-00-3	Chloroethane	Not Found	ppbv	0.5
75-69-4	Trichloromonofluoromethane	0.60	ppbv	0.5
75-35-4	1,1-dichloroethene	Not Found	ppbv	0.5
76-13-1	1,1,2-trichloro-1,2,2-trifluoroethane	Not Found	ppbv	0.5
64-17-5	Ethanol	Not Found	ppbv	0.5
75-15-0	Carbon disulfide	Not Found	ppbv	0.5
67-63-0	Isopropyl alcohol	2.72	ppbv	0.5
75-09-2	Methylene chloride	2.53	ppbv	0.5
67-64-1	Acetone	2.86	ppbv	0.5
156-60-5	t-1,2-dichloroethene	Not Found	ppbv	0.5
11-05-3	Hexane	Below MDL	ppbv	0.5
1634-04-4	Methyl-t-butyl ether (MTBE)	Not Found	ppbv	0.5
75-34-3	1,1-Dichloroethane	Not Found	ppbv	0.5
108-05-4	Vinyl acetate	2.40	ppbv	0.5
156-59-2	cis-1,2-dichloroethene	Not Found	ppbv	0.5
110-82-7	Cyclohexane	0.81	ppbv	0.5
67-66-3	Chloroform	4.07	ppbv	0.5
141-78-6	Ethyl Acetate	Not Found	ppbv	0.5
109-99-9	Tetrahydrofuran	6.12	ppbv	0.5
71-55-6	1,1,1-trichloroethane	Not Found	ppbv	0.5
56-23-5	Carbon Tetrachloride	0.55	ppbv	0.5
78-93-3	2-Butanone	Not Found	ppbv	0.5
142-82-5	Heptane	1.28	ppbv	0.5
71-43-2	Benzene	2.61	ppbv	0.5
107-06-2	1,2-dichloroethane	Not Found	ppbv	0.5
79-01-6	Trichloroethylene	Not Found	ppbv	0.5
78-87-5	1,2-dichloropropane	Not Found	ppbv	0.5
75-27-4	Bromodichloromethane	Not Found	ppbv	0.5
123-91-1	1,4-dioxane	1.61	ppbv	0.5
10061-01-5	cis-1,3-dichloropropene	Not Found	ppbv	0.5
108-88-3	Toluene	Not Found	ppbv	0.5
108-10-1	4-Methyl-2-pentanone (MIBK)	61.88	ppbv	0.5
1006-02-6	t-1,3-dichloropropene	Not Found	ppbv	0.5
127-18-4	Tetrachloroethylene	Not Found	ppbv	0.5
79-00-5	1,1,2-trichloroethane	Not Found	ppbv	0.5
124-48-1	Dibromochloromethane	Not Found	ppbv	0.5
106-93-4	1,2-dibromoethane	Not Found	ppbv	0.5
591-78-6	2-Hexanone	Not Found	ppbv	0.5
100-41-4	Ethylbenzene	0.77	ppbv	0.5
108-90-7	Chlorobenzene	Not Found	ppbv	0.5
1330-20-7	m/p-Xylene	Below MDL	ppbv	0.5
95-47-6	o-Xylene	Not Found	ppbv	0.5
100-42-5	Styrene	Not Found	ppbv	0.5
75-25-2	Tribromomethane	Not Found	ppbv	0.5
79-34-5	1,1,2,2-tetrachloroethane	Not Found	ppbv	0.5
622-96-8	1-ethyl-4-methylbenzene	Not Found	ppbv	0.5
108-67-8	1,3,5-trimethylbenzene	Not Found	ppbv	0.5
95-63-6	1,2,4-trimethylbenzene	Not Found	ppbv	0.5
541-73-1	1,3-dichlorobenzene	Not Found	ppbv	0.5
106-46-7	1,4-dichlorobenzene	Not Found	ppbv	0.5
100-44-7	Benzyl chloride	Not Found	ppbv	0.5
95-50-1	1,2-dichlorobenzene	Not Found	ppbv	0.5
87-68-3	1,1,2,3,4,4-hexachloro-1,3-butadiene	Not Found	ppbv	0.5
120-82-1	1,2,4-trichlorobenzene	Not Found	ppbv	0.5



**TENTATIVELY IDENTIFIED COMPOUNDS**

**EPA Method TO-15**

**GC/MS VOLATILE ORGANICS**

Data File: c:\varianwslwdatafiles\voc060109\10-036-01.sms

Acquisition Date: 2/12/2010

Comment: Arcadis; UNC Airport; 2/1/10; Air Stripper; 10mL; DF=50

CAS NO.	COMPOUND NAME	Retention Time	Estimated Concentration,	
69483-50-7	5.alpha.,8.alpha.,14.beta.-Cholestane-3,	2.99	32.72	ppbv
15402-84-3	2-Amino-1-(o-methoxyphenyl)propane	8.18	213.38	ppbv
66830-56-6	N-Dimethylaminomethyl-tert.-butylphenylp	8.40	17.59	ppbv
104704-05-	Trimethyl-.beta.-isoluteone	8.48	27.46	ppbv
22520-39-4	meso-3,4-Hexanediol	11.2	40.49	ppbv
105774-08-	1,3,5-Triazine-2,4-diamine, 6-chloro-N,N	11.5	11.57	ppbv
75629-02-6	2-(2',3'-Dimethoxy-4',5'-methylenedioxy	11.6	14.02	ppbv
70477-20-2	2,2'-Bifuran, 5,5'-dibromo-	18.6	9.44	ppbv
118481-71-	4-Bromo-4'-[(1-ethoxycarbonylethyl)oxy]-	21.7	30.00	ppbv
27126-22-3	Heptane, 4-azido-	21.8	210.81	ppbv
58422-92-7	Ethaneperoxoic acid, 1-cyano-1-[2-(2-phe	21.9	26.36	ppbv
76100-13-5	Propanedinitrile, 2-(5-phenylthio-2-thie	23.2	225.75	ppbv
1714-14-3	9,10-Anthracenedione, 1-phenyl-	23.7	13000.23	ppbv
17071-54-4	Hexyl octyl ether	25.0	469.28	ppbv
29812-79-1	Hydroxylamine, O-decyl-	25.1	187.08	ppbv
77892-03-6	3-Chloro-4-phenoxy-5,6-diphenylpyridazin	25.9	923.98	ppbv
24126-93-0	4H-1-Benzopyran-4-one, 3-(3,4-dimethoxy	27.9	178.87	ppbv
40571-17-3	2,5-Methano-1H-inden-7-ol, octahydro-7-[	29.8	12.88	ppbv

(IS) is BFB Internal Standard and (SS) are Surrogate Standards that are added to each sample.

2/17/2010 11:33

Page 1 of 1

CLP TIC

10-036-01.sms





919 510-0228 Telephone  
 919 510-0141 Fax

Web Site: www.rtp-labs.com

**EPA Method TO-15**

**GC/MS VOLATILE ORGANICS**

Data File: c:\varianrsw\datafiles\voc060109\10-036-02.sms

Acquisition Date: 2/12/2010

Comment: Arcadis; UNC Airport; 2/1/10; VER Discharge; 10mL; DF=50

CAS NO.	COMPOUND	CONCENTRATION	UNITS	MDL and Reporting Limit
75-71-8	Dichlorodifluoromethane (Freon 12)	Not Found	ppbv	0.5
76-14-2	1,2-Chloro-1,1,2,2-Tetrafluoroethane	Not Found	ppbv	0.5
74-87-3	Chloromethane	Not Found	ppbv	0.5
75-01-4	Vinyl chloride	Not Found	ppbv	0.5
106-99-0	1,3-Butadiene	Not Found	ppbv	0.5
74-83-9	Bromomethane	Below MDL	ppbv	0.5
75-00-3	Chloroethane	Not Found	ppbv	0.5
75-69-4	Trichloromonofluoromethane	0.93	ppbv	0.5
75-35-4	1,1-dichloroethene	Not Found	ppbv	0.5
76-13-1	1,1,2-trichloro-1,2,2-trifluoroethane	Not Found	ppbv	0.5
64-17-5	Ethanol	4.49	ppbv	0.5
75-15-0	Carbon disulfide	Not Found	ppbv	0.5
67-63-0	Isopropyl alcohol	Not Found	ppbv	0.5
75-09-2	Methylene chloride	3.48	ppbv	0.5
67-64-1	Acetone	Not Found	ppbv	0.5
156-60-5	t-1,2-dichloroethene	Not Found	ppbv	0.5
11-05-3	Hexane	Below MDL	ppbv	0.5
1634-04-4	Methyl-t-butyl ether (MTBE)	Not Found	ppbv	0.5
75-34-3	1,1-Dichloroethane	Not Found	ppbv	0.5
108-05-4	Vinyl acetate	1.89	ppbv	0.5
156-59-2	cis-1,2-dichloroethene	Not Found	ppbv	0.5
110-82-7	Cyclohexane	0.91	ppbv	0.5
67-66-3	Chloroform	17.42	ppbv	0.5
141-78-6	Ethyl Acetate	Not Found	ppbv	0.5
109-99-9	Tetrahydrofuran	31.35	ppbv	0.5
71-55-6	1,1,1-trichloroethane	Not Found	ppbv	0.5
56-23-5	Carbon Tetrachloride	0.55	ppbv	0.5
78-93-3	2-Butanone	Not Found	ppbv	0.5
142-82-5	Heptane	1.01	ppbv	0.5
71-43-2	Benzene	19.33	ppbv	0.5
107-06-2	1,2-dichloroethane	Not Found	ppbv	0.5
79-01-6	Trichloroethylene	6.97	ppbv	0.5
78-87-5	1,2-dichloropropane	Not Found	ppbv	0.5
75-27-4	Bromodichloromethane	Not Found	ppbv	0.5
123-91-1	1,4-dioxane	11.90	ppbv	0.5
10061-01-5	cis-1,3-dichloropropene	Not Found	ppbv	0.5
108-88-3	Toluene	8.27	ppbv	0.5
108-10-1	4-Methyl-2-pentanone (MIBK)	136.56	ppbv	0.5
1006-02-6	t-1,3-dichloropropene	Not Found	ppbv	0.5
127-18-4	Tetrachloroethylene	Not Found	ppbv	0.5
79-00-5	1,1,2-trichloroethane	Not Found	ppbv	0.5
124-48-1	Dibromochloromethane	Not Found	ppbv	0.5
106-93-4	1,2-dibromoethane	Not Found	ppbv	0.5
591-78-6	2-Hexanone	Not Found	ppbv	0.5
100-41-4	Ethylbenzene	1.49	ppbv	0.5
108-90-7	Chlorobenzene	Not Found	ppbv	0.5
1330-20-7	m/p-Xylene	Below MDL	ppbv	0.5
95-47-6	o-Xylene	1.00	ppbv	0.5
100-42-5	Styrene	Not Found	ppbv	0.5
75-25-2	Tribromomethane	8.56	ppbv	0.5
79-34-5	1,1,2,2-tetrachloroethane	Not Found	ppbv	0.5
622-96-8	1-ethyl-4-methylbenzene	Not Found	ppbv	0.5
108-67-8	1,3,5-trimethylbenzene	Not Found	ppbv	0.5
95-63-6	1,2,4-trimethylbenzene	0.87	ppbv	0.5
541-73-1	1,3-dichlorobenzene	Not Found	ppbv	0.5
106-46-7	1,4-dichlorobenzene	Not Found	ppbv	0.5
100-44-7	Benzyl chloride	Not Found	ppbv	0.5
95-50-1	1,2-dichlorobenzene	Not Found	ppbv	0.5
87-68-3	1,1,2,3,4,4-hexachloro-1,3-butadiene	Not Found	ppbv	0.5
120-82-1	1,2,4-trichlorobenzene	Not Found	ppbv	0.5



**TENTATIVELY IDENTIFIED COMPOUNDS**

**EPA Method TO-15**

**GC/MS VOLATILE ORGANICS**

Data File: c:\varianwslwsdatafiles\voc060109\10-036-02.sms

Acquisition Date: 2/12/2010

Comment: Arcadis; UNC Airport; 2/1/10; VER Discharge; 10mL; DF=50

CAS NO.	COMPOUND NAME	Retention Time	Estimated Concentration,	
21618-99-5	5-(2-Aminopropyl)-2-methylphenol	8.17	161.55	ppbv
21618-99-5	5-(2-Aminopropyl)-2-methylphenol	8.27	42.64	ppbv
12128-90-4	Dichloro tetra(cyclopentadienyl)diytterb	9.47	21.97	ppbv
19682-30-5	7a-Aza-B-homocholesta-3,5-dien-7-one	18.8	27.65	ppbv
70028-64-7	Methyl 7-ethyl-10-(heptafluorobutyryloxy	19.3	31.40	ppbv
5426-43-7	Pentyl glycolate	19.3	23.84	ppbv
2034-69-7	Coumarin, 7-hydroxy-6-methoxy-3,7'-oxydi	19.7	30.55	ppbv
71339-49-6	(3R,2E)-2-(Hexadec-15-ynylidene)-3-hydro	21.5	47.22	ppbv
67587-04-6	Propanedioic acid, (bromomethyl)methyl-,	21.7	31.02	ppbv
27126-22-3	Heptane, 4-azido-	21.8	236.43	ppbv
63523-85-3	1-Methyl-bis(1,2,4)-triazole-5,1'	21.9	61.92	ppbv
84854-43-3	3-Methyl-10,10-diphenyl-9-(.beta.-cyanoe	22.4	27.72	ppbv
76100-13-5	Propanedinitrile, 2-(5-phenylthio-2-thie	23.2	262.77	ppbv
70925-30-3	cis-1-Acetamido-3-(p-toluenesulfonamido)	23.4	31.19	ppbv
629-92-5	Nonadecane	25.1	203.62	ppbv
76100-13-5	Propanedinitrile, 2-(5-phenylthio-2-thie	25.9	867.71	ppbv
17302-36-2	5-Ethyldecane	27.7	44.57	ppbv
24126-93-0	4H-1-Benzopyran-4-one, 3-(3,4-dimethoxyp	27.9	168.38	ppbv

(IS) is BFB Internal Standard and (SS) are Surrogate Standards that are added to each sample.

2/17/2010 11:34

Page 1 of 1

CLP TIC

10-036-02.sms



919 510-0228 Telephone  
 919 510-0141 Fax

Web Site: www.rtp-labs.com



Chain of Custody Record

NELAP Accredited NJ #NC003  
 ISO 17025



Research Triangle Park Laboratories, Inc  
 8109 Ebenezzer Church Road  
 Raleigh, North Carolina 27612-7307  
 Phone: 919-510-0228 Fax: 919-510-0141  
 Web Site: www.rtp-labs.com

Client (Billing): ARCADIS		Send Report To Attention: ALAN PINNIX		Phone Number: (919) 854-1282 (919) 854-5448	Fax Number: (919) 854-1282 (919) 854-5448	Date:
Address: 801 CORPORATE CENTER DRIVE		City: RALEIGH		State: NC		Zip Code: 27607
Contract/Purchase Order No.: NC000239.0012		Project Name: UNC AIRPORT ROAD WASTE DISPOSAL AREA		Requested Analyses:		
Comments:		Matrix: Air		Preservatives: TO-15		
Sample ID No. & Description		Date Sampled	TIME	PH	# of Containers	Tracking # Sample Fraction
1 AIR STRIPPER		2/11/10	0845		1 X	01
2 VER DISCHARGE			0855		1 X	02
3						
4						
5						
6						
7						
8						
9						
10						

10-036  
 Air Samples  
 Summa Canisters  
 Vacuum or Pressure  
 Field Lab  
 Initial Final Receipt Final Lab  
 psig

OC Requirements: Screen  Standard   
 EPA Level IV for Compliance   
 Results approved OAPE and to lab.

Turn Around Time Requested for Report: Business Days; \*Rush Multipliers (\*\*)  
 1 day (4x)  2 days (3x)  3 days (2x)  5 days (1.5x)  10 days (1.1x)  15 days

Relinquished By: *Neil Edwards* Date: 2/11/10 Time: 1220  
 Received By: *Jim Jordan* Date: 2/11/10 Time: 12:20

Research Triangle Park Laboratories, Inc.  
7201 ACC Blvd., Suite 104  
Raleigh, NC 27617



919 510-0228 Telephone  
919 510-0141 Fax

Web Site: [www.rtp-labs.com](http://www.rtp-labs.com)

---

August 4, 2010

ARCADIS G&M of North Carolina, Inc.  
801 Corporate Center, Suite 300  
Raleigh, NC 27607

Attn: Alan Pinnix

**PROJECT: "UNC Airport Road"; Contract Number: NC000239.0018**  
**RTP Labs ID: 10-222**

Enclosed with this letter is the report on the chemical analysis for the two Tedlar bag samples received on July 27, 2010 for a normal turnaround. The samples were analyzed by EPA Method TO-15 GC/MS for 60 VOC target compounds and included benzene, chloroform; 1,2-dichloroethane; methylene chloride; 1,1,2,2-tetrachloroethane; trichloroethylene; trichlorofluoromethane; and vinyl chloride.

Please call if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads 'Alston Sykes'.

Alston Sykes, Principal Chemist

Attachments: GC/MS reports, COC forms



919 510-0228 Telephone  
919 510-0141 Fax

Web Site: www.rtp-labs.com

**EPA Method TO-15**

**GC/MS VOLATILE ORGANICS**

Data File: c:\varianrws\lws\datafiles\voc062910\10-222-01.sms

Acquisition Date: 7/28/2010

Comment: Arcadis/UNC Airport Rd; 7/27/10; Air Stripper, 10mL

CAS NO.	COMPOUND	CONCENTRATION	UNITS	MDL and Reporting Limit
75-71-8	Dichlorodifluoromethane (Freon 12)	Not Found	ppbv	1
76-14-2	1,2-Chloro-1,1,2,2-Tetrafluoroethane	Not Found	ppbv	1
74-87-3	Chloromethane	Not Found	ppbv	1
75-01-4	Vinyl chloride	Not Found	ppbv	1
106-99-0	1,3-Butadiene	Not Found	ppbv	1
74-83-9	Bromomethane	Not Found	ppbv	1
75-00-3	Chloroethane	Not Found	ppbv	1
75-69-4	Trichloromonofluoromethane	Not Found	ppbv	1
75-35-4	1,1-dichloroethene	Not Found	ppbv	1
76-13-1	1,1,2-trichloro-1,2,2-trifluoroethane	Not Found	ppbv	1
64-17-5	Ethanol	Not Found	ppbv	1
75-15-0	Carbon disulfide	Not Found	ppbv	1
67-63-0	Isopropyl alcohol	28.80	ppbv	1
75-09-2	Methylene chloride	10.12	ppbv	1
67-64-1	Acetone	110.32	ppbv	1
156-60-5	t-1,2-dichloroethene	Not Found	ppbv	1
11-05-3	Hexane	9.51	ppbv	1
1634-04-4	Methyl-t-butyl ether (MTBE)	Not Found	ppbv	1
75-34-3	1,1-Dichloroethane	Not Found	ppbv	1
108-05-4	Vinyl acetate	Not Found	ppbv	1
156-59-2	cis-1,2-dichloroethene	Not Found	ppbv	1
110-82-7	Cyclohexane	2.69	ppbv	1
67-66-3	Chloroform	2.28	ppbv	1
141-78-6	Ethyl Acetate	Not Found	ppbv	1
109-99-9	Tetrahydrofuran	4.84	ppbv	1
71-55-6	1,1,1-trichloroethane	Not Found	ppbv	1
56-23-5	Carbon Tetrachloride	Not Found	ppbv	1
78-93-3	2-Butanone	Not Found	ppbv	1
142-82-5	Heptane	Not Found	ppbv	1
71-43-2	Benzene	2.63	ppbv	1
107-06-2	1,2-dichloroethane	Not Found	ppbv	1
79-01-6	Trichloroethylene	Not Found	ppbv	1
78-87-5	1,2-dichloropropane	Not Found	ppbv	1
75-27-4	Bromodichloromethane	Not Found	ppbv	1
123-91-1	1,4-dioxane	3.72	ppbv	1
10061-01-5	cis-1,3-dichloropropene	Not Found	ppbv	1
108-88-3	Toluene	1.98	ppbv	1
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Found	ppbv	1
1006-02-6	t-1,3-dichloropropene	Not Found	ppbv	1
127-18-4	Tetrachloroethylene	Not Found	ppbv	1
79-00-5	1,1,2-trichloroethane	Not Found	ppbv	1
124-48-1	Dibromochloromethane	Not Found	ppbv	1
106-93-4	1,2-dibromoethane	Not Found	ppbv	1
591-78-6	2-Hexanone	Not Found	ppbv	1
100-41-4	Ethylbenzene	Below MDL	ppbv	1
108-90-7	Chlorobenzene	Not Found	ppbv	1
1330-20-7	m/p-Xylene	1.48	ppbv	1
95-47-6	o-Xylene	Not Found	ppbv	1
100-42-5	Styrene	Not Found	ppbv	1
75-25-2	Tribromomethane	Not Found	ppbv	1
79-34-5	1,1,2,2-tetrachloroethane	Not Found	ppbv	1
622-96-8	1-ethyl-4-methylbenzene	Not Found	ppbv	1
108-67-8	1,3,5-trimethylbenzene	Not Found	ppbv	1
95-63-6	1,2,4-trimethylbenzene	Not Found	ppbv	1
541-73-1	1,3-dichlorobenzene	Not Found	ppbv	1
106-46-7	1,4-dichlorobenzene	Not Found	ppbv	1
100-44-7	Benzyl chloride	Not Found	ppbv	1
95-50-1	1,2-dichlorobenzene	Not Found	ppbv	1
87-68-3	1,1,2,3,4,4-hexachloro-1,3-butadiene	Not Found	ppbv	1
120-82-1	1,2,4-trichlorobenzene	Not Found	ppbv	1



919 510-0228 Telephone  
 919 510-0141 Fax

Web Site: www.rtp-labs.com

**EPA Method TO-15**

**GC/MS VOLATILE ORGANICS**

Data File: c:\varianrsl\wsdatafiles\voc062910\10-222-02.sms

Acquisition Date: 7/28/2010

Comment: Arcadis/UNC Airport Rd; 7/27/10; VER Discharge, 10mL

CAS NO.	COMPOUND	CONCENTRATION	UNITS	MDL and Reporting Limit
75-71-8	Dichlorodifluoromethane (Freon 12)	Not Found	ppbv	1
76-14-2	1,2-Chloro-1,1,2,2-Tetrafluoroethane	Not Found	ppbv	1
74-87-3	Chloromethane	8.22	ppbv	1
75-01-4	Vinyl chloride	Not Found	ppbv	1
106-99-0	1,3-Butadiene	Not Found	ppbv	1
74-83-9	Bromomethane	33.64	ppbv	1
75-00-3	Chloroethane	Not Found	ppbv	1
75-69-4	Trichloromonofluoromethane	Not Found	ppbv	1
75-35-4	1,1-dichloroethene	Not Found	ppbv	1
76-13-1	1,1,2-trichloro-1,2,2-trifluoroethane	Not Found	ppbv	1
64-17-5	Ethanol	Not Found	ppbv	1
75-15-0	Carbon disulfide	Not Found	ppbv	1
67-63-0	Isopropyl alcohol	11.90	ppbv	1
75-09-2	Methylene chloride	11.88	ppbv	1
67-64-1	Acetone	42.45	ppbv	1
156-60-5	t-1,2-dichloroethene	Not Found	ppbv	1
11-05-3	Hexane	Not Found	ppbv	1
1634-04-4	Methyl-t-butyl ether (MTBE)	Not Found	ppbv	1
75-34-3	1,1-Dichloroethane	Not Found	ppbv	1
108-05-4	Vinyl acetate	Not Found	ppbv	1
156-59-2	cis-1,2-dichloroethene	Not Found	ppbv	1
110-82-7	Cyclohexane	2.72	ppbv	1
67-66-3	Chloroform	28.58	ppbv	1
141-78-6	Ethyl Acetate	Not Found	ppbv	1
109-99-9	Tetrahydrofuran	7.18	ppbv	1
71-55-6	1,1,1-trichloroethane	Not Found	ppbv	1
56-23-5	Carbon Tetrachloride	Not Found	ppbv	1
78-93-3	2-Butanone	Not Found	ppbv	1
142-82-5	Heptane	Not Found	ppbv	1
71-43-2	Benzene	34.48	ppbv	1
107-06-2	1,2-dichloroethane	Not Found	ppbv	1
79-01-6	Trichloroethylene	1.40	ppbv	1
78-87-5	1,2-dichloropropane	Not Found	ppbv	1
75-27-4	Bromodichloromethane	Not Found	ppbv	1
123-91-1	1,4-dioxane	3.90	ppbv	1
10061-01-5	cis-1,3-dichloropropene	Not Found	ppbv	1
108-88-3	Toluene	1.18	ppbv	1
108-10-1	4-Methyl-2-pentanone (MIBK)	Not Found	ppbv	1
1006-02-6	t-1,3-dichloropropene	Not Found	ppbv	1
127-18-4	Tetrachloroethylene	Not Found	ppbv	1
79-00-5	1,1,2-trichloroethane	Not Found	ppbv	1
124-48-1	Dibromochloromethane	Not Found	ppbv	1
106-93-4	1,2-dibromoethane	Not Found	ppbv	1
591-78-6	2-Hexanone	Not Found	ppbv	1
100-41-4	Ethylbenzene	Below MDL	ppbv	1
108-90-7	Chlorobenzene	Not Found	ppbv	1
1330-20-7	m/p-Xylene	Not Found	ppbv	1
95-47-6	o-Xylene	Not Found	ppbv	1
100-42-5	Styrene	Not Found	ppbv	1
75-25-2	Tribromomethane	Not Found	ppbv	1
79-34-5	1,1,2,2-tetrachloroethane	3.46	ppbv	1
622-96-8	1-ethyl-4-methylbenzene	Not Found	ppbv	1
108-67-8	1,3,5-trimethylbenzene	Not Found	ppbv	1
95-63-6	1,2,4-trimethylbenzene	Not Found	ppbv	1
541-73-1	1,3-dichlorobenzene	Not Found	ppbv	1
106-46-7	1,4-dichlorobenzene	Not Found	ppbv	1
100-44-7	Benzyl chloride	Not Found	ppbv	1
95-50-1	1,2-dichlorobenzene	Not Found	ppbv	1
87-68-3	1,1,2,3,4,4-hexachloro-1,3-butadiene	Not Found	ppbv	1
120-82-1	1,2,4-trichlorobenzene	Not Found	ppbv	1



919 510-0228 Telephone  
 919 510-0141 Fax

Web Site: www.rtp-labs.com



**Chain of Custody Record**

NELAP Accredited NJ #NC003  
 ISO 17025



Research Triangle Park Laboratories, Inc  
 8109 Ebenezer Church Road  
 Raleigh, North Carolina 27612-7307  
 Phone: 919-510-0228 Fax: 919-510-0141  
 Web Site: www.rtp-labs.com

Client (Billing): ARCADIS		Send Report To Attention: ALAN PINNIX		Phone Number: (919) 854-1282		Fax Number: (919) 854-5448		Date:	
Address: 801 CORPORATE CENTER DRIVE		State: NC		E-Mail: APINNIX@ARCADIS-US.COM		RTP Labs Project Tracking Number: 10-222		Page 1 of 1	
City: RALEIGH		Zip Code: 27607		Requested Analytes:		Air Samples Summa Canisters		Tracking # Sample Fraction	
Contract/Purchase Order No.: NCO00239.001B		Project Name: UNC AIRPORT ROAD WASTE DISPOSAL AREA		Preservatives:		Vacuum or Pressure		Initial Final Receipt Final	
Comments:		Matrix: Air		# of Containers:		Field Lab		psig	
Sample ID No. & Description		TIME		TO-15		Initial		Final	
1 AIR STRIPPER		7/27/10 1445		1 X		psig		10	
2 VER DISCHARGE		7/27/10 1448		1 X		psig		20	
3									
4									
5									
6									
7									
8									
9									
10									
Turn Around Time Requested for Report: Business Days; *Rush Multipliers (Rx)		Data Pack: Std <input checked="" type="checkbox"/> Full <input type="checkbox"/> 1.1x surcharge		QC Requirements: Screen <input type="checkbox"/> Standard <input type="checkbox"/>		EPA Level IV for Compliance <input type="checkbox"/>		Date: 7/27/10 1550	
<input type="checkbox"/> 1 day*(4x) <input type="checkbox"/> 2 days*(2x) <input type="checkbox"/> 3 days*(1.5x) <input type="checkbox"/> 5 days*(1.1x) <input checked="" type="checkbox"/> 15 days		Electronic Deliverable: <input type="checkbox"/> 1.1x surcharge		Requisition #:		Requisition #:		Date:	
Relinquished By: <i>Alan Pinnix</i>		Date: 7/27/10 1550		Received By: <i>Alan Pinnix</i>		Date: 7/27/10 1550		Time: 1550	

File: chain\_RTP.docx revision 3/31/2006