



## Phase II Environmental Site Assessment



*Shady Oak Property  
4312 Shady Oak Road and 4292 Oak Drive Lane  
Minnetonka, Minnesota*

Prepared for:

**CITY OF MINNETONKA**

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Prepared by:

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# Table of Contents

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1.0	PURPOSE AND SCOPE .....	1-1
1.1	Scope of Services .....	1-1
2.0	SITE DESCRIPTION.....	2-1
2.1	Site Location.....	2-1
2.2	Current Site Use.....	2-1
2.3	Site Physical Setting.....	2-1
2.3.1	Topography .....	2-1
3.0	BACKGROUND INFORMATION .....	3-1
3.1	Phase I ESA, Wenck Associates, Inc., November, 2014 .....	3-1
4.0	INVESTIGATION METHODS AND PROCEDURES .....	4-1
4.1	Field Investigation Rationale.....	4-1
4.2	Soil Investigation.....	4-1
4.3	Groundwater Investigation.....	4-2
4.4	Soil Vapor Investigation .....	4-3
4.5	Polychlorinated Biphenyls (PCBS).....	4-3
5.0	INVESTIGATION RESULTS .....	5-1
5.1	Soil.....	5-1
5.1.1	Geology .....	5-1
5.1.2	Soil Analytical Results.....	5-1
5.2	Groundwater.....	5-2
5.2.1	Hydrogeology .....	5-2
5.2.2	Groundwater Analytical Results.....	5-2
5.3	Soil Vapor.....	5-3
5.4	PCB Wipe Samples .....	5-3
6.0	DISCUSSION.....	6-1
6.1	Soil Discussion.....	6-1
6.2	Groundwater discussion .....	6-1
6.3	Soil Vapor.....	6-1
6.4	PCB Wipe Discussion.....	6-2
7.0	CONCLUSIONS .....	7-1

---

# Table of Contents

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## FIGURES

Figure 1:	Site Location
Figure 2:	Site Aerial Detail
Figure 3:	Boring Locations
Figure 4:	Site Survey with Boring Locations

## TABLES

Table 1:	Soil Analytical Results Summary
Table 2:	Groundwater Analytical Results Summary
Table 3:	Soil Vapor Analytical Results Summary

## APPENDICES

Appendix A:	Soil Boring Logs
Appendix B:	Laboratory Reports and Chain-of-Custody Documentation

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# 1.0 Purpose and Scope

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Wenck Associates, Inc. (Wenck) was authorized by The City of Minnetonka to conduct this Phase II Environmental Site Assessment (ESA) of the property located at 4312 Shady Oak Road and 4292 Oak Drive Lane, Minnetonka, Hennepin County, Minnesota (the Subject Property).

The purpose of the Phase II ESA activities described herein was to determine if the Subject Property had been impacted by hazardous substances, pollutants or contaminants at concentrations of potential concern. The potential for such impact was identified during completion of a recent Phase I ESA for the Subject Property.

## 1.1 SCOPE OF SERVICES

This following scope of services was completed for this Phase II ESA:

- Cleared public and private utilities;
- Completed six (6) soil borings (including GP-1A) to assess current soil and groundwater conditions;
- Completed two (2) soil vapor probes to assess soil vapor conditions;
- Observed and collected soil samples recovered from the soil borings, created soil boring logs, and field-screened soil for the presence of volatile organics with a photoionization detector (PID);
- Collected a total of six (6) soil samples for analysis of diesel range organics (DRO), volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), Resource Conservation and Recovery Act (RCRA) metals and/or polychlorinated biphenyls (PCBs);
- Collected three (3) groundwater samples for analysis of DRO, GRO, and VOCs;
- Collected two (2) soil vapor samples for VOC analysis by method TO-15;
- Collect three PCB wipe samples from oil stained concrete surfaces within the building;
- Prepared this report.

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## 2.0 Site Description

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### 2.1 SITE LOCATION

The Subject Property consists of 2.28-acres occupied by an approximately 25,680-square foot commercial/retail building and a single family residence. The parcel with the commercial building located at 4312 Shady Oak Road will be referred to as the 4312 Parcel and the parcel with the single-family residence located at 4292 Oak Drive Lane will be referred to as the 4292 Parcel. Access to the Subject Property is from Shady Oak Road and Oak Drive Lane. The Subject Property location is depicted in Figure 1. A Site Detail Map of the Subject Property is included as Figure 2.

### 2.2 CURRENT SITE USE

The building on the 4312 Parcel is two levels. The upper level tenant spaces are accessed from the east side of the building off Shady Oak Road and the lower level tenant spaces are accessed by a walkout basement level on the west side of the building. The current tenants consist of Ammo Craft (4314), **Tara's Chalet Pizza (4316)**, **Sewing and Alterations (4318)**, 3x3 Fit (4330), P3 Hair Design (4332), E-Cigs and Accessories (4334), Mission Animal Hospital (4338), Second Hand Hounds (4340 and 4334B), Mid-Tool (4316B), Electric City (4330B and 4332B), and Practical Systems – HVAC (4340B and 4342B).

### 2.3 SITE PHYSICAL SETTING

#### 2.3.1 Topography

The Subject Property is generally level and is at an elevation of approximately 920-930 feet above mean sea level. Site surface drainage is to the southwest. Historic development may have included grading or filling of the Subject Property to improve the location for construction and drainage.

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## 3.0 Background Information

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### 3.1 PHASE I ESA, WENCK ASSOCIATES, INC., NOVEMBER, 2014

A Phase I Environmental Site Assessment (ESA) was completed by Wenck Associates, Inc. (Wenck), dated November 6, 2014 (The Wenck Phase I). The Phase I was completed for a larger site including the Subject Property that also included the adjacent residential property at 4292 Oak Drive Lane.

Wenck reviewed building permits and records for the Subject Property at the City of Minnetonka. Dahl's Cleaners and Laundry were noted in the City file as a drycleaner tenant at the Subject Property at the 4312 Parcel building and the file notes a drycleaning machine was installed in 1962.

Wenck also obtained hazardous waste files from Hennepin County Environmental. The records did not reveal any evidence of a release of hazardous materials at the Property or any major handling violations. Wenck reviewed records for Knight Machining, Inc., Mid-Tool, Liberty Tool, Practical Systems, Clean Flo Labs, and Shady Oak Veterinary Clinic.

Chemicals formerly used by Knight Machine included relatively small quantities of Stoddard Solvent, used oil, and metal working fluid. Waste generated by the Shady Oak Veterinary included used X-Ray film, x-ray fixer, and bio-waste. Clean Flo labs reported to generate approximately 5-gallons per year of mixed lab chemicals. A letter for Mid-Tool from the MCPA noted that Mid-Tool does not generate any waste, but uses cutting oil and Stoddard Solvent in their operations. The chemicals are reportedly consumed in the process or recycled back to the machines.

Oil containing equipment observed at the Subject Property on the 4312 Parcel includes a compressor in the vacant storage tenant space in the basement and the cutting equipment in the Mid-Tool Space. Significant staining was noted in the Mid-Tool space and at the location of the compressor.

City files show that the commercial structure on the 4312 Parcel was originally constructed with a septic system consisting of a 10' wide x 40' long x 8' in height septic tank and four 675-gallon concrete cesspools.

Wenck observed a vent pipe on the west side of the building on the 4312 parcel. This pipe may be associated with a former fuel tank or the former septic system. Mr. Ed Ring, the Property Owner, stated that he is not aware of historic fuel tanks on the Subject Property.

The Subject Property was identified on the following reviewed regulatory databases in the GeoSearch™ Radius Report: Resource Conservation & Recovery Act – Generator Facilities (RCRAGR05) and Federal Facility Registry System (FRSMN) and Hazardous Waste Generator Sites (HWGS) databases due to a hazardous waste generator licenses. Other nearby sites were noted in the Geosearch report for various databases.

Wenck observed two wells on the 4312 parcel. One well is located under a stairwell in the Practical Systems space and the other well is located outside off the sidewalk north of the Ammo Craft tenant space. Wenck also observed a well in the basement of the residence at the 4292 parcel. Mr. Ed Ring, Property Owner, reports that none of the wells are currently in use. Mr. Ring also reported that none of the wells have been sealed.

The Wenck Phase I identified the following Recognized Environmental Conditions (RECs) relative to the Subject Property:

- The presence of historical machine shop and drycleaner tenants at the Subject Property that handled various oils and solvents and operated at the same time as the former septic and cesspool system is considered an REC.
- Heavy oil staining from a leaking compressor located in the northwest corner of the building in a vacant tenant space is considered an REC.

The Wenck Phase I revealed the following items that constitute environmental business risks:

- There is a domestic well located at the Subject Property that is currently not in use on the 4292 Parcel and two wells not in use on the 4312 parcel. According to the Minnesota Department of Health, a well must be in use, be under a maintenance permit, or be sealed by a licensed contractor.
- A former septic system may still be present on the Subject Property at the 4312 Parcel on the west of the building. Septic systems no longer in use should be abandoned/decommissioned in accordance with local regulations. A septic system was not observed on the 4292 Parcel; however, a septic system may also be present on the 4292 Parcel, based on the similar time of construction.

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## 4.0 Investigation Methods and Procedures

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### 4.1 FIELD INVESTIGATION RATIONALE

The objective of this investigation was to identify if soil, groundwater and/or soil vapor impacts are present at the Subject Property at concentrations of concern and to assess RECs identified in the Wenck Phase I ESA. The focus of the investigation was to assess the RECs identified at the Subject Property.

**Procedures for soil, groundwater and soil vapor sampling activities followed Wenck's standard operating procedures.** Standard operating procedures were adhered to with no deviations during the implementation of the work. Methods and procedures are described below.

### 4.2 SOIL INVESTIGATION

The soil investigation activities were conducted on October 30, 2014. Investigation activities included the advancement of five push-probe borings by Midwestern Drilling, LLC (Midwestern). Borings GP-1 and GP-3 were advanced to 15 feet below grade (bg), borings GP-2 and GP-4 were advanced to 20 feet bg, and boring GP-5 was advanced to 30 feet bg. The boring locations were selected to evaluate subsurface conditions in specific locations to provide good spatial coverage of the site, and to evaluate environmental conditions of the Subject Property. Proposed boring locations were adjusted based on the presence of underground or overhead utilities. The locations of underground utilities were verified prior to drilling to ensure the safe advancement of each boring. The locations of the borings and soil vapor probes are shown on Figure 3.

Soil was collected continuously in five-foot drives by Midwestern using a **Geoprobe™** with a Macro-Core sampler. Upon reaching each interval, the nature of the recovered soil was assessed to conduct soil classification and observe for evidence of potential contamination (i.e., odors, staining, fill material, etc.).

Soil samples were collected from the **Geoprobe™** sampler by hand using clean dedicated nitrile gloves and placed into dedicated sealable polyethylene storage bags. Vapor headspace readings were collected using a photoionization detector (PID) equipped with a 10.6 eV source lamp calibrated to an isobutylene gas standard. Soil samples from each boring were collected in dedicated glassware, placed in a cooler with ice and submitted under chain-of-custody control to Test America for laboratory analysis.



The boring location rationale and analytical parameters sampled for soil are as follows:

Boring ID	Rationale	Sample Depth	Laboratory Analysis
GP-1A	Sample soil for suspect contaminated fill. This boring was terminated due to obstruction by concrete, likely the former septic system. The soil sample was collected from the fill on top of the concrete.	0-2'	DRO, VOCs, PAHs, RCRA Metals, PCBs
GP-1	Sample soil for potential impacts related to the former septic system.	10-15'	DRO, VOCs, PAHs, RCRA Metals
GP-2	Sample soil for potential impacts related to the former septic system.	10-15'	DRO, VOCs, PAHs, RCRA Metals
GP-3	Sample soil for potential impacts related to the leaking compressor.	0-2'	DRO, VOCs, PAHs, RCRA Metals, PCBs
GP-4	Sample soil for potential impacts related to the former septic system.	4-5'	DRO, VOCs, PAHs, RCRA Metals
GP-5	Sample soil for potential impacts from fill and provide soil observations down-groundwater gradient of the former septic system.	3-5'	DRO, VOCs, RCRA Metals

#### 4.3 GROUNDWATER INVESTIGATION

Groundwater sampling was completed on October 30, 2014. Temporary wells were installed by Midwestern at boring locations GP-2, GP-4, and GP-5. The temporary wells were constructed using 1-inch PVC riser with a 10-foot slotted PVC screen. Groundwater was collected using a check ball connected to dedicated polyethylene tubing. Groundwater was purged to the degree possible, allowing the temporary well to recharge. The samples were collected in dedicated glassware, placed in a cooler with ice, and submitted under chain-of-custody control to Test America for laboratory analysis. Temporary well locations are shown on Figure 3.

The boring location rationale and analytical parameters sampled for groundwater are as follows:

Boring ID	Rationale	Screen Depth	Laboratory Analysis
GP-2	Sample for potential impacts related to the former septic system.	10-20'	DRO and VOCs
GP-4	Sample for potential impacts related to the former septic system.	10-20'	DRO and VOCs
GP-5	Located in an assumed down-groundwater gradient location from GP-2 and GP-4.	17-27'	DRO and VOCs

#### 4.4 SOIL VAPOR INVESTIGATION

Soil vapor sampling was completed on October 30, 2014. Midwestern installed soil vapor sample probes at locations SV-1 and SV-2. Soil vapor sample tooling was advanced to six feet below grade and the rod was then pulled back two feet to create a void space for sampling. The top of the hole around the rod was then grouted to seal the sample space from the above ground atmosphere. Dedicated polyethylene tubing was then placed down the rod and connected to a fitting at the rod tip. Three volumes of air were purged out of the sample line with a syringe prior to collecting the sample. The samples were collected in 6-L Summa canisters equipped with 200 mL per minute fill regulators and dedicated in-line moisture filters. The soil vapor samples were submitted under chain-of-custody control to Test America for analysis by TO-15 VOCs. A PID equipped with a 10.6 eV source lamp was connected to the tubing for field screening purposes upon the completion of the Summa can sample collection. The locations of the soil vapor probes are shown on Figure 3.

The soil vapor probe location rationale and analytical parameters sampled for soil vapor are as follows:

Vapor Probe ID	Rationale	Sample Depth	Laboratory Analysis	PID Reading (ppm)
SV-1	Assess potential soil vapor impacts on Subject Property.	4-6'	TO-15 VOCs	0.0
SV-2	Assess potential soil vapor impacts on Subject Property.	4-6'	TO-15 VOCs	0.0

#### 4.5 POLYCHLORINATED BIPHENYLS (PCBS)

Wenck collected three PCB wipe samples from areas where staining was observed in the basement of the commercial structure on the 4312 Parcel. A standard wipe test for PCBs was conducted wiping a standard size template (100 cm<sup>2</sup>) using a gauze pad saturated with hexane. W-1 was collected under the leaking cooling compressor in the 4312B space, which is currently vacant and used for storage. W-2 and W-3 were collected from oil stained areas under the cutting machines in the 4316B – Mid-Tool space. The wipe samples were submitted under chain of custody control to Test America.

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## 5.0 Investigation Results

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### 5.1 SOIL

#### 5.1.1 Geology

Wenck encountered up to 15 feet of fill soils consisting of mainly dark brown to black silty sand with gravel in the west parking lot near the former septic system in GP-2. Fill was encountered to depths of approximately 2 to 5 feet below grade in the other borings. In general, the fill is underlain primarily by brown silty sand with gravel. Organic clay was noted in GP-5 from 5-11 feet below grade. Soil boring logs are included in Appendix A.

Published references describe the surficial geology at the Subject Property as outwash consisting of sand, loamy sand, and gravel (University of Minnesota, 1989). Surficial bedrock in the vicinity of the Subject Property consists of the Platteville and Glenwood Formations at a depth of approximately 100-150 feet (University of Minnesota, 1989).

#### 5.1.2 Soil Analytical Results

Soil investigation data compared detected concentrations of RCRA metals, VOCs, PAHs and PCBs to the **Minnesota Pollution Control Agency's** Tier 1 Residential and Tier 2 Industrial Soil Reference Values (SRVs). Additionally, MPCA Tier 1 Soil Leaching Values (SLVs) were referenced to evaluate the potential risk to groundwater at the Subject Property from the soil-to-groundwater leaching pathway. There are no established MPCA SRVs or SLVs for DRO and GRO.

#### Field Screening

Vapor headspace readings for VOCs were not detected above background concentrations via field screening by PID in soil borings GP-1, GP-2, GP-3, GP-4, or GP-5. A headspace reading was detected at 16.7 parts per million (ppm) in sample GP-1A (0-2'). GP-1A was terminated at two feet due to obstruction. The obstruction was determined to likely be concrete associated with the former septic system based on the location of the boring. Vapor headspace readings and field observations are included on the soil boring logs in Appendix A.

#### DRO

DRO was detected in three of the six soil samples collected and analyzed for DRO. DRO was detected at 494 mg/kg in sample GP-1A (0-2'), **39.7 mg/kg** in sample GP-3 (0-2'), and 9.99 mg/kg in sample GP-5 (3-5').

#### RCRA Metals

Various RCRA metals were detected in all of the samples collected and analyzed for RCRA metals. However, detected concentrations of metals do not exceed the MPCA SLVs, Residential SRVs, or Industrial SRVs.

## VOCs

A total of six soil samples collected from borings GP-1 through GP-6 were analyzed for VOCs. VOCs were not identified in soil samples above their respective laboratory method reporting limits and do not exceed the MPCA SLVs, Residential SRVs, or Industrial SRVs.

## PCBs

PCBs were sampled in two of the five soil borings. Total PCBs were detected at 0.265 mg/kg in sample GP-1A (0-2'), which exceeds the MPCA SLV of 0.1 mg/kg. PCBs were not detected above laboratory reporting limits in sample GP-3 (0-2').

## PAHs

Various PAHs were detected above the method reporting limit in three of the five soil samples collected and analyzed for PAHs. Benzo(a)pyrene (BaP) equivalent concentrations were calculated to estimate the aggregated carcinogenic potential of PAHs relative to benzo(a)pyrene. The benzo(a)pyrene equivalent is calculated using the sum of the products of the respective relative potency slope factors multiplied by **the compound's soil concentration**. None of the samples were identified to exceed the MPCA Residential or Industrial SRVs or MPCA SLVs for individual PAHs or the BaP equivalent concentrations calculated.

Soil sample results are summarized in Table 1. Laboratory reports and supporting chain-of-custody documentation are included in Appendix B.

## 5.2 GROUNDWATER

### 5.2.1 Hydrogeology

Groundwater was encountered in each boring drilled on the Subject Property. Groundwater was encountered at approximately 10 feet below ground surface in GP-1 through GP-4 located at a lower elevation on the west side of the building. Groundwater was encountered at approximately 20 feet below grade in boring GP-5 which was drilled on the south side of the building starting at a higher elevation.

The general direction of regional groundwater flow in the area of the Subject Property is presumed to be to the east-southeast toward the Mississippi River (University of Minnesota, 1989). Local conditions may vary due to surface water features, perched groundwater conditions or artificially created drainage systems.

### 5.2.2 Groundwater Analytical Results

A groundwater sample was collected from temporary wells GP-2, GP-4, and GP-5. The groundwater samples were analyzed for DRO and VOCs. Groundwater investigation data analysis compared detected concentrations of VOCs **to the Minnesota Department of Health's (MDH) and MPCA's Health Risk Limits (HRL) and MDH Health Based Values (HBVs) guidance values** to assess potential human health risks from exposures to chemicals in groundwater. There are no established HRLs or HBVs for DRO and GRO.

The VOC tetrachloroethene (PCE), a common drycleaner solvent, was detected in groundwater sampled from temporary wells GP-2 and GP-4. PCE was detected in temporary well GP-2 at 1.81 ug/L and in temporary well GP-4 at 1.23 ug/L. Both detections are below the MPCA HRL/MDH HBV of 5.0 ug/L.

Acetone was also detected at 12.2 ug/L in temporary well GP-2, well below the MPC HRL/MDH HBV of 4,000 ug/L.

DRO was detected in all three temporary wells. DRO was detected at 21.2 ug/L in GP-2, 314 ug/L in GP-4, and 267 ug/L in GP-5.

Groundwater sample results are summarized in Table 2. Laboratory reports and supporting chain-of-custody documentation are included in Appendix B.

### 5.3 SOIL VAPOR

**The soil vapor data was compared to the MPCA's Intrusion Screening Values (ISVs) for Vapor Intrusion Risk.** These guidelines were developed by the Minnesota Pollution Control Agency (MPCA) and serve as the state regulatory screening values for vapor intrusion risk in residential and commercial/industrial settings. **The MPCA "Vapor Intrusion Technical Support Document," published in August 2010, states** that if soil gas concentrations collected near a receptor are less than 10X the applicable ISVs (residential or industrial), then the risk is considered low and no further vapor intrusion investigation is needed at those receptor locations. If soil gas concentrations are equal to or greater than 10X the applicable ISVs (Residential or Industrial), more thorough soil gas investigation and/or considerations for vapor mitigation may be required.

Various VOCs were detected above the method detection limits in the soil vapor samples collected from the Subject Property. Tetrachloroethene (PCE) was detected at 130 ug/m<sup>3</sup> in sample SV-1, above 10x the Residential ISV, but below 10x the Industrial ISV. Trichloroethene (TCE) was detected at 20 ug/m<sup>3</sup> in SV-1, equal to 10x the Residential ISV, but below 10x the Industrial ISV.

The VOC 1,3-butadiene was detected in SV-1 above 10x the Residential ISV at 4.4 ug/m<sup>3</sup> and in SV-2 at above the Industrial ISV at 11 ug/m<sup>3</sup>. 1,3-butadiene is a common laboratory contaminant and since there is no suspected source of 1,3-butadiene at the Subject Property, the detection of 1,3-butadiene is not indicative of a release at the Subject Property.

None of the other detected VOCs exceed 10x the MPCA Residential or Industrial ISVs.

Soil vapor sample results are summarized in Table 3. Laboratory reports and supporting chain-of-custody documentation are included in Appendix B.

### 5.4 PCB WIPE SAMPLES

PCBs were detected in wipe sample W-1 at a concentration of 25.1 ug/100 cm<sup>2</sup>. W-1 was collected from the oil stained concrete under the leaking compressor in the vacant storage space in the northwest corner of the basement of the building on the 4312 Parcel. PCB wipe samples W-2 and W-3 were collected from the Mid-Tool space. PCBs were not detected in samples W-2 and W-3. Copies of the Test America laboratory report and chain-of-custody documentation are included in Appendix B.

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## 6.0 Discussion

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### 6.1 SOIL DISCUSSION

The detection of DRO in the fill soil in GP-1A (0-2') is indicative of a release, though non-tank related. The detection of PCBs in GP-1A (0-2') **exceeding the** MPCA SLV should be addressed by The City of Minnetonka in the form of a request for a No Association Determination from the MPCA Voluntary Investigation and Cleanup (VIC) Program. With the soil detections of PCBs above the MPCA SLV and the detection of DRO in fill over 100 mg/kg, the future redevelopment of the Subject Property and soil management should be conducted under an approved MPCA Response Action Plan.

The MPCA document “Best Management Practices for the Off-Site Reuse of Unregulated Fill,” dated February 2012, defines unregulated fill as excess soil in which a release of contaminants has been **identified at concentrations less than the MPCA’s most conservative risk-based values**. The criteria for unregulated fill are described as the following:

- Soil free from solid waste, debris, asbestos containing material, visual staining, and chemical odor;
- Organic vapors less than 10 ppm as measured by a PID;
- For petroleum impacted soil, less than 100 mg/kg DRO/GRO;
- **For contaminants detected in soil, less than the MPCA’s Residential SRVs and MPCA Tier 1 SLVs.**

Wenck recommends removal of the former septic system components as part of the proposed redevelopment. Additional assessment of soil is recommended at the time of the removal of the former septic system components.

### 6.2 GROUNDWATER DISCUSSION

Groundwater analytical results from temporary wells indicate the presence of PCE. Acetone is a common laboratory contaminant and may not be related to a release at the Subject Property, but MPCA review of this report will include regulatory review of the groundwater contaminant list. Although the groundwater contaminant concentrations are below the MPCA HRLs, The City of Minnetonka should address these impacts in the form of a request for a No Association Determination from the MPCA VIC Program. The low-level detections of DRO in the groundwater samples indicate the presence of DRO, but since there are no known fuel tanks at the Subject Property, the DRO detections are considered to be non-tank related.

### 6.3 SOIL VAPOR

PCE and TCE were detected above 10x the MPCA Residential ISVs in soil vapor sample SV-1 collected at the Subject Property. Based on the current use of the 4312 Parcel as industrial, no additional action is required at this time. The detections of PCE and TCE should be addressed by The City of Minnetonka in the form of a request for a No Association Determination from the MPCA VIC Program. If future

redevelopment includes residential units, soil vapor should be addressed under an approved MPCA Response Action Plan.

#### 6.4 PCB WIPE DISCUSSION

PCB contamination is present in the area of wipe sample W-1. For the continued use of the space, Wenck recommends following:

- The Environmental Protection Agency (EPA) guidance suggests cleaning up the stained porous concrete area to less than 1 ppm PCB, confirmed by bulk concrete analysis (*PCB Site Revitalization Guidance Under the Toxic Substances and Control Act (TSCA) EPA, November 2005*).
- Wenck recommends replacing the compressor or fixing the leak.
- Bulk sampling of the concrete in the area of sample W-1 should be completed prior to demolition to determine if the concrete is considered to be PCB containing. Concrete contaminated with PCBs over 50 ppm require special handling and disposal.

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## 7.0 Conclusions

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Based on the field observations and laboratory analysis of PCB wipe samples, soil, soil vapor, and groundwater samples collected and analyzed from the Subject Property, Wenck submits the following conclusions:

1. Enroll the Subject Property in the MPCA Voluntary Investigation and Cleanup (VIC) Program and Petroleum Brownfields (PB) Program;
2. Apply for a No Association Determination related to the elevated detection of PCBs in soil, PCE and acetone in groundwater, and PCE and TCE in soil vapor from the VIC Program. The submittal will include a proposed actions letter for the proposed use of the Subject Property.
3. Apply for a Non-tank Closure Letter from the Petroleum Brownfields Program for the low-level detections of DRO in soil and groundwater at the Subject Property.
4. When development plans are known, submit a Response Action Plan to the MPCA Voluntary Brownfield Programs (VIC and the Petroleum Brownfield Program) for review and approval.
5. Wenck recommends the City remove and dispose of the former septic system as part of future redevelopment as an environmental development response action.
6. Wenck recommends cleaning the concrete contaminated with PCB containing oil using approved methods and either fixing the leak in the compressor or replacing the compressor as long as current leases and business operations continue at the Subject Property.
7. Wenck recommends collecting bulk samples of the concrete stained with the PCB containing oil prior to demolition to determine if the concrete will require special handling.



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Adam P. Zobel  
Senior Environmental Project Manager



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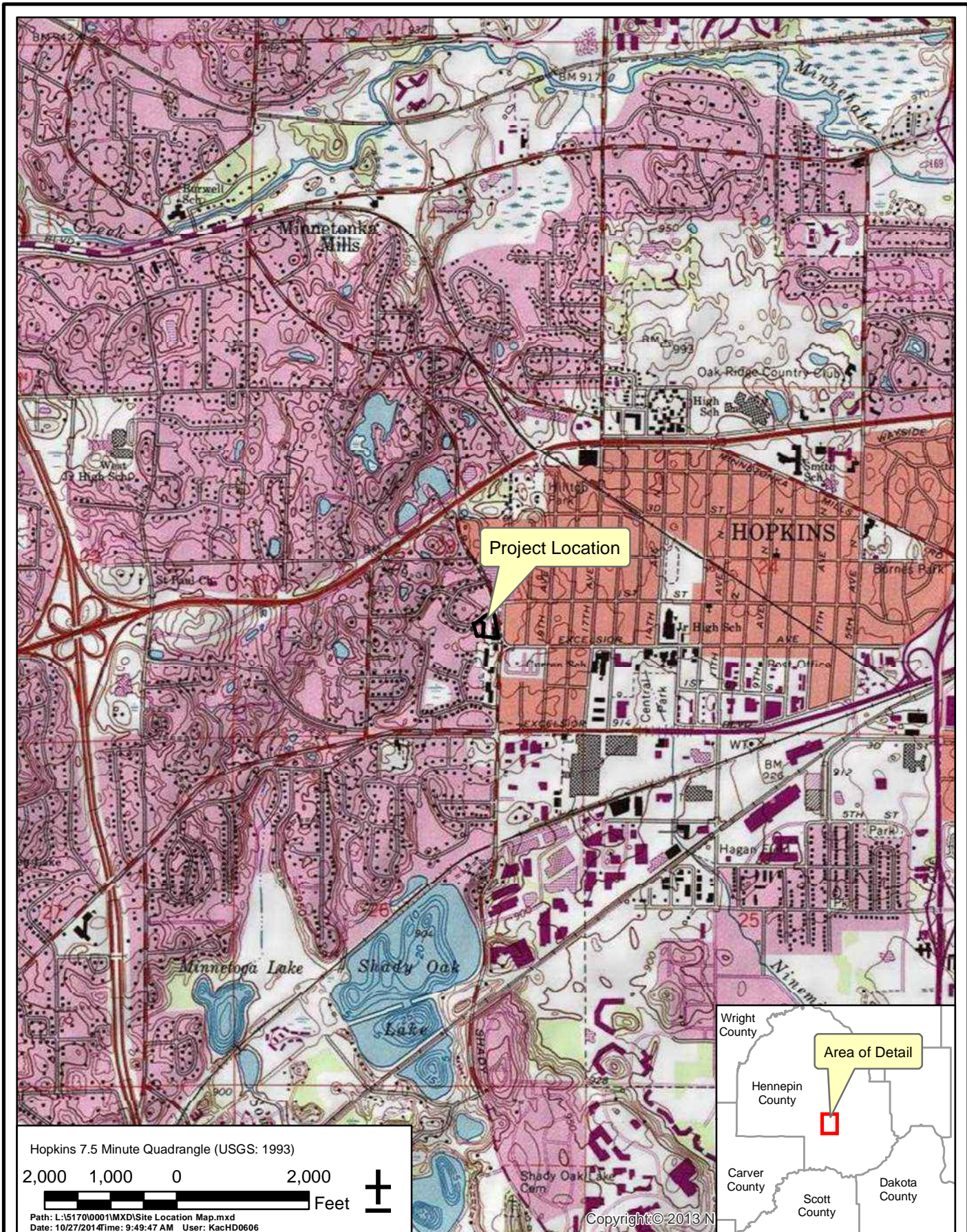
Aaron Benker  
Principal



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## Figures

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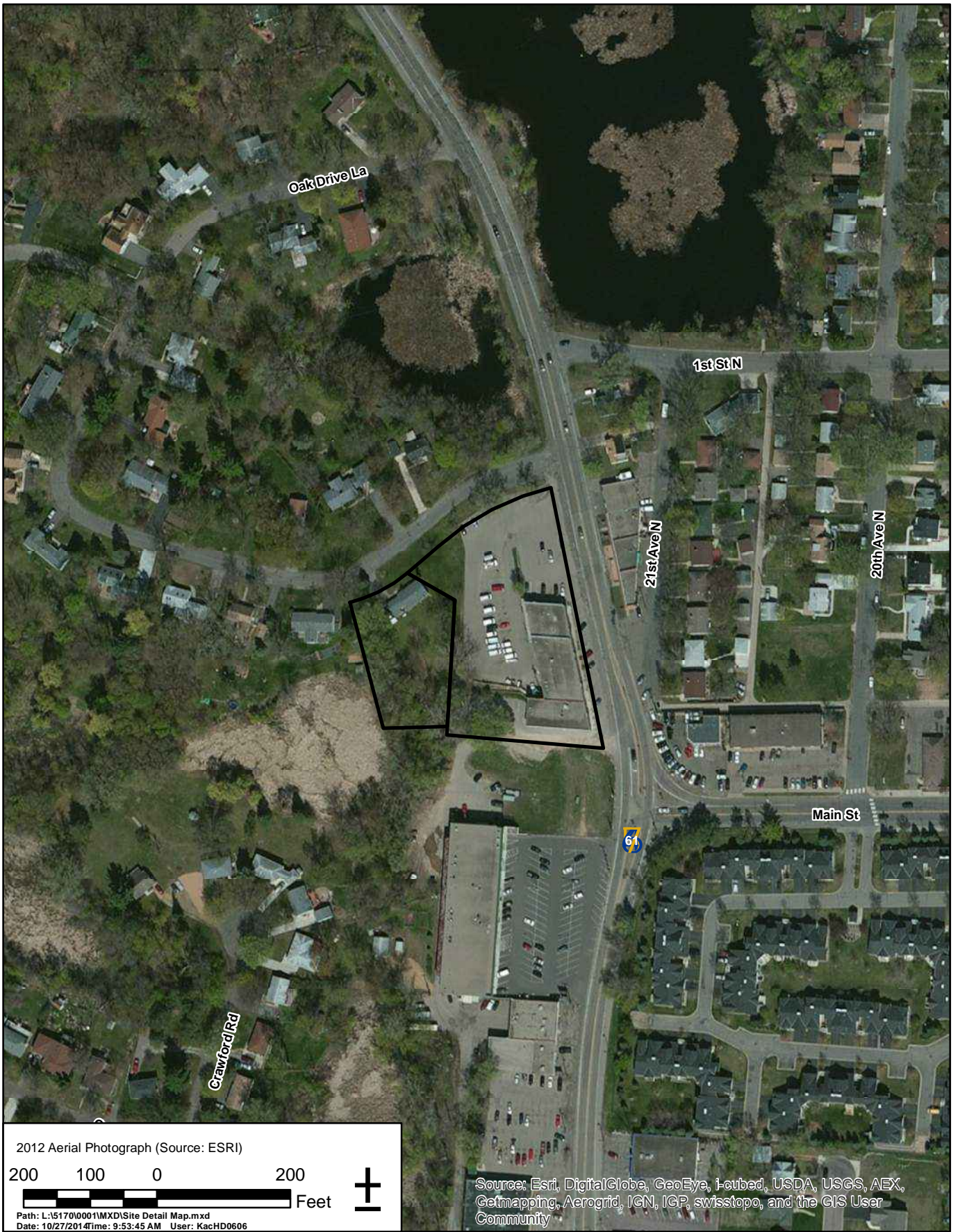
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 Date: 10/27/2014 Time: 9:49:47 AM User: KacHD0606

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 1-800-472-2232

**OCT 2014**  
**Figure 1**



2012 Aerial Photograph (Source: ESRI)



Path: L:\5170\0001\MXD\Site Detail Map.mxd  
 Date: 10/27/2014 Time: 9:53:45 AM User: KacHD0606

Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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Site Detail Map



Engineers - Scientists  
 Business Professionals  
[www.wenck.com](http://www.wenck.com)

**Wenck**

1800 Pioneer Creek Center  
 Maple Plain, MN 55359-0429  
 1-800-472-2232

OCT 2014

Figure 2



2012 Aerial Photograph (Source: ESRI)

100 50 0 100 Feet

Path: L:\5170\0001\Phase 3\MXD\Sample Location Map.mxd  
 Date: 11/12/2014 Time: 8:38:11 AM User: KacHD0606

Source: Esri, DigitalGlobe, GeoEye, i-c  
 CNES/Airbus DS, USDA, USGS, AEX,  
 IGP, swisstopo, and the GIS User Com

**Legend**

- Soil Gas
- Soil Boring
- Project Location

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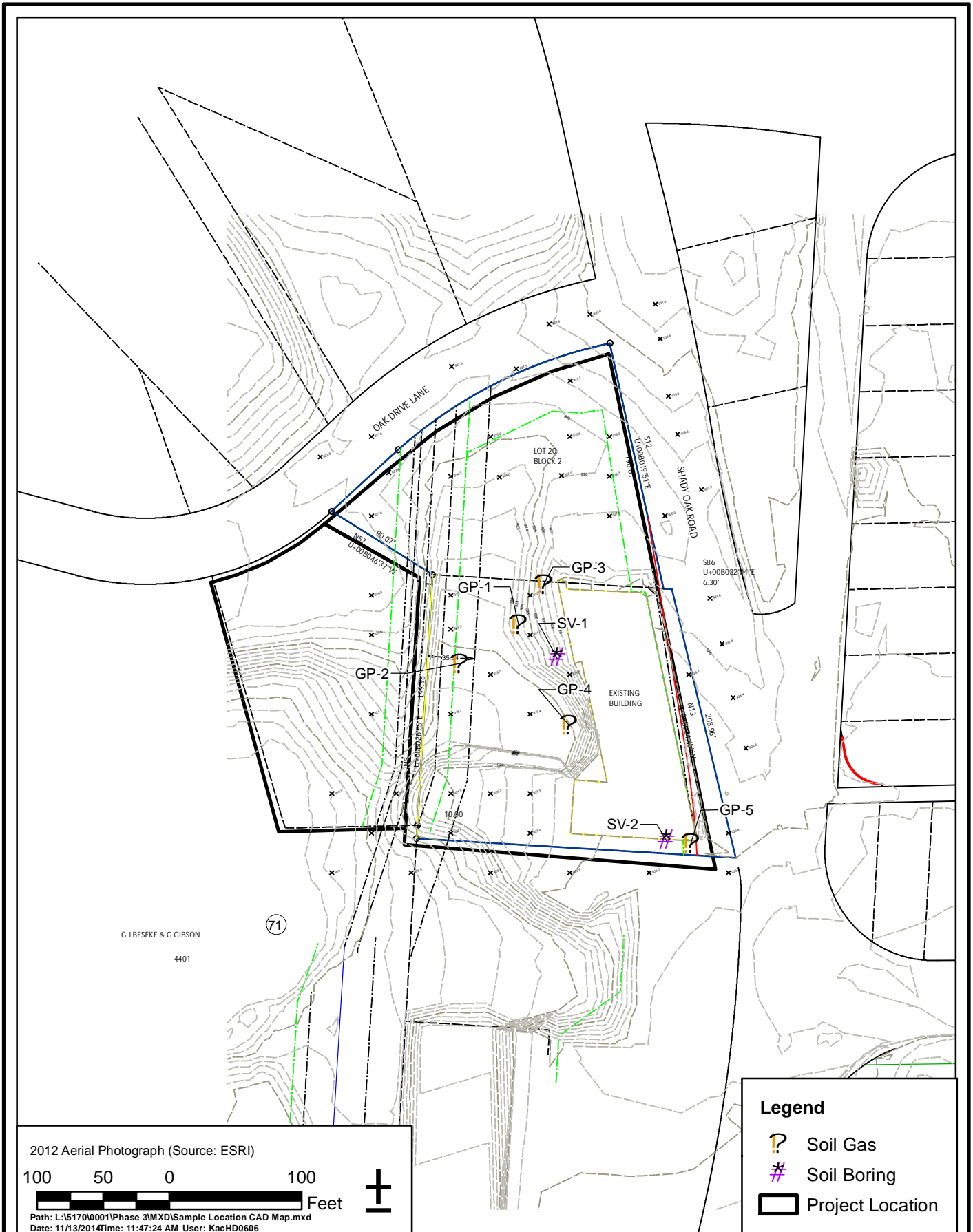
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1800 Pioneer Creek Center  
 Maple Plain, MN 55359-0429  
 1-800-472-2232

NOV 2014

Figure 3



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## Tables

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**Table 1**  
**Soil Analytical Results Summary**  
**4312 Shady Oak Road**  
**Minnetonka, MN**  
**Wenck Project No. 5170-0001**  
**November 2014**

Analyte	Units	MPCA SLV	MPCA Residential SRV	MPCA Industrial SRV	GP-1 (10-15') 10/30/2014	GP-1A (0-2') 10/30/2014	GP-2 (10-15') 10/30/2014	GP-3 (0-2') 10/30/2014	GP-4 (4-5') 10/30/2014	GP-5 (3-5') 10/30/2014
<b>Deisel Range Organics</b>										
Diesel Range Organics (DRO)	mg/Kg	NE	NE	NE	<7.10	494	<6.01	39.7	<7.03	9.99
<b>Volatile Organic Compounds</b>										
VOCs	mg/Kg	Various	Various	Various	ND	ND	ND	ND	ND	ND
<b>Polynuclear Aromatic Hydrocarbons</b>										
Anthracene	mg/Kg	1300	7880	45400	<0.0104	<0.102	<0.0107	<0.106	<0.0121	NA
Benzo[a]anthracene	mg/Kg	NE	NE	NE	<0.0104	<0.102	<0.0107	<b>0.158</b>	<b>0.0264</b>	NA
Benzo[b]fluoranthene	mg/Kg	NE	NE	NE	<0.0104	<b>0.202</b>	<0.0107	<b>0.25</b>	<b>0.0456</b>	NA
Benzo[a]pyrene	mg/Kg	1.4	2	3	<0.0104	<b>0.133</b>	<0.0107	<b>0.2</b>	<b>0.0317</b>	NA
2-Methylnaphthalene	mg/Kg		100	369	<0.0104	<0.102	<0.0107	<0.106	<0.0121	NA
Naphthalene	mg/Kg	4.5	10	28	<0.0104	<0.102	<0.0107	<0.106	<0.0121	NA
Acenaphthylene	mg/Kg	NE	NE	NE	<0.0104	<0.102	<0.0107	<0.106	<0.0121	NA
Acenaphthene	mg/Kg	81	1200	5260	<0.0104	<0.102	<0.0107	<0.106	<0.0121	NA
Benzo[g,h,i]perylene	mg/Kg	NE	NE	NE	<0.0104	<b>0.131</b>	<0.0107	<b>0.132</b>	<b>0.0205</b>	NA
Indeno[1,2,3-cd]pyrene	mg/Kg	NE	NE	NE	<0.0104	<0.102	<0.0107	<0.106	<b>0.0177</b>	NA
Fluorene	mg/Kg	110	850	4120	<0.0104	<0.102	<0.0107	<0.106	<0.0121	NA
Pyrene	mg/Kg	440	890	5800	<0.0104	<b>0.115</b>	<0.0107	<b>0.133</b>	<b>0.0343</b>	NA
Phenanthrene	mg/Kg	NE	NE	NE	<0.0104	<0.102	<0.0107	<0.106	<b>0.0374</b>	NA
Chrysene	mg/Kg	NE	NE	NE	<0.0104	<b>0.143</b>	<0.0107	<b>0.196</b>	<b>0.0364</b>	NA
Benzo[k]fluoranthene	mg/Kg	NE	NE	NE	<0.0104	<0.102	<0.0107	<0.106	<b>0.0182</b>	NA
Fluoranthene	mg/Kg	670	1080	6800	<0.0104	<b>0.152</b>	<0.0107	<b>0.129</b>	<b>0.0425</b>	NA
Dibenz[a,h]anthracene	mg/Kg	NE	NE	NE	<0.0104	<0.102	<0.0107	<0.106	<0.0121	NA
BaP Equivalent Calculation	mg/Kg	1.4	2	3	<0.0104	<b>0.155</b>	<0.0107	<b>0.243</b>	<b>0.043</b>	NA
<b>Polychlorinated Biphenyls</b>										
PCB-1260	mg/Kg	0.1	1.2	8	NA	<b>0.104</b>	NA	<0.0538	NA	NA
PCB-1254	mg/Kg	0.1	1.2	8	NA	<b>0.161</b>	NA	<0.0538	NA	NA
PCB-1016	mg/Kg	0.1	1.2	8	NA	<0.0532	NA	<0.0538	NA	NA
PCB-1268	mg/Kg	0.1	1.2	8	NA	<0.0532	NA	<0.0538	NA	NA
PCB-1232	mg/Kg	0.1	1.2	8	NA	<0.0532	NA	<0.0538	NA	NA
PCB-1221	mg/Kg	0.1	1.2	8	NA	<0.0532	NA	<0.0538	NA	NA
PCB-1248	mg/Kg	0.1	1.2	8	NA	<0.0532	NA	<0.0538	NA	NA
PCB-1242	mg/Kg	0.1	1.2	8	NA	<0.0532	NA	<0.0538	NA	NA
Polychlorinated biphenyls, Total	mg/Kg	0.1	1.2	8	NA	<b>0.265</b>	NA	<0.0538	NA	NA
<b>RCRA Metals</b>										
Chromium	mg/Kg	36 (VI)	87 (VI)	650 (VI)	<b>6.69</b>	<b>5.59</b>	<b>11.7</b>	<b>10.9</b>	<b>17.2</b>	<b>13.2</b>
Cadmium	mg/Kg	8.8	25	200	<0.785	<3.21	<0.838	<0.821	<1.73	<0.861
Barium	mg/Kg	1700	1100	18000	<b>13.7</b>	<b>145</b>	<b>28.7</b>	<b>43.2</b>	<b>164</b>	<b>58.6</b>
Silver	mg/Kg	7.9	160	1300	<0.785	<3.21	<0.838	<0.821	<1.73	<0.861
Selenium	mg/Kg	2.6 <sup>a</sup>	160	1300	<5.89	<24.1	<6.28	<6.16	<13.0	<6.45
Lead	mg/Kg	2700	300	700	<3.92	<16.1	<4.19	<b>4.85</b>	<b>30.9</b>	<b>11.1</b>
Arsenic	mg/Kg	5.8	9	20	<b>1.4</b>	<b>2.76</b>	<b>1.92</b>	<b>2.47</b>	<b>4.19</b>	<b>3.57</b>
Mercury	mg/Kg	3.3	0.5	1.5	<0.0183	<0.0204	<b>0.0211</b>	<0.0202	<0.0208	<0.0186

NA = Not Analyzed  
mg/kg = PPM

**BOLD** = The sample exceeded one or more action limits for that parameter  
MPCA = Minnesota Pollution Control Agency  
SRV = Soil Reference Value  
SLV = Soil Leaching Value  
BaP Equivalent = Benzo(a)pyrene equivalent calculation (MPCA September 2006 Version)  
NE = Not Established

RCRA = Resource Conservation and Recovery Act  
VOCs = Volatile Organic Compounds  
PAHs = Polynuclear Aromatic Hydrocarbons  
DRO = Diesel Range Organics  
PCBs = Polychlorinated Biphenyls

**Table 2**  
**Groundwater Analytical Results Summary**  
**4312 Shady Oak Road**  
**Minnetonka, MN**  
**Wenck Project No. 5170-0001**  
**November 2014**

Analyte	Units	Basis	MDH/MPCA Drinking Water Criteria/HRL/MDH HBV	GP-2 10/30/2014	GP-4 10/30/2014	GP-5 10/30/2014
<b>Diesel Range Organics (DRO)</b>						
Diesel Range Organics (DRO)	ug/L	Total	NE	21.2	314	267
<b>Volatile Organic Compounds (VOCs)</b>						
Tetrachloroethene	ug/L	Total	5	1.81	1.23	<1.00
Acetone	ug/L	Total	4000	12.2	<10.0	<10.0

MPCA = Minnesota Pollution Control Agency  
MDH = Minnesota Department of Health  
HRL = Health Risk Limit  
HBV = Health Based Value  
ug/L = parts per billion  
NE = Not Established



**Table 3**  
**Soil Vapor Results Summary**  
**4312 Shady Oak Road**  
**Minnetonka, MN**  
**Wenck Project No. 5170-0001**  
**November 2014**

Analyte	10x MPCA PRP Residential ISV	10x MPCA PRP Industrial ISV	SV-1 10/30/2014 2:00 PM	SV-2 10/30/2014 4:33 PM
<b>Volatile Organic Compounds EPA Method TO-15 (ug/m<sup>3</sup>)</b>				
1,1,1-Trichloroethane	50000	100000	ND	3.1
1,2,4-Trimethylbenzene	70	200	2	ND
1,3-Butadiene	3	10	<b>4.4</b>	<b>11</b>
Acetone	310000	870000	23	38
Benzene	45	130	6.8	7
Cyclohexane	60000	200000	0.73	2
Ethylbenzene	10000	30000	4.4	3.3
m,p-Xylene	1000	3000	13	6.3
Methyl Ethyl Ketone	50000	100000	5.4	11
n-Heptane	NE	NE	4.4	5.4
n-Hexane	20000	60000	6.3	7.3
Propylene	30000	80000	28	79
Styrene	10000	30000	0.91	ND
Tetrachloroethene	20	300	<b>130</b>	ND
Toluene	50000	100000	32	20
Trichloroethene	20	60	<b>20</b>	ND
Trichlorofluoromethane	7000	20000	1.4	ND
Xylene, o-	1000	3000	4.9	3

EPA = Environmental Protection Agency

MPCA = Minnesota Pollution Control Agency

PRP = Petroleum Remediation Program

ISV = Intrusion Screening Value

**BOLD** Parameter Exceeds Action Level

VOCs = Volatile Organic Compounds

NE = Not Established

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## Appendix A

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### Boring Logs

City of Minnetonka Site Investigation 4312 Shady Oak Road <hr/> Project # B5170-0001	Date Started : 10/30/14 Date Completed : 10/30/14 Hole Diameter : 2" Drilling Method : Geoprobe Sampling Method : Dual Tube	Ground Elevation : Northing Coord. : Easting Coord. : Logged By : DJL Checked By : DJL
---	---	--

Depth in Feet	USCS	GRAPHIC	Sample Type	Water Levels	Water Level	Sample Recovery (in)	PID Result (PPM)	Analytical Sample	Remarks
			<input checked="" type="checkbox"/> Analytical Soil Sample <input type="checkbox"/> Analytical Water Sample	<input type="checkbox"/> After Drilling <input type="checkbox"/> During Drilling					
0			SILTY SAND with GRAVEL, brown, medium grained, moist, (Fill)			28	0		PID reading for GP-1A (0-2') = 16.7 PPM
5	SM		larger gravel and rocks 5 to 10 feet			5	0		
10	SP		SAND, Poorly Graded, brown, fine to medium grained, wet			24	0		
15			E.O.B. @ 15'						
20									
25									
30									

Notes: Refusal on two attempts at GP-1 location before getting beyond 2', likely resulting from septic tank. 0 to 2' sample of first refusal exhibited a possible petroleum odor - this sample was submitted for laboratory analysis (GP-1A).

City of Minnetonka Site Investigation 4312 Shady Oak Road <hr/> Project # B5170-0001	Date Started : 10/30/14 Date Completed : 10/30/14 Hole Diameter : 2" Drilling Method : Geoprobe Sampling Method : Dual Tube	Ground Elevation : Northing Coord. : Easting Coord. : Logged By : DJL Checked By : DJL
---	---	--

Depth in Feet	USCS	GRAPHIC	Sample Type	Water Levels	Water Level	Sample Recovery (in)	PID Result (PPM)	Analytical Sample	Remarks
			<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <span style="display: inline-block; width: 10px; height: 10px; background-color: black; margin-right: 5px;"></span> Analytical Soil Sample  <span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; margin-right: 5px;"></span> Analytical Water Sample           </div> <div style="width: 45%;"> <span style="display: inline-block; width: 10px; height: 10px; border-bottom: 1px solid black; margin-right: 5px;"></span> After Drilling  <span style="display: inline-block; width: 10px; height: 10px; border-bottom: 1px dashed black; margin-right: 5px;"></span> During Drilling           </div> </div>						
DESCRIPTION									
0			SANDY CLAY with GRAVEL, multi-colored, moist, (Fill)				0		
5	SC					36	0		
10			SILTY SAND with GRAVEL & Rocks, multi-colored, wet, (Fill)			3	0		
15	SM			▽		20	0		
16	SC		SANDY CLAY, brown, wet, (Fluvial)				0		
17	SM		SILTY SAND, brown, fine to medium grained, wet, (Fluvial)			49	0		
20			E.O.B. @ 20'				0		
25									
30									

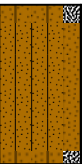


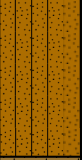
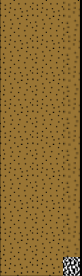
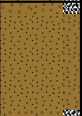
Notes: 1" PVC screen set at 10 to 20 feet for groundwater sample

City of Minnetonka Site Investigation 4312 Shady Oak Road <hr/> Project # B5170-0001	Date Started : 10/30/14 Date Completed : 10/30/14 Hole Diameter : 2" Drilling Method : Geoprobe Sampling Method : Dual Tube	Ground Elevation : Northing Coord. : Easting Coord. : Logged By : DJL Checked By : DJL
---	---	--

Depth in Feet	USCS	GRAPHIC	Sample Type	Water Levels	Water Level	Sample Recovery (in)	PID Result (PPM)	Analytical Sample	Remarks
			<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <span style="display: inline-block; width: 15px; height: 10px; background-color: black; border: 1px solid black; margin-right: 5px;"></span> Analytical Soil Sample  <span style="display: inline-block; width: 15px; height: 10px; background-color: white; border: 1px solid black; margin-right: 5px;"></span> Analytical Water Sample           </div> <div style="width: 45%;"> <span style="display: inline-block; width: 15px; height: 10px; border-left: 1px solid black; border-right: 1px solid black; margin-right: 5px;"></span> After Drilling  <span style="display: inline-block; width: 15px; height: 10px; border-left: 1px solid black; border-right: 1px solid black; margin-right: 5px;"></span> During Drilling           </div> </div>						
DESCRIPTION									
0			SILTY SAND, brown to dark brown, fine to medium grained, moist, (Fill)				0		
5	SM		SAND, Poorly Graded with GRAVEL, brown, fine to medium grained, moist, (Fluvial)			24	0		
10	SP		SAND, Poorly Graded with GRAVEL, brown, fine to medium grained, moist, (Fluvial)			24	0		
15	SM		SILTY SAND with GRAVEL, brown, fine to medium grained, wet at 12' (Fluvial)  Rocks 12 to 15 feet  E.O.B. @ 15'			21	0		
20									
25									
30									

Notes:

City of Minnetonka Site Investigation 4312 Shady Oak Road <hr/> Project # B5170-0001	Date Started : 10/30/14 Date Completed : 10/30/14 Hole Diameter : 2" Drilling Method : Geoprobe Sampling Method : Dual Tube	Ground Elevation : Northing Coord. : Easting Coord. : Logged By : DJL Checked By : DJL
---	---	--

Depth in Feet	USCS	GRAPHIC	Sample Type	Water Levels	Water Level	Sample Recovery (in)	PID Result (PPM)	Analytical Sample	Remarks
			Analytical Soil Sample Analytical Water Sample	After Drilling During Drilling					
0			SILTY SAND with GRAVEL, brown, fine to medium grained, moist, (Fill)				0		
SM						28	0		
5			CLAYdark brown, wet, (Fill)				0		
CL							0		
SM			SILTY SAND with GRAVEL, brown, fine to medium grained, moist			24	0		
10			GRAVELLY SAND, Poorly Graded, brown, fine to medium grained, wet, (Fluvial)	▽		15	0		
SP							0		
15			GRAVELLY SAND, Poorly Graded, grey, fine to medium grained, wet, (Fluvial)			24	0		
SP			E.O.B. @ 20'				0		
20									
25									
30									

Notes: 1" PVC screen set at 6 to 16 feet for groundwater sample (hole collapsed)

City of Minnetonka Site Investigation 4312 Shady Oak Road <hr/> Project # B5170-0001	Date Started : 10/30/14 Date Completed : 10/30/14 Hole Diameter : 2" Drilling Method : Geoprobe Sampling Method : Dual Tube	Ground Elevation : Northing Coord. : Easting Coord. : Logged By : DJL Checked By : DJL
---	---	--

Depth in Feet	USCS	GRAPHIC	Sample Type	Water Levels	Water Level	Sample Recovery (in)	PID Result (PPM)	Analytical Sample	Remarks
			Analytical Soil Sample Analytical Water Sample	After Drilling During Drilling					
0			SILTY SAND with GRAVEL, dark brown, fine to medium grained, moist, (Fill)				0		
SM						26	0		
5			ORGANIC CLAY, dark brown, moist				0		
OL						12	0		
10			SANDY CLAY, brown, moist				0		
SC						25	0		
15			SAND, Poorly Graded with GRAVEL, brown, moist				0		
SP						25	0		
20			wet at 20'		▽		0		
25			SAND, Poorly Graded, grey, wet				0		
SP						20	0		
30			E.O.B. @ 30'				0		

Notes: This location is approximately 10 feet higher in elevation than GP-1 through GP-4.

1" PVC screen set at 17 to 27 feet for groundwater sample

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## Appendix B

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### Laboratory Reports



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Cedar Falls  
704 Enterprise Drive  
Cedar Falls, IA 50613  
Tel: (319)277-2401

TestAmerica Job ID: 310-42852-1  
TestAmerica Sample Delivery Group: B5170-0001  
Client Project/Site: Minnetonka-4312 Shady Oak Rd

For:  
Wenck Associates, Inc  
1800 Pioneer Creek Center  
Maple Plain, Minnesota 55359

Attn: Adam P Zobel



Authorized for release by:  
11/10/2014 3:35:30 PM

Derrick Klinkenberg, Project Manager I  
(319)277-2401  
[derrick.klinkenberg@testamericainc.com](mailto:derrick.klinkenberg@testamericainc.com)

### LINKS

Review your project  
results through  
**Total Access**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Case Narrative . . . . .	3
Sample Summary . . . . .	4
Detection Summary . . . . .	5
Client Sample Results . . . . .	7
Definitions . . . . .	34
Surrogate Summary . . . . .	35
QC Sample Results . . . . .	38
QC Association . . . . .	51
Chronicle . . . . .	55
Certification Summary . . . . .	59
Method Summary . . . . .	60
Chain of Custody . . . . .	61
Receipt Checklists . . . . .	64

# Case Narrative

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

## Job ID: 310-42852-1

### Laboratory: TestAmerica Cedar Falls

#### Narrative

#### Job Narrative 310-42852-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 11/1/2014 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.5° C and 0.6° C.

#### GC/MS VOA

Method(s) 8260B: The following samples were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: GP-2 (310-42852-2), GP-4 (310-42852-7), GP-5 (310-42852-9).

Method(s) 8260B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch 67559 recovered outside control limits for the following analytes: 1,2-Dichlorobenzene, 2-Chlorotoluene, cis-1,3-Dichloropropene, Chlorobenzene, 4-Isopropyltoluene, 1,2,4-Trimethylbenzene, Naphthalene, Isopropylbenzene, and Tetrachloroethene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC/MS Semi VOA

Method(s) 8270D SIM: Surrogate recovery for the following sample(s) was outside control limits: GP-1A 0-2' (310-42852-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270D SIM: The following sample(s) was diluted due to the nature of the sample matrix GP-1A 0-2' (310-42852-4), GP-3 0-2' (310-42852-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Metals

Method(s) 6010C: The following sample(s) was diluted due to the presence of interferents: GP-1A 0-2' (310-42852-4), GP-4 4-5' (310-42852-6). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

#### VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

# Sample Summary

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-42852-1	GP-2 10-15'	Sludge	10/30/14 12:00	11/01/14 09:30
310-42852-2	GP-2	Ground Water	10/30/14 12:15	11/01/14 09:30
310-42852-3	GP-1 10-15'	Sludge	10/30/14 13:35	11/01/14 09:30
310-42852-4	GP-1A 0-2'	Sludge	10/30/14 13:50	11/01/14 09:30
310-42852-5	GP-3 0-2'	Sludge	10/30/14 14:20	11/01/14 09:30
310-42852-6	GP-4 4-5'	Sludge	10/30/14 14:55	11/01/14 09:30
310-42852-7	GP-4	Ground Water	10/30/14 15:10	11/01/14 09:30
310-42852-8	GP-5 3-5'	Sludge	10/30/14 17:00	11/01/14 09:30
310-42852-9	GP-5	Ground Water	10/30/14 17:15	11/01/14 09:30
310-42852-10	HCL Trip Blank	Water	10/30/14 00:00	11/01/14 09:30
310-42852-11	MeOH Trip Blank	Solid	10/30/14 00:00	11/01/14 09:30

# Detection Summary

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

## Client Sample ID: GP-2 10-15'

## Lab Sample ID: 310-42852-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	28.7		0.419		mg/Kg	1	☼	6010C	Total/NA
Chromium	11.7		0.838		mg/Kg	1	☼	6010C	Total/NA
Arsenic	1.92		0.494		mg/Kg	12	☼	7010	Total/NA
Mercury	0.0211		0.0154		mg/Kg	1	☼	7471B	Total/NA

## Client Sample ID: GP-2

## Lab Sample ID: 310-42852-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	12.2		10.0		ug/L	1		8260B	Total/NA
Tetrachloroethene	1.81		1.00		ug/L	1		8260B	Total/NA
Diesel Range Organics (DRO)	0.0212		0.0125		mg/L	1		WI-DRO	Total/NA

## Client Sample ID: GP-1 10-15'

## Lab Sample ID: 310-42852-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	13.7		0.392		mg/Kg	1	☼	6010C	Total/NA
Chromium	6.69		0.785		mg/Kg	1	☼	6010C	Total/NA
Arsenic	1.40		0.525		mg/Kg	12	☼	7010	Total/NA

## Client Sample ID: GP-1A 0-2'

## Lab Sample ID: 310-42852-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.133		0.102		mg/Kg	10	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	0.202		0.102		mg/Kg	10	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	0.131		0.102		mg/Kg	10	☼	8270D SIM	Total/NA
Chrysene	0.143		0.102		mg/Kg	10	☼	8270D SIM	Total/NA
Fluoranthene	0.152		0.102		mg/Kg	10	☼	8270D SIM	Total/NA
Pyrene	0.115		0.102		mg/Kg	10	☼	8270D SIM	Total/NA
PCB-1254	0.161		0.0532		mg/Kg	1	☼	8082A	Total/NA
PCB-1260	0.104		0.0532		mg/Kg	1	☼	8082A	Total/NA
Polychlorinated biphenyls, Total	0.265		0.0532		mg/Kg	1	☼	8082A	Total/NA
Diesel Range Organics (DRO)	494		59.3		mg/Kg	10	☼	WI-DRO	Total/NA
Barium	145		1.61		mg/Kg	4	☼	6010C	Total/NA
Chromium	5.59		3.21		mg/Kg	4	☼	6010C	Total/NA
Arsenic	2.76		0.539		mg/Kg	12	☼	7010	Total/NA

## Client Sample ID: GP-3 0-2'

## Lab Sample ID: 310-42852-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.158		0.106		mg/Kg	10	☼	8270D SIM	Total/NA
Benzo[a]pyrene	0.200		0.106		mg/Kg	10	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	0.250		0.106		mg/Kg	10	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	0.132		0.106		mg/Kg	10	☼	8270D SIM	Total/NA
Chrysene	0.196		0.106		mg/Kg	10	☼	8270D SIM	Total/NA
Fluoranthene	0.129		0.106		mg/Kg	10	☼	8270D SIM	Total/NA
Pyrene	0.133		0.106		mg/Kg	10	☼	8270D SIM	Total/NA
Diesel Range Organics (DRO)	39.7		6.01		mg/Kg	1	☼	WI-DRO	Total/NA
Barium	43.2		0.411		mg/Kg	1	☼	6010C	Total/NA
Chromium	10.9		0.821		mg/Kg	1	☼	6010C	Total/NA
Lead	4.85		4.11		mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Cedar Falls

# Detection Summary

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

## Client Sample ID: GP-3 0-2' (Continued)

Lab Sample ID: 310-42852-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.47		0.627		mg/Kg	12	☼	7010	Total/NA

## Client Sample ID: GP-4 4-5'

Lab Sample ID: 310-42852-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.0264		0.0121		mg/Kg	1	☼	8270D SIM	Total/NA
Benzo[a]pyrene	0.0317		0.0121		mg/Kg	1	☼	8270D SIM	Total/NA
Benzo[b]fluoranthene	0.0456		0.0121		mg/Kg	1	☼	8270D SIM	Total/NA
Benzo[g,h,i]perylene	0.0205		0.0121		mg/Kg	1	☼	8270D SIM	Total/NA
Benzo[k]fluoranthene	0.0182		0.0121		mg/Kg	1	☼	8270D SIM	Total/NA
Chrysene	0.0364		0.0121		mg/Kg	1	☼	8270D SIM	Total/NA
Fluoranthene	0.0425		0.0121		mg/Kg	1	☼	8270D SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.0177		0.0121		mg/Kg	1	☼	8270D SIM	Total/NA
Phenanthrene	0.0374		0.0121		mg/Kg	1	☼	8270D SIM	Total/NA
Pyrene	0.0343		0.0121		mg/Kg	1	☼	8270D SIM	Total/NA
Barium	164		0.867		mg/Kg	2	☼	6010C	Total/NA
Chromium	17.2		1.73		mg/Kg	2	☼	6010C	Total/NA
Lead	30.9		8.67		mg/Kg	2	☼	6010C	Total/NA
Arsenic	4.19		0.729		mg/Kg	12	☼	7010	Total/NA

## Client Sample ID: GP-4

Lab Sample ID: 310-42852-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	1.23		1.00		ug/L	1		8260B	Total/NA
Diesel Range Organics (DRO)	0.314		0.105		mg/L	1		WI-DRO	Total/NA

## Client Sample ID: GP-5 3-5'

Lab Sample ID: 310-42852-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (DRO)	9.99		6.31		mg/Kg	1	☼	WI-DRO	Total/NA
Barium	58.6		0.430		mg/Kg	1	☼	6010C	Total/NA
Chromium	13.2		0.861		mg/Kg	1	☼	6010C	Total/NA
Lead	11.1		4.30		mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.57		0.508		mg/Kg	12	☼	7010	Total/NA

## Client Sample ID: GP-5

Lab Sample ID: 310-42852-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (DRO)	0.267		0.105		mg/L	1		WI-DRO	Total/NA

## Client Sample ID: HCL Trip Blank

Lab Sample ID: 310-42852-10

No Detections.

## Client Sample ID: MeOH Trip Blank

Lab Sample ID: 310-42852-11

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Cedar Falls

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-2 10-15'**

**Lab Sample ID: 310-42852-1**

**Date Collected: 10/30/14 12:00**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 92.2**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.572		0.572		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Allyl chloride	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Benzene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Bromobenzene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Bromochloromethane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Bromodichloromethane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Bromoform	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Bromomethane	<0.572		0.572		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
2-Butanone (MEK)	<0.286		0.286		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
n-Butylbenzene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
sec-Butylbenzene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
tert-Butylbenzene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Carbon tetrachloride	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Chlorobenzene	<0.114	*	0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Chlorodibromomethane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Dichlorofluoromethane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Chloroethane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Chloroform	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Chloromethane	<0.286		0.286		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
4-Chlorotoluene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
2-Chlorotoluene	<0.114	*	0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,2-Dibromo-3-Chloropropane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,2-Dibromoethane (EDB)	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Dibromomethane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,2-Dichlorobenzene	<0.114	*	0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,3-Dichlorobenzene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,4-Dichlorobenzene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Dichlorodifluoromethane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,2-Dichloroethane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,1-Dichloroethane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,1-Dichloroethene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
cis-1,2-Dichloroethene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
trans-1,2-Dichloroethene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,2-Dichloropropane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,3-Dichloropropane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
2,2-Dichloropropane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,1-Dichloropropene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
cis-1,3-Dichloropropene	<0.114	*	0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
trans-1,3-Dichloropropene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Diethyl ether	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Ethylbenzene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Hexachlorobutadiene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Isopropylbenzene	<0.114	*	0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
p-Isopropyltoluene	<0.114	*	0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
4-Methyl-2-pentanone (MIBK)	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Methylene Chloride	<0.286		0.286		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Methyl tert-butyl ether	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Naphthalene	<0.114	*	0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
N-Propylbenzene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1

TestAmerica Cedar Falls

# Client Sample Results

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

**Client Sample ID: GP-2 10-15'**

**Lab Sample ID: 310-42852-1**

**Date Collected: 10/30/14 12:00**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 92.2**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,1,1,2-Tetrachloroethane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,1,2,2-Tetrachloroethane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Tetrachloroethene	<0.114	*	0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Tetrahydrofuran	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Toluene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,2,3-Trichlorobenzene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,2,4-Trichlorobenzene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,1,1-Trichloroethane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,1,2-Trichloroethane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Trichloroethene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Trichlorofluoromethane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,2,3-Trichloropropane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,1,2-Trichlorotrifluoroethane	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,2,4-Trimethylbenzene	<0.114	*	0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
1,3,5-Trimethylbenzene	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Vinyl chloride	<0.114		0.114		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Xylenes, Total	<0.172		0.172		mg/Kg	☼	11/07/14 07:34	11/08/14 01:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120				11/07/14 07:34	11/08/14 01:25	1
Dibromofluoromethane (Surr)	99		75 - 125				11/07/14 07:34	11/08/14 01:25	1
Toluene-d8 (Surr)	98		80 - 120				11/07/14 07:34	11/08/14 01:25	1

**Method: 8270D SIM - Semivolatile Organic Compound (GC/MS SIM LL)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Acenaphthene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Acenaphthylene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Anthracene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Benzo[a]anthracene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Benzo[a]pyrene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Benzo[b]fluoranthene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Benzo[g,h,i]perylene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Benzo[k]fluoranthene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Chrysene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Dibenz(a,h)anthracene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Fluoranthene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Fluorene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Indeno[1,2,3-cd]pyrene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Naphthalene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Phenanthrene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Pyrene	<0.0107		0.0107		mg/Kg	☼	11/04/14 09:02	11/06/14 03:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	65		20 - 105				11/04/14 09:02	11/06/14 03:05	1
Nitrobenzene-d5 (Surr)	73		20 - 100				11/04/14 09:02	11/06/14 03:05	1
Terphenyl-d14 (Surr)	59		30 - 125				11/04/14 09:02	11/06/14 03:05	1

TestAmerica Cedar Falls



# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-2 10-15'**

**Lab Sample ID: 310-42852-1**

**Date Collected: 10/30/14 12:00**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 92.2**

**Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<6.01		6.01		mg/Kg	☼	11/05/14 08:54	11/07/14 05:01	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	28.7		0.419		mg/Kg	☼	11/07/14 09:19	11/07/14 15:05	1
Cadmium	<0.838		0.838		mg/Kg	☼	11/07/14 09:19	11/07/14 15:05	1
Chromium	11.7		0.838		mg/Kg	☼	11/07/14 09:19	11/07/14 15:05	1
Lead	<4.19		4.19		mg/Kg	☼	11/07/14 09:19	11/07/14 15:05	1
Selenium	<6.28		6.28		mg/Kg	☼	11/07/14 09:19	11/07/14 15:05	1
Silver	<0.838		0.838		mg/Kg	☼	11/07/14 09:19	11/07/14 15:05	1

**Method: 7010 - Metals (GFAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.92		0.494		mg/Kg	☼	11/04/14 08:00	11/04/14 23:45	12

**Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0211		0.0154		mg/Kg	☼	11/03/14 11:04	11/03/14 16:59	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	7.83		0.100		%			11/03/14 09:15	1
Percent Solids	92.2		0.100		%			11/03/14 09:15	1

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-2**  
**Date Collected: 10/30/14 12:15**  
**Date Received: 11/01/14 09:30**

**Lab Sample ID: 310-42852-2**  
**Matrix: Ground Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	12.2		10.0		ug/L			11/05/14 10:20	1
Allyl chloride	<2.00		2.00		ug/L			11/05/14 10:20	1
Benzene	<0.500		0.500		ug/L			11/05/14 10:20	1
Bromobenzene	<1.00		1.00		ug/L			11/05/14 10:20	1
Bromochloromethane	<5.00		5.00		ug/L			11/05/14 10:20	1
Bromodichloromethane	<1.00		1.00		ug/L			11/05/14 10:20	1
Bromoform	<5.00		5.00		ug/L			11/05/14 10:20	1
Bromomethane	<4.00		4.00		ug/L			11/05/14 10:20	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/05/14 10:20	1
n-Butylbenzene	<1.00		1.00		ug/L			11/05/14 10:20	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/05/14 10:20	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/05/14 10:20	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/05/14 10:20	1
Chlorobenzene	<1.00		1.00		ug/L			11/05/14 10:20	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/05/14 10:20	1
Dichlorofluoromethane	<1.00		1.00		ug/L			11/05/14 10:20	1
Chloroethane	<4.00		4.00		ug/L			11/05/14 10:20	1
Chloroform	<1.00		1.00		ug/L			11/05/14 10:20	1
Chloromethane	<3.00		3.00		ug/L			11/05/14 10:20	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/05/14 10:20	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/05/14 10:20	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			11/05/14 10:20	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			11/05/14 10:20	1
Dibromomethane	<1.00		1.00		ug/L			11/05/14 10:20	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/05/14 10:20	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/05/14 10:20	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/05/14 10:20	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/05/14 10:20	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/05/14 10:20	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/05/14 10:20	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/05/14 10:20	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/05/14 10:20	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/05/14 10:20	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/05/14 10:20	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/05/14 10:20	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/05/14 10:20	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/05/14 10:20	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/05/14 10:20	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/05/14 10:20	1
Diethyl ether	<2.00		2.00		ug/L			11/05/14 10:20	1
Ethylbenzene	<1.00		1.00		ug/L			11/05/14 10:20	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/05/14 10:20	1
Isopropylbenzene	<1.00		1.00		ug/L			11/05/14 10:20	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/05/14 10:20	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/05/14 10:20	1
Methylene Chloride	<5.00		5.00		ug/L			11/05/14 10:20	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/05/14 10:20	1
Naphthalene	<5.00		5.00		ug/L			11/05/14 10:20	1
N-Propylbenzene	<1.00		1.00		ug/L			11/05/14 10:20	1

TestAmerica Cedar Falls

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-2**

**Lab Sample ID: 310-42852-2**

**Date Collected: 10/30/14 12:15**

**Matrix: Ground Water**

**Date Received: 11/01/14 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<1.00		1.00		ug/L			11/05/14 10:20	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/05/14 10:20	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/05/14 10:20	1
<b>Tetrachloroethene</b>	<b>1.81</b>		1.00		ug/L			11/05/14 10:20	1
Tetrahydrofuran	<50.0		50.0		ug/L			11/05/14 10:20	1
Toluene	<1.00		1.00		ug/L			11/05/14 10:20	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/05/14 10:20	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/05/14 10:20	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/05/14 10:20	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/05/14 10:20	1
Trichloroethene	<1.00		1.00		ug/L			11/05/14 10:20	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/05/14 10:20	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/05/14 10:20	1
1,1,2-Trichlorotrifluoroethane	<2.00		2.00		ug/L			11/05/14 10:20	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/05/14 10:20	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/05/14 10:20	1
Vinyl chloride	<1.00		1.00		ug/L			11/05/14 10:20	1
Xylenes, Total	<3.00		3.00		ug/L			11/05/14 10:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		75 - 120		11/05/14 10:20	1
Dibromofluoromethane (Surr)	101		75 - 120		11/05/14 10:20	1
Toluene-d8 (Surr)	100		80 - 120		11/05/14 10:20	1

**Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (DRO)</b>	<b>0.0212</b>		0.0125		mg/L		11/03/14 09:46	11/06/14 14:25	1

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-1 10-15'**

**Lab Sample ID: 310-42852-3**

**Date Collected: 10/30/14 13:35**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 89.0**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.526		0.526		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Allyl chloride	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Benzene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Bromobenzene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Bromochloromethane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Bromodichloromethane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Bromoform	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Bromomethane	<0.526		0.526		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
2-Butanone (MEK)	<0.263		0.263		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
n-Butylbenzene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
sec-Butylbenzene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
tert-Butylbenzene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Carbon tetrachloride	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Chlorobenzene	<0.105	*	0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Chlorodibromomethane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Dichlorofluoromethane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Chloroethane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Chloroform	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Chloromethane	<0.263		0.263		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
4-Chlorotoluene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
2-Chlorotoluene	<0.105	*	0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,2-Dibromo-3-Chloropropane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,2-Dibromoethane (EDB)	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Dibromomethane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,2-Dichlorobenzene	<0.105	*	0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,3-Dichlorobenzene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,4-Dichlorobenzene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Dichlorodifluoromethane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,2-Dichloroethane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,1-Dichloroethane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,1-Dichloroethene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
cis-1,2-Dichloroethene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
trans-1,2-Dichloroethene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,2-Dichloropropane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,3-Dichloropropane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
2,2-Dichloropropane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,1-Dichloropropene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
cis-1,3-Dichloropropene	<0.105	*	0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
trans-1,3-Dichloropropene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Diethyl ether	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Ethylbenzene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Hexachlorobutadiene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Isopropylbenzene	<0.105	*	0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
p-Isopropyltoluene	<0.105	*	0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
4-Methyl-2-pentanone (MIBK)	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Methylene Chloride	<0.263		0.263		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Methyl tert-butyl ether	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Naphthalene	<0.105	*	0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
N-Propylbenzene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1

TestAmerica Cedar Falls

# Client Sample Results

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

**Client Sample ID: GP-1 10-15'**

**Lab Sample ID: 310-42852-3**

**Date Collected: 10/30/14 13:35**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 89.0**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,1,1,2-Tetrachloroethane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,1,2,2-Tetrachloroethane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Tetrachloroethene	<0.105	*	0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Tetrahydrofuran	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Toluene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,2,3-Trichlorobenzene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,2,4-Trichlorobenzene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,1,1-Trichloroethane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,1,2-Trichloroethane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Trichloroethene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Trichlorofluoromethane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,2,3-Trichloropropane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,1,2-Trichlorotrifluoroethane	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,2,4-Trimethylbenzene	<0.105	*	0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
1,3,5-Trimethylbenzene	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Vinyl chloride	<0.105		0.105		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Xylenes, Total	<0.158		0.158		mg/Kg	☼	11/07/14 07:34	11/08/14 01:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		80 - 120				11/07/14 07:34	11/08/14 01:56	1
Dibromofluoromethane (Surr)	106		75 - 125				11/07/14 07:34	11/08/14 01:56	1
Toluene-d8 (Surr)	98		80 - 120				11/07/14 07:34	11/08/14 01:56	1

**Method: 8270D SIM - Semivolatile Organic Compound (GC/MS SIM LL)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Acenaphthene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Acenaphthylene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Anthracene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Benzo[a]anthracene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Benzo[a]pyrene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Benzo[b]fluoranthene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Benzo[g,h,i]perylene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Benzo[k]fluoranthene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Chrysene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Dibenz(a,h)anthracene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Fluoranthene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Fluorene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Indeno[1,2,3-cd]pyrene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Naphthalene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Phenanthrene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Pyrene	<0.0104		0.0104		mg/Kg	☼	11/04/14 09:02	11/06/14 03:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	62		20 - 105				11/04/14 09:02	11/06/14 03:30	1
Nitrobenzene-d5 (Surr)	68		20 - 100				11/04/14 09:02	11/06/14 03:30	1
Terphenyl-d14 (Surr)	51		30 - 125				11/04/14 09:02	11/06/14 03:30	1

TestAmerica Cedar Falls

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-1 10-15'**

**Lab Sample ID: 310-42852-3**

**Date Collected: 10/30/14 13:35**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 89.0**

**Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<7.10		7.10		mg/Kg	☼	11/05/14 08:54	11/07/14 05:33	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	13.7		0.392		mg/Kg	☼	11/07/14 09:19	11/07/14 15:13	1
Cadmium	<0.785		0.785		mg/Kg	☼	11/07/14 09:19	11/07/14 15:13	1
Chromium	6.69		0.785		mg/Kg	☼	11/07/14 09:19	11/07/14 15:13	1
Lead	<3.92		3.92		mg/Kg	☼	11/07/14 09:19	11/07/14 15:13	1
Selenium	<5.89		5.89		mg/Kg	☼	11/07/14 09:19	11/07/14 15:13	1
Silver	<0.785		0.785		mg/Kg	☼	11/07/14 09:19	11/07/14 15:13	1

**Method: 7010 - Metals (GFAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.40		0.525		mg/Kg	☼	11/04/14 08:00	11/04/14 23:49	12

**Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0183		0.0183		mg/Kg	☼	11/03/14 11:04	11/03/14 17:01	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11.0		0.100		%			11/03/14 09:15	1
Percent Solids	89.0		0.100		%			11/03/14 09:15	1

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-1A 0-2'**

**Lab Sample ID: 310-42852-4**

**Date Collected: 10/30/14 13:50**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 93.4**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.554		0.554		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Allyl chloride	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Benzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Bromobenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Bromochloromethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Bromodichloromethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Bromoform	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Bromomethane	<0.554		0.554		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
2-Butanone (MEK)	<0.277		0.277		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
n-Butylbenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
sec-Butylbenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
tert-Butylbenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Carbon tetrachloride	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Chlorobenzene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Chlorodibromomethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Dichlorofluoromethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Chloroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Chloroform	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Chloromethane	<0.277		0.277		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
4-Chlorotoluene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
2-Chlorotoluene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,2-Dibromo-3-Chloropropane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,2-Dibromoethane (EDB)	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Dibromomethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,2-Dichlorobenzene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,3-Dichlorobenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,4-Dichlorobenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Dichlorodifluoromethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,2-Dichloroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,1-Dichloroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,1-Dichloroethene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
cis-1,2-Dichloroethene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
trans-1,2-Dichloroethene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,2-Dichloropropane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,3-Dichloropropane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
2,2-Dichloropropane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,1-Dichloropropene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
cis-1,3-Dichloropropene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
trans-1,3-Dichloropropene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Diethyl ether	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Ethylbenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Hexachlorobutadiene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Isopropylbenzene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
p-Isopropyltoluene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
4-Methyl-2-pentanone (MIBK)	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Methylene Chloride	<0.277		0.277		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Methyl tert-butyl ether	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Naphthalene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
N-Propylbenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1

TestAmerica Cedar Falls

# Client Sample Results

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

**Client Sample ID: GP-1A 0-2'**

**Lab Sample ID: 310-42852-4**

**Date Collected: 10/30/14 13:50**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 93.4**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,1,1,2-Tetrachloroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,1,2,2-Tetrachloroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Tetrachloroethene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Tetrahydrofuran	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Toluene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,2,3-Trichlorobenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,2,4-Trichlorobenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,1,1-Trichloroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,1,2-Trichloroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Trichloroethene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Trichlorofluoromethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,2,3-Trichloropropane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,1,2-Trichlorotrifluoroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,2,4-Trimethylbenzene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
1,3,5-Trimethylbenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Vinyl chloride	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1
Xylenes, Total	<0.166		0.166		mg/Kg	☼	11/07/14 07:34	11/08/14 02:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120	11/07/14 07:34	11/08/14 02:26	1
Dibromofluoromethane (Surr)	104		75 - 125	11/07/14 07:34	11/08/14 02:26	1
Toluene-d8 (Surr)	98		80 - 120	11/07/14 07:34	11/08/14 02:26	1

**Method: 8270D SIM - Semivolatile Organic Compound (GC/MS SIM LL)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<0.102		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
Acenaphthene	<0.102		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
Acenaphthylene	<0.102		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
Anthracene	<0.102		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
Benzo[a]anthracene	<0.102		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
<b>Benzo[a]pyrene</b>	<b>0.133</b>		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
<b>Benzo[b]fluoranthene</b>	<b>0.202</b>		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
<b>Benzo[g,h,i]perylene</b>	<b>0.131</b>		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
Benzo[k]fluoranthene	<0.102		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
<b>Chrysene</b>	<b>0.143</b>		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
Dibenz(a,h)anthracene	<0.102		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
<b>Fluoranthene</b>	<b>0.152</b>		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
Fluorene	<0.102		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
Indeno[1,2,3-cd]pyrene	<0.102		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
Naphthalene	<0.102		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
Phenanthrene	<0.102		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10
<b>Pyrene</b>	<b>0.115</b>		0.102		mg/Kg	☼	11/04/14 09:02	11/06/14 03:55	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	68		20 - 105	11/04/14 09:02	11/06/14 03:55	10
Nitrobenzene-d5 (Surr)	161	X	20 - 100	11/04/14 09:02	11/06/14 03:55	10
Terphenyl-d14 (Surr)	63		30 - 125	11/04/14 09:02	11/06/14 03:55	10

TestAmerica Cedar Falls



# Client Sample Results

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

**Client Sample ID: GP-1A 0-2'**

**Lab Sample ID: 310-42852-4**

Date Collected: 10/30/14 13:50

Matrix: Sludge

Date Received: 11/01/14 09:30

Percent Solids: 93.4

**Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0532		0.0532		mg/Kg	☼	11/03/14 11:54	11/05/14 11:01	1
PCB-1221	<0.0532		0.0532		mg/Kg	☼	11/03/14 11:54	11/05/14 11:01	1
PCB-1232	<0.0532		0.0532		mg/Kg	☼	11/03/14 11:54	11/05/14 11:01	1
PCB-1242	<0.0532		0.0532		mg/Kg	☼	11/03/14 11:54	11/05/14 11:01	1
PCB-1248	<0.0532		0.0532		mg/Kg	☼	11/03/14 11:54	11/05/14 11:01	1
<b>PCB-1254</b>	<b>0.161</b>		0.0532		mg/Kg	☼	11/03/14 11:54	11/05/14 11:01	1
<b>PCB-1260</b>	<b>0.104</b>		0.0532		mg/Kg	☼	11/03/14 11:54	11/05/14 11:01	1
PCB-1268	<0.0532		0.0532		mg/Kg	☼	11/03/14 11:54	11/05/14 11:01	1
<b>Polychlorinated biphenyls, Total</b>	<b>0.265</b>		0.0532		mg/Kg	☼	11/03/14 11:54	11/05/14 11:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	61		40 - 120	11/03/14 11:54	11/05/14 11:01	1
Tetrachloro-m-xylene	63		10 - 105	11/03/14 11:54	11/05/14 11:01	1

**Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (DRO)</b>	<b>494</b>		59.3		mg/Kg	☼	11/05/14 08:54	11/07/14 20:13	10

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>145</b>		1.61		mg/Kg	☼	11/07/14 09:19	11/07/14 15:28	4
Cadmium	<3.21		3.21		mg/Kg	☼	11/07/14 09:19	11/07/14 15:28	4
<b>Chromium</b>	<b>5.59</b>		3.21		mg/Kg	☼	11/07/14 09:19	11/07/14 15:28	4
Lead	<16.1		16.1		mg/Kg	☼	11/07/14 09:19	11/07/14 15:28	4
Selenium	<24.1		24.1		mg/Kg	☼	11/07/14 09:19	11/07/14 15:28	4
Silver	<3.21		3.21		mg/Kg	☼	11/07/14 09:19	11/07/14 15:28	4

**Method: 7010 - Metals (GFAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>2.76</b>		0.539		mg/Kg	☼	11/04/14 08:00	11/04/14 23:53	12

**Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0204		0.0204		mg/Kg	☼	11/03/14 11:04	11/03/14 17:02	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Moisture</b>	<b>6.63</b>		0.100		%			11/03/14 09:15	1
<b>Percent Solids</b>	<b>93.4</b>		0.100		%			11/03/14 09:15	1

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-3 0-2'**

**Lab Sample ID: 310-42852-5**

**Date Collected: 10/30/14 14:20**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 91.7**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.551		0.551		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Allyl chloride	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Benzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Bromobenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Bromochloromethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Bromodichloromethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Bromoform	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Bromomethane	<0.551		0.551		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
2-Butanone (MEK)	<0.275		0.275		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
n-Butylbenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
sec-Butylbenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
tert-Butylbenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Carbon tetrachloride	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Chlorobenzene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Chlorodibromomethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Dichlorofluoromethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Chloroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Chloroform	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Chloromethane	<0.275		0.275		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
4-Chlorotoluene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
2-Chlorotoluene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,2-Dibromo-3-Chloropropane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,2-Dibromoethane (EDB)	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Dibromomethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,2-Dichlorobenzene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,3-Dichlorobenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,4-Dichlorobenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Dichlorodifluoromethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,2-Dichloroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,1-Dichloroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,1-Dichloroethene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
cis-1,2-Dichloroethene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
trans-1,2-Dichloroethene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,2-Dichloropropane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,3-Dichloropropane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
2,2-Dichloropropane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,1-Dichloropropene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
cis-1,3-Dichloropropene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
trans-1,3-Dichloropropene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Diethyl ether	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Ethylbenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Hexachlorobutadiene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Isopropylbenzene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
p-Isopropyltoluene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
4-Methyl-2-pentanone (MIBK)	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Methylene Chloride	<0.275		0.275		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Methyl tert-butyl ether	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Naphthalene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
N-Propylbenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1

TestAmerica Cedar Falls

# Client Sample Results

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

**Client Sample ID: GP-3 0-2'**

**Lab Sample ID: 310-42852-5**

**Date Collected: 10/30/14 14:20**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 91.7**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,1,1,2-Tetrachloroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,1,2,2-Tetrachloroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Tetrachloroethene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Tetrahydrofuran	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Toluene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,2,3-Trichlorobenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,2,4-Trichlorobenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,1,1-Trichloroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,1,2-Trichloroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Trichloroethene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Trichlorofluoromethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,2,3-Trichloropropane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,1,2-Trichlorotrifluoroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,2,4-Trimethylbenzene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
1,3,5-Trimethylbenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Vinyl chloride	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1
Xylenes, Total	<0.165		0.165		mg/Kg	☼	11/07/14 07:34	11/08/14 02:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		80 - 120	11/07/14 07:34	11/08/14 02:56	1
Dibromofluoromethane (Surr)	102		75 - 125	11/07/14 07:34	11/08/14 02:56	1
Toluene-d8 (Surr)	95		80 - 120	11/07/14 07:34	11/08/14 02:56	1

**Method: 8270D SIM - Semivolatile Organic Compound (GC/MS SIM LL)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<0.106		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
Acenaphthene	<0.106		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
Acenaphthylene	<0.106		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
Anthracene	<0.106		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
<b>Benzo[a]anthracene</b>	<b>0.158</b>		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
<b>Benzo[a]pyrene</b>	<b>0.200</b>		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
<b>Benzo[b]fluoranthene</b>	<b>0.250</b>		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
<b>Benzo[g,h,i]perylene</b>	<b>0.132</b>		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
Benzo[k]fluoranthene	<0.106		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
<b>Chrysene</b>	<b>0.196</b>		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
Dibenz(a,h)anthracene	<0.106		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
<b>Fluoranthene</b>	<b>0.129</b>		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
Fluorene	<0.106		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
Indeno[1,2,3-cd]pyrene	<0.106		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
Naphthalene	<0.106		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
Phenanthrene	<0.106		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10
<b>Pyrene</b>	<b>0.133</b>		0.106		mg/Kg	☼	11/04/14 09:02	11/06/14 04:20	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		20 - 105	11/04/14 09:02	11/06/14 04:20	10
Nitrobenzene-d5 (Surr)	68		20 - 100	11/04/14 09:02	11/06/14 04:20	10
Terphenyl-d14 (Surr)	46		30 - 125	11/04/14 09:02	11/06/14 04:20	10

TestAmerica Cedar Falls

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-3 0-2'**

**Lab Sample ID: 310-42852-5**

**Date Collected: 10/30/14 14:20**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 91.7**

**Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.0538		0.0538		mg/Kg	☼	11/03/14 11:54	11/05/14 11:12	1
PCB-1221	<0.0538		0.0538		mg/Kg	☼	11/03/14 11:54	11/05/14 11:12	1
PCB-1232	<0.0538		0.0538		mg/Kg	☼	11/03/14 11:54	11/05/14 11:12	1
PCB-1242	<0.0538		0.0538		mg/Kg	☼	11/03/14 11:54	11/05/14 11:12	1
PCB-1248	<0.0538		0.0538		mg/Kg	☼	11/03/14 11:54	11/05/14 11:12	1
PCB-1254	<0.0538		0.0538		mg/Kg	☼	11/03/14 11:54	11/05/14 11:12	1
PCB-1260	<0.0538		0.0538		mg/Kg	☼	11/03/14 11:54	11/05/14 11:12	1
PCB-1268	<0.0538		0.0538		mg/Kg	☼	11/03/14 11:54	11/05/14 11:12	1
Polychlorinated biphenyls, Total	<0.0538		0.0538		mg/Kg	☼	11/03/14 11:54	11/05/14 11:12	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
DCB Decachlorobiphenyl (Surr)	66		40 - 120				11/03/14 11:54	11/05/14 11:12	1
Tetrachloro-m-xylene	68		10 - 105				11/03/14 11:54	11/05/14 11:12	1

**Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (DRO)</b>	<b>39.7</b>		6.01		mg/Kg	☼	11/05/14 08:54	11/07/14 13:08	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>43.2</b>		0.411		mg/Kg	☼	11/07/14 09:19	11/07/14 15:17	1
Cadmium	<0.821		0.821		mg/Kg	☼	11/07/14 09:19	11/07/14 15:17	1
<b>Chromium</b>	<b>10.9</b>		0.821		mg/Kg	☼	11/07/14 09:19	11/07/14 15:17	1
<b>Lead</b>	<b>4.85</b>		4.11		mg/Kg	☼	11/07/14 09:19	11/07/14 15:17	1
Selenium	<6.16		6.16		mg/Kg	☼	11/07/14 09:19	11/07/14 15:17	1
Silver	<0.821		0.821		mg/Kg	☼	11/07/14 09:19	11/07/14 15:17	1

**Method: 7010 - Metals (GFAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>2.47</b>		0.627		mg/Kg	☼	11/04/14 08:00	11/04/14 23:56	12

**Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0202		0.0202		mg/Kg	☼	11/03/14 11:04	11/03/14 17:04	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Moisture</b>	<b>8.29</b>		0.100		%			11/03/14 09:15	1
<b>Percent Solids</b>	<b>91.7</b>		0.100		%			11/03/14 09:15	1

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-4 4-5'**

**Lab Sample ID: 310-42852-6**

**Date Collected: 10/30/14 14:55**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 79.9**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.549		0.549		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Allyl chloride	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Benzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Bromobenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Bromochloromethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Bromodichloromethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Bromoform	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Bromomethane	<0.549		0.549		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
2-Butanone (MEK)	<0.274		0.274		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
n-Butylbenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
sec-Butylbenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
tert-Butylbenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Carbon tetrachloride	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Chlorobenzene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Chlorodibromomethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Dichlorofluoromethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Chloroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Chloroform	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Chloromethane	<0.274		0.274		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
4-Chlorotoluene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
2-Chlorotoluene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,2-Dibromo-3-Chloropropane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,2-Dibromoethane (EDB)	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Dibromomethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,2-Dichlorobenzene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,3-Dichlorobenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,4-Dichlorobenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Dichlorodifluoromethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,2-Dichloroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,1-Dichloroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,1-Dichloroethene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
cis-1,2-Dichloroethene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
trans-1,2-Dichloroethene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,2-Dichloropropane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,3-Dichloropropane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
2,2-Dichloropropane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,1-Dichloropropene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
cis-1,3-Dichloropropene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
trans-1,3-Dichloropropene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Diethyl ether	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Ethylbenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Hexachlorobutadiene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Isopropylbenzene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
p-Isopropyltoluene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
4-Methyl-2-pentanone (MIBK)	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Methylene Chloride	<0.274		0.274		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Methyl tert-butyl ether	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Naphthalene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
N-Propylbenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1

TestAmerica Cedar Falls

# Client Sample Results

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

**Client Sample ID: GP-4 4-5'**

**Lab Sample ID: 310-42852-6**

**Date Collected: 10/30/14 14:55**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 79.9**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,1,1,2-Tetrachloroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,1,2,2-Tetrachloroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Tetrachloroethene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Tetrahydrofuran	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Toluene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,2,3-Trichlorobenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,2,4-Trichlorobenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,1,1-Trichloroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,1,2-Trichloroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Trichloroethene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Trichlorofluoromethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,2,3-Trichloropropane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,1,2-Trichlorotrifluoroethane	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,2,4-Trimethylbenzene	<0.110	*	0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
1,3,5-Trimethylbenzene	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Vinyl chloride	<0.110		0.110		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Xylenes, Total	<0.165		0.165		mg/Kg	☼	11/07/14 07:34	11/08/14 03:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120				11/07/14 07:34	11/08/14 03:27	1
Dibromofluoromethane (Surr)	106		75 - 125				11/07/14 07:34	11/08/14 03:27	1
Toluene-d8 (Surr)	97		80 - 120				11/07/14 07:34	11/08/14 03:27	1

**Method: 8270D SIM - Semivolatile Organic Compound (GC/MS SIM LL)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<0.0121		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
Acenaphthene	<0.0121		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
Acenaphthylene	<0.0121		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
Anthracene	<0.0121		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
<b>Benzo[a]anthracene</b>	<b>0.0264</b>		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
<b>Benzo[a]pyrene</b>	<b>0.0317</b>		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
<b>Benzo[b]fluoranthene</b>	<b>0.0456</b>		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
<b>Benzo[g,h,i]perylene</b>	<b>0.0205</b>		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
<b>Benzo[k]fluoranthene</b>	<b>0.0182</b>		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
<b>Chrysene</b>	<b>0.0364</b>		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
Dibenz(a,h)anthracene	<0.0121		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
<b>Fluoranthene</b>	<b>0.0425</b>		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
Fluorene	<0.0121		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.0177</b>		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
Naphthalene	<0.0121		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
<b>Phenanthrene</b>	<b>0.0374</b>		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
<b>Pyrene</b>	<b>0.0343</b>		0.0121		mg/Kg	☼	11/04/14 09:02	11/06/14 04:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	56		20 - 105				11/04/14 09:02	11/06/14 04:45	1
Nitrobenzene-d5 (Surr)	56		20 - 100				11/04/14 09:02	11/06/14 04:45	1
Terphenyl-d14 (Surr)	38		30 - 125				11/04/14 09:02	11/06/14 04:45	1

TestAmerica Cedar Falls

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-4 4-5'**

**Lab Sample ID: 310-42852-6**

**Date Collected: 10/30/14 14:55**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 79.9**

**Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<7.03		7.03		mg/Kg	☼	11/05/14 08:54	11/07/14 06:05	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	164		0.867		mg/Kg	☼	11/07/14 09:19	11/07/14 15:32	2
Cadmium	<1.73		1.73		mg/Kg	☼	11/07/14 09:19	11/07/14 15:32	2
Chromium	17.2		1.73		mg/Kg	☼	11/07/14 09:19	11/07/14 15:32	2
Lead	30.9		8.67		mg/Kg	☼	11/07/14 09:19	11/07/14 15:32	2
Selenium	<13.0		13.0		mg/Kg	☼	11/07/14 09:19	11/07/14 15:32	2
Silver	<1.73		1.73		mg/Kg	☼	11/07/14 09:19	11/07/14 15:32	2

**Method: 7010 - Metals (GFAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.19		0.729		mg/Kg	☼	11/04/14 08:00	11/05/14 00:00	12

**Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0208		0.0208		mg/Kg	☼	11/03/14 11:04	11/03/14 17:06	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	20.1		0.100		%			11/03/14 11:21	1
Percent Solids	79.9		0.100		%			11/03/14 11:21	1

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-4**  
**Date Collected: 10/30/14 15:10**  
**Date Received: 11/01/14 09:30**

**Lab Sample ID: 310-42852-7**  
**Matrix: Ground Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/05/14 10:43	1
Allyl chloride	<2.00		2.00		ug/L			11/05/14 10:43	1
Benzene	<0.500		0.500		ug/L			11/05/14 10:43	1
Bromobenzene	<1.00		1.00		ug/L			11/05/14 10:43	1
Bromochloromethane	<5.00		5.00		ug/L			11/05/14 10:43	1
Bromodichloromethane	<1.00		1.00		ug/L			11/05/14 10:43	1
Bromoform	<5.00		5.00		ug/L			11/05/14 10:43	1
Bromomethane	<4.00		4.00		ug/L			11/05/14 10:43	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/05/14 10:43	1
n-Butylbenzene	<1.00		1.00		ug/L			11/05/14 10:43	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/05/14 10:43	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/05/14 10:43	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/05/14 10:43	1
Chlorobenzene	<1.00		1.00		ug/L			11/05/14 10:43	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/05/14 10:43	1
Dichlorofluoromethane	<1.00		1.00		ug/L			11/05/14 10:43	1
Chloroethane	<4.00		4.00		ug/L			11/05/14 10:43	1
Chloroform	<1.00		1.00		ug/L			11/05/14 10:43	1
Chloromethane	<3.00		3.00		ug/L			11/05/14 10:43	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/05/14 10:43	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/05/14 10:43	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			11/05/14 10:43	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			11/05/14 10:43	1
Dibromomethane	<1.00		1.00		ug/L			11/05/14 10:43	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/05/14 10:43	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/05/14 10:43	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/05/14 10:43	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/05/14 10:43	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/05/14 10:43	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/05/14 10:43	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/05/14 10:43	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/05/14 10:43	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/05/14 10:43	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/05/14 10:43	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/05/14 10:43	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/05/14 10:43	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/05/14 10:43	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/05/14 10:43	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/05/14 10:43	1
Diethyl ether	<2.00		2.00		ug/L			11/05/14 10:43	1
Ethylbenzene	<1.00		1.00		ug/L			11/05/14 10:43	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/05/14 10:43	1
Isopropylbenzene	<1.00		1.00		ug/L			11/05/14 10:43	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/05/14 10:43	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/05/14 10:43	1
Methylene Chloride	<5.00		5.00		ug/L			11/05/14 10:43	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/05/14 10:43	1
Naphthalene	<5.00		5.00		ug/L			11/05/14 10:43	1
N-Propylbenzene	<1.00		1.00		ug/L			11/05/14 10:43	1

TestAmerica Cedar Falls



# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-4**

**Lab Sample ID: 310-42852-7**

**Date Collected: 10/30/14 15:10**

**Matrix: Ground Water**

**Date Received: 11/01/14 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<1.00		1.00		ug/L			11/05/14 10:43	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/05/14 10:43	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/05/14 10:43	1
<b>Tetrachloroethene</b>	<b>1.23</b>		1.00		ug/L			11/05/14 10:43	1
Tetrahydrofuran	<50.0		50.0		ug/L			11/05/14 10:43	1
Toluene	<1.00		1.00		ug/L			11/05/14 10:43	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/05/14 10:43	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/05/14 10:43	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/05/14 10:43	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/05/14 10:43	1
Trichloroethene	<1.00		1.00		ug/L			11/05/14 10:43	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/05/14 10:43	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/05/14 10:43	1
1,1,2-Trichlorotrifluoroethane	<2.00		2.00		ug/L			11/05/14 10:43	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/05/14 10:43	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/05/14 10:43	1
Vinyl chloride	<1.00		1.00		ug/L			11/05/14 10:43	1
Xylenes, Total	<3.00		3.00		ug/L			11/05/14 10:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		75 - 120		11/05/14 10:43	1
Dibromofluoromethane (Surr)	100		75 - 120		11/05/14 10:43	1
Toluene-d8 (Surr)	101		80 - 120		11/05/14 10:43	1

**Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (DRO)</b>	<b>0.314</b>		0.105		mg/L		11/03/14 09:46	11/06/14 14:57	1

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-5 3-5'**

**Lab Sample ID: 310-42852-8**

**Date Collected: 10/30/14 17:00**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 90.6**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.555		0.555		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Allyl chloride	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Benzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Bromobenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Bromochloromethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Bromodichloromethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Bromoform	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Bromomethane	<0.555		0.555		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
2-Butanone (MEK)	<0.278		0.278		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
n-Butylbenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
sec-Butylbenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
tert-Butylbenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Carbon tetrachloride	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Chlorobenzene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Chlorodibromomethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Dichlorofluoromethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Chloroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Chloroform	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Chloromethane	<0.278		0.278		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
4-Chlorotoluene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
2-Chlorotoluene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,2-Dibromo-3-Chloropropane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,2-Dibromoethane (EDB)	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Dibromomethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,2-Dichlorobenzene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,3-Dichlorobenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,4-Dichlorobenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Dichlorodifluoromethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,2-Dichloroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,1-Dichloroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,1-Dichloroethene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
cis-1,2-Dichloroethene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
trans-1,2-Dichloroethene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,2-Dichloropropane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,3-Dichloropropane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
2,2-Dichloropropane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,1-Dichloropropene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
cis-1,3-Dichloropropene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
trans-1,3-Dichloropropene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Diethyl ether	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Ethylbenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Hexachlorobutadiene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Isopropylbenzene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
p-Isopropyltoluene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
4-Methyl-2-pentanone (MIBK)	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Methylene Chloride	<0.278		0.278		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Methyl tert-butyl ether	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Naphthalene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
N-Propylbenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1

TestAmerica Cedar Falls

# Client Sample Results

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

**Client Sample ID: GP-5 3-5'**

**Lab Sample ID: 310-42852-8**

**Date Collected: 10/30/14 17:00**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 90.6**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,1,1,2-Tetrachloroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,1,2,2-Tetrachloroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Tetrachloroethene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Tetrahydrofuran	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Toluene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,2,3-Trichlorobenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,2,4-Trichlorobenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,1,1-Trichloroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,1,2-Trichloroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Trichloroethene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Trichlorofluoromethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,2,3-Trichloropropane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,1,2-Trichlorotrifluoroethane	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,2,4-Trimethylbenzene	<0.111	*	0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
1,3,5-Trimethylbenzene	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Vinyl chloride	<0.111		0.111		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Xylenes, Total	<0.167		0.167		mg/Kg	☼	11/07/14 07:34	11/08/14 03:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120				11/07/14 07:34	11/08/14 03:57	1
Dibromofluoromethane (Surr)	103		75 - 125				11/07/14 07:34	11/08/14 03:57	1
Toluene-d8 (Surr)	97		80 - 120				11/07/14 07:34	11/08/14 03:57	1

**Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (DRO)</b>	<b>9.99</b>		6.31		mg/Kg	☼	11/05/14 08:54	11/07/14 13:41	1

**Method: 6010C - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Barium</b>	<b>58.6</b>		0.430		mg/Kg	☼	11/07/14 09:19	11/07/14 15:24	1
Cadmium	<0.861		0.861		mg/Kg	☼	11/07/14 09:19	11/07/14 15:24	1
<b>Chromium</b>	<b>13.2</b>		0.861		mg/Kg	☼	11/07/14 09:19	11/07/14 15:24	1
<b>Lead</b>	<b>11.1</b>		4.30		mg/Kg	☼	11/07/14 09:19	11/07/14 15:24	1
Selenium	<6.45		6.45		mg/Kg	☼	11/07/14 09:19	11/07/14 15:24	1
Silver	<0.861		0.861		mg/Kg	☼	11/07/14 09:19	11/07/14 15:24	1

**Method: 7010 - Metals (GFAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>3.57</b>		0.508		mg/Kg	☼	11/04/14 08:00	11/05/14 00:04	12

**Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0186		0.0186		mg/Kg	☼	11/03/14 11:04	11/03/14 17:07	1

**General Chemistry**

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Percent Moisture</b>	<b>9.35</b>		0.100		%			11/03/14 11:21	1
<b>Percent Solids</b>	<b>90.6</b>		0.100		%			11/03/14 11:21	1

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-5**  
**Date Collected: 10/30/14 17:15**  
**Date Received: 11/01/14 09:30**

**Lab Sample ID: 310-42852-9**  
**Matrix: Ground Water**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/05/14 11:05	1
Allyl chloride	<2.00		2.00		ug/L			11/05/14 11:05	1
Benzene	<0.500		0.500		ug/L			11/05/14 11:05	1
Bromobenzene	<1.00		1.00		ug/L			11/05/14 11:05	1
Bromochloromethane	<5.00		5.00		ug/L			11/05/14 11:05	1
Bromodichloromethane	<1.00		1.00		ug/L			11/05/14 11:05	1
Bromoform	<5.00		5.00		ug/L			11/05/14 11:05	1
Bromomethane	<4.00		4.00		ug/L			11/05/14 11:05	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/05/14 11:05	1
n-Butylbenzene	<1.00		1.00		ug/L			11/05/14 11:05	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/05/14 11:05	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/05/14 11:05	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/05/14 11:05	1
Chlorobenzene	<1.00		1.00		ug/L			11/05/14 11:05	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/05/14 11:05	1
Dichlorofluoromethane	<1.00		1.00		ug/L			11/05/14 11:05	1
Chloroethane	<4.00		4.00		ug/L			11/05/14 11:05	1
Chloroform	<1.00		1.00		ug/L			11/05/14 11:05	1
Chloromethane	<3.00		3.00		ug/L			11/05/14 11:05	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/05/14 11:05	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/05/14 11:05	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			11/05/14 11:05	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			11/05/14 11:05	1
Dibromomethane	<1.00		1.00		ug/L			11/05/14 11:05	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/05/14 11:05	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/05/14 11:05	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/05/14 11:05	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/05/14 11:05	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/05/14 11:05	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/05/14 11:05	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/05/14 11:05	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/05/14 11:05	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/05/14 11:05	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/05/14 11:05	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/05/14 11:05	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/05/14 11:05	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/05/14 11:05	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/05/14 11:05	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/05/14 11:05	1
Diethyl ether	<2.00		2.00		ug/L			11/05/14 11:05	1
Ethylbenzene	<1.00		1.00		ug/L			11/05/14 11:05	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/05/14 11:05	1
Isopropylbenzene	<1.00		1.00		ug/L			11/05/14 11:05	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/05/14 11:05	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/05/14 11:05	1
Methylene Chloride	<5.00		5.00		ug/L			11/05/14 11:05	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/05/14 11:05	1
Naphthalene	<5.00		5.00		ug/L			11/05/14 11:05	1
N-Propylbenzene	<1.00		1.00		ug/L			11/05/14 11:05	1

TestAmerica Cedar Falls

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-5**

**Lab Sample ID: 310-42852-9**

**Date Collected: 10/30/14 17:15**

**Matrix: Ground Water**

**Date Received: 11/01/14 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<1.00		1.00		ug/L			11/05/14 11:05	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/05/14 11:05	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/05/14 11:05	1
Tetrachloroethene	<1.00		1.00		ug/L			11/05/14 11:05	1
Tetrahydrofuran	<50.0		50.0		ug/L			11/05/14 11:05	1
Toluene	<1.00		1.00		ug/L			11/05/14 11:05	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/05/14 11:05	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/05/14 11:05	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/05/14 11:05	1
1,1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/05/14 11:05	1
Trichloroethene	<1.00		1.00		ug/L			11/05/14 11:05	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/05/14 11:05	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/05/14 11:05	1
1,1,1,2-Trichlorotrifluoroethane	<2.00		2.00		ug/L			11/05/14 11:05	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/05/14 11:05	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/05/14 11:05	1
Vinyl chloride	<1.00		1.00		ug/L			11/05/14 11:05	1
Xylenes, Total	<3.00		3.00		ug/L			11/05/14 11:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		75 - 120		11/05/14 11:05	1
Dibromofluoromethane (Surr)	97		75 - 120		11/05/14 11:05	1
Toluene-d8 (Surr)	100		80 - 120		11/05/14 11:05	1

**Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics (DRO)</b>	<b>0.267</b>		0.105		mg/L		11/03/14 09:46	11/06/14 15:30	1

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: HCL Trip Blank**

**Lab Sample ID: 310-42852-10**

**Date Collected: 10/30/14 00:00**

**Matrix: Water**

**Date Received: 11/01/14 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/05/14 11:28	1
Allyl chloride	<2.00		2.00		ug/L			11/05/14 11:28	1
Benzene	<0.500		0.500		ug/L			11/05/14 11:28	1
Bromobenzene	<1.00		1.00		ug/L			11/05/14 11:28	1
Bromochloromethane	<5.00		5.00		ug/L			11/05/14 11:28	1
Bromodichloromethane	<1.00		1.00		ug/L			11/05/14 11:28	1
Bromoform	<5.00		5.00		ug/L			11/05/14 11:28	1
Bromomethane	<4.00		4.00		ug/L			11/05/14 11:28	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/05/14 11:28	1
n-Butylbenzene	<1.00		1.00		ug/L			11/05/14 11:28	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/05/14 11:28	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/05/14 11:28	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/05/14 11:28	1
Chlorobenzene	<1.00		1.00		ug/L			11/05/14 11:28	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/05/14 11:28	1
Dichlorofluoromethane	<1.00		1.00		ug/L			11/05/14 11:28	1
Chloroethane	<4.00		4.00		ug/L			11/05/14 11:28	1
Chloroform	<1.00		1.00		ug/L			11/05/14 11:28	1
Chloromethane	<3.00		3.00		ug/L			11/05/14 11:28	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/05/14 11:28	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/05/14 11:28	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			11/05/14 11:28	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			11/05/14 11:28	1
Dibromomethane	<1.00		1.00		ug/L			11/05/14 11:28	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/05/14 11:28	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/05/14 11:28	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/05/14 11:28	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/05/14 11:28	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/05/14 11:28	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/05/14 11:28	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/05/14 11:28	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/05/14 11:28	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/05/14 11:28	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/05/14 11:28	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/05/14 11:28	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/05/14 11:28	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/05/14 11:28	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/05/14 11:28	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/05/14 11:28	1
Diethyl ether	<2.00		2.00		ug/L			11/05/14 11:28	1
Ethylbenzene	<1.00		1.00		ug/L			11/05/14 11:28	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/05/14 11:28	1
Isopropylbenzene	<1.00		1.00		ug/L			11/05/14 11:28	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/05/14 11:28	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/05/14 11:28	1
Methylene Chloride	<5.00		5.00		ug/L			11/05/14 11:28	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/05/14 11:28	1
Naphthalene	<5.00		5.00		ug/L			11/05/14 11:28	1
N-Propylbenzene	<1.00		1.00		ug/L			11/05/14 11:28	1

TestAmerica Cedar Falls

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: HCL Trip Blank**

**Lab Sample ID: 310-42852-10**

**Date Collected: 10/30/14 00:00**

**Matrix: Water**

**Date Received: 11/01/14 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<1.00		1.00		ug/L			11/05/14 11:28	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/05/14 11:28	1
1,1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/05/14 11:28	1
Tetrachloroethene	<1.00		1.00		ug/L			11/05/14 11:28	1
Tetrahydrofuran	<50.0		50.0		ug/L			11/05/14 11:28	1
Toluene	<1.00		1.00		ug/L			11/05/14 11:28	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/05/14 11:28	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/05/14 11:28	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/05/14 11:28	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/05/14 11:28	1
Trichloroethene	<1.00		1.00		ug/L			11/05/14 11:28	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/05/14 11:28	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/05/14 11:28	1
1,1,2-Trichlorotrifluoroethane	<2.00		2.00		ug/L			11/05/14 11:28	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/05/14 11:28	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/05/14 11:28	1
Vinyl chloride	<1.00		1.00		ug/L			11/05/14 11:28	1
Xylenes, Total	<3.00		3.00		ug/L			11/05/14 11:28	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	100		75 - 120					11/05/14 11:28	1
Dibromofluoromethane (Surr)	101		75 - 120					11/05/14 11:28	1
Toluene-d8 (Surr)	100		80 - 120					11/05/14 11:28	1

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: MeOH Trip Blank**

**Lab Sample ID: 310-42852-11**

**Date Collected: 10/30/14 00:00**

**Matrix: Solid**

**Date Received: 11/01/14 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.500		0.500		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Allyl chloride	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Benzene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Bromobenzene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Bromochloromethane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Bromodichloromethane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Bromoform	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Bromomethane	<0.500		0.500		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
2-Butanone (MEK)	<0.250		0.250		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
n-Butylbenzene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
sec-Butylbenzene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
tert-Butylbenzene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Carbon tetrachloride	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Chlorobenzene	<0.100	*	0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Chlorodibromomethane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Dichlorofluoromethane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Chloroethane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Chloroform	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Chloromethane	<0.250		0.250		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
4-Chlorotoluene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
2-Chlorotoluene	<0.100	*	0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,2-Dibromo-3-Chloropropane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,2-Dibromoethane (EDB)	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Dibromomethane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,2-Dichlorobenzene	<0.100	*	0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,3-Dichlorobenzene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,4-Dichlorobenzene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Dichlorodifluoromethane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,2-Dichloroethane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,1-Dichloroethane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,1-Dichloroethene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
cis-1,2-Dichloroethene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
trans-1,2-Dichloroethene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,2-Dichloropropane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,3-Dichloropropane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
2,2-Dichloropropane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,1-Dichloropropene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
cis-1,3-Dichloropropene	<0.100	*	0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
trans-1,3-Dichloropropene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Diethyl ether	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Ethylbenzene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Hexachlorobutadiene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Isopropylbenzene	<0.100	*	0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
p-Isopropyltoluene	<0.100	*	0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
4-Methyl-2-pentanone (MIBK)	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Methylene Chloride	<0.250		0.250		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Methyl tert-butyl ether	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Naphthalene	<0.100	*	0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
N-Propylbenzene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1

TestAmerica Cedar Falls



# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: MeOH Trip Blank**

**Lab Sample ID: 310-42852-11**

**Date Collected: 10/30/14 00:00**

**Matrix: Solid**

**Date Received: 11/01/14 09:30**

**Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,1,1,2-Tetrachloroethane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,1,1,2,2-Tetrachloroethane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Tetrachloroethene	<0.100	*	0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Tetrahydrofuran	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Toluene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,2,3-Trichlorobenzene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,2,4-Trichlorobenzene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,1,1-Trichloroethane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,1,2-Trichloroethane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Trichloroethene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Trichlorofluoromethane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,2,3-Trichloropropane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,1,2-Trichlorotrifluoroethane	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,2,4-Trimethylbenzene	<0.100	*	0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
1,3,5-Trimethylbenzene	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Vinyl chloride	<0.100		0.100		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
Xylenes, Total	<0.150		0.150		mg/Kg		11/07/14 07:34	11/08/14 04:28	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene (Surr)	99		80 - 120				11/07/14 07:34	11/08/14 04:28	1
Dibromofluoromethane (Surr)	101		75 - 125				11/07/14 07:34	11/08/14 04:28	1
Toluene-d8 (Surr)	96		80 - 120				11/07/14 07:34	11/08/14 04:28	1

# Definitions/Glossary

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Surrogate Summary

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

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

Matrix: Ground Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (75-120)	DBFM (75-120)	TOL (80-120)
310-42852-2	GP-2	101	101	100
310-42852-7	GP-4	99	100	101
310-42852-9	GP-5	98	97	100

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)  
 DBFM = Dibromofluoromethane (Surr)  
 TOL = Toluene-d8 (Surr)

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

Matrix: Sludge

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (80-120)	DBFM (75-125)	TOL (80-120)
310-42852-1	GP-2 10-15'	98	99	98
310-42852-3	GP-1 10-15'	98	106	98
310-42852-4	GP-1A 0-2'	99	104	98
310-42852-5	GP-3 0-2'	97	102	95
310-42852-6	GP-4 4-5'	100	106	97
310-42852-8	GP-5 3-5'	100	103	97

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)  
 DBFM = Dibromofluoromethane (Surr)  
 TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (80-120)	DBFM (75-125)	TOL (80-120)
310-42852-11	MeOH Trip Blank	99	101	96
LCS 310-67485/2-A	Lab Control Sample	99	102	101
LCSD 310-67485/3-A	Lab Control Sample Dup	97	103	99
MB 310-67485/1-A	Method Blank	97	100	101

**Surrogate Legend**

BFB = 4-Bromofluorobenzene (Surr)  
 DBFM = Dibromofluoromethane (Surr)  
 TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (75-120)	DBFM (75-120)	TOL (80-120)
310-42852-10	HCL Trip Blank	100	101	100

# Surrogate Summary

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (75-120)	DBFM (75-120)	TOL (80-120)
LCS 310-66995/4	Lab Control Sample	98	106	100
MB 310-66995/7	Method Blank	100	99	97

### Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)  
 DBFM = Dibromofluoromethane (Surr)  
 TOL = Toluene-d8 (Surr)

## Method: 8270D SIM - Semivolatile Organic Compound (GC/MS SIM LL)

Matrix: Sludge

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (20-105)	NBZ (20-100)	TPH (30-125)
310-42852-1	GP-2 10-15'	65	73	59
310-42852-3	GP-1 10-15'	62	68	51
310-42852-4	GP-1A 0-2'	68	161 X	63
310-42852-5	GP-3 0-2'	67	68	46
310-42852-6	GP-4 4-5'	56	56	38

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
 NBZ = Nitrobenzene-d5 (Surr)  
 TPH = Terphenyl-d14 (Surr)

## Method: 8270D SIM - Semivolatile Organic Compound (GC/MS SIM LL)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (20-105)	NBZ (20-100)	TPH (30-125)
LCS 310-67046/2-A	Lab Control Sample	72	78	69
MB 310-67046/1-A	Method Blank	76	83	73

### Surrogate Legend

FBP = 2-Fluorobiphenyl (Surr)  
 NBZ = Nitrobenzene-d5 (Surr)  
 TPH = Terphenyl-d14 (Surr)

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Sludge

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCB1 (40-120)	TCX1 (10-105)
310-42852-4	GP-1A 0-2'	61	63
310-42852-5	GP-3 0-2'	66	68

### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)  
 TCX = Tetrachloro-m-xylene

TestAmerica Cedar Falls

# Surrogate Summary

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (40-120)	TCX1 (10-105)
LCS 310-66921/2-A	Lab Control Sample	69	75
MB 310-66921/1-A	Method Blank	74	79

#### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

# QC Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

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

**Lab Sample ID: MB 310-66995/7**

**Matrix: Water**

**Analysis Batch: 66995**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<10.0		10.0		ug/L			11/05/14 09:35	1
Allyl chloride	<2.00		2.00		ug/L			11/05/14 09:35	1
Benzene	<0.500		0.500		ug/L			11/05/14 09:35	1
Bromobenzene	<1.00		1.00		ug/L			11/05/14 09:35	1
Bromochloromethane	<5.00		5.00		ug/L			11/05/14 09:35	1
Bromodichloromethane	<1.00		1.00		ug/L			11/05/14 09:35	1
Bromoform	<5.00		5.00		ug/L			11/05/14 09:35	1
Bromomethane	<4.00		4.00		ug/L			11/05/14 09:35	1
2-Butanone (MEK)	<10.0		10.0		ug/L			11/05/14 09:35	1
n-Butylbenzene	<1.00		1.00		ug/L			11/05/14 09:35	1
sec-Butylbenzene	<1.00		1.00		ug/L			11/05/14 09:35	1
tert-Butylbenzene	<1.00		1.00		ug/L			11/05/14 09:35	1
Carbon tetrachloride	<2.00		2.00		ug/L			11/05/14 09:35	1
Chlorobenzene	<1.00		1.00		ug/L			11/05/14 09:35	1
Chlorodibromomethane	<5.00		5.00		ug/L			11/05/14 09:35	1
Dichlorofluoromethane	<1.00		1.00		ug/L			11/05/14 09:35	1
Chloroethane	<4.00		4.00		ug/L			11/05/14 09:35	1
Chloroform	<1.00		1.00		ug/L			11/05/14 09:35	1
Chloromethane	<3.00		3.00		ug/L			11/05/14 09:35	1
4-Chlorotoluene	<1.00		1.00		ug/L			11/05/14 09:35	1
2-Chlorotoluene	<1.00		1.00		ug/L			11/05/14 09:35	1
1,2-Dibromo-3-Chloropropane	<10.0		10.0		ug/L			11/05/14 09:35	1
1,2-Dibromoethane (EDB)	<10.0		10.0		ug/L			11/05/14 09:35	1
Dibromomethane	<1.00		1.00		ug/L			11/05/14 09:35	1
1,2-Dichlorobenzene	<1.00		1.00		ug/L			11/05/14 09:35	1
1,3-Dichlorobenzene	<1.00		1.00		ug/L			11/05/14 09:35	1
1,4-Dichlorobenzene	<1.00		1.00		ug/L			11/05/14 09:35	1
Dichlorodifluoromethane	<3.00		3.00		ug/L			11/05/14 09:35	1
1,2-Dichloroethane	<1.00		1.00		ug/L			11/05/14 09:35	1
1,1-Dichloroethane	<1.00		1.00		ug/L			11/05/14 09:35	1
1,1-Dichloroethene	<2.00		2.00		ug/L			11/05/14 09:35	1
cis-1,2-Dichloroethene	<1.00		1.00		ug/L			11/05/14 09:35	1
trans-1,2-Dichloroethene	<1.00		1.00		ug/L			11/05/14 09:35	1
1,2-Dichloropropane	<1.00		1.00		ug/L			11/05/14 09:35	1
1,3-Dichloropropane	<1.00		1.00		ug/L			11/05/14 09:35	1
2,2-Dichloropropane	<4.00		4.00		ug/L			11/05/14 09:35	1
1,1-Dichloropropene	<1.00		1.00		ug/L			11/05/14 09:35	1
cis-1,3-Dichloropropene	<5.00		5.00		ug/L			11/05/14 09:35	1
trans-1,3-Dichloropropene	<5.00		5.00		ug/L			11/05/14 09:35	1
Diethyl ether	<2.00		2.00		ug/L			11/05/14 09:35	1
Ethylbenzene	<1.00		1.00		ug/L			11/05/14 09:35	1
Hexachlorobutadiene	<5.00		5.00		ug/L			11/05/14 09:35	1
Isopropylbenzene	<1.00		1.00		ug/L			11/05/14 09:35	1
p-Isopropyltoluene	<1.00		1.00		ug/L			11/05/14 09:35	1
4-Methyl-2-pentanone (MIBK)	<10.0		10.0		ug/L			11/05/14 09:35	1
Methylene Chloride	<5.00		5.00		ug/L			11/05/14 09:35	1
Methyl tert-butyl ether	<1.00		1.00		ug/L			11/05/14 09:35	1
Naphthalene	<5.00		5.00		ug/L			11/05/14 09:35	1

TestAmerica Cedar Falls

# QC Sample Results

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

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

**Lab Sample ID: MB 310-66995/7**

**Matrix: Water**

**Analysis Batch: 66995**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
N-Propylbenzene	<1.00		1.00		ug/L			11/05/14 09:35	1
Styrene	<1.00		1.00		ug/L			11/05/14 09:35	1
1,1,1,2-Tetrachloroethane	<1.00		1.00		ug/L			11/05/14 09:35	1
1,1,2,2-Tetrachloroethane	<1.00		1.00		ug/L			11/05/14 09:35	1
Tetrachloroethene	<1.00		1.00		ug/L			11/05/14 09:35	1
Tetrahydrofuran	<50.0		50.0		ug/L			11/05/14 09:35	1
Toluene	<1.00		1.00		ug/L			11/05/14 09:35	1
1,2,3-Trichlorobenzene	<5.00		5.00		ug/L			11/05/14 09:35	1
1,2,4-Trichlorobenzene	<5.00		5.00		ug/L			11/05/14 09:35	1
1,1,1-Trichloroethane	<1.00		1.00		ug/L			11/05/14 09:35	1
1,1,2-Trichloroethane	<1.00		1.00		ug/L			11/05/14 09:35	1
Trichloroethene	<1.00		1.00		ug/L			11/05/14 09:35	1
Trichlorofluoromethane	<4.00		4.00		ug/L			11/05/14 09:35	1
1,2,3-Trichloropropane	<1.00		1.00		ug/L			11/05/14 09:35	1
1,1,2-Trichlorotrifluoroethane	<2.00		2.00		ug/L			11/05/14 09:35	1
1,2,4-Trimethylbenzene	<1.00		1.00		ug/L			11/05/14 09:35	1
1,3,5-Trimethylbenzene	<1.00		1.00		ug/L			11/05/14 09:35	1
Vinyl chloride	<1.00		1.00		ug/L			11/05/14 09:35	1
Xylenes, Total	<3.00		3.00		ug/L			11/05/14 09:35	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene (Surr)	100		75 - 120		11/05/14 09:35	1
Dibromofluoromethane (Surr)	99		75 - 120		11/05/14 09:35	1
Toluene-d8 (Surr)	97		80 - 120		11/05/14 09:35	1

**Lab Sample ID: LCS 310-66995/4**

**Matrix: Water**

**Analysis Batch: 66995**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Acetone	40.0	50.79		ug/L		127	60 - 150
Allyl chloride	20.0	22.56		ug/L		113	45 - 130
Benzene	20.0	20.57		ug/L		103	70 - 130
Bromobenzene	20.0	19.80		ug/L		99	75 - 130
Bromochloromethane	20.0	18.29		ug/L		91	65 - 145
Bromodichloromethane	20.0	20.08		ug/L		100	60 - 130
Bromoform	20.0	19.18		ug/L		96	30 - 125
Bromomethane	20.0	8.900		ug/L		45	35 - 130
2-Butanone (MEK)	40.0	46.66		ug/L		117	55 - 140
n-Butylbenzene	20.0	20.12		ug/L		101	55 - 135
sec-Butylbenzene	20.0	18.86		ug/L		94	65 - 135
tert-Butylbenzene	20.0	19.88		ug/L		99	60 - 135
Carbon tetrachloride	20.0	17.83		ug/L		89	55 - 130
Chlorobenzene	20.0	19.63		ug/L		98	75 - 125
Chlorodibromomethane	20.0	20.87		ug/L		104	45 - 125
Dichlorofluoromethane	20.0	19.55		ug/L		98	60 - 140
Chloroethane	20.0	18.04		ug/L		90	55 - 135
Chloroform	20.0	21.10		ug/L		106	70 - 125

TestAmerica Cedar Falls

# QC Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

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

**Lab Sample ID: LCS 310-66995/4**

**Matrix: Water**

**Analysis Batch: 66995**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	20.0	14.05		ug/L		70	30 - 125
4-Chlorotoluene	20.0	19.65		ug/L		98	70 - 140
2-Chlorotoluene	20.0	19.00		ug/L		95	75 - 135
1,2-Dibromo-3-Chloropropane	20.0	20.46		ug/L		102	35 - 130
1,2-Dibromoethane (EDB)	20.0	20.54		ug/L		103	70 - 135
Dibromomethane	20.0	21.34		ug/L		107	75 - 130
1,2-Dichlorobenzene	20.0	19.11		ug/L		96	65 - 135
1,3-Dichlorobenzene	20.0	19.31		ug/L		97	70 - 130
1,4-Dichlorobenzene	20.0	19.62		ug/L		98	60 - 140
Dichlorodifluoromethane	20.0	24.54		ug/L		123	35 - 130
1,2-Dichloroethane	20.0	22.06		ug/L		110	65 - 140
1,1-Dichloroethane	20.0	20.64		ug/L		103	60 - 130
1,1-Dichloroethene	20.0	20.59		ug/L		103	60 - 135
cis-1,2-Dichloroethene	20.0	20.33		ug/L		102	70 - 135
trans-1,2-Dichloroethene	20.0	21.03		ug/L		105	60 - 145
1,2-Dichloropropane	20.0	20.67		ug/L		103	65 - 130
1,3-Dichloropropane	20.0	21.68		ug/L		108	75 - 125
2,2-Dichloropropane	20.0	18.98		ug/L		95	25 - 120
1,1-Dichloropropene	20.0	21.18		ug/L		106	60 - 140
cis-1,3-Dichloropropene	20.0	20.66		ug/L		103	30 - 120
trans-1,3-Dichloropropene	20.0	21.00		ug/L		105	35 - 120
Diethyl ether	20.0	20.32		ug/L		102	60 - 135
Ethylbenzene	20.0	20.10		ug/L		101	70 - 130
Hexachlorobutadiene	20.0	18.57		ug/L		93	60 - 135
Isopropylbenzene	20.0	19.39		ug/L		97	70 - 125
p-Isopropyltoluene	20.0	19.27		ug/L		96	60 - 140
4-Methyl-2-pentanone (MIBK)	40.0	46.52		ug/L		116	40 - 135
Methylene Chloride	20.0	20.30		ug/L		101	55 - 145
Methyl tert-butyl ether	20.0	22.19		ug/L		111	50 - 135
Naphthalene	20.0	19.56		ug/L		98	40 - 135
N-Propylbenzene	20.0	18.81		ug/L		94	70 - 135
Styrene	20.0	20.01		ug/L		100	70 - 130
1,1,1,2-Tetrachloroethane	20.0	19.78		ug/L		99	65 - 120
1,1,2,2-Tetrachloroethane	20.0	20.23		ug/L		101	65 - 130
Tetrachloroethene	20.0	19.32		ug/L		97	70 - 135
Tetrahydrofuran	40.0	43.78	J	ug/L		109	45 - 135
Toluene	20.0	20.66		ug/L		103	70 - 135
1,2,3-Trichlorobenzene	20.0	18.99		ug/L		95	55 - 130
1,2,4-Trichlorobenzene	20.0	18.68		ug/L		93	40 - 135
1,1,1-Trichloroethane	20.0	20.78		ug/L		104	60 - 125
1,1,2-Trichloroethane	20.0	20.83		ug/L		104	75 - 125
Trichloroethene	20.0	21.18		ug/L		106	70 - 130
Trichlorofluoromethane	20.0	20.18		ug/L		101	55 - 145
1,2,3-Trichloropropane	20.0	21.77		ug/L		109	60 - 150
1,1,2-Trichlorotrifluoroethane	20.0	24.30		ug/L		122	50 - 140
1,2,4-Trimethylbenzene	20.0	19.79		ug/L		99	70 - 140
1,3,5-Trimethylbenzene	20.0	19.19		ug/L		96	70 - 140
Vinyl chloride	20.0	17.68		ug/L		88	45 - 135

TestAmerica Cedar Falls



# QC Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

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

**Lab Sample ID: LCS 310-66995/4**

**Matrix: Water**

**Analysis Batch: 66995**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	40.0	39.93		ug/L		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		75 - 120
Dibromofluoromethane (Surr)	106		75 - 120
Toluene-d8 (Surr)	100		80 - 120

**Lab Sample ID: MB 310-67485/1-A**

**Matrix: Solid**

**Analysis Batch: 67559**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 67485**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<0.477		0.477		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Allyl chloride	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Benzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Bromobenzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Bromochloromethane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Bromodichloromethane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Bromoform	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Bromomethane	<0.477		0.477		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
2-Butanone (MEK)	<0.239		0.239		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
n-Butylbenzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
sec-Butylbenzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
tert-Butylbenzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Carbon tetrachloride	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Chlorobenzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Chlorodibromomethane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Dichlorofluoromethane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Chloroethane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Chloroform	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Chloromethane	<0.239		0.239		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
4-Chlorotoluene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
2-Chlorotoluene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,2-Dibromo-3-Chloropropane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,2-Dibromoethane (EDB)	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Dibromomethane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,2-Dichlorobenzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,3-Dichlorobenzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,4-Dichlorobenzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Dichlorodifluoromethane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,2-Dichloroethane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,1-Dichloroethane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,1-Dichloroethene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
cis-1,2-Dichloroethene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
trans-1,2-Dichloroethene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,2-Dichloropropane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,3-Dichloropropane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
2,2-Dichloropropane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1

TestAmerica Cedar Falls

# QC Sample Results

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

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

**Lab Sample ID: MB 310-67485/1-A**

**Matrix: Solid**

**Analysis Batch: 67559**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 67485**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
cis-1,3-Dichloropropene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
trans-1,3-Dichloropropene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Diethyl ether	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Ethylbenzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Hexachlorobutadiene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Isopropylbenzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
p-Isopropyltoluene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
4-Methyl-2-pentanone (MIBK)	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Methylene Chloride	<0.239		0.239		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Methyl tert-butyl ether	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Naphthalene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
N-Propylbenzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Styrene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,1,1,2-Tetrachloroethane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,1,2,2-Tetrachloroethane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Tetrachloroethene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Tetrahydrofuran	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Toluene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,2,3-Trichlorobenzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,2,4-Trichlorobenzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,1,1-Trichloroethane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,1,2-Trichloroethane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Trichloroethene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Trichlorofluoromethane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,2,3-Trichloropropane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,1,2-Trichlorotrifluoroethane	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,2,4-Trimethylbenzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
1,3,5-Trimethylbenzene	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Vinyl chloride	<0.0954		0.0954		mg/Kg		11/07/14 07:34	11/07/14 20:52	1
Xylenes, Total	<0.143		0.143		mg/Kg		11/07/14 07:34	11/07/14 20:52	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		80 - 120	11/07/14 07:34	11/07/14 20:52	1
Dibromofluoromethane (Surr)	100		75 - 125	11/07/14 07:34	11/07/14 20:52	1
Toluene-d8 (Surr)	101		80 - 120	11/07/14 07:34	11/07/14 20:52	1

**Lab Sample ID: LCS 310-67485/2-A**

**Matrix: Solid**

**Analysis Batch: 67559**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 67485**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	1.92	1.948		mg/Kg		101	65 - 150
Allyl chloride	0.961	1.053		mg/Kg		110	45 - 140
Benzene	0.961	1.137		mg/Kg		118	55 - 135
Bromobenzene	0.961	1.080		mg/Kg		112	65 - 125
Bromochloromethane	0.961	1.030		mg/Kg		107	65 - 130
Bromodichloromethane	0.961	1.075		mg/Kg		112	65 - 130

TestAmerica Cedar Falls

# QC Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

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

**Lab Sample ID: LCS 310-67485/2-A**

**Matrix: Solid**

**Analysis Batch: 67559**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 67485**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromoform	0.961	0.9582		mg/Kg		100	50 - 135
Bromomethane	0.961	0.9577		mg/Kg		100	45 - 135
2-Butanone (MEK)	1.92	1.873		mg/Kg		98	50 - 145
n-Butylbenzene	0.961	1.141		mg/Kg		119	55 - 130
sec-Butylbenzene	0.961	1.153		mg/Kg		120	60 - 125
tert-Butylbenzene	0.961	1.148		mg/Kg		120	55 - 125
Carbon tetrachloride	0.961	1.026		mg/Kg		107	55 - 130
Chlorobenzene	0.961	1.134		mg/Kg		118	60 - 120
Chlorodibromomethane	0.961	1.048		mg/Kg		109	55 - 130
Dichlorofluoromethane	0.961	1.104		mg/Kg		115	50 - 145
Chloroethane	0.961	0.9519		mg/Kg		99	50 - 145
Chloroform	0.961	1.063		mg/Kg		111	65 - 130
Chloromethane	0.961	0.7676		mg/Kg		80	40 - 135
4-Chlorotoluene	0.961	1.153		mg/Kg		120	60 - 125
2-Chlorotoluene	0.961	1.162		mg/Kg		121	60 - 125
1,2-Dibromo-3-Chloropropane	0.961	0.9329		mg/Kg		97	50 - 140
1,2-Dibromoethane (EDB)	0.961	1.105		mg/Kg		115	55 - 140
Dibromomethane	0.961	1.069		mg/Kg		111	65 - 135
1,2-Dichlorobenzene	0.961	1.137		mg/Kg		118	65 - 120
1,3-Dichlorobenzene	0.961	1.134		mg/Kg		118	60 - 125
1,4-Dichlorobenzene	0.961	1.120		mg/Kg		117	60 - 125
Dichlorodifluoromethane	0.961	0.4157		mg/Kg		43	40 - 135
1,2-Dichloroethane	0.961	1.085		mg/Kg		113	60 - 140
1,1-Dichloroethane	0.961	1.087		mg/Kg		113	55 - 135
1,1-Dichloroethene	0.961	1.023		mg/Kg		106	50 - 145
cis-1,2-Dichloroethene	0.961	1.039		mg/Kg		108	60 - 135
trans-1,2-Dichloroethene	0.961	1.110		mg/Kg		116	55 - 135
1,2-Dichloropropane	0.961	1.097		mg/Kg		114	55 - 130
1,3-Dichloropropane	0.961	1.080		mg/Kg		112	55 - 140
2,2-Dichloropropane	0.961	0.9503		mg/Kg		99	40 - 135
1,1-Dichloropropene	0.961	1.039		mg/Kg		108	55 - 130
cis-1,3-Dichloropropene	0.961	1.067		mg/Kg		111	50 - 115
trans-1,3-Dichloropropene	0.961	1.078		mg/Kg		112	55 - 130
Diethyl ether	0.961	1.077		mg/Kg		112	50 - 145
Ethylbenzene	0.961	1.148		mg/Kg		120	60 - 125
Hexachlorobutadiene	0.961	1.088		mg/Kg		113	40 - 135
Isopropylbenzene	0.961	1.158		mg/Kg		121	60 - 125
p-Isopropyltoluene	0.961	1.146		mg/Kg		119	60 - 120
4-Methyl-2-pentanone (MIBK)	1.92	1.958		mg/Kg		102	50 - 140
Methylene Chloride	0.961	1.056		mg/Kg		110	55 - 145
Methyl tert-butyl ether	0.961	1.068		mg/Kg		111	55 - 130
Naphthalene	0.961	1.078		mg/Kg		112	50 - 130
N-Propylbenzene	0.961	1.118		mg/Kg		116	50 - 125
Styrene	0.961	1.146		mg/Kg		119	60 - 125
1,1,1,2-Tetrachloroethane	0.961	1.069		mg/Kg		111	65 - 125
1,1,2,2-Tetrachloroethane	0.961	0.9869		mg/Kg		103	60 - 125
Tetrachloroethene	0.961	1.193		mg/Kg		124	55 - 125
Tetrahydrofuran	1.92	1.909		mg/Kg		99	45 - 140

TestAmerica Cedar Falls

# QC Sample Results

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

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

**Lab Sample ID: LCS 310-67485/2-A**

**Matrix: Solid**

**Analysis Batch: 67559**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 67485**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toluene	0.961	1.167		mg/Kg		121	60 - 130
1,2,3-Trichlorobenzene	0.961	1.032		mg/Kg		107	50 - 130
1,2,4-Trichlorobenzene	0.961	1.086		mg/Kg		113	45 - 135
1,1,1-Trichloroethane	0.961	1.061		mg/Kg		110	60 - 125
1,1,2-Trichloroethane	0.961	1.059		mg/Kg		110	55 - 135
Trichloroethene	0.961	1.070		mg/Kg		111	60 - 130
Trichlorofluoromethane	0.961	0.9289		mg/Kg		97	50 - 145
1,2,3-Trichloropropane	0.961	0.9782		mg/Kg		102	50 - 145
1,1,2-Trichlorotrifluoroethane	0.961	0.8058		mg/Kg		84	45 - 140
1,2,4-Trimethylbenzene	0.961	1.175		mg/Kg		122	55 - 125
1,3,5-Trimethylbenzene	0.961	1.171		mg/Kg		122	50 - 130
Vinyl chloride	0.961	0.8700		mg/Kg		91	45 - 140
Xylenes, Total	1.92	2.229		mg/Kg		116	50 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	102		75 - 125
Toluene-d8 (Surr)	101		80 - 120

**Lab Sample ID: LCSD 310-67485/3-A**

**Matrix: Solid**

**Analysis Batch: 67559**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 67485**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	1.93	2.426		mg/Kg		126	65 - 150	22	40
Allyl chloride	0.964	1.043		mg/Kg		108	45 - 140	1	40
Benzene	0.964	1.191		mg/Kg		124	55 - 135	5	25
Bromobenzene	0.964	1.115		mg/Kg		116	65 - 125	3	35
Bromochloromethane	0.964	1.062		mg/Kg		110	65 - 130	3	35
Bromodichloromethane	0.964	1.163		mg/Kg		121	65 - 130	8	30
Bromoform	0.964	1.140		mg/Kg		118	50 - 135	17	40
Bromomethane	0.964	0.8342		mg/Kg		87	45 - 135	14	40
2-Butanone (MEK)	1.93	2.465		mg/Kg		128	50 - 145	27	40
n-Butylbenzene	0.964	1.163		mg/Kg		121	55 - 130	2	30
sec-Butylbenzene	0.964	1.179		mg/Kg		122	60 - 125	2	30
tert-Butylbenzene	0.964	1.181		mg/Kg		123	55 - 125	3	25
Carbon tetrachloride	0.964	1.152		mg/Kg		120	55 - 130	12	30
Chlorobenzene	0.964	1.197	*	mg/Kg		124	60 - 120	5	30
Chlorodibromomethane	0.964	1.173		mg/Kg		122	55 - 130	11	40
Dichlorofluoromethane	0.964	1.184		mg/Kg		123	50 - 145	7	35
Chloroethane	0.964	1.017		mg/Kg		105	50 - 145	7	40
Chloroform	0.964	1.122		mg/Kg		116	65 - 130	5	30
Chloromethane	0.964	0.8280		mg/Kg		86	40 - 135	8	40
4-Chlorotoluene	0.964	1.196		mg/Kg		124	60 - 125	4	35
2-Chlorotoluene	0.964	1.245	*	mg/Kg		129	60 - 125	7	35
1,2-Dibromo-3-Chloropropane	0.964	1.214		mg/Kg		126	50 - 140	26	35
1,2-Dibromoethane (EDB)	0.964	1.201		mg/Kg		125	55 - 140	8	30
Dibromomethane	0.964	1.201		mg/Kg		125	65 - 135	12	30

TestAmerica Cedar Falls

# QC Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

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

**Lab Sample ID: LCSD 310-67485/3-A**

**Matrix: Solid**

**Analysis Batch: 67559**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

**Prep Batch: 67485**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	0.964	1.208	*	mg/Kg		125	65 - 120	6	30
1,3-Dichlorobenzene	0.964	1.161		mg/Kg		120	60 - 125	2	30
1,4-Dichlorobenzene	0.964	1.195		mg/Kg		124	60 - 125	6	30
Dichlorodifluoromethane	0.964	0.5511		mg/Kg		57	40 - 135	28	35
1,2-Dichloroethane	0.964	1.149		mg/Kg		119	60 - 140	6	30
1,1-Dichloroethane	0.964	1.111		mg/Kg		115	55 - 135	2	40
1,1-Dichloroethene	0.964	1.133		mg/Kg		118	50 - 145	10	40
cis-1,2-Dichloroethene	0.964	1.093		mg/Kg		113	60 - 135	5	40
trans-1,2-Dichloroethene	0.964	1.115		mg/Kg		116	55 - 135	0	40
1,2-Dichloropropane	0.964	1.190		mg/Kg		123	55 - 130	8	30
1,3-Dichloropropane	0.964	1.216		mg/Kg		126	55 - 140	12	30
2,2-Dichloropropane	0.964	1.035		mg/Kg		107	40 - 135	9	45
1,1-Dichloropropene	0.964	1.120		mg/Kg		116	55 - 130	8	30
cis-1,3-Dichloropropene	0.964	1.128	*	mg/Kg		117	50 - 115	6	35
trans-1,3-Dichloropropene	0.964	1.168		mg/Kg		121	55 - 130	8	30
Diethyl ether	0.964	1.185		mg/Kg		123	50 - 145	10	40
Ethylbenzene	0.964	1.198		mg/Kg		124	60 - 125	4	30
Hexachlorobutadiene	0.964	1.090		mg/Kg		113	40 - 135	0	35
Isopropylbenzene	0.964	1.244	*	mg/Kg		129	60 - 125	7	35
p-Isopropyltoluene	0.964	1.189	*	mg/Kg		123	60 - 120	4	30
4-Methyl-2-pentanone (MIBK)	1.93	2.477		mg/Kg		129	50 - 140	23	40
Methylene Chloride	0.964	1.157		mg/Kg		120	55 - 145	9	40
Methyl tert-butyl ether	0.964	1.247		mg/Kg		129	55 - 130	15	30
Naphthalene	0.964	1.288	*	mg/Kg		134	50 - 130	18	30
N-Propylbenzene	0.964	1.187		mg/Kg		123	50 - 125	6	35
Styrene	0.964	1.186		mg/Kg		123	60 - 125	3	35
1,1,1,2-Tetrachloroethane	0.964	1.112		mg/Kg		115	65 - 125	4	30
1,1,1,2,2-Tetrachloroethane	0.964	1.183		mg/Kg		123	60 - 125	18	35
Tetrachloroethene	0.964	1.215	*	mg/Kg		126	55 - 125	2	40
Tetrahydrofuran	1.93	2.455		mg/Kg		127	45 - 140	25	30
Toluene	0.964	1.210		mg/Kg		126	60 - 130	4	35
1,2,3-Trichlorobenzene	0.964	1.221		mg/Kg		127	50 - 130	17	35
1,2,4-Trichlorobenzene	0.964	1.152		mg/Kg		119	45 - 135	6	35
1,1,1-Trichloroethane	0.964	1.122		mg/Kg		116	60 - 125	6	30
1,1,2-Trichloroethane	0.964	1.082		mg/Kg		112	55 - 135	2	30
Trichloroethene	0.964	1.160		mg/Kg		120	60 - 130	8	30
Trichlorofluoromethane	0.964	1.030		mg/Kg		107	50 - 145	10	40
1,2,3-Trichloropropane	0.964	1.186		mg/Kg		123	50 - 145	19	35
1,1,2-Trichlorotrifluoroethane	0.964	1.057		mg/Kg		110	45 - 140	27	35
1,2,4-Trimethylbenzene	0.964	1.221	*	mg/Kg		127	55 - 125	4	35
1,3,5-Trimethylbenzene	0.964	1.212		mg/Kg		126	50 - 130	3	35
Vinyl chloride	0.964	0.9975		mg/Kg		103	45 - 140	14	40
Xylenes, Total	1.93	2.308		mg/Kg		120	50 - 130	3	30

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene (Surr)	97		80 - 120
Dibromofluoromethane (Surr)	103		75 - 125
Toluene-d8 (Surr)	99		80 - 120

TestAmerica Cedar Falls

# QC Sample Results

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

## Method: 8270D SIM - Semivolatile Organic Compound (GC/MS SIM LL)

**Lab Sample ID: MB 310-67046/1-A**

**Matrix: Solid**

**Analysis Batch: 67320**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 67046**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Acenaphthene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Acenaphthylene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Anthracene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Benzo[a]anthracene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Benzo[a]pyrene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Benzo[b]fluoranthene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Benzo[g,h,i]perylene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Benzo[k]fluoranthene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Chrysene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Dibenz(a,h)anthracene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Fluoranthene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Fluorene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Indeno[1,2,3-cd]pyrene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Naphthalene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Phenanthrene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1
Pyrene	<0.00966		0.00966		mg/Kg		11/04/14 09:02	11/05/14 19:12	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	76		20 - 105	11/04/14 09:02	11/05/14 19:12	1
Nitrobenzene-d5 (Surr)	83		20 - 100	11/04/14 09:02	11/05/14 19:12	1
Terphenyl-d14 (Surr)	73		30 - 125	11/04/14 09:02	11/05/14 19:12	1

**Lab Sample ID: LCS 310-67046/2-A**

**Matrix: Solid**

**Analysis Batch: 67320**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 67046**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	0.197	0.1437		mg/Kg		73	30 - 80
Acenaphthene	0.197	0.1467		mg/Kg		74	35 - 80
Acenaphthylene	0.197	0.1501		mg/Kg		76	35 - 85
Anthracene	0.197	0.1357		mg/Kg		69	15 - 100
Benzo[a]anthracene	0.197	0.1526		mg/Kg		77	40 - 100
Benzo[a]pyrene	0.197	0.1684		mg/Kg		85	35 - 95
Benzo[b]fluoranthene	0.197	0.1681		mg/Kg		85	35 - 100
Benzo[g,h,i]perylene	0.197	0.1344		mg/Kg		68	40 - 115
Benzo[k]fluoranthene	0.197	0.1676		mg/Kg		85	30 - 105
Chrysene	0.197	0.1608		mg/Kg		82	40 - 100
Dibenz(a,h)anthracene	0.197	0.08985		mg/Kg		46	35 - 125
Fluoranthene	0.197	0.1588		mg/Kg		81	20 - 115
Fluorene	0.197	0.1524		mg/Kg		77	35 - 85
Indeno[1,2,3-cd]pyrene	0.197	0.1589		mg/Kg		81	40 - 125
Naphthalene	0.197	0.1334		mg/Kg		68	30 - 75
Phenanthrene	0.197	0.1395		mg/Kg		71	30 - 95
Pyrene	0.197	0.1331		mg/Kg		68	20 - 115

TestAmerica Cedar Falls

## QC Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

### Method: 8270D SIM - Semivolatile Organic Compound (GC/MS SIM LL) (Continued)

**Lab Sample ID:** LCS 310-67046/2-A  
**Matrix:** Solid  
**Analysis Batch:** 67320

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 67046

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl (Surr)	72		20 - 105
Nitrobenzene-d5 (Surr)	78		20 - 100
Terphenyl-d14 (Surr)	69		30 - 125

### Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Lab Sample ID:** MB 310-66921/1-A  
**Matrix:** Solid  
**Analysis Batch:** 67178

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 66921

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.0500		0.0500		mg/Kg		11/03/14 11:54	11/05/14 08:41	1
PCB-1221	<0.0500		0.0500		mg/Kg		11/03/14 11:54	11/05/14 08:41	1
PCB-1232	<0.0500		0.0500		mg/Kg		11/03/14 11:54	11/05/14 08:41	1
PCB-1242	<0.0500		0.0500		mg/Kg		11/03/14 11:54	11/05/14 08:41	1
PCB-1248	<0.0500		0.0500		mg/Kg		11/03/14 11:54	11/05/14 08:41	1
PCB-1254	<0.0500		0.0500		mg/Kg		11/03/14 11:54	11/05/14 08:41	1
PCB-1260	<0.0500		0.0500		mg/Kg		11/03/14 11:54	11/05/14 08:41	1
PCB-1268	<0.0500		0.0500		mg/Kg		11/03/14 11:54	11/05/14 08:41	1
Polychlorinated biphenyls, Total	<0.0500		0.0500		mg/Kg		11/03/14 11:54	11/05/14 08:41	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl (Surr)	74		40 - 120	11/03/14 11:54	11/05/14 08:41	1
Tetrachloro-m-xylene	79		10 - 105	11/03/14 11:54	11/05/14 08:41	1

**Lab Sample ID:** LCS 310-66921/2-A  
**Matrix:** Solid  
**Analysis Batch:** 67178

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 66921

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
PCB-1016	0.200	0.1547		mg/Kg		77	20 - 105
PCB-1260	0.200	0.1540		mg/Kg		77	20 - 105

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl (Surr)	69		40 - 120
Tetrachloro-m-xylene	75		10 - 105

### Method: WI-DRO - Wisconsin - Diesel Range Organics (GC)

**Lab Sample ID:** MB 310-66878/1-A  
**Matrix:** Water  
**Analysis Batch:** 67331

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 66878

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics (DRO)	<0.100		0.100		mg/L		11/03/14 09:46	11/06/14 11:41	1

TestAmerica Cedar Falls

# QC Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

## Method: WI-DRO - Wisconsin - Diesel Range Organics (GC) (Continued)

**Lab Sample ID: LCS 310-66878/2-A**  
**Matrix: Water**  
**Analysis Batch: 67331**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 66878**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	2.50	1.971		mg/L		79	75 - 115

**Lab Sample ID: LCSD 310-66878/3-A**  
**Matrix: Water**  
**Analysis Batch: 67331**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 66878**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	2.50	2.093		mg/L		84	75 - 115	6	20

**Lab Sample ID: MB 310-67204/1-A**  
**Matrix: Solid**  
**Analysis Batch: 67331**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 67204**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	<7.00		7.00		mg/Kg		11/05/14 08:54	11/07/14 03:56	1

**Lab Sample ID: LCS 310-67204/2-A**  
**Matrix: Solid**  
**Analysis Batch: 67331**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 67204**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)	100	87.83		mg/Kg		88	70 - 120

**Lab Sample ID: LCSD 310-67204/3-A**  
**Matrix: Solid**  
**Analysis Batch: 67331**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 67204**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO)	100	93.40		mg/Kg		93	70 - 120	6	20

## Method: 6010C - Metals (ICP)

**Lab Sample ID: MB 310-67393/1-A**  
**Matrix: Solid**  
**Analysis Batch: 67642**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 67393**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.436		0.436		mg/Kg		11/07/14 09:19	11/07/14 15:01	1
Cadmium	<0.873		0.873		mg/Kg		11/07/14 09:19	11/07/14 15:01	1
Chromium	<0.873		0.873		mg/Kg		11/07/14 09:19	11/07/14 15:01	1
Lead	<4.36		4.36		mg/Kg		11/07/14 09:19	11/07/14 15:01	1
Selenium	<6.54		6.54		mg/Kg		11/07/14 09:19	11/07/14 15:01	1
Silver	<0.873		0.873		mg/Kg		11/07/14 09:19	11/07/14 15:01	1



# QC Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

## Method: 6010C - Metals (ICP) (Continued)

**Lab Sample ID: LCS 310-67393/2-A**  
**Matrix: Solid**  
**Analysis Batch: 67642**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 67393**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	96.7	94.32		mg/Kg		98	80 - 110
Cadmium	96.7	97.89		mg/Kg		101	80 - 115
Chromium	96.7	94.44		mg/Kg		98	85 - 110
Lead	193	184.8		mg/Kg		96	80 - 115
Selenium	387	388.8		mg/Kg		101	85 - 110
Silver	96.7	95.51		mg/Kg		99	80 - 120

**Lab Sample ID: 310-42852-1 MS**  
**Matrix: Sludge**  
**Analysis Batch: 67642**

**Client Sample ID: GP-2 10-15'**  
**Prep Type: Total/NA**  
**Prep Batch: 67393**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	28.7		81.2	106.2		mg/Kg	☼	95	75 - 125
Cadmium	<0.838		81.2	78.64		mg/Kg	☼	97	75 - 125
Chromium	11.7		81.2	93.39		mg/Kg	☼	101	75 - 120
Lead	<4.19		162	158.9		mg/Kg	☼	95	75 - 125
Selenium	<6.28		325	344.5		mg/Kg	☼	105	75 - 115
Silver	<0.838		81.2	87.84		mg/Kg	☼	108	75 - 110

**Lab Sample ID: 310-42852-1 MSD**  
**Matrix: Sludge**  
**Analysis Batch: 67642**

**Client Sample ID: GP-2 10-15'**  
**Prep Type: Total/NA**  
**Prep Batch: 67393**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Barium	28.7		85.3	119.5		mg/Kg	☼	106	75 - 125	12	20
Cadmium	<0.838		85.3	75.45		mg/Kg	☼	88	75 - 125	4	20
Chromium	11.7		85.3	92.23		mg/Kg	☼	94	75 - 120	1	20
Lead	<4.19		171	154.1		mg/Kg	☼	88	75 - 125	3	20
Selenium	<6.28		341	342.2		mg/Kg	☼	99	75 - 115	1	20
Silver	<0.838		85.3	87.96		mg/Kg	☼	103	75 - 110	0	20

## Method: 7010 - Metals (GFAA)

**Lab Sample ID: MB 310-66941/1-A**  
**Matrix: Solid**  
**Analysis Batch: 67208**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 66941**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.0386		0.0386		mg/Kg		11/04/14 08:00	11/04/14 21:10	1

**Lab Sample ID: LCS 310-66941/2-A ^2**  
**Matrix: Solid**  
**Analysis Batch: 67208**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 66941**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.79	2.055		mg/Kg		115	80 - 120

# QC Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

## Method: 7471B - Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

**Lab Sample ID: MB 310-66901/1-A**  
**Matrix: Solid**  
**Analysis Batch: 66979**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 66901**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0188		0.0188		mg/Kg		11/03/14 11:04	11/03/14 16:41	1

**Lab Sample ID: LCS 310-66901/2-A**  
**Matrix: Solid**  
**Analysis Batch: 66979**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 66901**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.159	0.1597		mg/Kg		100	80 - 120



# QC Association Summary

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

## GC/MS VOA

### Analysis Batch: 66995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-2	GP-2	Total/NA	Ground Water	8260B	
310-42852-7	GP-4	Total/NA	Ground Water	8260B	
310-42852-9	GP-5	Total/NA	Ground Water	8260B	
310-42852-10	HCL Trip Blank	Total/NA	Water	8260B	
LCS 310-66995/4	Lab Control Sample	Total/NA	Water	8260B	
MB 310-66995/7	Method Blank	Total/NA	Water	8260B	

### Prep Batch: 67485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-1	GP-2 10-15'	Total/NA	Sludge	5035	
310-42852-3	GP-1 10-15'	Total/NA	Sludge	5035	
310-42852-4	GP-1A 0-2'	Total/NA	Sludge	5035	
310-42852-5	GP-3 0-2'	Total/NA	Sludge	5035	
310-42852-6	GP-4 4-5'	Total/NA	Sludge	5035	
310-42852-8	GP-5 3-5'	Total/NA	Sludge	5035	
310-42852-11	MeOH Trip Blank	Total/NA	Solid	5035	
LCS 310-67485/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 310-67485/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 310-67485/1-A	Method Blank	Total/NA	Solid	5035	

### Analysis Batch: 67559

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-1	GP-2 10-15'	Total/NA	Sludge	8260B	67485
310-42852-3	GP-1 10-15'	Total/NA	Sludge	8260B	67485
310-42852-4	GP-1A 0-2'	Total/NA	Sludge	8260B	67485
310-42852-5	GP-3 0-2'	Total/NA	Sludge	8260B	67485
310-42852-6	GP-4 4-5'	Total/NA	Sludge	8260B	67485
310-42852-8	GP-5 3-5'	Total/NA	Sludge	8260B	67485
310-42852-11	MeOH Trip Blank	Total/NA	Solid	8260B	67485
LCS 310-67485/2-A	Lab Control Sample	Total/NA	Solid	8260B	67485
LCSD 310-67485/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	67485
MB 310-67485/1-A	Method Blank	Total/NA	Solid	8260B	67485

## GC/MS Semi VOA

### Prep Batch: 67046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-1	GP-2 10-15'	Total/NA	Sludge	3546	
310-42852-3	GP-1 10-15'	Total/NA	Sludge	3546	
310-42852-4	GP-1A 0-2'	Total/NA	Sludge	3546	
310-42852-5	GP-3 0-2'	Total/NA	Sludge	3546	
310-42852-6	GP-4 4-5'	Total/NA	Sludge	3546	
LCS 310-67046/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 310-67046/1-A	Method Blank	Total/NA	Solid	3546	

### Analysis Batch: 67320

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-1	GP-2 10-15'	Total/NA	Sludge	8270D SIM	67046
310-42852-3	GP-1 10-15'	Total/NA	Sludge	8270D SIM	67046
310-42852-4	GP-1A 0-2'	Total/NA	Sludge	8270D SIM	67046

TestAmerica Cedar Falls

# QC Association Summary

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

## GC/MS Semi VOA (Continued)

### Analysis Batch: 67320 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-5	GP-3 0-2'	Total/NA	Sludge	8270D SIM	67046
310-42852-6	GP-4 4-5'	Total/NA	Sludge	8270D SIM	67046
LCS 310-67046/2-A	Lab Control Sample	Total/NA	Solid	8270D SIM	67046
MB 310-67046/1-A	Method Blank	Total/NA	Solid	8270D SIM	67046

## GC Semi VOA

### Prep Batch: 66878

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-2	GP-2	Total/NA	Ground Water	3510C	
310-42852-7	GP-4	Total/NA	Ground Water	3510C	
310-42852-9	GP-5	Total/NA	Ground Water	3510C	
LCS 310-66878/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 310-66878/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 310-66878/1-A	Method Blank	Total/NA	Water	3510C	

### Prep Batch: 66921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-4	GP-1A 0-2'	Total/NA	Sludge	3546	
310-42852-5	GP-3 0-2'	Total/NA	Sludge	3546	
LCS 310-66921/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 310-66921/1-A	Method Blank	Total/NA	Solid	3546	

### Analysis Batch: 67178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-4	GP-1A 0-2'	Total/NA	Sludge	8082A	66921
310-42852-5	GP-3 0-2'	Total/NA	Sludge	8082A	66921
LCS 310-66921/2-A	Lab Control Sample	Total/NA	Solid	8082A	66921
MB 310-66921/1-A	Method Blank	Total/NA	Solid	8082A	66921

### Prep Batch: 67204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-1	GP-2 10-15'	Total/NA	Sludge	3550B	
310-42852-3	GP-1 10-15'	Total/NA	Sludge	3550B	
310-42852-4	GP-1A 0-2'	Total/NA	Sludge	3550B	
310-42852-5	GP-3 0-2'	Total/NA	Sludge	3550B	
310-42852-6	GP-4 4-5'	Total/NA	Sludge	3550B	
310-42852-8	GP-5 3-5'	Total/NA	Sludge	3550B	
LCS 310-67204/2-A	Lab Control Sample	Total/NA	Solid	3550B	
LCSD 310-67204/3-A	Lab Control Sample Dup	Total/NA	Solid	3550B	
MB 310-67204/1-A	Method Blank	Total/NA	Solid	3550B	

### Analysis Batch: 67331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-1	GP-2 10-15'	Total/NA	Sludge	WI-DRO	67204
310-42852-2	GP-2	Total/NA	Ground Water	WI-DRO	66878
310-42852-3	GP-1 10-15'	Total/NA	Sludge	WI-DRO	67204
310-42852-4	GP-1A 0-2'	Total/NA	Sludge	WI-DRO	67204
310-42852-5	GP-3 0-2'	Total/NA	Sludge	WI-DRO	67204
310-42852-6	GP-4 4-5'	Total/NA	Sludge	WI-DRO	67204

# QC Association Summary

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

## GC Semi VOA (Continued)

### Analysis Batch: 67331 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-7	GP-4	Total/NA	Ground Water	WI-DRO	66878
310-42852-8	GP-5 3-5'	Total/NA	Sludge	WI-DRO	67204
310-42852-9	GP-5	Total/NA	Ground Water	WI-DRO	66878
LCS 310-66878/2-A	Lab Control Sample	Total/NA	Water	WI-DRO	66878
LCS 310-67204/2-A	Lab Control Sample	Total/NA	Solid	WI-DRO	67204
LCS D 310-66878/3-A	Lab Control Sample Dup	Total/NA	Water	WI-DRO	66878
LCS D 310-67204/3-A	Lab Control Sample Dup	Total/NA	Solid	WI-DRO	67204
MB 310-66878/1-A	Method Blank	Total/NA	Water	WI-DRO	66878
MB 310-67204/1-A	Method Blank	Total/NA	Solid	WI-DRO	67204

## Metals

### Prep Batch: 66901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-1	GP-2 10-15'	Total/NA	Sludge	7471B	
310-42852-3	GP-1 10-15'	Total/NA	Sludge	7471B	
310-42852-4	GP-1A 0-2'	Total/NA	Sludge	7471B	
310-42852-5	GP-3 0-2'	Total/NA	Sludge	7471B	
310-42852-6	GP-4 4-5'	Total/NA	Sludge	7471B	
310-42852-8	GP-5 3-5'	Total/NA	Sludge	7471B	
LCS 310-66901/2-A	Lab Control Sample	Total/NA	Solid	7471B	
MB 310-66901/1-A	Method Blank	Total/NA	Solid	7471B	

### Prep Batch: 66941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-1	GP-2 10-15'	Total/NA	Sludge	3050B	
310-42852-3	GP-1 10-15'	Total/NA	Sludge	3050B	
310-42852-4	GP-1A 0-2'	Total/NA	Sludge	3050B	
310-42852-5	GP-3 0-2'	Total/NA	Sludge	3050B	
310-42852-6	GP-4 4-5'	Total/NA	Sludge	3050B	
310-42852-8	GP-5 3-5'	Total/NA	Sludge	3050B	
LCS 310-66941/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	
MB 310-66941/1-A	Method Blank	Total/NA	Solid	3050B	

### Analysis Batch: 66979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-1	GP-2 10-15'	Total/NA	Sludge	7471B	66901
310-42852-3	GP-1 10-15'	Total/NA	Sludge	7471B	66901
310-42852-4	GP-1A 0-2'	Total/NA	Sludge	7471B	66901
310-42852-5	GP-3 0-2'	Total/NA	Sludge	7471B	66901
310-42852-6	GP-4 4-5'	Total/NA	Sludge	7471B	66901
310-42852-8	GP-5 3-5'	Total/NA	Sludge	7471B	66901
LCS 310-66901/2-A	Lab Control Sample	Total/NA	Solid	7471B	66901
MB 310-66901/1-A	Method Blank	Total/NA	Solid	7471B	66901

### Analysis Batch: 67208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-1	GP-2 10-15'	Total/NA	Sludge	7010	66941
310-42852-3	GP-1 10-15'	Total/NA	Sludge	7010	66941
310-42852-4	GP-1A 0-2'	Total/NA	Sludge	7010	66941

# QC Association Summary

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

## Metals (Continued)

### Analysis Batch: 67208 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-5	GP-3 0-2'	Total/NA	Sludge	7010	66941
310-42852-6	GP-4 4-5'	Total/NA	Sludge	7010	66941
310-42852-8	GP-5 3-5'	Total/NA	Sludge	7010	66941
LCS 310-66941/2-A ^2	Lab Control Sample	Total/NA	Solid	7010	66941
MB 310-66941/1-A	Method Blank	Total/NA	Solid	7010	66941

### Prep Batch: 67393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-1	GP-2 10-15'	Total/NA	Sludge	3050B	
310-42852-1 MS	GP-2 10-15'	Total/NA	Sludge	3050B	
310-42852-1 MSD	GP-2 10-15'	Total/NA	Sludge	3050B	
310-42852-3	GP-1 10-15'	Total/NA	Sludge	3050B	
310-42852-4	GP-1A 0-2'	Total/NA	Sludge	3050B	
310-42852-5	GP-3 0-2'	Total/NA	Sludge	3050B	
310-42852-6	GP-4 4-5'	Total/NA	Sludge	3050B	
310-42852-8	GP-5 3-5'	Total/NA	Sludge	3050B	
LCS 310-67393/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 310-67393/1-A	Method Blank	Total/NA	Solid	3050B	

### Analysis Batch: 67642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-1	GP-2 10-15'	Total/NA	Sludge	6010C	67393
310-42852-1 MS	GP-2 10-15'	Total/NA	Sludge	6010C	67393
310-42852-1 MSD	GP-2 10-15'	Total/NA	Sludge	6010C	67393
310-42852-3	GP-1 10-15'	Total/NA	Sludge	6010C	67393
310-42852-4	GP-1A 0-2'	Total/NA	Sludge	6010C	67393
310-42852-5	GP-3 0-2'	Total/NA	Sludge	6010C	67393
310-42852-6	GP-4 4-5'	Total/NA	Sludge	6010C	67393
310-42852-8	GP-5 3-5'	Total/NA	Sludge	6010C	67393
LCS 310-67393/2-A	Lab Control Sample	Total/NA	Solid	6010C	67393
MB 310-67393/1-A	Method Blank	Total/NA	Solid	6010C	67393

## General Chemistry

### Analysis Batch: 66871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-1	GP-2 10-15'	Total/NA	Sludge	Moisture	
310-42852-3	GP-1 10-15'	Total/NA	Sludge	Moisture	
310-42852-4	GP-1A 0-2'	Total/NA	Sludge	Moisture	
310-42852-5	GP-3 0-2'	Total/NA	Sludge	Moisture	

### Analysis Batch: 66894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42852-6	GP-4 4-5'	Total/NA	Sludge	Moisture	
310-42852-8	GP-5 3-5'	Total/NA	Sludge	Moisture	

## Lab Chronicle

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-2 10-15'**

**Date Collected: 10/30/14 12:00**

**Date Received: 11/01/14 09:30**

**Lab Sample ID: 310-42852-1**

**Matrix: Sludge**

**Percent Solids: 92.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			67485	11/07/14 07:34	TCH	TAL CF
Total/NA	Analysis	8260B		1	67559	11/08/14 01:25	TCH	TAL CF
Total/NA	Prep	3546			67046	11/04/14 09:02	EEE	TAL CF
Total/NA	Analysis	8270D SIM		1	67320	11/06/14 03:05	DEM	TAL CF
Total/NA	Prep	3550B			67204	11/05/14 08:54	EEE	TAL CF
Total/NA	Analysis	WI-DRO		1	67331	11/07/14 05:01	BKT	TAL CF
Total/NA	Prep	3050B			67393	11/07/14 09:19	CJT	TAL CF
Total/NA	Analysis	6010C		1	67642	11/07/14 15:05	MRH	TAL CF
Total/NA	Prep	3050B			66941	11/04/14 08:00	CJT	TAL CF
Total/NA	Analysis	7010		12	67208	11/04/14 23:45	JCM	TAL CF
Total/NA	Prep	7471B			66901	11/03/14 11:04	CJT	TAL CF
Total/NA	Analysis	7471B		1	66979	11/03/14 16:59	OAD	TAL CF
Total/NA	Analysis	Moisture		1	66871	11/03/14 09:15	SAS	TAL CF

**Client Sample ID: GP-2**

**Date Collected: 10/30/14 12:15**

**Date Received: 11/01/14 09:30**

**Lab Sample ID: 310-42852-2**

**Matrix: Ground Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	66995	11/05/14 10:20	SJN	TAL CF
Total/NA	Prep	3510C			66878	11/03/14 09:46	EEE	TAL CF
Total/NA	Analysis	WI-DRO		1	67331	11/06/14 14:25	BKT	TAL CF

**Client Sample ID: GP-1 10-15'**

**Date Collected: 10/30/14 13:35**

**Date Received: 11/01/14 09:30**

**Lab Sample ID: 310-42852-3**

**Matrix: Sludge**

**Percent Solids: 89.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			67485	11/07/14 07:34	TCH	TAL CF
Total/NA	Analysis	8260B		1	67559	11/08/14 01:56	TCH	TAL CF
Total/NA	Prep	3546			67046	11/04/14 09:02	EEE	TAL CF
Total/NA	Analysis	8270D SIM		1	67320	11/06/14 03:30	DEM	TAL CF
Total/NA	Prep	3550B			67204	11/05/14 08:54	EEE	TAL CF
Total/NA	Analysis	WI-DRO		1	67331	11/07/14 05:33	BKT	TAL CF
Total/NA	Prep	3050B			67393	11/07/14 09:19	CJT	TAL CF
Total/NA	Analysis	6010C		1	67642	11/07/14 15:13	MRH	TAL CF
Total/NA	Prep	3050B			66941	11/04/14 08:00	CJT	TAL CF
Total/NA	Analysis	7010		12	67208	11/04/14 23:49	JCM	TAL CF
Total/NA	Prep	7471B			66901	11/03/14 11:04	CJT	TAL CF
Total/NA	Analysis	7471B		1	66979	11/03/14 17:01	OAD	TAL CF
Total/NA	Analysis	Moisture		1	66871	11/03/14 09:15	SAS	TAL CF

TestAmerica Cedar Falls

## Lab Chronicle

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-1A 0-2'**

**Lab Sample ID: 310-42852-4**

**Date Collected: 10/30/14 13:50**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 93.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			67485	11/07/14 07:34	TCH	TAL CF
Total/NA	Analysis	8260B		1	67559	11/08/14 02:26	TCH	TAL CF
Total/NA	Prep	3546			67046	11/04/14 09:02	EEE	TAL CF
Total/NA	Analysis	8270D SIM		10	67320	11/06/14 03:55	DEM	TAL CF
Total/NA	Prep	3546			66921	11/03/14 11:54	EEE	TAL CF
Total/NA	Analysis	8082A		1	67178	11/05/14 11:01	TRM	TAL CF
Total/NA	Prep	3550B			67204	11/05/14 08:54	EEE	TAL CF
Total/NA	Analysis	WI-DRO		10	67331	11/07/14 20:13	BKT	TAL CF
Total/NA	Prep	3050B			67393	11/07/14 09:19	CJT	TAL CF
Total/NA	Analysis	6010C		4	67642	11/07/14 15:28	MRH	TAL CF
Total/NA	Prep	3050B			66941	11/04/14 08:00	CJT	TAL CF
Total/NA	Analysis	7010		12	67208	11/04/14 23:53	JCM	TAL CF
Total/NA	Prep	7471B			66901	11/03/14 11:04	CJT	TAL CF
Total/NA	Analysis	7471B		1	66979	11/03/14 17:02	OAD	TAL CF
Total/NA	Analysis	Moisture		1	66871	11/03/14 09:15	SAS	TAL CF

**Client Sample ID: GP-3 0-2'**

**Lab Sample ID: 310-42852-5**

**Date Collected: 10/30/14 14:20**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 91.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			67485	11/07/14 07:34	TCH	TAL CF
Total/NA	Analysis	8260B		1	67559	11/08/14 02:56	TCH	TAL CF
Total/NA	Prep	3546			67046	11/04/14 09:02	EEE	TAL CF
Total/NA	Analysis	8270D SIM		10	67320	11/06/14 04:20	DEM	TAL CF
Total/NA	Prep	3546			66921	11/03/14 11:54	EEE	TAL CF
Total/NA	Analysis	8082A		1	67178	11/05/14 11:12	TRM	TAL CF
Total/NA	Prep	3550B			67204	11/05/14 08:54	EEE	TAL CF
Total/NA	Analysis	WI-DRO		1	67331	11/07/14 13:08	BKT	TAL CF
Total/NA	Prep	3050B			67393	11/07/14 09:19	CJT	TAL CF
Total/NA	Analysis	6010C		1	67642	11/07/14 15:17	MRH	TAL CF
Total/NA	Prep	3050B			66941	11/04/14 08:00	CJT	TAL CF
Total/NA	Analysis	7010		12	67208	11/04/14 23:56	JCM	TAL CF
Total/NA	Prep	7471B			66901	11/03/14 11:04	CJT	TAL CF
Total/NA	Analysis	7471B		1	66979	11/03/14 17:04	OAD	TAL CF
Total/NA	Analysis	Moisture		1	66871	11/03/14 09:15	SAS	TAL CF

**Client Sample ID: GP-4 4-5'**

**Lab Sample ID: 310-42852-6**

**Date Collected: 10/30/14 14:55**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 79.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			67485	11/07/14 07:34	TCH	TAL CF

TestAmerica Cedar Falls



# Lab Chronicle

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

**Client Sample ID: GP-4 4-5'**

**Lab Sample ID: 310-42852-6**

**Date Collected: 10/30/14 14:55**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 79.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	67559	11/08/14 03:27	TCH	TAL CF
Total/NA	Prep	3546			67046	11/04/14 09:02	EEE	TAL CF
Total/NA	Analysis	8270D SIM		1	67320	11/06/14 04:45	DEM	TAL CF
Total/NA	Prep	3550B			67204	11/05/14 08:54	EEE	TAL CF
Total/NA	Analysis	WI-DRO		1	67331	11/07/14 06:05	BKT	TAL CF
Total/NA	Prep	3050B			67393	11/07/14 09:19	CJT	TAL CF
Total/NA	Analysis	6010C		2	67642	11/07/14 15:32	MRH	TAL CF
Total/NA	Prep	3050B			66941	11/04/14 08:00	CJT	TAL CF
Total/NA	Analysis	7010		12	67208	11/05/14 00:00	JCM	TAL CF
Total/NA	Prep	7471B			66901	11/03/14 11:04	CJT	TAL CF
Total/NA	Analysis	7471B		1	66979	11/03/14 17:06	OAD	TAL CF
Total/NA	Analysis	Moisture		1	66894	11/03/14 11:21	SAS	TAL CF

**Client Sample ID: GP-4**

**Lab Sample ID: 310-42852-7**

**Date Collected: 10/30/14 15:10**

**Matrix: Ground Water**

**Date Received: 11/01/14 09:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	66995	11/05/14 10:43	SJN	TAL CF
Total/NA	Prep	3510C			66878	11/03/14 09:46	EEE	TAL CF
Total/NA	Analysis	WI-DRO		1	67331	11/06/14 14:57	BKT	TAL CF

**Client Sample ID: GP-5 3-5'**

**Lab Sample ID: 310-42852-8**

**Date Collected: 10/30/14 17:00**

**Matrix: Sludge**

**Date Received: 11/01/14 09:30**

**Percent Solids: 90.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			67485	11/07/14 07:34	TCH	TAL CF
Total/NA	Analysis	8260B		1	67559	11/08/14 03:57	TCH	TAL CF
Total/NA	Prep	3550B			67204	11/05/14 08:54	EEE	TAL CF
Total/NA	Analysis	WI-DRO		1	67331	11/07/14 13:41	BKT	TAL CF
Total/NA	Prep	3050B			67393	11/07/14 09:19	CJT	TAL CF
Total/NA	Analysis	6010C		1	67642	11/07/14 15:24	MRH	TAL CF
Total/NA	Prep	3050B			66941	11/04/14 08:00	CJT	TAL CF
Total/NA	Analysis	7010		12	67208	11/05/14 00:04	JCM	TAL CF
Total/NA	Prep	7471B			66901	11/03/14 11:04	CJT	TAL CF
Total/NA	Analysis	7471B		1	66979	11/03/14 17:07	OAD	TAL CF
Total/NA	Analysis	Moisture		1	66894	11/03/14 11:21	SAS	TAL CF

# Lab Chronicle

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
 SDG: B5170-0001

## Client Sample ID: GP-5

Lab Sample ID: 310-42852-9

Date Collected: 10/30/14 17:15

Matrix: Ground Water

Date Received: 11/01/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	66995	11/05/14 11:05	SJN	TAL CF
Total/NA	Prep	3510C			66878	11/03/14 09:46	EEE	TAL CF
Total/NA	Analysis	WI-DRO		1	67331	11/06/14 15:30	BKT	TAL CF

## Client Sample ID: HCL Trip Blank

Lab Sample ID: 310-42852-10

Date Collected: 10/30/14 00:00

Matrix: Water

Date Received: 11/01/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	66995	11/05/14 11:28	SJN	TAL CF

## Client Sample ID: MeOH Trip Blank

Lab Sample ID: 310-42852-11

Date Collected: 10/30/14 00:00

Matrix: Solid

Date Received: 11/01/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			67485	11/07/14 07:34	TCH	TAL CF
Total/NA	Analysis	8260B		1	67559	11/08/14 04:28	TCH	TAL CF

**Laboratory References:**

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

# Certification Summary

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

## Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-16
Georgia	State Program	4	N/A	09-29-15
Illinois	NELAP	5	200024	11-29-15
Iowa	State Program	7	007	12-01-15
Kansas	NELAP	7	E-10341	01-31-15
Minnesota	NELAP	5	019-999-319	12-31-14
North Dakota	State Program	8	R-186	09-29-14 *
Oregon	NELAP	10	IA100001	09-29-15
Wisconsin	State Program	5	999917270	08-31-15

\* Certification renewal pending - certification considered valid.

TestAmerica Cedar Falls

# Method Summary

Client: Wenck Associates, Inc  
Project/Site: Minnetonka-4312 Shady Oak Rd

TestAmerica Job ID: 310-42852-1  
SDG: B5170-0001

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CF
8270D SIM	Semivolatile Organic Compound (GC/MS SIM LL)	SW846	TAL CF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CF
WI-DRO	Wisconsin - Diesel Range Organics (GC)	WI-DRO	TAL CF
6010C	Metals (ICP)	SW846	TAL CF
7010	Metals (GFAA)	SW846	TAL CF
7471B	Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	SW846	TAL CF
Moisture	Percent Moisture	EPA	TAL CF

**Protocol References:**

EPA = US Environmental Protection Agency

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

WI-DRO = "Modified DRO: Method For Determining Diesel Range Organics", Wisconsin DNR, Publ-SW-141, September, 1995.

**Laboratory References:**

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401



310-42652 Chain of Custody

Client: Wencck Project: Minnetonka 4312  
 City: \_\_\_\_\_ State: Shady Oak Rd  
 Date: 11-1-14 Receiver's Initials: CA Time (Delivered): 9:30

**Temperature Record:**

Cooler ID# (If Applicable)  
TR MN

Uncorrected Temp:  
0.6 °C

Corrected Temp:  
0.5 °C

**Thermometer:**

- IR "E" - 111531506
- IR "Front" - 61854108
- IR "G" - 130195822
- IR "H" - 130195853
- Other: \_\_\_\_\_

**Courier:**

- UPS
- FedEx
- FedEx Ground
- US Postal Service
- Spee-Dee
- TA Courier
- TA Field Services
- Client
- Other: \_\_\_\_\_

**Exceptions Noted:**

- Sample(s) not received in cooler
- Sample(s) received same day of sampling
- Evidence of chilling process
- Temp blank <0°C, samples NOT FROZEN
- Temp blank <0°C, samples FROZEN
- Temperature not taken: *(indicate reason)*
- \_\_\_\_\_
- Non-Conformance Report Started

- Temperature blank
- Temperature out of compliance

**Coolant Record:**

- Received on ice
- Wet ice
- Blue ice
- Dry ice
- Other: \_\_\_\_\_
- NONE

**Custody Seals:**

Cooler Custody Seals Present?	Cooler Custody Seals Intact?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Sample Custody Seals Present?	Sample Custody Seals Intact?
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15

Client: WencR Project: Minnetonka 4312 Shady Oak Rd  
 City: \_\_\_\_\_ State: \_\_\_\_\_  
 Date: 11-1-14 Receiver's Initials: CH Time (Delivered): 9:30

**Temperature Record:**

Cooler ID# (if Applicable)  
TA MN

Uncorrected Temp:  
0.7 °C

Corrected Temp:  
0.6 °C

**Thermometer:**

- IR "E" - 111531506
- IR "Front" - 61854108
- IR "G" - 130195822
- IR "H" - 130195853
- Other: \_\_\_\_\_

**Courier:**

<input type="checkbox"/> UPS	<input type="checkbox"/> TA Courier
<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> TA Field Services
<input type="checkbox"/> FedEx Ground	<input type="checkbox"/> Client
<input type="checkbox"/> US Postal Service	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Spee-Dee	

- Temperature blank
- Temperature out of compliance

**Coolant Record:**

- Received on ice
- Wet ice
- Blue ice
- Dry ice
- Other: \_\_\_\_\_
- NONE

**Exceptions Noted:**

- Sample(s) not received in cooler
- Sample(s) received same day of sampling
- Evidence of chilling process
- Temp blank <0°C, samples NOT FROZEN
- Temp blank <0°C, samples FROZEN
- Temperature not taken: *(indicate reason)*
- \_\_\_\_\_
- Non-Conformance Report Started

**Custody Seals:**

<p>Cooler Custody Seals Present?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Cooler Custody Seals Intact?</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A</p>
<p>Sample Custody Seals Present?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Sample Custody Seals Intact?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A</p>

Client Name: Wenck

Address:

City/State/Zip Code: Mableton, MN

Project Manager: Adam Zabel

Email Address: azabel@wenck.com and dlarson@wenck.com

Telephone Number:

Sampler Name: (Print Name) Dan Larson

Sampler Signature: [Signature]

Project Name: Minnertunka - 4312 Study Out Rd

Project #: B5170-001

Site/Location ID: \_\_\_\_\_ State: \_\_\_\_\_

Report To: \_\_\_\_\_

Invoice To: \_\_\_\_\_

Quote #: \_\_\_\_\_ PO#: \_\_\_\_\_

IAT Standard Rush (surcharges may apply)	Date Needed: <u>5/17/14</u>	Date Sampled	Time Sampled	G = Grab, C = Composite Field Filtered	Matrix	Preservation & # of Containers						Analyze For:	OC Deliverables	REMARKS			
						HNO <sub>3</sub>	HCl	NaOH	H <sub>2</sub> SO <sub>4</sub>	Methanol	Other (Specify)						
GP-2 10-15'		10/30/14	1200	G	SL					14			X	X	X	PCBs PCRA metals	
GP-2			1215		GW		4						X	X	X		
GP-1 10-15'			1335		SL					14			X	X	X		
GP-1A 0-2'			1350		SL					13			X	X	X		
GP-3 0-2'			1420		SL					14			X	X	X		
GP-4 4-5'			1455		SL					14			X	X	X		
GP-4			1510		GW		4						X	X	X		
GP-5 3-5'			1700		SL					13			X	X	X		
GP-5			1715		GW		4						X	X	X		
TTA Blank													X	X	X		

LABORATORY COMMENTS:

Special Instructions: ①②③ → Limited sample available, analyze in order shown

Relinquished By: <u>[Signature]</u>	Date: <u>10/30/14</u>	Time: <u>8:30</u>	Received By: <u>[Signature]</u>	Date: <u>10/31/14</u>	Time: <u>1:30:00</u>
Relinquished By: <u>[Signature]</u>	Date: <u>10/31/14</u>	Time: <u>17:00</u>	Received By: <u>[Signature]</u>	Date: <u>11/1/14</u>	Time: <u>9:30</u>
Relinquished By: _____	Date: _____	Time: _____	Received By: _____	Date: _____	Time: _____



## Login Sample Receipt Checklist

Client: Wenck Associates, Inc

Job Number: 310-42852-1

SDG Number: B5170-0001

**Login Number: 42852**

**List Number: 1**

**Creator: Wilson, Cheryl L**

**List Source: TestAmerica Cedar Falls**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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	
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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





## ANALYTICAL REPORT

Job Number: 200-25159-1

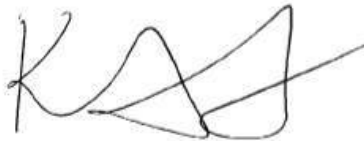
SDG Number: 200-25159

Job Description: Minnetonka

For:

Wenck Associates, Inc  
1800 Pioneer Creek Center  
Maple Plain, MN 55359

Attention: Adam P Zobel



Approved for release.  
Kathryn A Kelly  
Project Manager I  
11/10/2014 4:34 PM

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Kathryn A Kelly, Project Manager I  
30 Community Drive, South Burlington, VT, 05403  
kathryn.kelly@testamericainc.com  
11/10/2014

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

## **CASE NARRATIVE**

**Client: Wenck Associates, Inc**

**Project: Minnetonka**

**Report Number: 200-25159-1**

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

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

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

### **RECEIPT**

The samples were received on 11/03/2014; the samples arrived in good condition.

### **VOLATILE ORGANIC COMPOUNDS**

Samples SV-1 and SV-2 were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 11/05/2014.

Sample SV-2[2.5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## EXECUTIVE SUMMARY - Detections

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

Lab Sample ID	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
<b>200-25159-1</b>	<b>SV-1</b>					
Propylene		16		5.0	ppb v/v	TO-15
Propylene		28		8.6	ug/m3	TO-15
Dichlorodifluoromethane		0.49	J	0.50	ppb v/v	TO-15
Dichlorodifluoromethane		2.4	J	2.5	ug/m3	TO-15
1,3-Butadiene		2.0		0.20	ppb v/v	TO-15
1,3-Butadiene		4.4		0.44	ug/m3	TO-15
Trichlorofluoromethane		0.24		0.20	ppb v/v	TO-15
Trichlorofluoromethane		1.4		1.1	ug/m3	TO-15
Ethanol		4.1	J	5.0	ppb v/v	TO-15
Ethanol		7.8	J	9.4	ug/m3	TO-15
Freon TF		0.080	J	0.20	ppb v/v	TO-15
Freon TF		0.61	J	1.5	ug/m3	TO-15
Acetone		9.6		5.0	ppb v/v	TO-15
Acetone		23		12	ug/m3	TO-15
Carbon disulfide		0.40	J	0.50	ppb v/v	TO-15
Carbon disulfide		1.2	J	1.6	ug/m3	TO-15
Methylene Chloride		0.20	J	0.50	ppb v/v	TO-15
Methylene Chloride		0.71	J	1.7	ug/m3	TO-15
n-Hexane		1.8		0.20	ppb v/v	TO-15
n-Hexane		6.3		0.70	ug/m3	TO-15
Methyl Ethyl Ketone		1.8		0.50	ppb v/v	TO-15
Methyl Ethyl Ketone		5.4		1.5	ug/m3	TO-15
Cyclohexane		0.21		0.20	ppb v/v	TO-15
Cyclohexane		0.73		0.69	ug/m3	TO-15
Carbon tetrachloride		0.078	J	0.20	ppb v/v	TO-15
Carbon tetrachloride		0.49	J	1.3	ug/m3	TO-15
Benzene		2.1		0.20	ppb v/v	TO-15
Benzene		6.8		0.64	ug/m3	TO-15
n-Heptane		1.1		0.20	ppb v/v	TO-15
n-Heptane		4.4		0.82	ug/m3	TO-15
Trichloroethene		3.8		0.20	ppb v/v	TO-15
Trichloroethene		20		1.1	ug/m3	TO-15
Methyl isobutyl ketone		0.33	J	0.50	ppb v/v	TO-15
Methyl isobutyl ketone		1.3	J	2.0	ug/m3	TO-15
Toluene		8.4		0.20	ppb v/v	TO-15
Toluene		32		0.75	ug/m3	TO-15
Tetrachloroethene		19		0.20	ppb v/v	TO-15
Tetrachloroethene		130		1.4	ug/m3	TO-15
Methyl Butyl Ketone (2-Hexanone)		0.37	J	0.50	ppb v/v	TO-15
Methyl Butyl Ketone (2-Hexanone)		1.5	J	2.0	ug/m3	TO-15
Ethylbenzene		1.0		0.20	ppb v/v	TO-15
Ethylbenzene		4.4		0.87	ug/m3	TO-15
m,p-Xylene		3.0		0.50	ppb v/v	TO-15
m,p-Xylene		13		2.2	ug/m3	TO-15
Xylene, o-		1.1		0.20	ppb v/v	TO-15
Xylene, o-		4.9		0.87	ug/m3	TO-15

## EXECUTIVE SUMMARY - Detections

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

Lab Sample ID	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
Styrene		0.21		0.20	ppb v/v	TO-15
Styrene		0.91		0.85	ug/m3	TO-15
4-Ethyltoluene		0.18	J	0.20	ppb v/v	TO-15
4-Ethyltoluene		0.88	J	0.98	ug/m3	TO-15
1,3,5-Trimethylbenzene		0.13	J	0.20	ppb v/v	TO-15
1,3,5-Trimethylbenzene		0.66	J	0.98	ug/m3	TO-15
1,2,4-Trimethylbenzene		0.40		0.20	ppb v/v	TO-15
1,2,4-Trimethylbenzene		2.0		0.98	ug/m3	TO-15

## EXECUTIVE SUMMARY - Detections

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

Lab Sample ID	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
<b>200-25159-2</b>	<b>SV-2</b>					
Propylene		46		13	ppb v/v	TO-15
Propylene		79		22	ug/m3	TO-15
Dichlorodifluoromethane		0.52	J	1.3	ppb v/v	TO-15
Dichlorodifluoromethane		2.6	J	6.2	ug/m3	TO-15
1,3-Butadiene		4.8		0.50	ppb v/v	TO-15
1,3-Butadiene		11		1.1	ug/m3	TO-15
Ethanol		3.1	J	13	ppb v/v	TO-15
Ethanol		5.9	J	24	ug/m3	TO-15
Freon TF		0.10	J	0.50	ppb v/v	TO-15
Freon TF		0.79	J	3.8	ug/m3	TO-15
Acetone		16		13	ppb v/v	TO-15
Acetone		38		30	ug/m3	TO-15
n-Hexane		2.1		0.50	ppb v/v	TO-15
n-Hexane		7.3		1.8	ug/m3	TO-15
Methyl Ethyl Ketone		3.8		1.3	ppb v/v	TO-15
Methyl Ethyl Ketone		11		3.7	ug/m3	TO-15
1,1,1-Trichloroethane		0.57		0.50	ppb v/v	TO-15
1,1,1-Trichloroethane		3.1		2.7	ug/m3	TO-15
Cyclohexane		0.57		0.50	ppb v/v	TO-15
Cyclohexane		2.0		1.7	ug/m3	TO-15
Benzene		2.2		0.50	ppb v/v	TO-15
Benzene		7.0		1.6	ug/m3	TO-15
n-Heptane		1.3		0.50	ppb v/v	TO-15
n-Heptane		5.4		2.0	ug/m3	TO-15
Toluene		5.3		0.50	ppb v/v	TO-15
Toluene		20		1.9	ug/m3	TO-15
Tetrachloroethene		0.18	J	0.50	ppb v/v	TO-15
Tetrachloroethene		1.2	J	3.4	ug/m3	TO-15
Ethylbenzene		0.75		0.50	ppb v/v	TO-15
Ethylbenzene		3.3		2.2	ug/m3	TO-15
m,p-Xylene		1.5		1.3	ppb v/v	TO-15
m,p-Xylene		6.3		5.4	ug/m3	TO-15
Xylene, o-		0.68		0.50	ppb v/v	TO-15
Xylene, o-		3.0		2.2	ug/m3	TO-15
Styrene		0.15	J	0.50	ppb v/v	TO-15
Styrene		0.65	J	2.1	ug/m3	TO-15
1,3,5-Trimethylbenzene		0.097	J	0.50	ppb v/v	TO-15
1,3,5-Trimethylbenzene		0.48	J	2.5	ug/m3	TO-15
1,2,4-Trimethylbenzene		0.28	J	0.50	ppb v/v	TO-15
1,2,4-Trimethylbenzene		1.4	J	2.5	ug/m3	TO-15

## METHOD SUMMARY

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

<b>Description</b>	<b>Lab Location</b>	<b>Method</b>	<b>Preparation Method</b>
<b>Matrix: Air</b>			
Volatile Organic Compounds in Ambient Air	TAL BUR	EPA TO-15	
Collection via Summa Canister	TAL BUR		Summa Can

### Lab References:

TAL BUR = TestAmerica Burlington

### Method References:

EPA = US Environmental Protection Agency

**METHOD / ANALYST SUMMARY**

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

<b>Method</b>	<b>Analyst</b>	<b>Analyst ID</b>
EPA TO-15	Daigle, Paul A	PAD

## SAMPLE SUMMARY

Client: Wenck Associates, Inc

Job Number: 200-25159-1  
Sdg Number: 200-25159

<b>Lab Sample ID</b>	<b>Client Sample ID</b>	<b>Client Matrix</b>	<b>Date/Time Sampled</b>	<b>Date/Time Received</b>
200-25159-1	SV-1	Air	10/30/2014 1400	11/03/2014 0830
200-25159-1DU	SV-1	Air	10/30/2014 1400	11/03/2014 0830
200-25159-2	SV-2	Air	10/30/2014 1633	11/03/2014 0830



# **SAMPLE RESULTS**

## Analytical Data

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

**Client Sample ID:** SV-1

Lab Sample ID: 200-25159-1

Date Sampled: 10/30/2014 1400

Client Matrix: Air

Date Received: 11/03/2014 0830

### TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-79949	Instrument ID:	CHB.i
Prep Method:	Summa Can	Prep Batch:	N/A	Lab File ID:	10373_14.D
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	11/05/2014 2107			Final Weight/Volume:	200 mL
Prep Date:	11/05/2014 2107			Injection Volume:	5 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Propylene	16		0.21	5.0
Dichlorodifluoromethane	0.49	J	0.056	0.50
1,2-Dichlorotetrafluoroethane	0.20	U	0.052	0.20
Chloromethane	0.50	U	0.060	0.50
Vinyl chloride	0.20	U	0.026	0.20
1,3-Butadiene	2.0		0.036	0.20
Bromomethane	0.20	U	0.044	0.20
Chloroethane	0.50	U	0.061	0.50
Trichlorofluoromethane	0.24		0.045	0.20
Ethanol	4.1	J	0.12	5.0
Freon TF	0.080	J	0.041	0.20
1,1-Dichloroethene	0.20	U	0.010	0.20
Acetone	9.6		0.69	5.0
Isopropyl alcohol	5.0	U	0.15	5.0
Carbon disulfide	0.40	J	0.030	0.50
Methylene Chloride	0.20	J	0.12	0.50
Methyl tert-butyl ether	0.20	U	0.022	0.20
trans-1,2-Dichloroethene	0.20	U	0.027	0.20
n-Hexane	1.8		0.028	0.20
1,1-Dichloroethane	0.20	U	0.028	0.20
Vinyl acetate	5.0	U	0.083	5.0
Ethyl acetate	5.0	U	0.16	5.0
Methyl Ethyl Ketone	1.8		0.092	0.50
cis-1,2-Dichloroethene	0.20	U	0.030	0.20
Chloroform	0.20	U	0.038	0.20
Tetrahydrofuran	5.0	U	0.18	5.0
1,1,1-Trichloroethane	0.20	U	0.030	0.20
Cyclohexane	0.21		0.010	0.20
Carbon tetrachloride	0.078	J	0.011	0.20
Benzene	2.1		0.029	0.20
1,2-Dichloroethane	0.20	U	0.052	0.20
n-Heptane	1.1		0.037	0.20
Trichloroethene	3.8		0.030	0.20
1,2-Dichloropropane	0.20	U	0.035	0.20
Bromodichloromethane	0.20	U	0.029	0.20
cis-1,3-Dichloropropene	0.20	U	0.029	0.20
Methyl isobutyl ketone	0.33	J	0.18	0.50
Toluene	8.4		0.025	0.20
trans-1,3-Dichloropropene	0.20	U	0.026	0.20
1,1,2-Trichloroethane	0.20	U	0.037	0.20
Tetrachloroethene	19		0.030	0.20
Methyl Butyl Ketone (2-Hexanone)	0.37	J	0.17	0.50
1,2-Dibromoethane	0.20	U	0.018	0.20
Chlorobenzene	0.20	U	0.018	0.20
Ethylbenzene	1.0		0.020	0.20
m,p-Xylene	3.0		0.025	0.50

## Analytical Data

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

**Client Sample ID:** SV-1

Lab Sample ID: 200-25159-1

Date Sampled: 10/30/2014 1400

Client Matrix: Air

Date Received: 11/03/2014 0830

### TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-79949	Instrument ID:	CHB.i
Prep Method:	Summa Can	Prep Batch:	N/A	Lab File ID:	10373_14.D
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	11/05/2014 2107			Final Weight/Volume:	200 mL
Prep Date:	11/05/2014 2107			Injection Volume:	5 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Xylene, o-	1.1		0.018	0.20
Styrene	0.21		0.016	0.20
Bromoform	0.20	U	0.025	0.20
1,1,2,2-Tetrachloroethane	0.20	U	0.034	0.20
4-Ethyltoluene	0.18	J	0.020	0.20
1,3,5-Trimethylbenzene	0.13	J	0.019	0.20
1,2,4-Trimethylbenzene	0.40		0.016	0.20
1,3-Dichlorobenzene	0.20	U	0.020	0.20
1,4-Dichlorobenzene	0.20	U	0.019	0.20
Benzyl chloride	0.20	U	0.018	0.20
1,2-Dichlorobenzene	0.20	U	0.018	0.20
1,2,4-Trichlorobenzene	0.50	U	0.034	0.50
Hexachlorobutadiene	0.20	U	0.036	0.20
Naphthalene	0.50	U	0.030	0.50
Dibromochloromethane	0.20	U	0.020	0.20

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Propylene	28		0.36	8.6
Dichlorodifluoromethane	2.4	J	0.28	2.5
1,2-Dichlorotetrafluoroethane	1.4	U	0.36	1.4
Chloromethane	1.0	U	0.12	1.0
Vinyl chloride	0.51	U	0.066	0.51
1,3-Butadiene	4.4		0.080	0.44
Bromomethane	0.78	U	0.17	0.78
Chloroethane	1.3	U	0.16	1.3
Trichlorofluoromethane	1.4		0.25	1.1
Ethanol	7.8	J	0.23	9.4
Freon TF	0.61	J	0.31	1.5
1,1-Dichloroethene	0.79	U	0.040	0.79
Acetone	23		1.6	12
Isopropyl alcohol	12	U	0.37	12
Carbon disulfide	1.2	J	0.093	1.6
Methylene Chloride	0.71	J	0.42	1.7
Methyl tert-butyl ether	0.72	U	0.079	0.72
trans-1,2-Dichloroethene	0.79	U	0.11	0.79
n-Hexane	6.3		0.099	0.70
1,1-Dichloroethane	0.81	U	0.11	0.81
Vinyl acetate	18	U	0.29	18
Ethyl acetate	18	U	0.58	18
Methyl Ethyl Ketone	5.4		0.27	1.5
cis-1,2-Dichloroethene	0.79	U	0.12	0.79
Chloroform	0.98	U	0.19	0.98
Tetrahydrofuran	15	U	0.53	15
1,1,1-Trichloroethane	1.1	U	0.16	1.1
Cyclohexane	0.73		0.034	0.69
Carbon tetrachloride	0.49	J	0.069	1.3

## Analytical Data

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

**Client Sample ID:** SV-1

Lab Sample ID: 200-25159-1

Date Sampled: 10/30/2014 1400

Client Matrix: Air

Date Received: 11/03/2014 0830

### TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-79949	Instrument ID:	CHB.i
Prep Method:	Summa Can	Prep Batch:	N/A	Lab File ID:	10373_14.D
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	11/05/2014 2107			Final Weight/Volume:	200 mL
Prep Date:	11/05/2014 2107			Injection Volume:	5 mL

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Benzene	6.8		0.093	0.64
1,2-Dichloroethane	0.81	U	0.21	0.81
n-Heptane	4.4		0.15	0.82
Trichloroethene	20		0.16	1.1
1,2-Dichloropropane	0.92	U	0.16	0.92
Bromodichloromethane	1.3	U	0.19	1.3
cis-1,3-Dichloropropene	0.91	U	0.13	0.91
Methyl isobutyl ketone	1.3	J	0.74	2.0
Toluene	32		0.094	0.75
trans-1,3-Dichloropropene	0.91	U	0.12	0.91
1,1,2-Trichloroethane	1.1	U	0.20	1.1
Tetrachloroethene	130		0.20	1.4
Methyl Butyl Ketone (2-Hexanone)	1.5	J	0.70	2.0
1,2-Dibromoethane	1.5	U	0.14	1.5
Chlorobenzene	0.92	U	0.083	0.92
Ethylbenzene	4.4		0.087	0.87
m,p-Xylene	13		0.11	2.2
Xylene, o-	4.9		0.078	0.87
Styrene	0.91		0.068	0.85
Bromoform	2.1	U	0.26	2.1
1,1,2,2-Tetrachloroethane	1.4	U	0.23	1.4
4-Ethyltoluene	0.88	J	0.098	0.98
1,3,5-Trimethylbenzene	0.66	J	0.093	0.98
1,2,4-Trimethylbenzene	2.0		0.079	0.98
1,3-Dichlorobenzene	1.2	U	0.12	1.2
1,4-Dichlorobenzene	1.2	U	0.11	1.2
Benzyl chloride	1.0	U	0.093	1.0
1,2-Dichlorobenzene	1.2	U	0.11	1.2
1,2,4-Trichlorobenzene	3.7	U	0.25	3.7
Hexachlorobutadiene	2.1	U	0.38	2.1
Naphthalene	2.6	U	0.16	2.6
Dibromochloromethane	1.7	U	0.17	1.7

**Analytical Data**

Client: Wenck Associates, Inc

Job Number: 200-25159-1  
Sdg Number: 200-25159

**Client Sample ID: SV-1**

Lab Sample ID: 200-25159-1  
Client Matrix: Air

Date Sampled: 10/30/2014 1400  
Date Received: 11/03/2014 0830

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**TO-15 Volatile Organic Compounds in Ambient Air**

Analysis Method:	TO-15	Analysis Batch:	200-79949	Instrument ID:	CHB.i
Prep Method:	Summa Can	Prep Batch:	N/A	Lab File ID:	10373_14.D
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	11/05/2014 2107			Final Weight/Volume:	200 mL
Prep Date:	11/05/2014 2107			Injection Volume:	5 mL

**Tentatively Identified Compounds**                      **Number TIC's Found: 9**

Cas Number	Analyte	RT	Est. Result (ppb v/v)	Qualifier
115-11-7	1-Propene, 2-methyl-	3.75	5.4	J N
124-18-5	Decane	17.07	1.2	J N
	Unknown	17.45	2.2	J
	Unknown	17.78	4.4	J
	Unknown	17.95	1.5	J
	Unknown	18.07	6.8	J
	Unknown	18.33	3.4	J
	Unknown	18.61	2.0	J
	Unknown	19.55	1.3	J

## Analytical Data

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

**Client Sample ID:** SV-2

Lab Sample ID: 200-25159-2

Date Sampled: 10/30/2014 1633

Client Matrix: Air

Date Received: 11/03/2014 0830

### TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-79949	Instrument ID:	CHB.i
Prep Method:	Summa Can	Prep Batch:	N/A	Lab File ID:	10373_16.D
Dilution:	2.5			Initial Weight/Volume:	80 mL
Analysis Date:	11/05/2014 2252			Final Weight/Volume:	200 mL
Prep Date:	11/05/2014 2252			Injection Volume:	5 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Propylene	46		0.53	13
Dichlorodifluoromethane	0.52	J	0.14	1.3
1,2-Dichlorotetrafluoroethane	0.50	U	0.13	0.50
Chloromethane	1.3	U	0.15	1.3
Vinyl chloride	0.50	U	0.065	0.50
1,3-Butadiene	4.8		0.090	0.50
Bromomethane	0.50	U	0.11	0.50
Chloroethane	1.3	U	0.15	1.3
Trichlorofluoromethane	0.50	U	0.11	0.50
Ethanol	3.1	J	0.30	13
Freon TF	0.10	J	0.10	0.50
1,1-Dichloroethene	0.50	U	0.025	0.50
Acetone	16		1.7	13
Isopropyl alcohol	13	U	0.38	13
Carbon disulfide	1.3	U	0.075	1.3
Methylene Chloride	1.3	U	0.30	1.3
Methyl tert-butyl ether	0.50	U	0.055	0.50
trans-1,2-Dichloroethene	0.50	U	0.068	0.50
n-Hexane	2.1		0.070	0.50
1,1-Dichloroethane	0.50	U	0.070	0.50
Vinyl acetate	13	U	0.21	13
Ethyl acetate	13	U	0.40	13
Methyl Ethyl Ketone	3.8		0.23	1.3
cis-1,2-Dichloroethene	0.50	U	0.075	0.50
Chloroform	0.50	U	0.095	0.50
Tetrahydrofuran	13	U	0.45	13
1,1,1-Trichloroethane	0.57		0.075	0.50
Cyclohexane	0.57		0.025	0.50
Carbon tetrachloride	0.50	U	0.028	0.50
Benzene	2.2		0.073	0.50
1,2-Dichloroethane	0.50	U	0.13	0.50
n-Heptane	1.3		0.093	0.50
Trichloroethene	0.50	U	0.075	0.50
1,2-Dichloropropane	0.50	U	0.088	0.50
Bromodichloromethane	0.50	U	0.073	0.50
cis-1,3-Dichloropropene	0.50	U	0.073	0.50
Methyl isobutyl ketone	1.3	U	0.45	1.3
Toluene	5.3		0.063	0.50
trans-1,3-Dichloropropene	0.50	U	0.065	0.50
1,1,2-Trichloroethane	0.50	U	0.093	0.50
Tetrachloroethene	0.18	J	0.075	0.50
Methyl Butyl Ketone (2-Hexanone)	1.3	U	0.43	1.3
1,2-Dibromoethane	0.50	U	0.045	0.50
Chlorobenzene	0.50	U	0.045	0.50
Ethylbenzene	0.75		0.050	0.50
m,p-Xylene	1.5		0.063	1.3

## Analytical Data

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

**Client Sample ID:** SV-2

Lab Sample ID: 200-25159-2

Date Sampled: 10/30/2014 1633

Client Matrix: Air

Date Received: 11/03/2014 0830

### TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-79949	Instrument ID:	CHB.i
Prep Method:	Summa Can	Prep Batch:	N/A	Lab File ID:	10373_16.D
Dilution:	2.5			Initial Weight/Volume:	80 mL
Analysis Date:	11/05/2014 2252			Final Weight/Volume:	200 mL
Prep Date:	11/05/2014 2252			Injection Volume:	5 mL

Analyte	Result (ppb v/v)	Qualifier	MDL	RL
Xylene, o-	0.68		0.045	0.50
Styrene	0.15	J	0.040	0.50
Bromoform	0.50	U	0.063	0.50
1,1,2,2-Tetrachloroethane	0.50	U	0.085	0.50
4-Ethyltoluene	0.50	U	0.050	0.50
1,3,5-Trimethylbenzene	0.097	J	0.048	0.50
1,2,4-Trimethylbenzene	0.28	J	0.040	0.50
1,3-Dichlorobenzene	0.50	U	0.050	0.50
1,4-Dichlorobenzene	0.50	U	0.048	0.50
Benzyl chloride	0.50	U	0.045	0.50
1,2-Dichlorobenzene	0.50	U	0.045	0.50
1,2,4-Trichlorobenzene	1.3	U	0.085	1.3
Hexachlorobutadiene	0.50	U	0.090	0.50
Naphthalene	1.3	U	0.075	1.3
Dibromochloromethane	0.50	U	0.050	0.50

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Propylene	79		0.90	22
Dichlorodifluoromethane	2.6	J	0.69	6.2
1,2-Dichlorotetrafluoroethane	3.5	U	0.91	3.5
Chloromethane	2.6	U	0.31	2.6
Vinyl chloride	1.3	U	0.17	1.3
1,3-Butadiene	11		0.20	1.1
Bromomethane	1.9	U	0.43	1.9
Chloroethane	3.3	U	0.40	3.3
Trichlorofluoromethane	2.8	U	0.63	2.8
Ethanol	5.9	J	0.57	24
Freon TF	0.79	J	0.79	3.8
1,1-Dichloroethene	2.0	U	0.099	2.0
Acetone	38		4.1	30
Isopropyl alcohol	31	U	0.92	31
Carbon disulfide	3.9	U	0.23	3.9
Methylene Chloride	4.3	U	1.0	4.3
Methyl tert-butyl ether	1.8	U	0.20	1.8
trans-1,2-Dichloroethene	2.0	U	0.27	2.0
n-Hexane	7.3		0.25	1.8
1,1-Dichloroethane	2.0	U	0.28	2.0
Vinyl acetate	44	U	0.73	44
Ethyl acetate	45	U	1.4	45
Methyl Ethyl Ketone	11		0.68	3.7
cis-1,2-Dichloroethene	2.0	U	0.30	2.0
Chloroform	2.4	U	0.46	2.4
Tetrahydrofuran	37	U	1.3	37
1,1,1-Trichloroethane	3.1		0.41	2.7
Cyclohexane	2.0		0.086	1.7
Carbon tetrachloride	3.1	U	0.17	3.1

## Analytical Data

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

**Client Sample ID:** SV-2

Lab Sample ID: 200-25159-2

Date Sampled: 10/30/2014 1633

Client Matrix: Air

Date Received: 11/03/2014 0830

### TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-79949	Instrument ID:	CHB.i
Prep Method:	Summa Can	Prep Batch:	N/A	Lab File ID:	10373_16.D
Dilution:	2.5			Initial Weight/Volume:	80 mL
Analysis Date:	11/05/2014 2252			Final Weight/Volume:	200 mL
Prep Date:	11/05/2014 2252			Injection Volume:	5 mL

Analyte	Result (ug/m3)	Qualifier	MDL	RL
Benzene	7.0		0.23	1.6
1,2-Dichloroethane	2.0	U	0.53	2.0
n-Heptane	5.4		0.38	2.0
Trichloroethene	2.7	U	0.40	2.7
1,2-Dichloropropane	2.3	U	0.40	2.3
Bromodichloromethane	3.4	U	0.49	3.4
cis-1,3-Dichloropropene	2.3	U	0.33	2.3
Methyl isobutyl ketone	5.1	U	1.8	5.1
Toluene	20		0.24	1.9
trans-1,3-Dichloropropene	2.3	U	0.30	2.3
1,1,2-Trichloroethane	2.7	U	0.50	2.7
Tetrachloroethene	1.2	J	0.51	3.4
Methyl Butyl Ketone (2-Hexanone)	5.1	U	1.7	5.1
1,2-Dibromoethane	3.8	U	0.35	3.8
Chlorobenzene	2.3	U	0.21	2.3
Ethylbenzene	3.3		0.22	2.2
m,p-Xylene	6.3		0.27	5.4
Xylene, o-	3.0		0.20	2.2
Styrene	0.65	J	0.17	2.1
Bromoform	5.2	U	0.65	5.2
1,1,2,2-Tetrachloroethane	3.4	U	0.58	3.4
4-Ethyltoluene	2.5	U	0.25	2.5
1,3,5-Trimethylbenzene	0.48	J	0.23	2.5
1,2,4-Trimethylbenzene	1.4	J	0.20	2.5
1,3-Dichlorobenzene	3.0	U	0.30	3.0
1,4-Dichlorobenzene	3.0	U	0.29	3.0
Benzyl chloride	2.6	U	0.23	2.6
1,2-Dichlorobenzene	3.0	U	0.27	3.0
1,2,4-Trichlorobenzene	9.3	U	0.63	9.3
Hexachlorobutadiene	5.3	U	0.96	5.3
Naphthalene	6.6	U	0.39	6.6
Dibromochloromethane	4.3	U	0.43	4.3



**Analytical Data**

Client: Wenck Associates, Inc

Job Number: 200-25159-1  
Sdg Number: 200-25159

**Client Sample ID: SV-2**

Lab Sample ID: 200-25159-2  
Client Matrix: Air

Date Sampled: 10/30/2014 1633  
Date Received: 11/03/2014 0830

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**TO-15 Volatile Organic Compounds in Ambient Air**

Analysis Method:	TO-15	Analysis Batch:	200-79949	Instrument ID:	CHB.i
Prep Method:	Summa Can	Prep Batch:	N/A	Lab File ID:	10373_16.D
Dilution:	2.5			Initial Weight/Volume:	80 mL
Analysis Date:	11/05/2014 2252			Final Weight/Volume:	200 mL
Prep Date:	11/05/2014 2252			Injection Volume:	5 mL

**Tentatively Identified Compounds**                      **Number TIC's Found: 4**

Cas Number	Analyte	RT	Est. Result (ppb v/v)	Qualifier
115-11-7	1-Propene, 2-methyl-	3.75	12	J N
	Unknown	6.23	6.8	J
	Unknown	17.78	3.2	J
	Unknown	18.07	4.8	J

## DATA REPORTING QUALIFIERS

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

<b>Lab Section</b>	<b>Qualifier</b>	<b>Description</b>
Air - GC/MS VOA	J	Indicates an Estimated Value for TICs
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	N	This flag indicates the presumptive evidence of a compound.

# QUALITY CONTROL RESULTS

## Quality Control Results

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Air - GC/MS VOA</b>					
<b>Analysis Batch:200-79949</b>					
LCS 200-79949/3	Lab Control Sample	T	Air	TO-15	
MB 200-79949/4	Method Blank	T	Air	TO-15	
200-25159-1	SV-1	T	Air	TO-15	
200-25159-1DU	Duplicate	T	Air	TO-15	
200-25159-2	SV-2	T	Air	TO-15	

#### Report Basis

T = Total

## Quality Control Results

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

**Method Blank - Batch: 200-79949**

**Method: TO-15**

**Preparation: Summa Can**

Lab Sample ID: MB 200-79949/4  
 Client Matrix: Air  
 Dilution: 1.0  
 Analysis Date: 11/05/2014 1225  
 Prep Date: 11/05/2014 1225  
 Leach Date: N/A

Analysis Batch: 200-79949  
 Prep Batch: N/A  
 Leach Batch: N/A  
 Units: ppb v/v

Instrument ID: CHB.i  
 Lab File ID: 10373\_04.D  
 Initial Weight/Volume: 200 mL  
 Final Weight/Volume: 200 mL  
 Injection Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Propylene	5.0	U	0.21	5.0
Dichlorodifluoromethane	0.50	U	0.056	0.50
1,2-Dichlorotetrafluoroethane	0.20	U	0.052	0.20
Chloromethane	0.50	U	0.060	0.50
Vinyl chloride	0.20	U	0.026	0.20
1,3-Butadiene	0.20	U	0.036	0.20
Bromomethane	0.20	U	0.044	0.20
Chloroethane	0.50	U	0.061	0.50
Trichlorofluoromethane	0.20	U	0.045	0.20
Ethanol	5.0	U	0.12	5.0
Freon TF	0.20	U	0.041	0.20
1,1-Dichloroethene	0.20	U	0.010	0.20
Acetone	5.0	U	0.69	5.0
Isopropyl alcohol	5.0	U	0.15	5.0
Carbon disulfide	0.50	U	0.030	0.50
Methylene Chloride	0.50	U	0.12	0.50
Methyl tert-butyl ether	0.20	U	0.022	0.20
trans-1,2-Dichloroethene	0.20	U	0.027	0.20
n-Hexane	0.20	U	0.028	0.20
1,1-Dichloroethane	0.20	U	0.028	0.20
Vinyl acetate	5.0	U	0.083	5.0
Ethyl acetate	5.0	U	0.16	5.0
Methyl Ethyl Ketone	0.50	U	0.092	0.50
cis-1,2-Dichloroethene	0.20	U	0.030	0.20
Chloroform	0.20	U	0.038	0.20
Tetrahydrofuran	5.0	U	0.18	5.0
1,1,1-Trichloroethane	0.20	U	0.030	0.20
Cyclohexane	0.20	U	0.010	0.20
Carbon tetrachloride	0.20	U	0.011	0.20
Benzene	0.20	U	0.029	0.20
1,2-Dichloroethane	0.20	U	0.052	0.20
n-Heptane	0.20	U	0.037	0.20
Trichloroethene	0.20	U	0.030	0.20
1,2-Dichloropropane	0.20	U	0.035	0.20
Bromodichloromethane	0.20	U	0.029	0.20
cis-1,3-Dichloropropene	0.20	U	0.029	0.20
Methyl isobutyl ketone	0.50	U	0.18	0.50
Toluene	0.20	U	0.025	0.20
trans-1,3-Dichloropropene	0.20	U	0.026	0.20
1,1,2-Trichloroethane	0.20	U	0.037	0.20
Tetrachloroethene	0.20	U	0.030	0.20
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.17	0.50
1,2-Dibromoethane	0.20	U	0.018	0.20
Chlorobenzene	0.20	U	0.018	0.20
Ethylbenzene	0.20	U	0.020	0.20

# Quality Control Results

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

## Method Blank - Batch: 200-79949

## Method: TO-15

## Preparation: Summa Can

Lab Sample ID: MB 200-79949/4  
Client Matrix: Air  
Dilution: 1.0  
Analysis Date: 11/05/2014 1225  
Prep Date: 11/05/2014 1225  
Leach Date: N/A

Analysis Batch: 200-79949  
Prep Batch: N/A  
Leach Batch: N/A  
Units: ppb v/v

Instrument ID: CHB.i  
Lab File ID: 10373\_04.D  
Initial Weight/Volume: 200 mL  
Final Weight/Volume: 200 mL  
Injection Volume: 5 mL

Analyte	Result	Qual	MDL	RL
m,p-Xylene	0.50	U	0.025	0.50
Xylene, o-	0.20	U	0.018	0.20
Styrene	0.20	U	0.016	0.20
Bromoform	0.20	U	0.025	0.20
1,1,2,2-Tetrachloroethane	0.20	U	0.034	0.20
4-Ethyltoluene	0.20	U	0.020	0.20
1,3,5-Trimethylbenzene	0.20	U	0.019	0.20
1,2,4-Trimethylbenzene	0.20	U	0.016	0.20
1,3-Dichlorobenzene	0.20	U	0.020	0.20
1,4-Dichlorobenzene	0.20	U	0.019	0.20
Benzyl chloride	0.20	U	0.018	0.20
1,2-Dichlorobenzene	0.20	U	0.018	0.20
1,2,4-Trichlorobenzene	0.50	U	0.034	0.50
Hexachlorobutadiene	0.20	U	0.036	0.20
Naphthalene	0.50	U	0.030	0.50
Dibromochloromethane	0.20	U	0.020	0.20

## Quality Control Results

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

**Method Blank - Batch: 200-79949**

**Method: TO-15**

**Preparation: Summa Can**

Lab Sample ID: MB 200-79949/4  
 Client Matrix: Air  
 Dilution: 1.0  
 Analysis Date: 11/05/2014 1225  
 Prep Date: 11/05/2014 1225  
 Leach Date: N/A

Analysis Batch: 200-79949  
 Prep Batch: N/A  
 Leach Batch: N/A  
 Units: ug/m3

Instrument ID: CHB.i  
 Lab File ID: 10373\_04.D  
 Initial Weight/Volume: 200 mL  
 Final Weight/Volume: 200 mL  
 Injection Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Propylene	8.6	U	0.36	8.6
Dichlorodifluoromethane	2.5	U	0.28	2.5
1,2-Dichlorotetrafluoroethane	1.4	U	0.36	1.4
Chloromethane	1.0	U	0.12	1.0
Vinyl chloride	0.51	U	0.066	0.51
1,3-Butadiene	0.44	U	0.080	0.44
Bromomethane	0.78	U	0.17	0.78
Chloroethane	1.3	U	0.16	1.3
Trichlorofluoromethane	1.1	U	0.25	1.1
Ethanol	9.4	U	0.23	9.4
Freon TF	1.5	U	0.31	1.5
1,1-Dichloroethene	0.79	U	0.040	0.79
Acetone	12	U	1.6	12
Isopropyl alcohol	12	U	0.37	12
Carbon disulfide	1.6	U	0.093	1.6
Methylene Chloride	1.7	U	0.42	1.7
Methyl tert-butyl ether	0.72	U	0.079	0.72
trans-1,2-Dichloroethene	0.79	U	0.11	0.79
n-Hexane	0.70	U	0.099	0.70
1,1-Dichloroethane	0.81	U	0.11	0.81
Vinyl acetate	18	U	0.29	18
Ethyl acetate	18	U	0.58	18
Methyl Ethyl Ketone	1.5	U	0.27	1.5
cis-1,2-Dichloroethene	0.79	U	0.12	0.79
Chloroform	0.98	U	0.19	0.98
Tetrahydrofuran	15	U	0.53	15
1,1,1-Trichloroethane	1.1	U	0.16	1.1
Cyclohexane	0.69	U	0.034	0.69
Carbon tetrachloride	1.3	U	0.069	1.3
Benzene	0.64	U	0.093	0.64
1,2-Dichloroethane	0.81	U	0.21	0.81
n-Heptane	0.82	U	0.15	0.82
Trichloroethene	1.1	U	0.16	1.1
1,2-Dichloropropane	0.92	U	0.16	0.92
Bromodichloromethane	1.3	U	0.19	1.3
cis-1,3-Dichloropropene	0.91	U	0.13	0.91
Methyl isobutyl ketone	2.0	U	0.74	2.0
Toluene	0.75	U	0.094	0.75
trans-1,3-Dichloropropene	0.91	U	0.12	0.91
1,1,2-Trichloroethane	1.1	U	0.20	1.1
Tetrachloroethene	1.4	U	0.20	1.4
Methyl Butyl Ketone (2-Hexanone)	2.0	U	0.70	2.0
1,2-Dibromoethane	1.5	U	0.14	1.5
Chlorobenzene	0.92	U	0.083	0.92
Ethylbenzene	0.87	U	0.087	0.87

## Quality Control Results

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

**Method Blank - Batch: 200-79949**

**Method: TO-15**

**Preparation: Summa Can**

Lab Sample ID: MB 200-79949/4  
 Client Matrix: Air  
 Dilution: 1.0  
 Analysis Date: 11/05/2014 1225  
 Prep Date: 11/05/2014 1225  
 Leach Date: N/A

Analysis Batch: 200-79949  
 Prep Batch: N/A  
 Leach Batch: N/A  
 Units: ug/m3

Instrument ID: CHB.i  
 Lab File ID: 10373\_04.D  
 Initial Weight/Volume: 200 mL  
 Final Weight/Volume: 200 mL  
 Injection Volume: 5 mL

Analyte	Result	Qual	MDL	RL
m,p-Xylene	2.2	U	0.11	2.2
Xylene, o-	0.87	U	0.078	0.87
Styrene	0.85	U	0.068	0.85
Bromoform	2.1	U	0.26	2.1
1,1,2,2-Tetrachloroethane	1.4	U	0.23	1.4
4-Ethyltoluene	0.98	U	0.098	0.98
1,3,5-Trimethylbenzene	0.98	U	0.093	0.98
1,2,4-Trimethylbenzene	0.98	U	0.079	0.98
1,3-Dichlorobenzene	1.2	U	0.12	1.2
1,4-Dichlorobenzene	1.2	U	0.11	1.2
Benzyl chloride	1.0	U	0.093	1.0
1,2-Dichlorobenzene	1.2	U	0.11	1.2
1,2,4-Trichlorobenzene	3.7	U	0.25	3.7
Hexachlorobutadiene	2.1	U	0.38	2.1
Naphthalene	2.6	U	0.16	2.6
Dibromochloromethane	1.7	U	0.17	1.7

**Method Blank TICs- Batch: 200-79949**

Cas Number	Analyte	RT	Est. Result (ppb)	Qual
	Tentatively Identified Compound		None	



## Quality Control Results

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

**Lab Control Sample - Batch: 200-79949**

**Method: TO-15**

**Preparation: Summa Can**

Lab Sample ID: LCS 200-79949/3  
 Client Matrix: Air  
 Dilution: 1.0  
 Analysis Date: 11/05/2014 1133  
 Prep Date: 11/05/2014 1133  
 Leach Date: N/A

Analysis Batch: 200-79949  
 Prep Batch: N/A  
 Leach Batch: N/A  
 Units: ppb v/v

Instrument ID: CHB.i  
 Lab File ID: 10373\_03.D  
 Initial Weight/Volume: 200 mL  
 Final Weight/Volume: 200 mL  
 Injection Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Propylene	10.0	8.81	88	70 - 130	
Dichlorodifluoromethane	10.0	9.67	97	70 - 130	
1,2-Dichlorotetrafluoroethane	10.0	10.8	108	70 - 130	
Chloromethane	10.0	9.09	91	70 - 130	
Vinyl chloride	10.0	9.75	98	70 - 130	
1,3-Butadiene	10.0	9.41	94	70 - 130	
Bromomethane	10.0	9.82	98	70 - 130	
Chloroethane	10.0	9.82	98	70 - 130	
Trichlorofluoromethane	10.0	9.72	97	70 - 130	
Ethanol	15.0	13.2	88	70 - 130	
Freon TF	10.0	9.92	99	70 - 130	
1,1-Dichloroethene	10.0	9.98	100	70 - 130	
Acetone	10.0	9.13	91	70 - 130	
Isopropyl alcohol	10.0	8.88	89	70 - 130	
Carbon disulfide	10.0	10.8	108	70 - 130	
Methylene Chloride	10.0	9.72	97	70 - 130	
Methyl tert-butyl ether	10.0	10.6	106	70 - 130	
trans-1,2-Dichloroethene	10.0	11.0	110	70 - 130	
n-Hexane	10.0	11.1	111	70 - 130	
1,1-Dichloroethane	10.0	10.8	108	70 - 130	
Vinyl acetate	10.0	10.1	101	70 - 130	
Ethyl acetate	10.0	11.1	111	70 - 130	
Methyl Ethyl Ketone	10.0	9.43	94	70 - 130	
cis-1,2-Dichloroethene	10.0	9.88	99	70 - 130	
Chloroform	10.0	10.2	102	70 - 130	
Tetrahydrofuran	10.0	10.5	105	70 - 130	
1,1,1-Trichloroethane	10.0	10.2	102	70 - 130	
Cyclohexane	10.0	10.7	107	70 - 130	
Carbon tetrachloride	10.0	10.3	103	70 - 130	
Benzene	10.0	10.1	101	70 - 130	
1,2-Dichloroethane	10.0	10.3	103	70 - 130	
n-Heptane	10.0	10.5	105	70 - 130	
Trichloroethene	10.0	10.2	102	70 - 130	
1,2-Dichloropropane	10.0	10.4	104	70 - 130	
Bromodichloromethane	10.0	10.2	102	70 - 130	
cis-1,3-Dichloropropene	10.0	10.7	107	70 - 130	
Methyl isobutyl ketone	10.0	10.2	102	70 - 130	
Toluene	10.0	10.3	103	70 - 130	
trans-1,3-Dichloropropene	10.0	10.5	105	70 - 130	
1,1,2-Trichloroethane	10.0	10.3	103	70 - 130	
Tetrachloroethene	10.0	10.2	102	70 - 130	

## Quality Control Results

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

**Lab Control Sample - Batch: 200-79949**

**Method: TO-15**

**Preparation: Summa Can**

Lab Sample ID: LCS 200-79949/3  
 Client Matrix: Air  
 Dilution: 1.0  
 Analysis Date: 11/05/2014 1133  
 Prep Date: 11/05/2014 1133  
 Leach Date: N/A

Analysis Batch: 200-79949  
 Prep Batch: N/A  
 Leach Batch: N/A  
 Units: ppb v/v

Instrument ID: CHB.i  
 Lab File ID: 10373\_03.D  
 Initial Weight/Volume: 200 mL  
 Final Weight/Volume: 200 mL  
 Injection Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Methyl Butyl Ketone (2-Hexanone)	10.0	10.1	101	70 - 130	
1,2-Dibromoethane	10.0	10.3	103	70 - 130	
Chlorobenzene	10.0	10.0	100	70 - 130	
Ethylbenzene	10.0	10.2	102	70 - 130	
m,p-Xylene	20.0	20.1	100	70 - 130	
Xylene, o-	10.0	10.0	100	70 - 130	
Styrene	10.0	10.4	104	70 - 130	
Bromoform	10.0	9.93	99	70 - 130	
1,1,2,2-Tetrachloroethane	10.0	9.99	100	70 - 130	
4-Ethyltoluene	10.0	10.3	103	70 - 130	
1,3,5-Trimethylbenzene	10.0	10.2	102	70 - 130	
1,2,4-Trimethylbenzene	10.0	10.2	102	70 - 130	
1,3-Dichlorobenzene	10.0	10.1	101	70 - 130	
1,4-Dichlorobenzene	10.0	10.2	102	70 - 130	
Benzyl chloride	10.0	9.25	93	70 - 130	
1,2-Dichlorobenzene	10.0	10.2	102	70 - 130	
1,2,4-Trichlorobenzene	10.0	9.72	97	70 - 130	
Hexachlorobutadiene	10.0	9.56	96	70 - 130	
Naphthalene	10.0	9.62	96	70 - 130	
Dibromochloromethane	10.0	10.0	100	70 - 130	

## Quality Control Results

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

**Duplicate - Batch: 200-79949**

**Method: TO-15**

**Preparation: Summa Can**

Lab Sample ID: 200-25159-1	Analysis Batch: 200-79949	Instrument ID: CHB.i
Client Matrix: Air	Prep Batch: N/A	Lab File ID: 10373_15.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 200 mL
Analysis Date: 11/05/2014 2200	Units: ppb v/v	Final Weight/Volume: 200 mL
Prep Date: 11/05/2014 2200		Injection Volume: 5 mL
Leach Date: N/A		

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Decane	1.2	1.08			J N
Unknown	1.5	1.17			J
Unknown	2.0	1.42			J
Unknown	2.2	2.24			J
Unknown	3.4	3.33			J
Unknown	4.4	4.31			J
Unknown	5.4	5.39			J
Unknown	6.8	6.69			J
Propylene	16	16.9	3	25	
Dichlorodifluoromethane	0.49	J 0.500	2	25	
1,2-Dichlorotetrafluoroethane	0.20	U 0.20	NC	25	U
Chloromethane	0.50	U 0.50	NC	25	U
Vinyl chloride	0.20	U 0.20	NC	25	U
1,3-Butadiene	2.0	2.07	4	25	
Bromomethane	0.20	U 0.20	NC	25	U
Chloroethane	0.50	U 0.50	NC	25	U
Trichlorofluoromethane	0.24	0.261	8	25	
Ethanol	4.1	J 4.23	2	25	J
Freon TF	0.080	J 0.0806	0.8	25	J
1,1-Dichloroethene	0.20	U 0.20	NC	25	U
Acetone	9.6	9.74	2	25	
Isopropyl alcohol	5.0	U 5.0	NC	25	U
Carbon disulfide	0.40	J 0.422	6	25	J
Methylene Chloride	0.20	J 0.205	0.4	25	J
Methyl tert-butyl ether	0.20	U 0.20	NC	25	U
trans-1,2-Dichloroethene	0.20	U 0.20	NC	25	U
n-Hexane	1.8	1.76	1	25	
1,1-Dichloroethane	0.20	U 0.20	NC	25	U
Vinyl acetate	5.0	U 5.0	NC	25	U
Ethyl acetate	5.0	U 5.0	NC	25	U
Methyl Ethyl Ketone	1.8	1.93	6	25	
cis-1,2-Dichloroethene	0.20	U 0.20	NC	25	U
Chloroform	0.20	U 0.20	NC	25	U
Tetrahydrofuran	5.0	U 5.0	NC	25	U
1,1,1-Trichloroethane	0.20	U 0.20	NC	25	U
Cyclohexane	0.21	0.226	6	25	
Carbon tetrachloride	0.078	J 0.0708	9	25	J
Benzene	2.1	2.22	3	25	
1,2-Dichloroethane	0.20	U 0.20	NC	25	U
n-Heptane	1.1	1.14	7	25	
Trichloroethene	3.8	3.97	5	25	

## Quality Control Results

Client: Wenck Associates, Inc

Job Number: 200-25159-1

Sdg Number: 200-25159

**Duplicate - Batch: 200-79949**

**Method: TO-15**

**Preparation: Summa Can**

Lab Sample ID: 200-25159-1  
 Client Matrix: Air  
 Dilution: 1.0  
 Analysis Date: 11/05/2014 2200  
 Prep Date: 11/05/2014 2200  
 Leach Date: N/A

Analysis Batch: 200-79949  
 Prep Batch: N/A  
 Leach Batch: N/A  
 Units: ppb v/v

Instrument ID: CHB.i  
 Lab File ID: 10373\_15.D  
 Initial Weight/Volume: 200 mL  
 Final Weight/Volume: 200 mL  
 Injection Volume: 5 mL


Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
1,2-Dichloropropane	0.20 U	0.20	NC	25	U
Bromodichloromethane	0.20 U	0.20	NC	25	U
cis-1,3-Dichloropropene	0.20 U	0.20	NC	25	U
Methyl isobutyl ketone	0.33 J	0.308	6	25	J
Toluene	8.4	8.51	2	25	
trans-1,3-Dichloropropene	0.20 U	0.20	NC	25	U
1,1,2-Trichloroethane	0.20 U	0.20	NC	25	U
Tetrachloroethene	19	19.0	2	25	
Methyl Butyl Ketone (2-Hexanone)	0.37 J	0.396	6	25	J
1,2-Dibromoethane	0.20 U	0.20	NC	25	U
Chlorobenzene	0.20 U	0.20	NC	25	U
Ethylbenzene	1.0	1.03	1	25	
m,p-Xylene	3.0	3.08	1	25	
Xylene, o-	1.1	1.17	3	25	
Styrene	0.21	0.227	6	25	
Bromoform	0.20 U	0.20	NC	25	U
1,1,2,2-Tetrachloroethane	0.20 U	0.20	NC	25	U
4-Ethyltoluene	0.18 J	0.151	17	25	J
1,3,5-Trimethylbenzene	0.13 J	0.142	5	25	J
1,2,4-Trimethylbenzene	0.40	0.406	2	25	
1,3-Dichlorobenzene	0.20 U	0.20	NC	25	U
1,4-Dichlorobenzene	0.20 U	0.20	NC	25	U
Benzyl chloride	0.20 U	0.20	NC	25	U
1,2-Dichlorobenzene	0.20 U	0.20	NC	25	U
1,2,4-Trichlorobenzene	0.50 U	0.50	NC	25	U
Hexachlorobutadiene	0.20 U	0.20	NC	25	U
Naphthalene	0.50 U	0.50	NC	25	U
Dibromochloromethane	0.20 U	0.20	NC	25	U

TestAmerica Burlington  
30 Community Drive  
Suite 11

South Burlington, VT 05403  
phone 802-660-1990 fax 802-660-1919

## Canister Samples Chain of Custody Record

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information		Project Manager: <u>Adam Zobel</u>		Samples Collected By: <u>Dan Larson</u>		1 of 1 COCs	
Company:	<u>WENCK</u>	Phone:		MA-APH	EPA 3C	EPA 25C	ASTM D-1945
Address:	<u>120 Maple Plain, MN</u>	Email:	<u>A.Zobel@wcnk.com</u>	Flow Controller ID	Canister ID	Other (Please specify in notes section)	Sample Type
City/State/Zip:	<u>Maple Plain, MN</u>	Site Contact:		4978	4096	Landfill Gas	
Phone:		TA Contact:		4677	2593	Soil Gas	
FAX:						Ambient Air	
Project Name:	<u>Minnetonka - 4312</u>	Analysis Turnaround Time				Indoor Air	
Site:		Standard (Specify)				Other (Please specify in notes section)	
PO #		Rush (Specify)				Other (Please specify in notes section)	
Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Temperature (Fahrenheit)	
						Interior	Ambient
<u>SV-1</u>	<u>10/30/14</u>	<u>1331</u>	<u>1400</u>	<u>+29</u>	<u>0</u>		
<u>SV-2</u>	<u>↓</u>	<u>1553</u>	<u>1633</u>	<u>31</u>	<u>0</u>		
Special Instructions/QC Requirements & Comments:							
 200-25159 Chain of Custody							
Samples Shipped by:		Date/Time:		Samples Received by:		Date/Time:	
<u>Dan Larson</u>		<u>10/30/14 / 1430</u>		<u>Dan Larson</u>		<u>10-31-14 1:00</u>	
Shipper Name:		Date/Time:		Relinquished by:		Date/Time:	
<u>Wenck</u>		<u>10/31/14 / 700</u>		<u>Dan Larson</u>		<u>11/3/14 0830</u>	
Lab Use Only		Shipper Name:		Opened by:		Condition:	



## Login Sample Receipt Checklist

Client: Wenck Associates, Inc

Job Number: 200-25159-1

SDG Number: 200-25159

**Login Number: 25159**

**List Source: TestAmerica Burlington**

**List Number: 1**

**Creator: Goodrich, Kenneth L**

Question	Answer	Comment
Radioactivity wasn't checked or is <= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	NO SEALS
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	AMBIENT
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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Cedar Falls

704 Enterprise Drive

Cedar Falls, IA 50613

Tel: (319)277-2401

TestAmerica Job ID: 310-42858-1

TestAmerica Sample Delivery Group: B517-0001

Client Project/Site: Minnetonka - 4312

For:

Wenck Associates, Inc

1800 Pioneer Creek Center

Maple Plain, Minnesota 55359

Attn: Dan Larson



Authorized for release by:

11/11/2014 10:01:12 AM

Derrick Klinkenberg, Project Manager I

(319)277-2401

[derrick.klinkenberg@testamericainc.com](mailto:derrick.klinkenberg@testamericainc.com)

### LINKS

Review your project  
results through

**Total Access**

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**Ask  
The  
Expert**

Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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12

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15



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	2
Case Narrative . . . . .	3
Sample Summary . . . . .	4
Detection Summary . . . . .	5
Client Sample Results . . . . .	6
Definitions . . . . .	9
Surrogate Summary . . . . .	10
QC Sample Results . . . . .	11
QC Association . . . . .	12
Chronicle . . . . .	13
Certification Summary . . . . .	14
Method Summary . . . . .	15
Chain of Custody . . . . .	16
Receipt Checklists . . . . .	18



# Case Narrative

Client: Wenck Associates, Inc  
Project/Site: Minnetonka - 4312

TestAmerica Job ID: 310-42858-1  
SDG: B517-0001

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**Job ID: 310-42858-1**

---

**Laboratory: TestAmerica Cedar Falls**

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**Narrative**

**Job Narrative**  
**310-42858-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 11/1/2014 9:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.6° C.

**GC Semi VOA**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

**Organic Prep**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Sample Summary

Client: Wenck Associates, Inc  
Project/Site: Minnetonka - 4312

TestAmerica Job ID: 310-42858-1  
SDG: B517-0001

---

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-42858-1	W-1	Wipe	10/30/14 13:00	11/01/14 09:30
310-42858-2	W-2	Wipe	10/30/14 13:05	11/01/14 09:30
310-42858-3	W-3	Wipe	10/30/14 13:10	11/01/14 09:30

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# Detection Summary

Client: Wenck Associates, Inc  
Project/Site: Minnetonka - 4312

TestAmerica Job ID: 310-42858-1  
SDG: B517-0001

## Client Sample ID: W-1

Lab Sample ID: 310-42858-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	25.1		5.00		ug/Wipe	5		8082A	Total/NA
Polychlorinated biphenyls, Total	25.1		5.00		ug/Wipe	5		8082A	Total/NA

## Client Sample ID: W-2

Lab Sample ID: 310-42858-2

No Detections.

## Client Sample ID: W-3

Lab Sample ID: 310-42858-3

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Cedar Falls



# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka - 4312

TestAmerica Job ID: 310-42858-1  
 SDG: B517-0001

**Client Sample ID: W-1**  
**Date Collected: 10/30/14 13:00**  
**Date Received: 11/01/14 09:30**

**Lab Sample ID: 310-42858-1**  
**Matrix: Wipe**

**Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:21	1
PCB-1221	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:21	1
PCB-1232	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:21	1
PCB-1242	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:21	1
<b>PCB-1248</b>	<b>25.1</b>		5.00		ug/Wipe		11/06/14 09:07	11/10/14 11:16	5
PCB-1254	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:21	1
PCB-1260	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:21	1
PCB-1268	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:21	1
<b>Polychlorinated biphenyls, Total</b>	<b>25.1</b>		5.00		ug/Wipe		11/06/14 09:07	11/10/14 11:16	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	96		56 - 146	11/06/14 09:07	11/10/14 10:21	1
Tetrachloro-m-xylene	86		42 - 132	11/06/14 09:07	11/10/14 10:21	1

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka - 4312

TestAmerica Job ID: 310-42858-1  
 SDG: B517-0001

**Client Sample ID: W-2**  
**Date Collected: 10/30/14 13:05**  
**Date Received: 11/01/14 09:30**

**Lab Sample ID: 310-42858-2**  
**Matrix: Wipe**

**Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<10.0		10.0		ug/Wipe		11/06/14 09:07	11/10/14 11:27	10
PCB-1221	<10.0		10.0		ug/Wipe		11/06/14 09:07	11/10/14 11:27	10
PCB-1232	<10.0		10.0		ug/Wipe		11/06/14 09:07	11/10/14 11:27	10
PCB-1242	<10.0		10.0		ug/Wipe		11/06/14 09:07	11/10/14 11:27	10
PCB-1248	<10.0		10.0		ug/Wipe		11/06/14 09:07	11/10/14 11:27	10
PCB-1254	<10.0		10.0		ug/Wipe		11/06/14 09:07	11/10/14 11:27	10
PCB-1260	<10.0		10.0		ug/Wipe		11/06/14 09:07	11/10/14 11:27	10
PCB-1268	<10.0		10.0		ug/Wipe		11/06/14 09:07	11/10/14 11:27	10
Polychlorinated biphenyls, Total	<10.0		10.0		ug/Wipe		11/06/14 09:07	11/10/14 11:27	10
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
<i>DCB Decachlorobiphenyl (Surr)</i>	86		56 - 146				11/06/14 09:07	11/10/14 10:32	1
<i>Tetrachloro-m-xylene</i>	77		42 - 132				11/06/14 09:07	11/10/14 10:32	1

# Client Sample Results

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka - 4312

TestAmerica Job ID: 310-42858-1  
 SDG: B517-0001

**Client Sample ID: W-3**  
**Date Collected: 10/30/14 13:10**  
**Date Received: 11/01/14 09:30**

**Lab Sample ID: 310-42858-3**  
**Matrix: Wipe**

**Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:43	1
PCB-1221	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:43	1
PCB-1232	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:43	1
PCB-1242	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:43	1
PCB-1248	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:43	1
PCB-1254	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:43	1
PCB-1260	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:43	1
PCB-1268	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:43	1
Polychlorinated biphenyls, Total	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 10:43	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
DCB Decachlorobiphenyl (Surr)	88		56 - 146				11/06/14 09:07	11/10/14 10:43	1
Tetrachloro-m-xylene	79		42 - 132				11/06/14 09:07	11/10/14 10:43	1

## Definitions/Glossary

Client: Wenck Associates, Inc  
Project/Site: Minnetonka - 4312

TestAmerica Job ID: 310-42858-1  
SDG: B517-0001

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)



# Surrogate Summary

Client: Wenck Associates, Inc  
Project/Site: Minnetonka - 4312

TestAmerica Job ID: 310-42858-1  
SDG: B517-0001

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Wipe

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCB1 (56-146)	TCX1 (42-132)
310-42858-1	W-1	96	86
310-42858-2	W-2	86	77
310-42858-3	W-3	88	79
LCS 310-67391/2-A	Lab Control Sample	88	81
LCSD 310-67391/3-A	Lab Control Sample Dup	88	80
MB 310-67391/1-A	Method Blank	93	85

#### Surrogate Legend

DCB = DCB Decachlorobiphenyl (Surr)

TCX = Tetrachloro-m-xylene

# QC Sample Results

Client: Wenck Associates, Inc  
Project/Site: Minnetonka - 4312

TestAmerica Job ID: 310-42858-1  
SDG: B517-0001

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Lab Sample ID: MB 310-67391/1-A**  
**Matrix: Wipe**  
**Analysis Batch: 67713**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 67391**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 09:17	1
PCB-1221	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 09:17	1
PCB-1232	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 09:17	1
PCB-1242	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 09:17	1
PCB-1248	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 09:17	1
PCB-1254	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 09:17	1
PCB-1260	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 09:17	1
PCB-1268	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 09:17	1
Polychlorinated biphenyls, Total	<1.00		1.00		ug/Wipe		11/06/14 09:07	11/10/14 09:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl (Surr)	93		56 - 146	11/06/14 09:07	11/10/14 09:17	1
Tetrachloro-m-xylene	85		42 - 132	11/06/14 09:07	11/10/14 09:17	1

**Lab Sample ID: LCS 310-67391/2-A**  
**Matrix: Wipe**  
**Analysis Batch: 67713**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 67391**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	10.0	7.521		ug/Wipe		75	43 - 133
PCB-1260	10.0	7.805		ug/Wipe		78	43 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	88		56 - 146
Tetrachloro-m-xylene	81		42 - 132

**Lab Sample ID: LCSD 310-67391/3-A**  
**Matrix: Wipe**  
**Analysis Batch: 67713**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 67391**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
PCB-1016	10.0	7.568		ug/Wipe		76	43 - 133	1	20
PCB-1260	10.0	7.861		ug/Wipe		79	43 - 133	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	88		56 - 146
Tetrachloro-m-xylene	80		42 - 132

# QC Association Summary

Client: Wenck Associates, Inc  
 Project/Site: Minnetonka - 4312

TestAmerica Job ID: 310-42858-1  
 SDG: B517-0001

## GC Semi VOA

### Prep Batch: 67391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42858-1	W-1	Total/NA	Wipe	3550B	
310-42858-2	W-2	Total/NA	Wipe	3550B	
310-42858-3	W-3	Total/NA	Wipe	3550B	
LCS 310-67391/2-A	Lab Control Sample	Total/NA	Wipe	3550B	
LCSD 310-67391/3-A	Lab Control Sample Dup	Total/NA	Wipe	3550B	
MB 310-67391/1-A	Method Blank	Total/NA	Wipe	3550B	

### Analysis Batch: 67713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-42858-1	W-1	Total/NA	Wipe	8082A	67391
310-42858-1	W-1	Total/NA	Wipe	8082A	67391
310-42858-2	W-2	Total/NA	Wipe	8082A	67391
310-42858-2	W-2	Total/NA	Wipe	8082A	67391
310-42858-3	W-3	Total/NA	Wipe	8082A	67391
LCS 310-67391/2-A	Lab Control Sample	Total/NA	Wipe	8082A	67391
LCSD 310-67391/3-A	Lab Control Sample Dup	Total/NA	Wipe	8082A	67391
MB 310-67391/1-A	Method Blank	Total/NA	Wipe	8082A	67391



# Lab Chronicle

Client: Wenck Associates, Inc  
Project/Site: Minnetonka - 4312

TestAmerica Job ID: 310-42858-1  
SDG: B517-0001

## Client Sample ID: W-1

**Lab Sample ID: 310-42858-1**

Date Collected: 10/30/14 13:00

Matrix: Wipe

Date Received: 11/01/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			67391	11/06/14 09:07	EEE	TAL CF
Total/NA	Analysis	8082A		1	67713	11/10/14 10:21	TRM	TAL CF
Total/NA	Prep	3550B			67391	11/06/14 09:07	EEE	TAL CF
Total/NA	Analysis	8082A		5	67713	11/10/14 11:16	TRM	TAL CF

## Client Sample ID: W-2

**Lab Sample ID: 310-42858-2**

Date Collected: 10/30/14 13:05

Matrix: Wipe

Date Received: 11/01/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			67391	11/06/14 09:07	EEE	TAL CF
Total/NA	Analysis	8082A		1	67713	11/10/14 10:32	TRM	TAL CF
Total/NA	Prep	3550B			67391	11/06/14 09:07	EEE	TAL CF
Total/NA	Analysis	8082A		10	67713	11/10/14 11:27	TRM	TAL CF

## Client Sample ID: W-3

**Lab Sample ID: 310-42858-3**

Date Collected: 10/30/14 13:10

Matrix: Wipe

Date Received: 11/01/14 09:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			67391	11/06/14 09:07	EEE	TAL CF
Total/NA	Analysis	8082A		1	67713	11/10/14 10:43	TRM	TAL CF

**Laboratory References:**

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

# Certification Summary

Client: Wenck Associates, Inc  
Project/Site: Minnetonka - 4312

TestAmerica Job ID: 310-42858-1  
SDG: B517-0001

## Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-16
Georgia	State Program	4	N/A	09-29-15
Illinois	NELAP	5	200024	11-29-15
Iowa	State Program	7	007	12-01-15
Kansas	NELAP	7	E-10341	01-31-15
Minnesota	NELAP	5	019-999-319	12-31-14
North Dakota	State Program	8	R-186	09-29-14 *
Oregon	NELAP	10	IA100001	09-29-15
Wisconsin	State Program	5	999917270	08-31-15

\* Certification renewal pending - certification considered valid.

TestAmerica Cedar Falls

# Method Summary

Client: Wenck Associates, Inc  
Project/Site: Minnetonka - 4312

TestAmerica Job ID: 310-42858-1  
SDG: B517-0001

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Method	Method Description	Protocol	Laboratory
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CF

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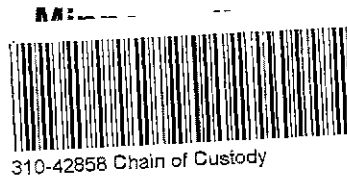
**Protocol References:**

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

**Laboratory References:**

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401





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Client: Wence Project: Minnetonka 4312

City: \_\_\_\_\_ State: \_\_\_\_\_

Date: 11-1-14 Receiver's Initials: CH Time (Delivered): 9:30

**Temperature Record:**

Cooler ID# (if Applicable)  
TA MN

Uncorrected Temp:  
0.7 °C

Corrected Temp:  
0.6 °C

**Thermometer:**

IR "E" - 111531506  
 IR "Front" - 61854108  
 IR "G" - 130195822  
 IR "H" - 130195853  
 Other: \_\_\_\_\_

**Courier:**

<input type="checkbox"/> UPS	<input type="checkbox"/> TA Courier
<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> TA Field Services
<input type="checkbox"/> FedEx Ground	<input type="checkbox"/> Client
<input type="checkbox"/> US Postal Service	<input type="checkbox"/> Other: _____
<input type="checkbox"/> Spee-Dee	

**Exceptions Noted:**

Sample(s) not received in cooler  
 Sample(s) received same day of sampling  
 Evidence of chilling process  
 Temp blank <0°C, samples NOT FROZEN  
 Temp blank <0°C, samples FROZEN  
 Temperature not taken: *(indicate reason)*  
 \_\_\_\_\_  
 Non-Conformance Report Started

Temperature blank  
 Temperature out of compliance

**Coolant Record:**

Received on ice  
 Wet ice  
 Blue ice  
 Dry ice  
 Other: \_\_\_\_\_  
 NONE

**Custody Seals:**

Cooler Custody Seals Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Cooler Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Sample Custody Seals Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sample Custody Seals Intact? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A

# TestAmerica

Watertown Division  
602 Commerce Drive  
Watertown, WI 53094

Phone 920-261-1660 or 800-833-7036  
Fax 920-261-8120

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring

THE LEADER IN ENVIRONMENTAL TESTING

Client Name: Wenck

Client #:

Address:

City/State/Zip Code: Maple Plain, MN

Project Manager: Adam Fubel

Telephone Number:

Project Name: Minnesota Ka-4312

Project #: B5170-0001

Site/Location ID:

Report To:

Invoice To:

Quote #:

Sampler Name: (Print Name) Dan Larsen

Sampler Signature: [Signature]

Fax:

E-mail address:

SAMPLE ID	Date Sampled	Time Sampled	Field Filtered	Matrix	Preservation & # of Containers							Analyze For:	QC Deliverables	REMARKS			
					HNO <sub>3</sub>	HCl	NaOH	H <sub>2</sub> SO <sub>4</sub>	Methanol	None	Other (Specify)						
W-1	11/30/14	1300		Wipe													
W-2	↓	1305		↓													
W-3	↓	1310															

Special Instructions:

Relinquished By: [Signature] Date: 11/30/14 Time: 18:30

Relinquished By: [Signature] Date: 11/14/14 Time: 9:30

Relinquished By: [Signature] Date: 11/14/14 Time: 9:30

LABORATORY COMMENTS:

Init Lab Temp: \_\_\_\_\_

Rec Lab Temp: \_\_\_\_\_

Custody Seals: Y N N/A

Bottles Supplied by TestAmerica: Y N

Method of Shipment: \_\_\_\_\_





## Login Sample Receipt Checklist

Client: Wenck Associates, Inc

Job Number: 310-42858-1

SDG Number: B517-0001

**Login Number: 42858**

**List Number: 1**

**Creator: Wilson, Cheryl L**

**List Source: TestAmerica Cedar Falls**

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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	
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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



