



CONSULTANTS  
• ENVIRONMENTAL  
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• MATERIALS  
• FORENSICS

# REMEDIAL INVESTIGATION REPORT

## PDM Bridge-AST Site

Eau Claire, Wisconsin

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AET Project No. 03-04630  
WDNR BRRTS No. 02-09-560002

**Date:**

March 28, 2013

**Prepared for:**

PDM Bridge  
2800 Melby Street  
Eau Claire, WI 54703

[www.amengtest.com](http://www.amengtest.com)





March 28, 2013

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- MATERIALS
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PDM Bridge  
2800 Melby Street  
Eau Claire, WI 54703

Attn: Bill Partlo

RE: Remedial Investigation Report, PDM Bridge-AST Site, 2800 Melby Street,  
Eau Claire, Wisconsin. AET Project No. 03-04630.  
WDNR BRRTS No. 02-09-560002.

Dear Mr. Partlo:

American Engineering Testing, Inc. has completed Remedial Investigation services at the above-referenced property in Eau Claire, Wisconsin. These services were performed in accordance with our approved proposal dated January 14, 2013.

We appreciate the opportunity to serve you on this project. If you have any questions regarding the information presented in this report, or if we can be of additional service, please contact me at 715.861.5045.

Sincerely,  
American Engineering Testing, Inc.

A handwritten signature in black ink, appearing to read 'm. k. neal', is written over a light blue horizontal line.

Michael K. Neal, Professional Hydrologist  
Geomorphologist  
e-mail: [mneal@amengtest.com](mailto:mneal@amengtest.com)



cc: ✓ Gena Keenan, WDNR, P.O. Box 4001, Eau Claire, WI 54702-4001



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- B. Environmental Sampling Methods
- C. Laboratory Analytical Reports and Chains-of-Custody
- D. Subsurface Boring Logs and Sealing Records
- E. NR 746 Risk Analysis

## EXECUTIVE SUMMARY

PDM Bridge authorized American Engineering Testing, Inc. (AET) to conduct Remedial Investigation (RI) activities on their property located at 2800 Melby Street, Eau Claire, Chippewa County, Wisconsin (the Site). The Wisconsin Department of Natural Resources (WDNR) has directed PDM Bridge to investigate and remediate the site. A responsible party letter was issued on January 25, 2013 after soil contamination was encountered during a tank system site assessment (TSSA) on the PDM Bridge AST site.

This investigation found a limited amount of petroleum contaminated soil is present on site and does not extend to the groundwater table. There were no pathways or receptors identified that could act as conduits to further contamination.

There is one environmental factor as outlined in NR 746 including soil contaminants exceeding Table 1 levels. There is at least 15 feet of unsaturated soil between known soil contamination and the groundwater table.

In AET's opinion, no further investigation is warranted and we recommend no further remedial action at this site. AET will submit a closure application and soil GIS registry package to Wisconsin Department of Safety and Professional Services (WDSPS).

## **1.0 INTRODUCTION**

### **1.1 Site and User Identification**

PDM Bridge authorized American Engineering Testing, Inc. (AET) to conduct Remedial Investigation (RI) activities on their property located at 2800 Melby Street, Eau Claire, Chippewa County, Wisconsin (the Site). See Figure 1.

Appendix A contains a list of the acronyms and abbreviations used in this report.

### **1.2 Purpose**

We have completed the following scope of services as required by the Wisconsin Department of Natural Resources (WDNR). AET's RI has been performed in accordance with generally accepted practices of the profession undertaken in similar studies at the same time and in the same geographical area, and for the following objectives:

- To define the extent and degree of soil contamination associated with the petroleum aboveground storage tank (AST) system release;
- To evaluate potential for groundwater contamination;
- To evaluate potential impact to local water supply wells, wetlands, sensitive ecosystems, and potential migration pathways;
- To evaluate the need for site remediation and the applicability of selected remediation methods.

These objectives are based on AET's understanding of the User's needs and on the User's authorization of the Scope of Services. Any other objectives not described above are not considered to be within the Purpose of this RI.

## **2.0 BACKGROUND**

### **2.1 Site Description and Features**

The address for the site is 2800 Melby Street and is located in the northeast quarter of the southeast quarter of Section 33, Township 28 North, Range 9 West in the City of Eau Claire, Chippewa County, Wisconsin. The site is located on 60 acres in a commercially developed area of Eau Claire. The site has 265,000 square feet of warehouse/office building space. This facility specializes in the fabrication of the steel utilized in complex bridge structures and plate girder projects. The facility includes separate buildings for steel fabrication, assembly, and indoor steel storage. The site

also includes a 43,000 square foot paint shop. The property has asphalt, concrete, and road gravel surfaces. Rows of various sizes of steel are also stored outside.

At present, neighboring property uses include various commercial/industrial facilities to the north and east, the Chippewa Valley Regional Airport to the west, and Alter Metal Recycling to the south.

## **2.2 Physical Setting**

The site is located in the Central Plain Physiographic Province of northwestern Wisconsin. Fluvial processes have been an important geologic agent in determining the surface geology and physiography of the site. The site is situated on alluvial deposits.

Soils encountered at the site are primarily silty sands. Interspersed layers of coarse sand, gravel and varying amounts of silt and/or fine sand is also present. Sandstone bedrock is estimated to be greater than 50 feet below ground surface (bgs).

Topography at the site is relatively level. The direction of shallow groundwater flow is southwest toward the Chippewa River. Depth to groundwater at the site is estimated to be greater than 40 feet bgs.

The site is served by a municipal sewer and water supply system.

## **2.3 Previous Environmental Reports**

We have reviewed previous environmental reports made available to AET. Key findings from the review are summarized in the sections below.

### **2.3.1 Previous Remedial Investigation**

In the 1990s several petroleum underground storage tanks (USTs) were removed from the site. Petroleum releases were documented in three separate areas. Subsequent site investigations determined that minimal amounts of soil contamination were present in all three areas. In August 1993 a deed restriction was filed identifying the three areas of remaining soil contamination. The WDNR closed the site on September 3, 1993.

None of the previously identified areas are within 500 feet of the current AST system.

### **2.3.2 AST System Upgrade**

AET recently completed a tank system site assessment (TSSA) on the subject property. The results of the TSSA were included in the letter report of AET Project No. 03-04609

dated January 14, 2013. Refer to that report for background and supplemental information. See Figure 2. The TSSA was completed on underground piping and dispensers from the AST system and revealed the following:

- One 2,000-gallon unleaded gasoline and one 8,000-gallon diesel fuel ASTs exist at the subject property. The ASTs are set within a concrete containment.
- High concentrations (12,000 parts per million [ppm]) of diesel range organics (DROs) were detected in one of the five soil samples collected at concentrations exceeding laboratory detection limits. This concentration exceeds the WDNRs generic soil residual contaminant level (RCL) as outline in NR 720 of the Wisconsin Administrative Code. Naphthalene (24,000 parts per billion [ppb]) was detected in one of the five soil samples collected at a concentration that exceeds the WDNRs generic soil RCL of 400 ppb as outline in NR 720 of the Wisconsin Administrative Code.
- Based on visual observation, the condition of the diesel pump, and the laboratory results of soil samples collected beneath the diesel pump there was an indication that a release of petroleum to the environment had occurred from this system.

### **3.0 REMEDIAL INVESTIGATION ACTIVITIES**

#### **3.1 Scope of Services**

The scope of this investigation was initially defined in an approved AET proposal agreement with PDM Bridge on January 23, 2013. The implemented scope of services included the following:

- Provide the client with information regarding the extent and degree of soil contamination associated with the AST system;
- Review all available site background information and prepare and submit a work plan to the WDNR for their records;
- Prepare and administer a site-specific safety plan;
- Locate private utilities to include power lines extending from the AST system to the nearest building;
- Advance four soil borings using a truck-mounted drill rig equipped with a hollow stem auger and split spoon soil sampler:
  - Advance one soil boring near the diesel fuel dispenser at the site.



- Advance three soil borings to a maximum depth of 21 feet and positioned in the inferred down gradient direction from the AST system.
- Classify soil samples collected from the borings and screen the samples for the presence of organic vapors using a Photoionization Detector (PID) equipped with a 10.6 eV lamp;
- Collect and submit samples to the laboratory within prescribed holding times and using appropriate chain-of-custody methodology;
  - Collect and submit eight soil samples to the laboratory for volatile organic compounds (VOCs) and polycyclic aromatic hydrocarbons (PAHs) analysis using Environmental Protection Agency (EPA) Methods 8260 and 8270, respectively.

### **3.2 Environmental Sampling Rationale**

The soil borings were performed to determine the horizontal and vertical extent and degree of soil contamination associated with diesel pump dispenser and to evaluate potential for groundwater contamination.

### **3.3 Environmental Sampling Methods**

Appendix B contains information sheets which detail AET's standard environmental sampling methods. Site-specific considerations or variations from the standard approaches are described in the sections below.

#### **3.3.1 Field Exploration Technologies**

The field exploration and sampling for this RI was performed at the site on February 22, 2013, using a truck-mounted drill rig. The field exploration consisted of four hollow-stem auger soil borings. The boring locations were documented in reference to two fixed site structures. The soil boring locations are depicted on Figure 3.

#### **3.3.2 Field Screening Techniques**

Soil samples were screened in the field with the following instruments:

- PID equipped with a 10.6 eV lamp to measure organic vapors in ppm.

We also noted obvious odors and observed the samples for visual evidence of contamination.

### **3.3.3 Laboratory Analytical Methods**

AET submitted the samples to Test America for laboratory analysis. The laboratory analytical reports and chain-of-custody records are provided in Appendix C.

#### Soil

Soil samples were analyzed for the chemical parameters below by the methods referenced:

- VOCs: United States EPA method 8260
- PAHs: EPA method 8270

### **3.3.4 QA/QC Sampling**

Additional samples were collected in accordance with AET's Quality Assurance/Quality Control (QA/QC) guidelines. The results of the QA/QC sample analyses are included in the results tables. One methanol blank was collected.

### **3.4 Reference Standards**

In this RI, we compare the analytical results to the baseline environmental regulatory standards in use by the WDNR. The reference standards are included in the results tables for comparison with assessment results. The media-specific standards are described in the sections below.

#### **3.4.1 Soil Standards**

The following reference standards apply to potential contaminant exposures in soils:

- WDNR NR 720 generic RCLs: Compound-specific values for the protection of groundwater.
- WDNR NR 746 Table 1 Values: Compound-specific values as indicators of residual petroleum product in soil pores.
- WDNR NR 746 Table 2 Values: Compound-specific values for protection of human health from direct contact.

## **4.0 PROJECT RESULTS**

### **4.1 Field Observations**

The field exploration and sampling for this RI was performed at the site on February 22, 2013, using a truck-mounted drill rig. The field exploration consisted of four hollow-stem auger soil borings. The soil boring locations are depicted on Figure 3.

#### **4.1.1 Soil Boring Observations**

Figure 3 shows the soil boring locations relative to existing site features. The boring logs in Appendix D contain greater detail about the observations summarized below. Fill soils were identified in all four borings, ranging from 6 inches to 1 foot thick. The observed fill materials generally consisted of road gravel. Natural soil and alluvial deposits were observed beneath the fill in all the borings. The alluvium consisted of silty fine to coarse grained sand with some gravel extending to depths of 21 feet bgs. Groundwater was not encountered. Obvious indications of potential environmental impacts such as staining or odor were not noted.

#### **4.2 Field Screening Results**

The soil sample screening results appear on the boring logs in Appendix D. Organic Vapor Screening measurements by PID ranged from 5 ppm to less than 1 ppm. Results of less than 1 ppm are considered background levels.

#### **4.3 Laboratory Analysis**

Appendix C includes the laboratory analytical reports and chains-of-custody for this RI. The sections below summarize the laboratory results.

##### **4.3.1 Soil Analytical Results**

Table 1 summarizes the results of laboratory analyses performed on soil samples. The soil results are reported in micrograms-per-kilogram (ug/kg), which is equivalent to ppb. The reference standards are included on the table for comparison and evaluation of impacts.

AET submitted eight soil samples to Test America for laboratory analysis of VOCs and PAHs. The laboratory analytical report is attached in Appendix C. VOCs or PAHs were not detected in any of the soil samples collected at the site above laboratory reporting limits.

## **5.0 DISCUSSION AND OPINIONS**

### **5.1 Soil Contamination Conditions**

Previous soil contamination detected beneath the diesel pump dispenser extends to a depth of less than eight feet bgs. We estimate less than 10 cubic yards of petroleum contaminated soil remains in the area of the former diesel pump. Petroleum contaminated soil has not impacted the groundwater. See Figures 4 and 5. Remaining soil contamination should be allowed to naturally biodegrade. New gasoline and diesel

pump dispensers have been installed inside the concrete containment of the AST system.

## 5.2 Potential Receptors

The site is located in an industrial area in the City of Eau Claire. The site is served by a municipal sewer and water supply system. Except for an electrical conduit, there are no underground utilities near the AST system that could act as a potential receptor. The area of remaining soil contamination does not extend to the electrical conduit. There were no other pathways or receptors identified, such as sensitive environments or plant uptake and food chain.

## 5.3 Vapor Intrusion Pathway Screening

Vapor intrusion "pathway screening" was used to determine whether or not the potential for vapor intrusion exists on or off a contaminated property. If screening indicates the possible existence of a vapor pathway, the next step is to conduct an appropriate site investigation of the pathway(s). Vapor intrusion problems most often arise from light end petroleum products (such as gasoline) and chlorinated VOCs. Vapor intrusion of benzene and other petroleum constituents occurs most often when free phase product is located near building foundations, where petroleum contaminated groundwater has entered a building, or where contaminated groundwater is in contact with the building foundation. Preferential pathways between the source and a building (e.g. fractured bedrock, utility line backfills, openings or cracks in the building foundation, etc.) can play a major role in the movement and accumulation of petroleum vapors to indoor air.

There are no buildings in close proximity to the petroleum AST system.

## 5.4 Risk Criteria Screening

AET completed a risk analysis based on the criteria outlined in Wisconsin Administrative Code Chapter 746. We evaluated the criteria to determine the appropriate remedial approach for the site. Based on our evaluation the following risks exist at the site:

- 746.06(2) (b) – Soil constituents exceed Table 1 levels. Soil sample S-4 (24,000 ppb), collected during the TSSA detected naphthalene concentrations exceeding its Table 1 value of 2,700 ppb. Sample S-4 also detected DROs exceeding the 100 ppm RCL for sandy soils.

Appendix E includes a complete NR 746 analysis.

## **5.5 Agency Jurisdiction**

Based on the results of the RI, the site meets the criteria of a "low risk site" as define in SPS 346.03. Accordingly this site falls under the jurisdiction of the Wisconsin Department of Safety and Professional Services (WDSPS).

## **6.0 CONCLUSIONS AND RECOMMENDATIONS**

The results obtained during the completion of the RI have defined the degree and extent of residual soil contamination associated with the former AST system diesel dispenser at the site. A limited amount of petroleum contaminated soil is present on site and does not extend to the groundwater table. There were no pathways or receptors identified that could act as conduits to further contamination. AET recommends that the remaining soil contamination be listed on the WDNR's soil GIS registry. In our opinion based on the above Results and Discussion, further investigation is not warranted and we recommend no further action at this site.

If WDNR agrees with these recommendations, AET will submit a closure application and soil GIS registry package to WDSPS.

## **8.0 REPORT CLOSURE**

### **8.1 Reliance**

AET has prepared this RI for the exclusive use of the User for specific application to the Site. Written authorization by AET is necessary for other parties to rely on this report.

Because Site uses and environmental conditions can change over time, this report must be considered time-sensitive. AET should be consulted if 180 days have elapsed since the report date or the passage of time results in uncertainty about the continuing applicability of this report.

### **8.2 Standard of Care**

AET has endeavored to perform services for this project in a manner consistent with the level of skill and care ordinarily exercised by other members of the profession currently practicing in this area, under similar budgetary and time constraints. No warranty, express or implied, is made.

This report is based on our current understanding of the project and conditions at the Site. If conditions differing from our original understanding or findings are identified, AET

should be consulted to determine if there are material impacts on our conclusions or recommendations.

### 8.3 Methodology

This RI has been conducted under the supervision of an Environmental Professional and for the objectives described in the Purpose section of this report. AET's findings, opinions, conclusions, and recommendations are based on the Scope of Services defined in this report and are not intended to address non-scope considerations. If additional information on non-scope considerations is needed, please contact AET.

### 8.4 Remarks

The information gathered during the performance of this RI may be useful for allocating business environmental risk in transactional and contractual contexts or for disclosing liability in financial statements and securities reporting. However, the User is fully responsible for the appropriate use of this RI in such contexts.

The data derived through this RI has been used to develop professional opinions about the subsurface and environmental conditions at the Site. However, we recognize that not all critical information may have become known to AET and that no exploration program can fully reveal what is in the subsurface. As a result, there may be impacted locations or media that were not detected, and there may be contaminants present other than those for which we tested given the Purpose and Scope of Services for this RI.

## 9.0 QUALIFICATIONS AND SIGNATURES

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312 and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Site.

Report Authored By:



Michael K. Neal  
Professional Hydrologist/Geomorphologist

Report Reviewed By:



Eric P. Oleson  
Environmental Professional

# Tables

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**TABLE 1  
ANALYTICAL RESULTS - SOIL SAMPLES  
PDM BRIDGE SITE, EAU CLAIRE, WISCONSIN**

	NR720 Generic RCLs	NR 746 Table 1 Values	NR 746 Table 2 Values	Samples								
				BS-1A	BS-1B	BS-2A	BS-2B	BS-3A	BS-3B	BS-4A	BS-4B	MEOH Blank
Date				22-Feb-13	22-Feb-13	22-Feb-13	22-Feb-13	22-Feb-13	22-Feb-13	22-Feb-13	22-Feb-13	22-Feb-13
Boring				B-1	B-1	B-2	B-2	B-3	B-3	B-4	B-4	---
Depth (feet)				8-10	13-15	4-6	17-19	4.5-6.5	17-19	4.5-6.5	17-19	---
PID (Instrument Units)				5	< 1	4	< 1	< 1	< 1	< 1	< 1	---
VOCs (ppb)												
Benzene	<b>25</b>	<b>8,500</b>	<b>1,100</b>	< 3.8	< 3.9	< 3.8	< 3.9	< 3.7	< 3.7	< 4.6	< 4	< 3.7
Ethylbenzene	<b>2,900</b>	<b>4,600</b>		< 6.4	< 6.7	< 6.5	< 6.7	< 6.3	< 6.3	< 7.8	< 6.7	< 6.3
MTBE				< 22	< 23	< 22	< 23	< 22	< 22	< 27	< 23	< 22
Naphthalene	<b>400</b>	<b>2,700</b>		< 25	< 26	< 25	< 26	< 25	< 25	< 31	< 26	< 25
Toluene	<b>1,500</b>	<b>38,000</b>		< 5.9	< 6.1	< 5.9	< 6.1	< 5.8	< 5.8	< 7.1	< 6.1	< 5.8
1,2,4-TMB		<b>83,000</b>		< 11	< 11	< 11	< 11	< 11	< 11	< 13	< 11	< 11
1,3,5-TMB		<b>11,000</b>		< 11	< 11	< 11	< 11	< 11	< 11	< 13	< 11	< 10
Total Xylenes	<b>4100</b>	<b>42,000</b>		< 3.5	< 3.6	< 3.5	< 3.6	< 3.4	< 3.4	< 4.2	< 3.7	< 3.4
PAHs (ppb)												
Benzo(b)fluoranthene	<b>360,000</b>			< 6.7	< 6.5	< 6.5	< 6.7	9.5	< 6.6	< 7.7	< 6.8	---

VOC = volatile organic compounds

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

--- = not analyzed

PAHs = polycyclic aromatic hydrocarbons

**Bold areas** indicate soil contaminant concentrations exceed WDNR's RCLs.

**Bold italics areas** indicate soil contaminant concentrations exceed NR 746 Table Values.



# Figures

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Map Created on Jan 14, 2013



**Legend**

- Open Sites (ongoing cleanups)
- Open Sites (ongoing cleanups) - site boundaries shown
- Closed Sites (completed cleanups)
- Closed Sites (completed cleanups) - site boundaries shown
- County Boundary
- Railroads
- County Roads (WDOT)
- County Trunk Highway
- State and U.S. Highways (WDOT)
- State Trunk Highway
- US Highway
- Interstate Highways (WDOT)
- Interstate Highway
- Local Roads (WDOT)
- Civil Towns
- Civil Town
- 24K Open Water
- 24K Rivers and Shorelines
- Municipalities



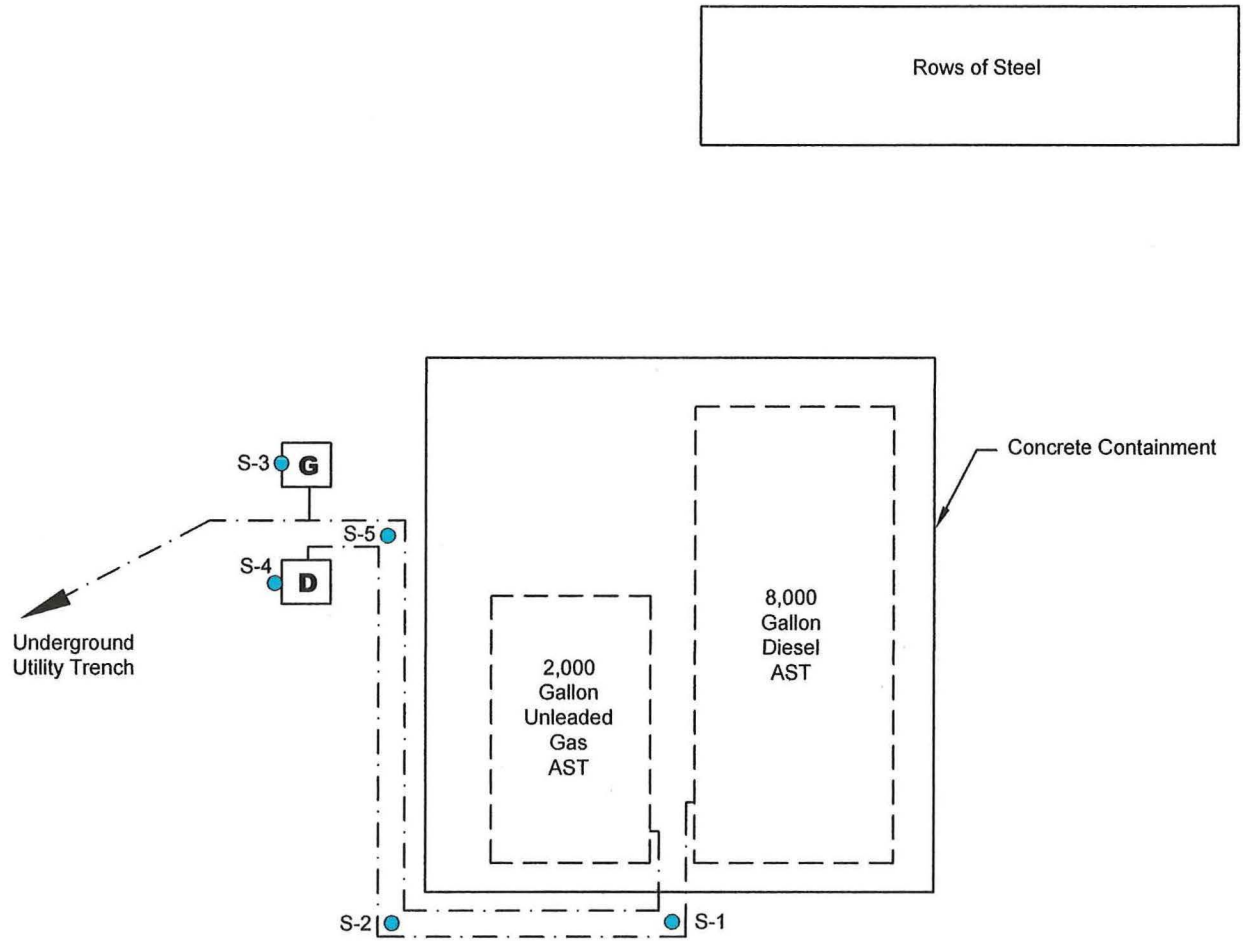
Map created on Jan 14, 2013

Note: Not all RR Sites have been geo-located yet.

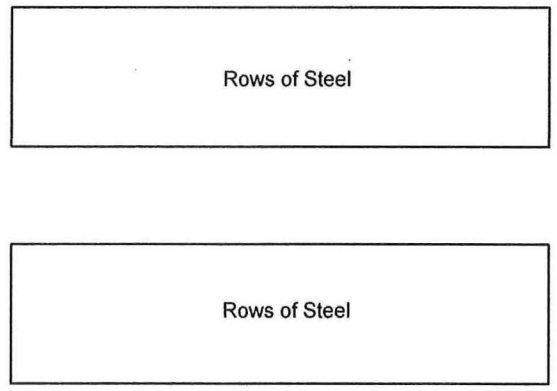
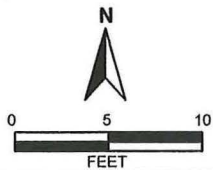


Scale: 1:7,183

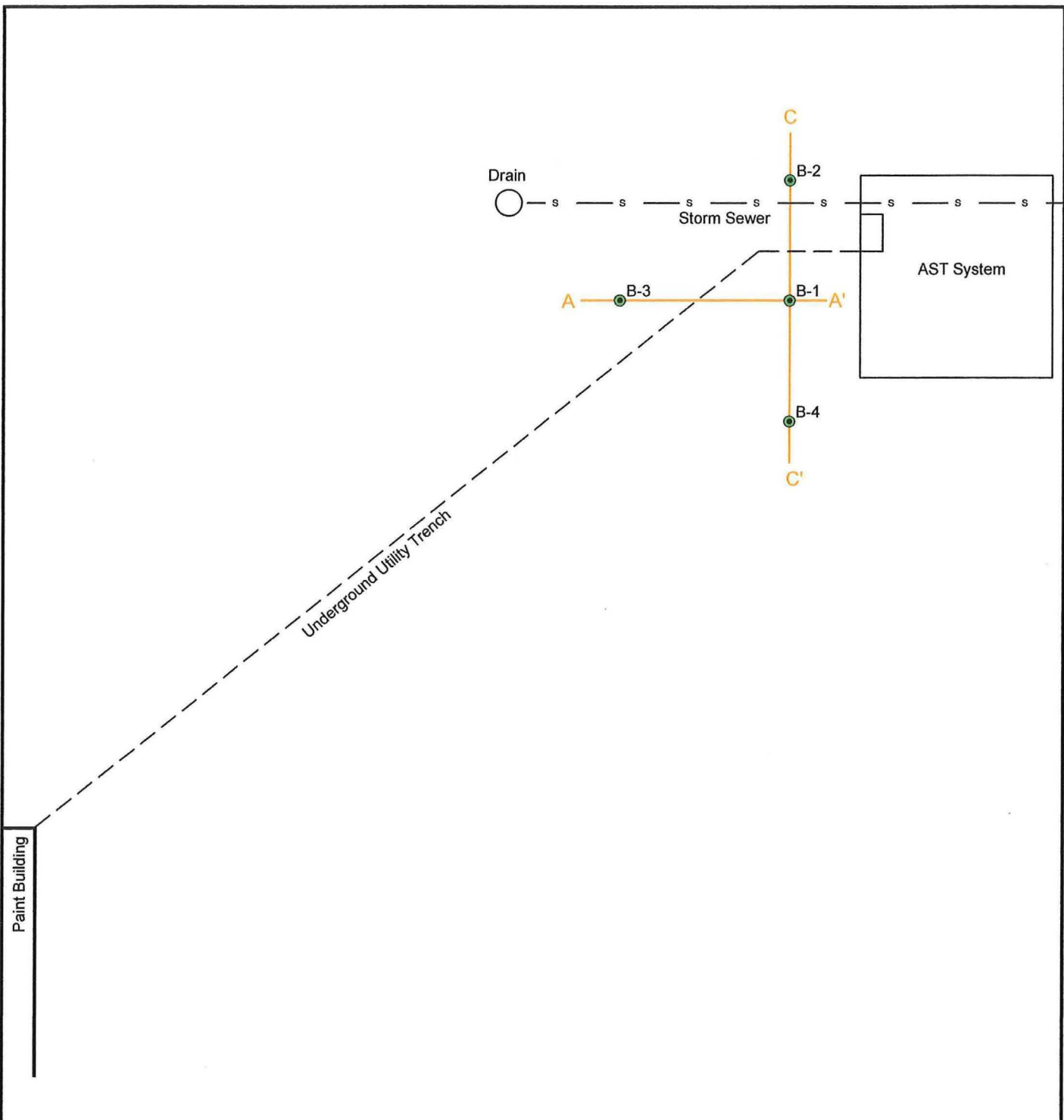
This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.



- Legend**
- Soil Sample Location
  - G** Gasoline Dispenser
  - D** Diesel Dispenser

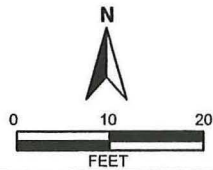


**Figure 2**  
 TSSA Sample Locations - December 2012  
 Site Investigation Report  
 PDM Bridge AST Site  
 2800 Melby Street  
 Eau Claire, Wisconsin  
 Date: 03/15/2013 AET Project No. 03-04630



**Legend**

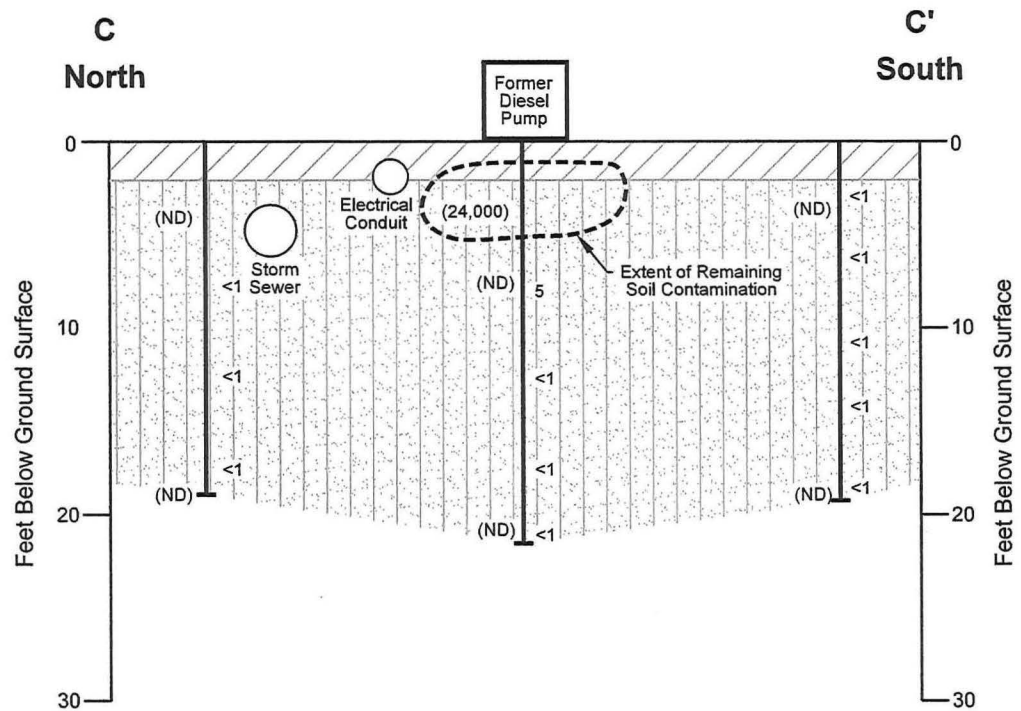
- Soil Boring Location
- A—A' Cross Section Location





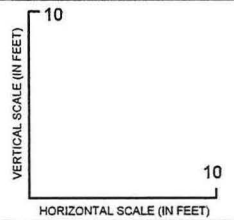
**Figure 3**  
 Soil Boring Locations  
 Site Investigation Report

PDM Bridge AST Site  
 2800 Melby Street  
 Eau Claire, Wisconsin

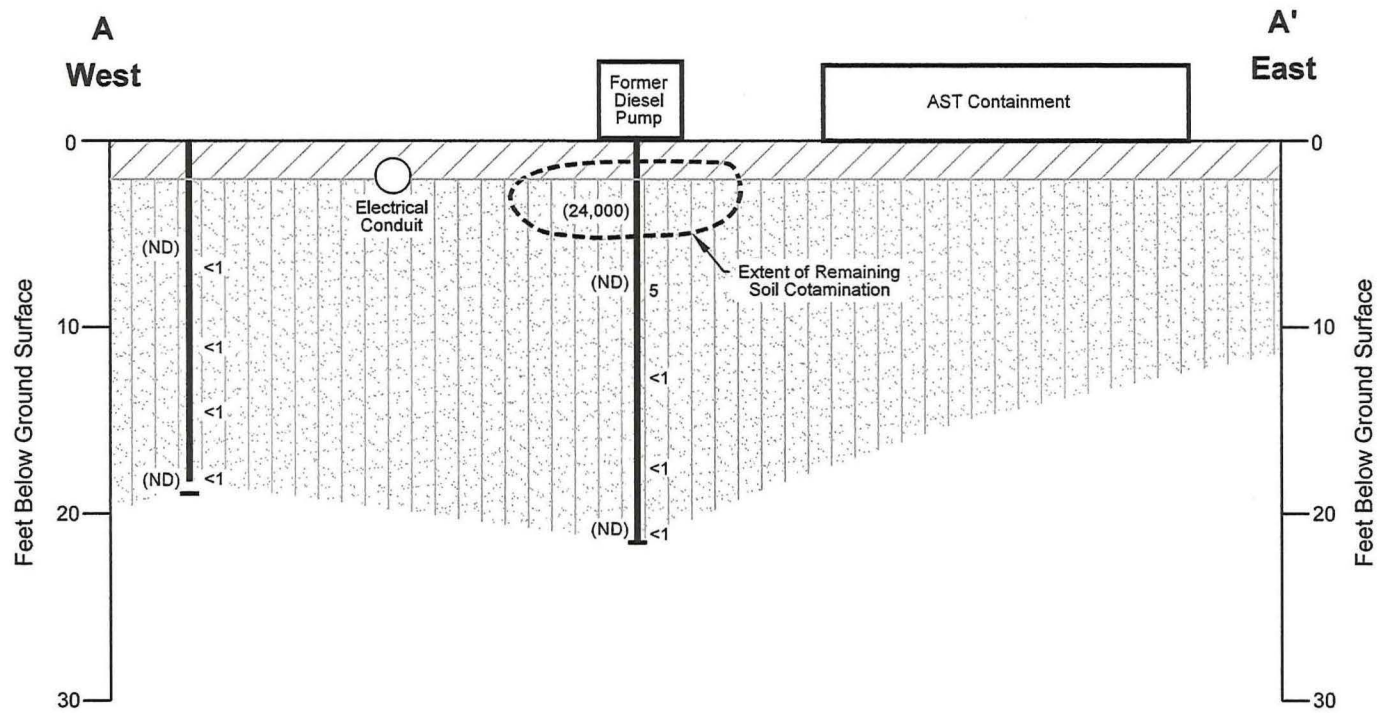
Date: 03/19/2013 AET Project No. 03-04630





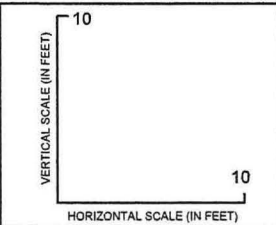
Legend:	
<1	PID (ppm)
(24,000)	Naphthalene (ppb)
ND	Not Detected
	Fill
	Silty Sand with some Gravel



<b>Figure 5</b>	
Cross Section C - C'	
Site Investigation Report	
PDM Bridge AST Site 2800 Melby Street Eau Claire, Wisconsin	
Date: 3/19/2013	AET Project No. 26-00425.02



Legend:	
<1	PID (ppm)
(24,000)	Naphthalene (ppb)
ND	Not Detected
	Fill
	Silty Sand with some Gravel



**Figure 4**  
 Cross Section A - A'  
 Site Investigation Report  
 PDM Bridge AST Site  
 2800 Melby Street  
 Eau Claire, Wisconsin  
 Date: 3/19/2013 AET Project No. 26-00425.02

# Appendix A

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## Acronyms and Abbreviations

**AET Report No. 03-04630**

AET	American Engineering Testing, Inc.
AST	aboveground storage tank
BETX	benzene, ethlybenzene, toluene, xylene
bgs	below ground surface
c.o.c.	chain of custody
DRO	diesel range organics ("-Si" indicates silica-gel pretreatment)
EP	Environmental Professional (§312.10 of 40 CFR 312)
EPA	Environmental Protection Agency (also USEPA)
ESA	Environmental Site Assessment
ft	feet
GRO	gasoline range organics
HASP	Health and Safety Plan
LUST	leaking underground storage tank
MDL	method detection limit.
mg/kg	milligrams-per-kilogram
mg/L	milligrams-per-liter
MSDS	material safety data sheet
MTBE	methyl tert-butyl ether
NA	not assigned or not applicable
PAH	polynuclear aromatic hydrocarbon
PE	Professional Engineer
PG	Professional Geologist
PID	photoionization detector
ppb	parts-per-billion
PPE	personal protective equipment
ppm	parts-per-million
PVOC	petroleum volatile organic compound
QA	quality assurance
QC	quality control
RCL	residual contaminant level
RI	Remedial Investigation
RL	laboratory reporting limit
SOP	standard operating procedure
SSP	Site Safety Plan
TPH	total petroleum hydrocarbons
TSSA	Tank System Site Assessment
µg/kg	micrograms-per-kilogram
µg/l or µg/L	micrograms-per-liter
UST	underground storage tank
VOC	volatile organic compound
WDNR	Wisconsin Department of Natural Resources
WDSPS	Wisconsin Department of Safety and Professional Services



# Appendix B

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Environmental Sampling Methods

## STANDARD SAMPLING AND FIELD SCREENING PROCEDURES

### Soil Sampling Procedures

Soil samples were also collected with a truck-mounted rotary drill equipped with hollow stem augers and a 2-inch-diameter, 24-inch-long split spoon sampler. The split spoon was advanced at 2-foot intervals by conventional methods, including the attachment of the sampler to an AW rod and standard 140-pound hammer. The soil was split into two samples for field screening and laboratory analysis.

All drilling tools and equipment were steam cleaned prior to sampling. Sampling tools were washed with an Alconox™ and water solution between sampling points to prevent cross contamination.

### Field Screening Procedures

We field screened samples with a PID using the headspace procedure. We also recorded instrument readings and sample descriptions and remarks on a soil profile log at the appropriate depth intervals. Results from this screening survey were used to select samples for laboratory analysis. We checked PID calibration daily with isobutylene gas at recommended time intervals according to WDNR guidelines. We conducted the headspace procedure as follows:

- Headspace samples were collected in clean glass jars and filled half-full with the sample material.
- The mouth of the headspace jar was then covered with heavy-gauge aluminum foil and sealed with the lid of the jar.
- The sample was then agitated to break soil clods and release headspace vapors.
- When ambient air temperatures were below 70°F, we placed the headspace samples in a warm environment out of direct sunlight and allowed them to equilibrate to about 70°F. When ambient air temperatures were above 70°F, we placed the samples in a cooler environment out of direct sunlight and allowed them to equilibrate to about 70°F.
- Following equilibration, the sample headspace was analyzed by inserting the PID probe through a single, small hole in the foil seal to a position halfway between the seal and sample surface and then recording the highest instrument readings.
- New headspace jars were used for each site. After use, the headspace jars were cleaned with an Alconox™ and water solution and allowed to dry. If no VOC carryover was identified with a PID, the jars were reused; if VOC carryover was identified, the sample jars were discarded.

### Laboratory Analysis

Split soil samples were put into the appropriate containers as follows:

<b>ANALYTE</b>	<b>CONTAINER TYPE</b>	<b>FIELD PRESERVATIVE</b>
GRO	2-oz. TLC jar	Methanol
DRO	2-oz. TLC jar	None
PVOC/VOC	2-oz. TLC jar	Methanol
PAH	2-oz. TLC jar	None
TOTAL LEAD	4-oz. TLC jar	None

TLC = Teflon-lined cap

Samples were then sealed and cooled to 4°C for transport to the laboratory. All samples were labeled with the following information:

- Site name
- Sample number
- Sample location
- Date and time of collection
- Analysis requested
- Name of sampler
- Other applicable information

### Groundwater Monitoring Well Installation and Development Procedures

Monitoring wells were constructed and developed in accordance with Wisconsin Administrative Code - Chapter NR 141 requirements.

### Groundwater Sampling Procedures

We collected groundwater samples from the permanent monitoring wells through 2-inch-diameter 0.010-inch slotted polyvinyl chloride (PVC) well casing. Temporary well samples were collected through 1-inch-diameter PVC well casing. We purged each groundwater monitoring well of three well volumes or sufficient water to achieve a sediment-free sample. A clean disposable polyethylene bailer was then inserted down the PVC piping and the contents of the bailer were transferred to the appropriate containers as follows:

<b>ANALYTE</b>	<b>CONTAINER TYPE</b>	<b>FIELD PRESERVATIVE</b>
GRO	40-ml vial	Hydrochloric acid
DRO	1-liter amber bottle	Hydrochloric acid
PVOC/VOC	40-ml vial	Hydrochloric acid
PAH	1-liter amber bottle	None
SULFATES	500-ml plastic bottle	None
NITRATES	500-ml plastic bottle	Sulfuric Acid
SOLUBLE IRON	250-ml plastic bottle	Nitric acid
LEAD	250-ml plastic bottle	Nitric acid

Care was taken to ensure that no air space was included. The water sample containers were then sealed and cooled to 4°C for transport to the laboratory. All collected samples were labeled with the following information:

- Site name
- Sample number
- Sample location
- Date and time of collection
- Analysis requested
- Name of sampler
- Other applicable information

#### Chain of Custody Procedures

Tetra Tech completed a chain of custody record in triplicate for the samples transported to the laboratory. When transferring sample custody, the individuals relinquishing and receiving the samples signed, dated, and noted the time on the chain of custody record. A designated sample custodian accepted custody of the shipped samples and verified that the sample identification numbers matched those on the chain of custody record. The laboratory then retained a copy of the chain of custody record until analyses were completed. The record was then transferred to Tetra Tech and is maintained in the project file with the analytical results.

#### Procedures for Abandoning a Borehole

After all necessary soil samples were collected, the borehole was completely backfilled with bentonite and abandoned according to procedures outlined in Chapter NR 141.25 of the Wisconsin Administrative Code. A WDNR borehole abandonment form (Form 3300-5W) was completed for each soil boring not completed as a monitoring well.

## Free Product Removal Procedures

We conducted free product removal procedure as follows:

- Remove well cover and scrape away excess dirt.
- Carefully remove test well plug, bailer, & sock from well casing. Remember that bailer and absorbent socks are tied to the plug.
- Set bailer aside and squeeze product from sock into bucket. After squeezing out sock set aside to dry.
- Measure depth to water/product with a product/groundwater interface probe. Record depth to product, groundwater, and thickness of product in feet.
- Secure bailer to rope or string and insert into well casing. Lower the bailer until contact with water table is made. Allow bailer to drop into the water for no more than one foot. Remove bailer and estimate product thickness. Empty contents of bailer into bucket and record product thickness.
- Continue to lower bailer into well and drop to the water table. Allow bailer to fill with no more than one foot of water/product. Remove bailer and empty contents into bucket. Continue fill bucket. Transfer filled buckets to drum.
- Repeat this process until thickness of free product is less than one inch. Record amount of water/product removed.
- If a groundwater sample will be collected use a new disposable bailer to obtain a water sample. Insert the bailers bottom emptying device and use to fill the appropriate sample bottle.
- Reattach string/rope to well plug, replace bailer and sock into well and cap with well plug. Replace well cover. Replace socks as needed.
- Secure cover on 55-gallon drum.

# Appendix C

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Analytical Results and Chain of Custody  
Documentation

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Chicago  
2417 Bond Street  
University Park, IL 60484  
Tel: (708)534-5200

TestAmerica Job ID: 500-54804-1  
Client Project/Site: PDM Bridge 03-04630

For:  
American Engineering Testing Inc.  
1837 Cty Hwy OO  
Chippewa Falls, Wisconsin 54729

Attn: Mr. Michael Neal



Authorized for release by:  
3/12/2013 3:39:29 PM

Sandie Fredrick  
Project Manager I  
sandie.fredrick@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)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*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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## Case Narrative

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

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**Job ID: 500-54804-1**

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**Laboratory: TestAmerica Chicago**

**Narrative**

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**Job Narrative**  
**500-54804-1**

### Comments

No additional comments.

### Receipt

The samples were received on 2/27/2013 10:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.9° C.

### GC/MS VOA

Method(s) 8260B: The extraction laboratory control sample (LCS) for batch 178756 exceeded control limits for the following analytes: dichlorodifluoromethane and hexachlorobutadiene. The associated instrument LCS was within control limits; therefore, the data have been reported.

No other analytical or quality issues were noted.

### GC/MS Semi VOA

Method(s) 8270D: The sample -7 had one surrogate below the QC limit. No corrective action was required. BS-4A (500-54804-7)

No other analytical or quality issues were noted.

### Metals

No analytical or quality issues were noted.

### Organic Prep

No analytical or quality issues were noted.

# Detection Summary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-1A** **Lab Sample ID: 500-54804-1**

No Detections

**Client Sample ID: BS-1B** **Lab Sample ID: 500-54804-2**

No Detections

**Client Sample ID: BS-2A** **Lab Sample ID: 500-54804-3**

No Detections

**Client Sample ID: BS-2B** **Lab Sample ID: 500-54804-4**

No Detections

**Client Sample ID: BS-3A** **Lab Sample ID: 500-54804-5**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Benzo[b]fluoranthene	9.5	J	33	6.5	ug/Kg	1	*		8270D	Total/NA

**Client Sample ID: BS-3B** **Lab Sample ID: 500-54804-6**

No Detections

**Client Sample ID: BS-4A** **Lab Sample ID: 500-54804-7**

No Detections

**Client Sample ID: BS-4B** **Lab Sample ID: 500-54804-8**

No Detections

**Client Sample ID: MEOH BLANK** **Lab Sample ID: 500-54804-9**

No Detections

This Detection Summary does not include radiochemical test results.

TestAmerica Chicago

# Method Summary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI

**Protocol References:**

EPA = US Environmental Protection Agency

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

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

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## Sample Summary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-54804-1	BS-1A	Solid	02/22/13 08:30	02/26/13 10:30
500-54804-2	BS-1B	Solid	02/22/13 08:45	02/26/13 10:30
500-54804-3	BS-2A	Solid	02/22/13 09:30	02/26/13 10:30
500-54804-4	BS-2B	Solid	02/22/13 09:50	02/26/13 10:30
500-54804-5	BS-3A	Solid	02/22/13 10:20	02/26/13 10:30
500-54804-6	BS-3B	Solid	02/22/13 10:45	02/26/13 10:30
500-54804-7	BS-4A	Solid	02/22/13 11:05	02/26/13 10:30
500-54804-8	BS-4B	Solid	02/22/13 11:45	02/26/13 10:30
500-54804-9	MEOH BLANK	Solid	02/22/13 00:00	02/26/13 10:30

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-1A**

**Lab Sample ID: 500-54804-1**

Date Collected: 02/22/13 08:30

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 95.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
1,1,1,2-Tetrachloroethane	<18		100	18	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,1,1-Trichloroethane	<10		51	10	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,1,2,2-Tetrachloroethane	<12		51	12	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,1,2-Trichloroethane	<14		51	14	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,1-Dichloroethane	<9.5		51	9.5	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,1-Dichloroethene	<16		51	16	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,1-Dichloropropene	<18		51	18	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,2,3-Trichlorobenzene	<18		100	18	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,2,3-Trichloropropane	<29		100	29	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,2,4-Trichlorobenzene	<19		100	19	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,2,4-Trimethylbenzene	<11		100	11	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,2-Dibromo-3-Chloropropane	<45		100	45	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,2-Dibromoethane	<16		100	16	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,2-Dichlorobenzene	<10		100	10	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,2-Dichloroethane	<15		51	15	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,2-Dichloropropane	<10		51	10	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,3,5-Trimethylbenzene	<11		100	11	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,3-Dichlorobenzene	<13		100	13	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,3-Dichloropropane	<6.9		51	6.9	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
1,4-Dichlorobenzene	<8.9		100	8.9	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
2,2-Dichloropropane	<16		51	16	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
2-Chlorotoluene	<11		51	11	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
4-Chlorotoluene	<10		51	10	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Benzene	<3.8		13	3.8	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Bromobenzene	<22		100	22	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Bromochloromethane	<19		100	19	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Bromodichloromethane	<17		100	17	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Bromoform	<23		100	23	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Bromomethane	<35		100	35	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Carbon tetrachloride	<13		51	13	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Chlorobenzene	<7.3		51	7.3	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Chloroethane	<22		100	22	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Chloroform	<10		51	10	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Chloromethane	<24		100	24	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
cis-1,2-Dichloroethene	<6.3		51	6.3	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
cis-1,3-Dichloropropene	<9.1		51	9.1	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Dibromochloromethane	<18		100	18	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Dibromomethane	<25		100	25	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Dichlorodifluoromethane	<26 *		100	26	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Ethylbenzene	<6.4		13	6.4	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Hexachlorobutadiene	<18 *		100	18	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Isopropyl ether	<7.5		100	7.5	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Isopropylbenzene	<13		100	13	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Methyl tert-butyl ether	<22		100	22	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Methylene Chloride	<35		260	35	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Naphthalene	<25		100	25	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
n-Butylbenzene	<6.6		51	6.6	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
N-Propylbenzene	<9.0		100	9.0	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
p-Isopropyltoluene	<9.5		100	9.5	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50

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TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-1A**

**Lab Sample ID: 500-54804-1**

Date Collected: 02/22/13 08:30

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 95.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<7.9		51	7.9	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Styrene	<5.1		51	5.1	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
tert-Butylbenzene	<7.0		51	7.0	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Tetrachloroethene	<8.5		51	8.5	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Toluene	<5.9		13	5.9	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
trans-1,2-Dichloroethene	<13		51	13	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
trans-1,3-Dichloropropene	<11		51	11	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Trichloroethene	<9.5		26	9.5	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Trichlorofluoromethane	<21		100	21	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Vinyl chloride	<5.3		13	5.3	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50
Xylenes, Total	<3.5		26	3.5	ug/Kg	*	02/22/13 08:30	03/01/13 15:28	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		75 - 125	02/22/13 08:30	03/01/13 15:28	50
4-Bromofluorobenzene (Surr)	100		75 - 120	02/22/13 08:30	03/01/13 15:28	50
Dibromofluoromethane	97		75 - 120	02/22/13 08:30	03/01/13 15:28	50
Toluene-d8 (Surr)	99		75 - 120	02/22/13 08:30	03/01/13 15:28	50

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<17		34	17	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
2-Methylnaphthalene	<45		170	45	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Acenaphthene	<10		34	10	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Acenaphthylene	<7.9		34	7.9	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Anthracene	<8.1		34	8.1	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Benzo[a]anthracene	<7.2		34	7.2	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Benzo[a]pyrene	<6.3		34	6.3	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Benzo[b]fluoranthene	<6.7		34	6.7	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Benzo[g,h,i]perylene	<12		34	12	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Benzo[k]fluoranthene	<8.2		34	8.2	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Chrysene	<7.8		34	7.8	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Dibenz(a,h)anthracene	<9.6		34	9.6	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Fluoranthene	<14		34	14	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Fluorene	<7.8		34	7.8	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Indeno[1,2,3-cd]pyrene	<12		34	12	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Naphthalene	<6.6		34	6.6	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Phenanthrene	<14		34	14	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1
Pyrene	<12		34	12	ug/Kg	*	02/27/13 16:07	03/01/13 17:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	98		30 - 119	02/27/13 16:07	03/01/13 17:29	1
Nitrobenzene-d5 (Surr)	79		30 - 115	02/27/13 16:07	03/01/13 17:29	1
Terphenyl-d14 (Surr)	106		36 - 134	02/27/13 16:07	03/01/13 17:29	1

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-1B**

**Lab Sample ID: 500-54804-2**

Date Collected: 02/22/13 08:45

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 96.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<18		110	18	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,1,1-Trichloroethane	<11		53	11	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,1,2,2-Tetrachloroethane	<12		53	12	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,1,2-Trichloroethane	<15		53	15	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,1-Dichloroethane	<9.8		53	9.8	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,1-Dichloroethene	<16		53	16	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,1-Dichloropropene	<18		53	18	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,2,3-Trichlorobenzene	<19		110	19	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,2,3-Trichloropropane	<30		110	30	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,2,4-Trichlorobenzene	<20		110	20	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,2,4-Trimethylbenzene	<11		110	11	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,2-Dibromo-3-Chloropropane	<46		110	46	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,2-Dibromoethane	<17		110	17	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,2-Dichlorobenzene	<11		110	11	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,2-Dichloroethane	<15		53	15	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,2-Dichloropropane	<10		53	10	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,3,5-Trimethylbenzene	<11		110	11	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,3-Dichlorobenzene	<14		110	14	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,3-Dichloropropane	<7.1		53	7.1	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
1,4-Dichlorobenzene	<9.2		110	9.2	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
2,2-Dichloropropane	<17		53	17	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
2-Chlorotoluene	<11		53	11	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
4-Chlorotoluene	<10		53	10	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Benzene	<3.9		13	3.9	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Bromobenzene	<22		110	22	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Bromochloromethane	<20		110	20	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Bromodichloromethane	<18		110	18	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Bromoform	<23		110	23	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Bromomethane	<36		110	36	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Carbon tetrachloride	<14		53	14	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Chlorobenzene	<7.6		53	7.6	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Chloroethane	<23		110	23	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Chloroform	<11		53	11	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Chloromethane	<24		110	24	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
cis-1,2-Dichloroethene	<6.5		53	6.5	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
cis-1,3-Dichloropropene	<9.4		53	9.4	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Dibromochloromethane	<18		110	18	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Dibromomethane	<25		110	25	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Dichlorodifluoromethane	<27 *		110	27	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Ethylbenzene	<6.7		13	6.7	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Hexachlorobutadiene	<18 *		110	18	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Isopropyl ether	<7.8		110	7.8	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Isopropylbenzene	<13		110	13	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Methyl tert-butyl ether	<23		110	23	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Methylene Chloride	<36		260	36	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Naphthalene	<26		110	26	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
n-Butylbenzene	<6.8		53	6.8	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
N-Propylbenzene	<9.3		110	9.3	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
p-Isopropyltoluene	<9.8		110	9.8	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50

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# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-1B**

**Lab Sample ID: 500-54804-2**

Date Collected: 02/22/13 08:45

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 96.8

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<8.1		53	8.1	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Styrene	<5.2		53	5.2	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
tert-Butylbenzene	<7.2		53	7.2	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Tetrachloroethene	<8.8		53	8.8	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Toluene	<6.1		13	6.1	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
trans-1,2-Dichloroethene	<13		53	13	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
trans-1,3-Dichloropropene	<11		53	11	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Trichloroethene	<9.8		26	9.8	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Trichlorofluoromethane	<22		110	22	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Vinyl chloride	<5.5		13	5.5	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Xylenes, Total	<3.6		26	3.6	ug/Kg	*	02/22/13 08:45	03/01/13 15:51	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		75 - 125				02/22/13 08:45	03/01/13 15:51	50
4-Bromofluorobenzene (Surr)	93		75 - 120				02/22/13 08:45	03/01/13 15:51	50
Dibromofluoromethane	97		75 - 120				02/22/13 08:45	03/01/13 15:51	50
Toluene-d8 (Surr)	92		75 - 120				02/22/13 08:45	03/01/13 15:51	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<17		33	17	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
2-Methylnaphthalene	<44		170	44	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Acenaphthene	<10		33	10	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Acenaphthylene	<7.7		33	7.7	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Anthracene	<7.9		33	7.9	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Benzo[a]anthracene	<7.1		33	7.1	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Benzo[a]pyrene	<6.1		33	6.1	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Benzo[b]fluoranthene	<6.5		33	6.5	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Benzo[g,h,i]perylene	<11		33	11	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Benzo[k]fluoranthene	<8.0		33	8.0	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Chrysene	<7.6		33	7.6	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Dibenz(a,h)anthracene	<9.4		33	9.4	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Fluoranthene	<14		33	14	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Fluorene	<7.7		33	7.7	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Indeno[1,2,3-cd]pyrene	<11		33	11	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Naphthalene	<6.5		33	6.5	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Phenanthrene	<14		33	14	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Pyrene	<12		33	12	ug/Kg	*	02/27/13 16:07	03/01/13 17:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	87		30 - 119				02/27/13 16:07	03/01/13 17:49	1
Nitrobenzene-d5 (Surr)	68		30 - 115				02/27/13 16:07	03/01/13 17:49	1
Terphenyl-d14 (Surr)	92		36 - 134				02/27/13 16:07	03/01/13 17:49	1

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# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-2A**

**Lab Sample ID: 500-54804-3**

Date Collected: 02/22/13 09:30

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 97.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<18		100	18	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,1,1-Trichloroethane	<10		51	10	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,1,2,2-Tetrachloroethane	<12		51	12	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,1,2-Trichloroethane	<14		51	14	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,1-Dichloroethane	<9.5		51	9.5	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,1-Dichloroethene	<16		51	16	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,1-Dichloropropene	<18		51	18	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,2,3-Trichlorobenzene	<18		100	18	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,2,3-Trichloropropane	<30		100	30	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,2,4-Trichlorobenzene	<19		100	19	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,2,4-Trimethylbenzene	<11		100	11	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,2-Dibromo-3-Chloropropane	<45		100	45	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,2-Dibromoethane	<16		100	16	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,2-Dichlorobenzene	<11		100	11	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,2-Dichloroethane	<15		51	15	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,2-Dichloropropane	<10		51	10	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,3,5-Trimethylbenzene	<11		100	11	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,3-Dichlorobenzene	<13		100	13	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,3-Dichloropropane	<6.9		51	6.9	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
1,4-Dichlorobenzene	<9.0		100	9.0	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
2,2-Dichloropropane	<16		51	16	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
2-Chlorotoluene	<11		51	11	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
4-Chlorotoluene	<10		51	10	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Benzene	<3.8		13	3.8	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Bromobenzene	<22		100	22	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Bromochloromethane	<19		100	19	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Bromodichloromethane	<17		100	17	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Bromoform	<23		100	23	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Bromomethane	<35		100	35	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Carbon tetrachloride	<13		51	13	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Chlorobenzene	<7.4		51	7.4	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Chloroethane	<22		100	22	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Chloroform	<11		51	11	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Chloromethane	<24		100	24	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
cis-1,2-Dichloroethene	<6.3		51	6.3	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
cis-1,3-Dichloropropene	<9.2		51	9.2	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Dibromochloromethane	<18		100	18	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Dibromomethane	<25		100	25	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Dichlorodifluoromethane	<26 *		100	26	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Ethylbenzene	<6.5		13	6.5	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Hexachlorobutadiene	<18 *		100	18	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Isopropyl ether	<7.6		100	7.6	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Isopropylbenzene	<13		100	13	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Methyl tert-butyl ether	<22		100	22	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Methylene Chloride	<35		260	35	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Naphthalene	<25		100	25	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
n-Butylbenzene	<6.6		51	6.6	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
N-Propylbenzene	<9.0		100	9.0	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
p-Isopropyltoluene	<9.5		100	9.5	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50

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# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-2A**

**Lab Sample ID: 500-54804-3**

Date Collected: 02/22/13 09:30

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 97.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<7.9		51	7.9	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Styrene	<5.1		51	5.1	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
tert-Butylbenzene	<7.0		51	7.0	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Tetrachloroethene	<8.6		51	8.6	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Toluene	<5.9		13	5.9	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
trans-1,2-Dichloroethene	<13		51	13	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
trans-1,3-Dichloropropene	<11		51	11	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Trichloroethene	<9.6		26	9.6	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Trichlorofluoromethane	<21		100	21	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Vinyl chloride	<5.4		13	5.4	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
Xylenes, Total	<3.5		26	3.5	ug/Kg	*	02/22/13 09:30	03/01/13 16:13	50
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	100		75 - 125				02/22/13 09:30	03/01/13 16:13	50
4-Bromofluorobenzene (Surr)	100		75 - 120				02/22/13 09:30	03/01/13 16:13	50
Dibromofluoromethane	100		75 - 120				02/22/13 09:30	03/01/13 16:13	50
Toluene-d8 (Surr)	92		75 - 120				02/22/13 09:30	03/01/13 16:13	50

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<17		33	17	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
2-Methylnaphthalene	<43		170	43	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Acenaphthene	<10		33	10	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Acenaphthylene	<7.7		33	7.7	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Anthracene	<7.9		33	7.9	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Benzo[a]anthracene	<7.0		33	7.0	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Benzo[a]pyrene	<6.1		33	6.1	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Benzo[b]fluoranthene	<6.5		33	6.5	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Benzo[g,h,i]perylene	<11		33	11	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Benzo[k]fluoranthene	<8.0		33	8.0	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Chrysene	<7.6		33	7.6	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Dibenz(a,h)anthracene	<9.4		33	9.4	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Fluoranthene	<14		33	14	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Fluorene	<7.6		33	7.6	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Indeno[1,2,3-cd]pyrene	<11		33	11	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Naphthalene	<6.5		33	6.5	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Phenanthrene	<14		33	14	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
Pyrene	<12		33	12	ug/Kg	*	02/27/13 16:07	03/01/13 18:08	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	77		30 - 119				02/27/13 16:07	03/01/13 18:08	1
Nitrobenzene-d5 (Surr)	59		30 - 115				02/27/13 16:07	03/01/13 18:08	1
Terphenyl-d14 (Surr)	100		36 - 134				02/27/13 16:07	03/01/13 18:08	1

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-2B**

**Lab Sample ID: 500-54804-4**

Date Collected: 02/22/13 09:50

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 95.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<18		110	18	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,1,1-Trichloroethane	<11		53	11	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,1,2,2-Tetrachloroethane	<12		53	12	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,1,2-Trichloroethane	<15		53	15	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,1-Dichloroethane	<9.8		53	9.8	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,1-Dichloroethene	<16		53	16	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,1-Dichloropropene	<18		53	18	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,2,3-Trichlorobenzene	<19		110	19	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,2,3-Trichloropropane	<31		110	31	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,2,4-Trichlorobenzene	<20		110	20	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,2,4-Trimethylbenzene	<11		110	11	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,2-Dibromo-3-Chloropropane	<46		110	46	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,2-Dibromoethane	<17		110	17	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,2-Dichlorobenzene	<11		110	11	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,2-Dichloroethane	<15		53	15	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,2-Dichloropropane	<10		53	10	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,3,5-Trimethylbenzene	<11		110	11	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,3-Dichlorobenzene	<14		110	14	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,3-Dichloropropane	<7.1		53	7.1	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
1,4-Dichlorobenzene	<9.3		110	9.3	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
2,2-Dichloropropane	<17		53	17	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
2-Chlorotoluene	<11		53	11	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
4-Chlorotoluene	<10		53	10	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Benzene	<3.9		13	3.9	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Bromobenzene	<23		110	23	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Bromochloromethane	<20		110	20	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Bromodichloromethane	<18		110	18	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Bromoform	<23		110	23	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Bromomethane	<36		110	36	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Carbon tetrachloride	<14		53	14	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Chlorobenzene	<7.6		53	7.6	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Chloroethane	<23		110	23	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Chloroform	<11		53	11	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Chloromethane	<25		110	25	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
cis-1,2-Dichloroethene	<6.5		53	6.5	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
cis-1,3-Dichloropropene	<9.5		53	9.5	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Dibromochloromethane	<18		110	18	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Dibromomethane	<26		110	26	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Dichlorodifluoromethane	<27 *		110	27	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Ethylbenzene	<6.7		13	6.7	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Hexachlorobutadiene	<18 *		110	18	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Isopropyl ether	<7.8		110	7.8	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Isopropylbenzene	<13		110	13	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Methyl tert-butyl ether	<23		110	23	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Methylene Chloride	<36		270	36	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Naphthalene	<26		110	26	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
n-Butylbenzene	<6.9		53	6.9	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
N-Propylbenzene	<9.3		110	9.3	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
p-Isopropyltoluene	<9.8		110	9.8	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50

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# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-2B**

**Lab Sample ID: 500-54804-4**

Date Collected: 02/22/13 09:50

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 95.2

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<8.2		53	8.2	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Styrene	<5.3		53	5.3	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
tert-Butylbenzene	<7.2		53	7.2	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Tetrachloroethene	<8.9		53	8.9	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Toluene	<6.1		13	6.1	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
trans-1,2-Dichloroethene	<13		53	13	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
trans-1,3-Dichloropropene	<11		53	11	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Trichloroethene	<9.9		27	9.9	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Trichlorofluoromethane	<22		110	22	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Vinyl chloride	<5.5		13	5.5	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Xylenes, Total	<3.6		27	3.6	ug/Kg	*	02/22/13 09:50	03/01/13 16:36	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		75 - 125				02/22/13 09:50	03/01/13 16:36	50
4-Bromofluorobenzene (Surr)	102		75 - 120				02/22/13 09:50	03/01/13 16:36	50
Dibromofluoromethane	97		75 - 120				02/22/13 09:50	03/01/13 16:36	50
Toluene-d8 (Surr)	91		75 - 120				02/22/13 09:50	03/01/13 16:36	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<17		35	17	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
2-Methylnaphthalene	<45		170	45	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Acenaphthene	<10		35	10	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Acenaphthylene	<8.0		35	8.0	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Anthracene	<8.2		35	8.2	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Benzo[a]anthracene	<7.3		35	7.3	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Benzo[a]pyrene	<6.3		35	6.3	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Benzo[b]fluoranthene	<6.7		35	6.7	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Benzo[g,h,i]perylene	<12		35	12	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Benzo[k]fluoranthene	<8.3		35	8.3	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Chrysene	<7.8		35	7.8	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Dibenz(a,h)anthracene	<9.7		35	9.7	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Fluoranthene	<14		35	14	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Fluorene	<7.9		35	7.9	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Indeno[1,2,3-cd]pyrene	<12		35	12	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Naphthalene	<6.7		35	6.7	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Phenanthrene	<15		35	15	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Pyrene	<13		35	13	ug/Kg	*	02/27/13 16:07	03/01/13 18:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	79		30 - 119				02/27/13 16:07	03/01/13 18:28	1
Nitrobenzene-d5 (Surr)	64		30 - 115				02/27/13 16:07	03/01/13 18:28	1
Terphenyl-d14 (Surr)	93		36 - 134				02/27/13 16:07	03/01/13 18:28	1

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-3A**

**Lab Sample ID: 500-54804-5**

Date Collected: 02/22/13 10:20

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 96.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<17		100	17	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,1,1-Trichloroethane	<10		50	10	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,1,2,2-Tetrachloroethane	<12		50	12	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,1,2-Trichloroethane	<14		50	14	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,1-Dichloroethane	<9.3		50	9.3	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,1-Dichloroethene	<15		50	15	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,1-Dichloropropene	<17		50	17	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,2,3-Trichlorobenzene	<18		100	18	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,2,3-Trichloropropane	<29		100	29	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,2,4-Trichlorobenzene	<19		100	19	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,2,4-Trimethylbenzene	<11		100	11	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,2-Dibromo-3-Chloropropane	<44		100	44	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,2-Dibromoethane	<16		100	16	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,2-Dichlorobenzene	<10		100	10	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,2-Dichloroethane	<14		50	14	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,2-Dichloropropane	<9.8		50	9.8	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,3,5-Trimethylbenzene	<10		100	10	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,3-Dichlorobenzene	<13		100	13	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,3-Dichloropropane	<6.7		50	6.7	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
1,4-Dichlorobenzene	<8.7		100	8.7	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
2,2-Dichloropropane	<16		50	16	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
2-Chlorotoluene	<10		50	10	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
4-Chlorotoluene	<9.9		50	9.9	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Benzene	<3.7		13	3.7	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Bromobenzene	<21		100	21	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Bromochloromethane	<19		100	19	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Bromodichloromethane	<17		100	17	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Bromoform	<22		100	22	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Bromomethane	<34		100	34	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Carbon tetrachloride	<13		50	13	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Chlorobenzene	<7.2		50	7.2	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Chloroethane	<22		100	22	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Chloroform	<10		50	10	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Chloromethane	<23		100	23	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
cis-1,2-Dichloroethene	<6.2		50	6.2	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
cis-1,3-Dichloropropene	<8.9		50	8.9	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Dibromochloromethane	<17		100	17	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Dibromomethane	<24		100	24	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Dichlorodifluoromethane	<26 *		100	26	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Ethylbenzene	<6.3		13	6.3	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Hexachlorobutadiene	<17 *		100	17	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Isopropyl ether	<7.4		100	7.4	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Isopropylbenzene	<13		100	13	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Methyl tert-butyl ether	<22		100	22	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Methylene Chloride	<34		250	34	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Naphthalene	<25		100	25	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
n-Butylbenzene	<6.5		50	6.5	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
N-Propylbenzene	<8.8		100	8.8	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
p-Isopropyltoluene	<9.3		100	9.3	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50

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TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-3A**

**Lab Sample ID: 500-54804-5**

Date Collected: 02/22/13 10:20

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 96.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<7.7		50	7.7	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Styrene	<4.9		50	4.9	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
tert-Butylbenzene	<6.8		50	6.8	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Tetrachloroethene	<8.4		50	8.4	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Toluene	<5.8		13	5.8	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
trans-1,2-Dichloroethene	<13		50	13	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
trans-1,3-Dichloropropene	<10		50	10	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Trichloroethene	<9.3		25	9.3	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Trichlorofluoromethane	<21		100	21	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Vinyl chloride	<5.2		13	5.2	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
Xylenes, Total	<3.4		25	3.4	ug/Kg	*	02/22/13 10:20	03/01/13 16:58	50
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	99		75 - 125				02/22/13 10:20	03/01/13 16:58	50
4-Bromofluorobenzene (Surr)	99		75 - 120				02/22/13 10:20	03/01/13 16:58	50
Dibromofluoromethane	99		75 - 120				02/22/13 10:20	03/01/13 16:58	50
Toluene-d8 (Surr)	93		75 - 120				02/22/13 10:20	03/01/13 16:58	50

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<17		33	17	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
2-Methylnaphthalene	<44		170	44	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Acenaphthene	<10		33	10	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Acenaphthylene	<7.7		33	7.7	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Anthracene	<7.9		33	7.9	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Benzo[a]anthracene	<7.1		33	7.1	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Benzo[a]pyrene	<6.1		33	6.1	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Benzo[b]fluoranthene	9.5	J	33	6.5	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Benzo[g,h,i]perylene	<11		33	11	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Benzo[k]fluoranthene	<8.0		33	8.0	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Chrysene	<7.6		33	7.6	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Dibenz(a,h)anthracene	<9.4		33	9.4	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Fluoranthene	<14		33	14	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Fluorene	<7.7		33	7.7	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Indeno[1,2,3-cd]pyrene	<11		33	11	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Naphthalene	<6.5		33	6.5	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Phenanthrene	<14		33	14	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
Pyrene	<12		33	12	ug/Kg	*	02/27/13 16:07	03/01/13 18:48	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	77		30 - 119				02/27/13 16:07	03/01/13 18:48	1
Nitrobenzene-d5 (Surr)	50		30 - 115				02/27/13 16:07	03/01/13 18:48	1
Terphenyl-d14 (Surr)	93		36 - 134				02/27/13 16:07	03/01/13 18:48	1

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-3B**

**Lab Sample ID: 500-54804-6**

Date Collected: 02/22/13 10:45

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 97.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<17		100	17	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,1,1-Trichloroethane	<10		50	10	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,1,2,2-Tetrachloroethane	<12		50	12	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,1,2-Trichloroethane	<14		50	14	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,1-Dichloroethane	<9.3		50	9.3	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,1-Dichloroethene	<15		50	15	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,1-Dichloropropene	<17		50	17	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,2,3-Trichlorobenzene	<18		100	18	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,2,3-Trichloropropane	<29		100	29	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,2,4-Trichlorobenzene	<19		100	19	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,2,4-Trimethylbenzene	<11		100	11	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,2-Dibromo-3-Chloropropane	<44		100	44	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,2-Dibromoethane	<16		100	16	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,2-Dichlorobenzene	<10		100	10	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,2-Dichloroethane	<14		50	14	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,2-Dichloropropane	<9.8		50	9.8	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,3,5-Trimethylbenzene	<10		100	10	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,3-Dichlorobenzene	<13		100	13	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,3-Dichloropropane	<6.7		50	6.7	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
1,4-Dichlorobenzene	<8.7		100	8.7	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
2,2-Dichloropropane	<16		50	16	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
2-Chlorotoluene	<10		50	10	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
4-Chlorotoluene	<9.9		50	9.9	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Benzene	<3.7		13	3.7	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Bromobenzene	<21		100	21	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Bromochloromethane	<19		100	19	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Bromodichloromethane	<17		100	17	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Bromoform	<22		100	22	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Bromomethane	<34		100	34	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Carbon tetrachloride	<13		50	13	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Chlorobenzene	<7.2		50	7.2	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Chloroethane	<22		100	22	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Chloroform	<10		50	10	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Chloromethane	<23		100	23	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
cis-1,2-Dichloroethene	<6.2		50	6.2	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
cis-1,3-Dichloropropene	<8.9		50	8.9	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Dibromochloromethane	<17		100	17	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Dibromomethane	<24		100	24	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Dichlorodifluoromethane	<26 *		100	26	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Ethylbenzene	<6.3		13	6.3	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Hexachlorobutadiene	<17 *		100	17	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Isopropyl ether	<7.4		100	7.4	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Isopropylbenzene	<13		100	13	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Methyl tert-butyl ether	<22		100	22	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Methylene Chloride	<34		250	34	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Naphthalene	<25		100	25	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
n-Butylbenzene	<6.5		50	6.5	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
N-Propylbenzene	<8.8		100	8.8	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
p-Isopropyltoluene	<9.3		100	9.3	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50

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# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-3B**

**Lab Sample ID: 500-54804-6**

Date Collected: 02/22/13 10:45

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 97.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<7.7		50	7.7	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Styrene	<5.0		50	5.0	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
tert-Butylbenzene	<6.8		50	6.8	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Tetrachloroethene	<8.4		50	8.4	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Toluene	<5.8		13	5.8	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
trans-1,2-Dichloroethene	<13		50	13	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
trans-1,3-Dichloropropene	<10		50	10	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Trichloroethene	<9.3		25	9.3	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Trichlorofluoromethane	<21		100	21	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Vinyl chloride	<5.2		13	5.2	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50
Xylenes, Total	<3.4		25	3.4	ug/Kg	*	02/22/13 10:45	03/01/13 17:20	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 125	02/22/13 10:45	03/01/13 17:20	50
4-Bromofluorobenzene (Surr)	100		75 - 120	02/22/13 10:45	03/01/13 17:20	50
Dibromofluoromethane	100		75 - 120	02/22/13 10:45	03/01/13 17:20	50
Toluene-d8 (Surr)	92		75 - 120	02/22/13 10:45	03/01/13 17:20	50

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<17		34	17	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
2-Methylnaphthalene	<44		170	44	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Acenaphthene	<10		34	10	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Acenaphthylene	<7.8		34	7.8	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Anthracene	<7.9		34	7.9	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Benzo[a]anthracene	<7.1		34	7.1	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Benzo[a]pyrene	<6.2		34	6.2	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Benzo[b]fluoranthene	<6.6		34	6.6	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Benzo[g,h,i]perylene	<11		34	11	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Benzo[k]fluoranthene	<8.1		34	8.1	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Chrysene	<7.6		34	7.6	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Dibenz(a,h)anthracene	<9.4		34	9.4	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Fluoranthene	<14		34	14	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Fluorene	<7.7		34	7.7	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Indeno[1,2,3-cd]pyrene	<11		34	11	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Naphthalene	<6.5		34	6.5	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Phenanthrene	<14		34	14	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1
Pyrene	<12		34	12	ug/Kg	*	02/27/13 16:07	03/01/13 19:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	55		30 - 119	02/27/13 16:07	03/01/13 19:07	1
Nitrobenzene-d5 (Surr)	45		30 - 115	02/27/13 16:07	03/01/13 19:07	1
Terphenyl-d14 (Surr)	86		36 - 134	02/27/13 16:07	03/01/13 19:07	1

TestAmerica Chicago



# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-4A**

**Lab Sample ID: 500-54804-7**

Date Collected: 02/22/13 11:05

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<21		120	21	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,1,1-Trichloroethane	<12		62	12	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,1,2,2-Tetrachloroethane	<14		62	14	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,1,2-Trichloroethane	<17		62	17	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,1-Dichloroethane	<11		62	11	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,1-Dichloroethene	<19		62	19	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,1-Dichloropropene	<21		62	21	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,2,3-Trichlorobenzene	<22		120	22	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,2,3-Trichloropropane	<36		120	36	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,2,4-Trichlorobenzene	<23		120	23	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,2,4-Trimethylbenzene	<13		120	13	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,2-Dibromo-3-Chloropropane	<54		120	54	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,2-Dibromoethane	<19		120	19	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,2-Dichlorobenzene	<13		120	13	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,2-Dichloroethane	<18		62	18	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,2-Dichloropropane	<12		62	12	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,3,5-Trimethylbenzene	<13		120	13	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,3-Dichlorobenzene	<16		120	16	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,3-Dichloropropane	<8.3		62	8.3	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
1,4-Dichlorobenzene	<11		120	11	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
2,2-Dichloropropane	<20		62	20	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
2-Chlorotoluene	<13		62	13	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
4-Chlorotoluene	<12		62	12	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Benzene	<4.6		15	4.6	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Bromobenzene	<26		120	26	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Bromochloromethane	<23		120	23	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Bromodichloromethane	<21		120	21	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Bromoform	<27		120	27	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Bromomethane	<42		120	42	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Carbon tetrachloride	<16		62	16	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Chlorobenzene	<8.9		62	8.9	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Chloroethane	<27		120	27	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Chloroform	<13		62	13	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Chloromethane	<29		120	29	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
cis-1,2-Dichloroethene	<7.6		62	7.6	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
cis-1,3-Dichloropropene	<11		62	11	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Dibromochloromethane	<21		120	21	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Dibromomethane	<30		120	30	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Dichlorodifluoromethane	<32 *		120	32	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Ethylbenzene	<7.8		15	7.8	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Hexachlorobutadiene	<21 *		120	21	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Isopropyl ether	<9.1		120	9.1	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Isopropylbenzene	<16		120	16	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Methyl tert-butyl ether	<27		120	27	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Methylene Chloride	<42		310	42	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Naphthalene	<31		120	31	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
n-Butylbenzene	<8.0		62	8.0	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
N-Propylbenzene	<11		120	11	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
p-Isopropyltoluene	<11		120	11	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-4A**

**Lab Sample ID: 500-54804-7**

Date Collected: 02/22/13 11:05

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 82.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<9.5		62	9.5	ug/Kg	**	02/22/13 11:05	03/01/13 17:43	50
Styrene	<6.1		62	6.1	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
tert-Butylbenzene	<8.4		62	8.4	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Tetrachloroethene	<10		62	10	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Toluene	<7.1		15	7.1	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
trans-1,2-Dichloroethene	<15		62	15	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
trans-1,3-Dichloropropene	<13		62	13	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Trichloroethene	<12		31	12	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Trichlorofluoromethane	<26		120	26	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Vinyl chloride	<6.4		15	6.4	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
Xylenes, Total	<4.2		31	4.2	ug/Kg	*	02/22/13 11:05	03/01/13 17:43	50
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	100		75 - 125				02/22/13 11:05	03/01/13 17:43	50
4-Bromofluorobenzene (Surr)	100		75 - 120				02/22/13 11:05	03/01/13 17:43	50
Dibromofluoromethane	100		75 - 120				02/22/13 11:05	03/01/13 17:43	50
Toluene-d8 (Surr)	97		75 - 120				02/22/13 11:05	03/01/13 17:43	50

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<20		39	20	ug/Kg	**	02/27/13 16:07	03/01/13 19:27	1
2-Methylnaphthalene	<51		200	51	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Acenaphthene	<12		39	12	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Acenaphthylene	<9.1		39	9.1	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Anthracene	<9.3		39	9.3	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Benzo[a]anthracene	<8.3		39	8.3	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Benzo[a]pyrene	<7.2		39	7.2	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Benzo[b]fluoranthene	<7.7		39	7.7	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Benzo[g,h,i]perylene	<13		39	13	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Benzo[k]fluoranthene	<9.4		39	9.4	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Chrysene	<8.9		39	8.9	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Dibenz(a,h)anthracene	<11		39	11	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Fluoranthene	<16		39	16	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Fluorene	<9.0		39	9.0	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Indeno[1,2,3-cd]pyrene	<13		39	13	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Naphthalene	<7.6		39	7.6	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Phenanthrene	<17		39	17	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
Pyrene	<14		39	14	ug/Kg	*	02/27/13 16:07	03/01/13 19:27	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	35		30 - 119				02/27/13 16:07	03/01/13 19:27	1
Nitrobenzene-d5 (Surr)	26	X	30 - 115				02/27/13 16:07	03/01/13 19:27	1
Terphenyl-d14 (Surr)	79		36 - 134				02/27/13 16:07	03/01/13 19:27	1

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-4B**

**Lab Sample ID: 500-54804-8**

Date Collected: 02/22/13 11:45

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 94.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<18		110	18	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,1,1-Trichloroethane	<11		53	11	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,1,2,2-Tetrachloroethane	<12		53	12	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,1,2-Trichloroethane	<15		53	15	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,1-Dichloroethane	<9.9		53	9.9	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,1-Dichloroethene	<16		53	16	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,1-Dichloropropene	<18		53	18	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,2,3-Trichlorobenzene	<19		110	19	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,2,3-Trichloropropane	<31		110	31	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,2,4-Trichlorobenzene	<20		110	20	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,2,4-Trimethylbenzene	<11		110	11	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,2-Dibromo-3-Chloropropane	<47		110	47	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,2-Dibromoethane	<17		110	17	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,2-Dichlorobenzene	<11		110	11	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,2-Dichloroethane	<15		53	15	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,2-Dichloropropane	<10		53	10	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,3,5-Trimethylbenzene	<11		110	11	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,3-Dichlorobenzene	<14		110	14	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,3-Dichloropropane	<7.2		53	7.2	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
1,4-Dichlorobenzene	<9.3		110	9.3	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
2,2-Dichloropropane	<17		53	17	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
2-Chlorotoluene	<11		53	11	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
4-Chlorotoluene	<11		53	11	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Benzene	<4.0		13	4.0	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Bromobenzene	<23		110	23	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Bromochloromethane	<20		110	20	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Bromodichloromethane	<18		110	18	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Bromoform	<24		110	24	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Bromomethane	<36		110	36	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Carbon tetrachloride	<14		53	14	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Chlorobenzene	<7.6		53	7.6	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Chloroethane	<23		110	23	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Chloroform	<11		53	11	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Chloromethane	<25		110	25	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
cis-1,2-Dichloroethene	<6.6		53	6.6	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
cis-1,3-Dichloropropene	<9.5		53	9.5	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Dibromochloromethane	<18		110	18	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Dibromomethane	<26		110	26	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Dichlorodifluoromethane	<27 *		110	27	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Ethylbenzene	<6.7		13	6.7	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Hexachlorobutadiene	<18 *		110	18	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Isopropyl ether	<7.9		110	7.9	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Isopropylbenzene	<13		110	13	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Methyl tert-butyl ether	<23		110	23	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Methylene Chloride	<36		270	36	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Naphthalene	<26		110	26	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
n-Butylbenzene	<6.9		53	6.9	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
N-Propylbenzene	<9.3		110	9.3	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
p-Isopropyltoluene	<9.9		110	9.9	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50

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# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-4B**

**Lab Sample ID: 500-54804-8**

Date Collected: 02/22/13 11:45

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 94.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<8.2		53	8.2	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Styrene	<5.3		53	5.3	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
tert-Butylbenzene	<7.3		53	7.3	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Tetrachloroethene	<8.9		53	8.9	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Toluene	<6.1		13	6.1	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
trans-1,2-Dichloroethene	<13		53	13	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
trans-1,3-Dichloropropene	<11		53	11	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Trichloroethene	<9.9		27	9.9	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Trichlorofluoromethane	<22		110	22	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Vinyl chloride	<5.6		13	5.6	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
Xylenes, Total	<3.7		27	3.7	ug/Kg	*	02/22/13 11:45	03/01/13 18:05	50
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	98		75 - 125				02/22/13 11:45	03/01/13 18:05	50
4-Bromofluorobenzene (Surr)	100		75 - 120				02/22/13 11:45	03/01/13 18:05	50
Dibromofluoromethane	96		75 - 120				02/22/13 11:45	03/01/13 18:05	50
Toluene-d8 (Surr)	92		75 - 120				02/22/13 11:45	03/01/13 18:05	50

**Method: 8270D - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<17		35	17	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
2-Methylnaphthalene	<46		180	46	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Acenaphthene	<10		35	10	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Acenaphthylene	<8.1		35	8.1	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Anthracene	<8.3		35	8.3	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Benzo[a]anthracene	<7.4		35	7.4	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Benzo[a]pyrene	<6.4		35	6.4	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Benzo[b]fluoranthene	<6.8		35	6.8	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Benzo[g,h,i]perylene	<12		35	12	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Benzo[k]fluoranthene	<8.4		35	8.4	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Chrysene	<7.9		35	7.9	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Dibenz(a,h)anthracene	<9.8		35	9.8	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Fluoranthene	<14		35	14	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Fluorene	<8.0		35	8.0	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Indeno[1,2,3-cd]pyrene	<12		35	12	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Naphthalene	<6.8		35	6.8	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Phenanthrene	<15		35	15	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
Pyrene	<13		35	13	ug/Kg	*	02/27/13 16:07	03/01/13 19:47	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	62		30 - 119				02/27/13 16:07	03/01/13 19:47	1
Nitrobenzene-d5 (Surr)	49		30 - 115				02/27/13 16:07	03/01/13 19:47	1
Terphenyl-d14 (Surr)	100		36 - 134				02/27/13 16:07	03/01/13 19:47	1

TestAmerica Chicago

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: MEOH BLANK**

**Lab Sample ID: 500-54804-9**

Date Collected: 02/22/13 00:00

Matrix: Solid

Date Received: 02/26/13 10:30

Method: 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	DII Fac
1,1,1,2-Tetrachloroethane	<17		100	17	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,1,1-Trichloroethane	<10		50	10	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,1,2,2-Tetrachloroethane	<12		50	12	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,1,2-Trichloroethane	<14		50	14	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,1-Dichloroethane	<9.3		50	9.3	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,1-Dichloroethene	<15		50	15	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,1-Dichloropropene	<17		50	17	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,2,3-Trichlorobenzene	<18		100	18	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,2,3-Trichloropropane	<29		100	29	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,2,4-Trichlorobenzene	<19		100	19	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,2,4-Trimethylbenzene	<11		100	11	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,2-Dibromo-3-Chloropropane	<44		100	44	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,2-Dibromoethane	<16		100	16	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,2-Dichlorobenzene	<10		100	10	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,2-Dichloroethane	<14		50	14	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,2-Dichloropropane	<9.8		50	9.8	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,3,5-Trimethylbenzene	<10		100	10	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,3-Dichlorobenzene	<13		100	13	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,3-Dichloropropane	<6.7		50	6.7	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
1,4-Dichlorobenzene	<8.7		100	8.7	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
2,2-Dichloropropane	<16		50	16	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
2-Chlorotoluene	<10		50	10	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
4-Chlorotoluene	<9.9		50	9.9	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Benzene	<3.7		13	3.7	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Bromobenzene	<21		100	21	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Bromochloromethane	<19		100	19	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Bromodichloromethane	<17		100	17	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Bromoform	<22		100	22	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Bromomethane	<34		100	34	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Carbon tetrachloride	<13		50	13	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Chlorobenzene	<7.2		50	7.2	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Chloroethane	<22		100	22	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Chloroform	<10		50	10	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Chloromethane	<23		100	23	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
cis-1,2-Dichloroethene	<6.2		50	6.2	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
cis-1,3-Dichloropropene	<8.9		50	8.9	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Dibromochloromethane	<17		100	17	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Dibromomethane	<24		100	24	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Dichlorodifluoromethane	<26 *		100	26	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Ethylbenzene	<6.3		13	6.3	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Hexachlorobutadiene	<17 *		100	17	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Isopropyl ether	<7.4		100	7.4	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Isopropylbenzene	<13		100	13	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Methyl tert-butyl ether	<22		100	22	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Methylene Chloride	<34		250	34	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Naphthalene	<25		100	25	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
n-Butylbenzene	<6.5		50	6.5	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
N-Propylbenzene	<8.8		100	8.8	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
p-Isopropyltoluene	<9.3		100	9.3	ug/Kg		02/22/13 00:00	03/01/13 18:27	50

TestAmerica Chicago

## Client Sample Results

Client: American Engineering Testing Inc.  
 Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: MEOH BLANK**

**Lab Sample ID: 500-54804-9**

Date Collected: 02/22/13 00:00

Matrix: Solid

Date Received: 02/26/13 10:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<7.7		50	7.7	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Styrene	<4.9		50	4.9	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
tert-Butylbenzene	<6.8		50	6.8	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Tetrachloroethene	<8.4		50	8.4	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Toluene	<5.8		13	5.8	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
trans-1,2-Dichloroethene	<13		50	13	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
trans-1,3-Dichloropropene	<10		50	10	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Trichloroethene	<9.3		25	9.3	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Trichlorofluoromethane	<21		100	21	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Vinyl chloride	<5.2		13	5.2	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
Xylenes, Total	<3.4		25	3.4	ug/Kg		02/22/13 00:00	03/01/13 18:27	50
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
1,2-Dichloroethane-d4 (Surr)	101		75 - 125				02/22/13 00:00	03/01/13 18:27	50
4-Bromofluorobenzene (Surr)	102		75 - 120				02/22/13 00:00	03/01/13 18:27	50
Dibromofluoromethane	101		75 - 120				02/22/13 00:00	03/01/13 18:27	50
Toluene-d8 (Surr)	96		75 - 120				02/22/13 00:00	03/01/13 18:27	50

## Definitions/Glossary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

#### GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▣	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
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)
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)

## QC Association Summary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

### GC/MS VOA

#### Prep Batch: 178758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-54804-1	BS-1A	Total/NA	Solid	5035	
500-54804-2	BS-1B	Total/NA	Solid	5035	
500-54804-3	BS-2A	Total/NA	Solid	5035	
500-54804-4	BS-2B	Total/NA	Solid	5035	
500-54804-5	BS-3A	Total/NA	Solid	5035	
500-54804-6	BS-3B	Total/NA	Solid	5035	
500-54804-7	BS-4A	Total/NA	Solid	5035	
500-54804-8	BS-4B	Total/NA	Solid	5035	
500-54804-9	MEOH BLANK	Total/NA	Solid	5035	
LB3 500-178758/10-A LB3	Method Blank	Total/NA	Solid	5035	
LCS 500-178758/11-A	Lab Control Sample	Total/NA	Solid	5035	

#### Analysis Batch: 178864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-54804-1	BS-1A	Total/NA	Solid	8260B	178758
500-54804-2	BS-1B	Total/NA	Solid	8260B	178758
500-54804-3	BS-2A	Total/NA	Solid	8260B	178758
500-54804-4	BS-2B	Total/NA	Solid	8260B	178758
500-54804-5	BS-3A	Total/NA	Solid	8260B	178758
500-54804-6	BS-3B	Total/NA	Solid	8260B	178758
500-54804-7	BS-4A	Total/NA	Solid	8260B	178758
500-54804-8	BS-4B	Total/NA	Solid	8260B	178758
500-54804-9	MEOH BLANK	Total/NA	Solid	8260B	178758
LB3 500-178758/10-A LB3	Method Blank	Total/NA	Solid	8260B	178758
LCS 500-178758/11-A	Lab Control Sample	Total/NA	Solid	8260B	178758
LCS 500-178864/4	Lab Control Sample	Total/NA	Solid	8260B	
MB 500-178864/6	Method Blank	Total/NA	Solid	8260B	

### GC/MS Semi VOA

#### Prep Batch: 178739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-54804-1	BS-1A	Total/NA	Solid	3541	
500-54804-1 MS	BS-1A	Total/NA	Solid	3541	
500-54804-1 MSD	BS-1A	Total/NA	Solid	3541	
500-54804-2	BS-1B	Total/NA	Solid	3541	
500-54804-3	BS-2A	Total/NA	Solid	3541	
500-54804-4	BS-2B	Total/NA	Solid	3541	
500-54804-5	BS-3A	Total/NA	Solid	3541	
500-54804-6	BS-3B	Total/NA	Solid	3541	
500-54804-7	BS-4A	Total/NA	Solid	3541	
500-54804-8	BS-4B	Total/NA	Solid	3541	
LCS 500-178739/2-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-178739/1-A	Method Blank	Total/NA	Solid	3541	

#### Analysis Batch: 178792

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 500-178739/2-A	Lab Control Sample	Total/NA	Solid	8270D	178739
MB 500-178739/1-A	Method Blank	Total/NA	Solid	8270D	178739

TestAmerica Chicago



# QC Association Summary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

## GC/MS Semi VOA (Continued)

Analysis Batch: 178911

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-54804-1	BS-1A	Total/NA	Solid	8270D	178739
500-54804-1 MS	BS-1A	Total/NA	Solid	8270D	178739
500-54804-1 MSD	BS-1A	Total/NA	Solid	8270D	178739
500-54804-2	BS-1B	Total/NA	Solid	8270D	178739
500-54804-3	BS-2A	Total/NA	Solid	8270D	178739
500-54804-4	BS-2B	Total/NA	Solid	8270D	178739
500-54804-5	BS-3A	Total/NA	Solid	8270D	178739
500-54804-6	BS-3B	Total/NA	Solid	8270D	178739
500-54804-7	BS-4A	Total/NA	Solid	8270D	178739
500-54804-8	BS-4B	Total/NA	Solid	8270D	178739

## General Chemistry

Analysis Batch: 178654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-54804-1	BS-1A	Total/NA	Solid	Moisture	
500-54804-2	BS-1B	Total/NA	Solid	Moisture	
500-54804-3	BS-2A	Total/NA	Solid	Moisture	
500-54804-4	BS-2B	Total/NA	Solid	Moisture	
500-54804-5	BS-3A	Total/NA	Solid	Moisture	
500-54804-6	BS-3B	Total/NA	Solid	Moisture	
500-54804-7	BS-4A	Total/NA	Solid	Moisture	
500-54804-8	BS-4B	Total/NA	Solid	Moisture	

## Surrogate Summary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (75-125)	BFB (75-120)	DBFM (75-120)	TOL (75-120)
500-54804-1	BS-1A	109	100	97	99
500-54804-2	BS-1B	100	93	97	92
500-54804-3	BS-2A	100	100	100	92
500-54804-4	BS-2B	97	102	97	91
500-54804-5	BS-3A	99	99	99	93
500-54804-6	BS-3B	101	100	100	92
500-54804-7	BS-4A	100	100	100	97
500-54804-8	BS-4B	98	100	96	92
500-54804-9	MEOH BLANK	101	102	101	96
LB3 500-178758/10-A LB3	Method Blank	98	97	99	95
LCS 500-178758/11-A	Lab Control Sample	98	99	101	90
LCS 500-178864/4	Lab Control Sample	89	93	95	97
MB 500-178864/6	Method Blank	97	104	96	92

**Surrogate Legend**

12DCE = 1,2-Dichloroethane-d4 (Surr)  
BFB = 4-Bromofluorobenzene (Surr)  
DBFM = Dibromofluoromethane  
TOL = Toluene-d8 (Surr)

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (30-119)	NBZ (30-115)	TPH (36-134)
500-54804-1	BS-1A	98	79	106
500-54804-1 MS	BS-1A	115	92	110
500-54804-1 MSD	BS-1A	104	85	102
500-54804-2	BS-1B	87	68	92
500-54804-3	BS-2A	77	59	100
500-54804-4	BS-2B	79	64	93
500-54804-5	BS-3A	77	50	93
500-54804-6	BS-3B	55	45	86
500-54804-7	BS-4A	35	26 X	79
500-54804-8	BS-4B	62	49	100
LCS 500-178739/2-A	Lab Control Sample	95	103	100
MB 500-178739/1-A	Method Blank	82	79	98

**Surrogate Legend**

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

## QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

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

Lab Sample ID: LB3 500-178758/10-A LB3  
Matrix: Solid  
Analysis Batch: 178864

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 178758

Analyte	LB3 LB3		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	<17		100	17	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,1,1-Trichloroethane	<10		50	10	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,1,2,2-Tetrachloroethane	<12		50	12	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,1,2-Trichloroethane	<14		50	14	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,1-Dichloroethane	<9.3		50	9.3	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,1-Dichloroethene	<15		50	15	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,1-Dichloropropene	<17		50	17	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,2,3-Trichlorobenzene	<18		100	18	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,2,3-Trichloropropane	<29		100	29	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,2,4-Trichlorobenzene	<19		100	19	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,2,4-Trimethylbenzene	<11		100	11	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,2-Dibromo-3-Chloropropane	<44		100	44	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,2-Dibromoethane	<16		100	16	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,2-Dichlorobenzene	<10		100	10	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,2-Dichloroethane	<14		50	14	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,2-Dichloropropane	<9.8		50	9.8	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,3,5-Trimethylbenzene	<10		100	10	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,3-Dichlorobenzene	<13		100	13	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,3-Dichloropropane	<6.7		50	6.7	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
1,4-Dichlorobenzene	<8.7		100	8.7	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
2,2-Dichloropropane	<16		50	16	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
2-Chlorotoluene	<10		50	10	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
4-Chlorotoluene	<9.9		50	9.9	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Benzene	<3.7		13	3.7	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Bromobenzene	<21		100	21	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Bromochloromethane	<19		100	19	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Bromodichloromethane	<17		100	17	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Bromoform	<22		100	22	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Bromomethane	<34		100	34	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Carbon tetrachloride	<13		50	13	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Chlorobenzene	<7.2		50	7.2	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Chloroethane	<22		100	22	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Chloroform	<10		50	10	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Chloromethane	<23		100	23	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
cis-1,2-Dichloroethene	<6.2		50	6.2	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
cis-1,3-Dichloropropene	<8.9		50	8.9	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Dibromochloromethane	<17		100	17	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Dibromomethane	<24		100	24	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Dichlorodifluoromethane	<26		100	26	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Ethylbenzene	<6.3		13	6.3	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Hexachlorobutadiene	<17		100	17	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Isopropyl ether	<7.4		100	7.4	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Isopropylbenzene	<13		100	13	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Methyl tert-butyl ether	<22		100	22	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Methylene Chloride	<34		250	34	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Naphthalene	<25		100	25	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
n-Butylbenzene	<6.5		50	6.5	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
N-Propylbenzene	<8.8		100	8.8	ug/Kg		02/28/13 07:00	03/01/13 18:50	50

TestAmerica Chicago

## QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

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

Lab Sample ID: LB3 500-178758/10-A LB3  
Matrix: Solid  
Analysis Batch: 178864

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 178758

Analyte	LB3 LB3		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
p-Isopropyltoluene	<9.3		100	9.3	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
sec-Butylbenzene	<7.7		50	7.7	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Styrene	<4.9		50	4.9	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
tert-Butylbenzene	<6.8		50	6.8	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Tetrachloroethene	<8.4		50	8.4	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Toluene	<5.8		13	5.8	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
trans-1,2-Dichloroethene	<13		50	13	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
trans-1,3-Dichloropropene	<10		50	10	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Trichloroethene	<9.3		25	9.3	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Trichlorofluoromethane	<21		100	21	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Vinyl chloride	<5.2		13	5.2	ug/Kg		02/28/13 07:00	03/01/13 18:50	50
Xylenes, Total	<3.4		25	3.4	ug/Kg		02/28/13 07:00	03/01/13 18:50	50

Surrogate	LB3 LB3		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	98		75 - 125	02/28/13 07:00	03/01/13 18:50	50
4-Bromofluorobenzene (Surr)	97		75 - 120	02/28/13 07:00	03/01/13 18:50	50
Dibromofluoromethane	99		75 - 120	02/28/13 07:00	03/01/13 18:50	50
Toluene-d8 (Surr)	95		75 - 120	02/28/13 07:00	03/01/13 18:50	50

Lab Sample ID: LCS 500-178758/11-A  
Matrix: Solid  
Analysis Batch: 178864

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 178758

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	2500	2260		ug/Kg		90	75 - 120
1,1,1-Trichloroethane	2500	2140		ug/Kg		86	70 - 123
1,1,2,2-Tetrachloroethane	2500	2540		ug/Kg		102	70 - 128
1,1,2-Trichloroethane	2500	2300		ug/Kg		92	69 - 120
1,1-Dichloroethane	2500	2090		ug/Kg		83	68 - 121
1,1-Dichloroethene	2500	2060		ug/Kg		82	58 - 122
1,1-Dichloropropene	2500	2210		ug/Kg		88	70 - 120
1,2,3-Trichlorobenzene	2500	1720		ug/Kg		69	56 - 137
1,2,3-Trichloropropane	2500	2460		ug/Kg		99	70 - 120
1,2,4-Trichlorobenzene	2500	1680		ug/Kg		67	65 - 121
1,2,4-Trimethylbenzene	2500	2160		ug/Kg		86	75 - 121
1,2-Dibromo-3-Chloropropane	2500	2350		ug/Kg		94	60 - 121
1,2-Dibromoethane	2500	2160		ug/Kg		86	70 - 120
1,2-Dichlorobenzene	2500	2070		ug/Kg		83	75 - 120
1,2-Dichloroethane	2500	2160		ug/Kg		86	69 - 120
1,2-Dichloropropane	2500	2070		ug/Kg		83	70 - 120
1,3,5-Trimethylbenzene	2500	2200		ug/Kg		88	75 - 123
1,3-Dichlorobenzene	2500	1980		ug/Kg		79	70 - 120
1,3-Dichloropropane	2500	2430		ug/Kg		97	70 - 120
1,4-Dichlorobenzene	2500	2120		ug/Kg		85	75 - 120
2,2-Dichloropropane	2500	1980		ug/Kg		79	67 - 125
2-Chlorotoluene	2500	2080		ug/Kg		83	70 - 120
4-Chlorotoluene	2500	1980		ug/Kg		79	70 - 120
Benzene	2500	2320		ug/Kg		93	70 - 120

TestAmerica Chicago

## QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

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

Lab Sample ID: LCS 500-178758/11-A  
Matrix: Solid  
Analysis Batch: 178864

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 178758

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Bromobenzene	2500	2340		ug/Kg		94	70 - 120
Bromochloromethane	2500	2330		ug/Kg		93	67 - 122
Bromodichloromethane	2500	2060		ug/Kg		82	70 - 120
Bromoform	2500	2140		ug/Kg		86	70 - 125
Bromomethane	2500	1710		ug/Kg		69	50 - 150
Carbon tetrachloride	2500	2080		ug/Kg		83	70 - 125
Chlorobenzene	2500	2090		ug/Kg		83	70 - 120
Chloroethane	2500	1310		ug/Kg		52	50 - 150
Chloroform	2500	2200		ug/Kg		88	70 - 120
Chloromethane	2500	1620		ug/Kg		61	50 - 134
cis-1,2-Dichloroethene	2500	2280		ug/Kg		91	70 - 120
cis-1,3-Dichloropropene	2690	2310		ug/Kg		86	70 - 120
Dibromochloromethane	2500	2310		ug/Kg		93	70 - 120
Dibromomethane	2500	2210		ug/Kg		88	70 - 120
Dichlorodifluoromethane	2500	898	*	ug/Kg		36	40 - 140
Ethylbenzene	2500	2290		ug/Kg		92	75 - 120
Hexachlorobutadiene	2500	1670	*	ug/Kg		67	70 - 135
Isopropylbenzene	2500	1980		ug/Kg		79	70 - 120
Methyl tert-butyl ether	2500	2250		ug/Kg		90	58 - 122
Methylene Chloride	2500	2220		ug/Kg		89	65 - 125
Naphthalene	2500	2070		ug/Kg		83	55 - 132
n-Butylbenzene	2500	1920		ug/Kg		77	75 - 120
N-Propylbenzene	2500	1980		ug/Kg		79	70 - 120
p-Isopropyltoluene	2500	1910		ug/Kg		76	70 - 120
sec-Butylbenzene	2500	1960		ug/Kg		78	70 - 120
Styrene	2500	2240		ug/Kg		90	75 - 120
tert-Butylbenzene	2500	1950		ug/Kg		78	70 - 120
Tetrachloroethene	2500	2080		ug/Kg		83	70 - 123
Toluene	2500	2050		ug/Kg		82	70 - 120
trans-1,2-Dichloroethene	2500	2160		ug/Kg		87	70 - 124
trans-1,3-Dichloropropene	2430	2180		ug/Kg		90	70 - 120
Trichloroethene	2500	2170		ug/Kg		87	70 - 120
Trichlorofluoromethane	2500	1720		ug/Kg		69	63 - 134
Vinyl chloride	2500	1820		ug/Kg		73	62 - 138
Xylenes, Total	7500	6090		ug/Kg		81	70 - 120

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	98		75 - 125
4-Bromofluorobenzene (Surr)	99		75 - 120
Dibromofluoromethane	101		75 - 120
Toluene-d8 (Surr)	90		75 - 120

Lab Sample ID: MB 500-178864/6  
Matrix: Solid  
Analysis Batch: 178864

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	<0.35		2.0	0.35	ug/Kg			03/01/13 09:50	1

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# QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

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

Lab Sample ID: MB 500-178864/6  
Matrix: Solid  
Analysis Batch: 178864

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	<0.20		1.0	0.20	ug/Kg			03/01/13 09:50	1
1,1,2,2-Tetrachloroethane	<0.23		1.0	0.23	ug/Kg			03/01/13 09:50	1
1,1,2-Trichloroethane	<0.28		1.0	0.28	ug/Kg			03/01/13 09:50	1
1,1-Dichloroethane	<0.19		1.0	0.19	ug/Kg			03/01/13 09:50	1
1,1-Dichloroethene	<0.31		1.0	0.31	ug/Kg			03/01/13 09:50	1
1,1-Dichloropropene	<0.34		1.0	0.34	ug/Kg			03/01/13 09:50	1
1,2,3-Trichlorobenzene	<0.35		2.0	0.35	ug/Kg			03/01/13 09:50	1
1,2,3-Trichloropropane	<0.57		2.0	0.57	ug/Kg			03/01/13 09:50	1
1,2,4-Trichlorobenzene	<0.38		2.0	0.38	ug/Kg			03/01/13 09:50	1
1,2,4-Trimethylbenzene	<0.21		2.0	0.21	ug/Kg			03/01/13 09:50	1
1,2-Dibromo-3-Chloropropane	<0.87		2.0	0.87	ug/Kg			03/01/13 09:50	1
1,2-Dibromoethane	<0.31		2.0	0.31	ug/Kg			03/01/13 09:50	1
1,2-Dichlorobenzene	<0.21		2.0	0.21	ug/Kg			03/01/13 09:50	1
1,2-Dichloroethane	<0.29		1.0	0.29	ug/Kg			03/01/13 09:50	1
1,2-Dichloropropane	<0.20		1.0	0.20	ug/Kg			03/01/13 09:50	1
1,3,5-Trimethylbenzene	<0.21		2.0	0.21	ug/Kg			03/01/13 09:50	1
1,3-Dichlorobenzene	<0.26		2.0	0.26	ug/Kg			03/01/13 09:50	1
1,3-Dichloropropane	<0.13		1.0	0.13	ug/Kg			03/01/13 09:50	1
1,4-Dichlorobenzene	<0.17		2.0	0.17	ug/Kg			03/01/13 09:50	1
2,2-Dichloropropane	<0.32		1.0	0.32	ug/Kg			03/01/13 09:50	1
2-Chlorotoluene	<0.21		1.0	0.21	ug/Kg			03/01/13 09:50	1
4-Chlorotoluene	<0.20		1.0	0.20	ug/Kg			03/01/13 09:50	1
Benzene	<0.074		0.25	0.074	ug/Kg			03/01/13 09:50	1
Bromobenzene	<0.43		2.0	0.43	ug/Kg			03/01/13 09:50	1
Bromochloromethane	<0.38		2.0	0.38	ug/Kg			03/01/13 09:50	1
Bromodichloromethane	<0.34		2.0	0.34	ug/Kg			03/01/13 09:50	1
Bromoform	<0.44		2.0	0.44	ug/Kg			03/01/13 09:50	1
Bromomethane	<0.68		2.0	0.68	ug/Kg			03/01/13 09:50	1
Carbon tetrachloride	<0.26		1.0	0.26	ug/Kg			03/01/13 09:50	1
Chlorobenzene	<0.14		1.0	0.14	ug/Kg			03/01/13 09:50	1
Chloroethane	<0.44		2.0	0.44	ug/Kg			03/01/13 09:50	1
Chloroform	<0.21		1.0	0.21	ug/Kg			03/01/13 09:50	1
Chloromethane	<0.46		2.0	0.46	ug/Kg			03/01/13 09:50	1
cis-1,2-Dichloroethene	<0.12		1.0	0.12	ug/Kg			03/01/13 09:50	1
cis-1,3-Dichloropropene	<0.18		1.0	0.18	ug/Kg			03/01/13 09:50	1
Dibromochloromethane	<0.35		2.0	0.35	ug/Kg			03/01/13 09:50	1
Dibromomethane	<0.48		2.0	0.48	ug/Kg			03/01/13 09:50	1
Dichlorodifluoromethane	<0.51		2.0	0.51	ug/Kg			03/01/13 09:50	1
Ethylbenzene	<0.13		0.25	0.13	ug/Kg			03/01/13 09:50	1
Hexachlorobutadiene	<0.35		2.0	0.35	ug/Kg			03/01/13 09:50	1
Isopropyl ether	<0.15		2.0	0.15	ug/Kg			03/01/13 09:50	1
Isopropylbenzene	<0.25		2.0	0.25	ug/Kg			03/01/13 09:50	1
Methyl tert-butyl ether	<0.43		2.0	0.43	ug/Kg			03/01/13 09:50	1
Methylene Chloride	<0.68		5.0	0.68	ug/Kg			03/01/13 09:50	1
Naphthalene	<0.49		2.0	0.49	ug/Kg			03/01/13 09:50	1
n-Butylbenzene	<0.13		1.0	0.13	ug/Kg			03/01/13 09:50	1
N-Propylbenzene	<0.18		2.0	0.18	ug/Kg			03/01/13 09:50	1
p-Isopropyltoluene	<0.19		2.0	0.19	ug/Kg			03/01/13 09:50	1

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# QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

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

Lab Sample ID: MB 500-178864/6  
Matrix: Solid  
Analysis Batch: 178864

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
sec-Butylbenzene	<0.15		1.0	0.15	ug/Kg			03/01/13 09:50	1
Styrene	<0.099		1.0	0.099	ug/Kg			03/01/13 09:50	1
tert-Butylbenzene	<0.14		1.0	0.14	ug/Kg			03/01/13 09:50	1
Tetrachloroethene	<0.17		1.0	0.17	ug/Kg			03/01/13 09:50	1
Toluene	<0.12		0.25	0.12	ug/Kg			03/01/13 09:50	1
trans-1,2-Dichloroethene	<0.25		1.0	0.25	ug/Kg			03/01/13 09:50	1
trans-1,3-Dichloropropene	<0.21		1.0	0.21	ug/Kg			03/01/13 09:50	1
Trichloroethene	<0.19		0.50	0.19	ug/Kg			03/01/13 09:50	1
Trichlorofluoromethane	<0.42		2.0	0.42	ug/Kg			03/01/13 09:50	1
Vinyl chloride	<0.10		0.25	0.10	ug/Kg			03/01/13 09:50	1
Xylenes, Total	<0.068		0.50	0.068	ug/Kg			03/01/13 09:50	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	97		75 - 125		03/01/13 09:50	1
4-Bromofluorobenzene (Surr)	104		75 - 120		03/01/13 09:50	1
Dibromofluoromethane	96		75 - 120		03/01/13 09:50	1
Toluene-d8 (Surr)	92		75 - 120		03/01/13 09:50	1

Lab Sample ID: LCS 500-178864/4  
Matrix: Solid  
Analysis Batch: 178864

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	50.0	46.2		ug/Kg		92	75 - 120
1,1,1-Trichloroethane	50.0	42.3		ug/Kg		85	70 - 123
1,1,2,2-Tetrachloroethane	50.0	52.4		ug/Kg		105	70 - 128
1,1,2-Trichloroethane	50.0	47.8		ug/Kg		96	69 - 120
1,1-Dichloroethane	50.0	42.1		ug/Kg		84	68 - 121
1,1-Dichloroethene	50.0	37.6		ug/Kg		75	58 - 122
1,1-Dichloropropene	50.0	44.4		ug/Kg		89	70 - 120
1,2,3-Trichlorobenzene	50.0	37.1		ug/Kg		74	56 - 137
1,2,3-Trichloropropane	50.0	48.6		ug/Kg		97	70 - 120
1,2,4-Trichlorobenzene	50.0	37.6		ug/Kg		75	65 - 121
1,2,4-Trimethylbenzene	50.0	46.2		ug/Kg		92	75 - 121
1,2-Dibromo-3-Chloropropane	50.0	46.1		ug/Kg		92	60 - 121
1,2-Dibromoethane	50.0	48.7		ug/Kg		97	70 - 120
1,2-Dichlorobenzene	50.0	41.9		ug/Kg		84	75 - 120
1,2-Dichloroethane	50.0	42.5		ug/Kg		85	69 - 120
1,2-Dichloropropane	50.0	41.5		ug/Kg		83	70 - 120
1,3,5-Trimethylbenzene	50.0	46.4		ug/Kg		93	75 - 123
1,3-Dichlorobenzene	50.0	44.2		ug/Kg		88	70 - 120
1,3-Dichloropropane	50.0	45.7		ug/Kg		91	70 - 120
1,4-Dichlorobenzene	50.0	46.4		ug/Kg		93	75 - 120
2,2-Dichloropropane	50.0	43.4		ug/Kg		87	67 - 125
2-Chlorotoluene	50.0	44.2		ug/Kg		88	70 - 120
4-Chlorotoluene	50.0	43.1		ug/Kg		86	70 - 120
Benzene	50.0	44.3		ug/Kg		89	70 - 120
Bromobenzene	50.0	49.5		ug/Kg		99	70 - 120

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# QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

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

Lab Sample ID: LCS 500-178864/4  
Matrix: Solid  
Analysis Batch: 178864

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Bromochloromethane	50.0	48.4		ug/Kg		97	67 - 122
Bromodichloromethane	50.0	43.0		ug/Kg		86	70 - 120
Bromoform	50.0	47.0		ug/Kg		94	70 - 125
Bromomethane	50.0	39.1		ug/Kg		78	50 - 150
Carbon tetrachloride	50.0	43.6		ug/Kg		87	70 - 125
Chlorobenzene	50.0	44.3		ug/Kg		89	70 - 120
Chloroethane	50.0	34.6		ug/Kg		69	50 - 150
Chloroform	50.0	44.3		ug/Kg		89	70 - 120
Chloromethane	50.0	40.1		ug/Kg		80	50 - 134
cis-1,2-Dichloroethene	50.0	45.3		ug/Kg		91	70 - 120
cis-1,3-Dichloropropene	53.8	50.4		ug/Kg		94	70 - 120
Dibromochloromethane	50.0	47.4		ug/Kg		95	70 - 120
Dibromomethane	50.0	42.9		ug/Kg		86	70 - 120
Dichlorodifluoromethane	50.0	33.9		ug/Kg		68	40 - 140
Ethylbenzene	50.0	47.0		ug/Kg		94	75 - 120
Hexachlorobutadiene	50.0	36.0		ug/Kg		72	70 - 135
Isopropylbenzene	50.0	42.6		ug/Kg		85	70 - 120
Methyl tert-butyl ether	50.0	46.8		ug/Kg		94	58 - 122
Methylene Chloride	50.0	41.1		ug/Kg		82	65 - 125
Naphthalene	50.0	42.8		ug/Kg		86	55 - 132
n-Butylbenzene	50.0	41.5		ug/Kg		83	75 - 120
N-Propylbenzene	50.0	42.5		ug/Kg		85	70 - 120
p-Isopropyltoluene	50.0	42.3		ug/Kg		85	70 - 120
sec-Butylbenzene	50.0	42.4		ug/Kg		85	70 - 120
Styrene	50.0	47.2		ug/Kg		94	75 - 120
tert-Butylbenzene	50.0	42.3		ug/Kg		85	70 - 120
Tetrachloroethene	50.0	43.5		ug/Kg		87	70 - 123
Toluene	50.0	43.4		ug/Kg		87	70 - 120
trans-1,2-Dichloroethene	50.0	43.5		ug/Kg		87	70 - 124
trans-1,3-Dichloropropene	48.6	45.7		ug/Kg		94	70 - 120
Trichloroethene	50.0	44.6		ug/Kg		89	70 - 120
Trichlorofluoromethane	50.0	40.7		ug/Kg		81	63 - 134
Vinyl chloride	50.0	47.8		ug/Kg		96	62 - 138
Xylenes, Total	150	128		ug/Kg		85	70 - 120

Surrogate	LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	89		75 - 125
4-Bromofluorobenzene (Surr)	93		75 - 120
Dibromofluoromethane	95		75 - 120
Toluene-d8 (Surr)	97		75 - 120

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## QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-178739/1-A

Matrix: Solid

Analysis Batch: 178792

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 178739

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1-Methylnaphthalene	<17		33	17	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
2-Methylnaphthalene	<43		170	43	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Acenaphthene	<9.9		33	9.9	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Acenaphthylene	<7.6		33	7.6	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Anthracene	<7.8		33	7.8	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Benzo[a]anthracene	<7.0		33	7.0	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Benzo[a]pyrene	<6.1		33	6.1	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Benzo[b]fluoranthene	<6.5		33	6.5	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Benzo[g,h,i]perylene	<11		33	11	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Benzo[k]fluoranthene	<7.9		33	7.9	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Chrysene	<7.5		33	7.5	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Dibenz(a,h)anthracene	<9.3		33	9.3	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Fluoranthene	<14		33	14	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Fluorene	<7.6		33	7.6	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Indeno[1,2,3-cd]pyrene	<11		33	11	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Naphthalene	<6.4		33	6.4	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Phenanthrene	<14		33	14	ug/Kg		02/27/13 16:07	02/28/13 13:49	1
Pyrene	<12		33	12	ug/Kg		02/27/13 16:07	02/28/13 13:49	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl	82		30 - 119	02/27/13 16:07	02/28/13 13:49	1
Nitrobenzene-d5 (Surr)	79		30 - 115	02/27/13 16:07	02/28/13 13:49	1
Terphenyl-d14 (Surr)	98		36 - 134	02/27/13 16:07	02/28/13 13:49	1

Lab Sample ID: LCS 500-178739/2-A

Matrix: Solid

Analysis Batch: 178792

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 178739

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
2-Methylnaphthalene	1670	1420		ug/Kg		85	51 - 110
Acenaphthene	1670	1350		ug/Kg		81	53 - 110
Acenaphthylene	1670	1410		ug/Kg		85	51 - 110
Anthracene	1670	1390		ug/Kg		83	52 - 110
Benzo[a]anthracene	1670	1360		ug/Kg		81	57 - 110
Benzo[a]pyrene	1670	1410		ug/Kg		84	56 - 110
Benzo[b]fluoranthene	1670	1370		ug/Kg		82	50 - 110
Benzo[g,h,i]perylene	1670	1340		ug/Kg		80	54 - 117
Benzo[k]fluoranthene	1670	1300		ug/Kg		78	43 - 121
Chrysene	1670	1220		ug/Kg		73	54 - 110
Dibenz(a,h)anthracene	1670	1340		ug/Kg		80	52 - 118
Fluoranthene	1670	1420		ug/Kg		85	55 - 113
Fluorene	1670	1450		ug/Kg		87	52 - 112
Indeno[1,2,3-cd]pyrene	1670	1390		ug/Kg		83	53 - 116
Naphthalene	1670	1350		ug/Kg		81	48 - 110
Phenanthrene	1670	1480		ug/Kg		89	51 - 116
Pyrene	1670	1360		ug/Kg		82	50 - 112

TestAmerica Chicago

# QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-178739/2-A  
Matrix: Solid  
Analysis Batch: 178792

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 178739

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	95		30 - 119
Nitrobenzene-d5 (Surr)	103		30 - 115
Terphenyl-d14 (Surr)	100		36 - 134

Lab Sample ID: 500-54804-1 MS  
Matrix: Solid  
Analysis Batch: 178911

Client Sample ID: BS-1A  
Prep Type: Total/NA  
Prep Batch: 178739

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	<45		1730	1670		ug/Kg	*	96	51 - 110
Acenaphthene	<10		1730	1790		ug/Kg	*	103	53 - 110
Acenaphthylene	<7.9		1730	1530		ug/Kg	*	88	51 - 110
Anthracene	<8.1		1730	1510		ug/Kg	*	87	52 - 110
Benzo[a]anthracene	<7.2		1730	1400		ug/Kg	*	81	57 - 110
Benzo[a]pyrene	<6.3		1730	1630		ug/Kg	*	94	56 - 110
Benzo[b]fluoranthene	<6.7		1730	1560		ug/Kg	*	90	50 - 110
Benzo[g,h,i]perylene	<12		1730	1540		ug/Kg	*	89	54 - 117
Benzo[k]fluoranthene	<8.2		1730	1630		ug/Kg	*	94	43 - 121
Chrysene	<7.8		1730	1320		ug/Kg	*	76	54 - 110
Dibenz(a,h)anthracene	<9.6		1730	1500		ug/Kg	*	87	52 - 118
Fluoranthene	<14		1730	1510		ug/Kg	*	87	55 - 113
Fluorene	<7.8		1730	1590		ug/Kg	*	91	52 - 112
Indeno[1,2,3-cd]pyrene	<12		1730	1490		ug/Kg	*	86	53 - 116
Naphthalene	<6.6		1730	1660		ug/Kg	*	96	48 - 110
Phenanthrene	<14		1730	1790		ug/Kg	*	103	51 - 116
Pyrene	<12		1730	1600		ug/Kg	*	92	50 - 112

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	115		30 - 119
Nitrobenzene-d5 (Surr)	92		30 - 115
Terphenyl-d14 (Surr)	110		36 - 134

Lab Sample ID: 500-54804-1 MSD  
Matrix: Solid  
Analysis Batch: 178911

Client Sample ID: BS-1A  
Prep Type: Total/NA  
Prep Batch: 178739

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
2-Methylnaphthalene	<45		1750	1550		ug/Kg	*	89	51 - 110	8	30
Acenaphthene	<10		1750	1610		ug/Kg	*	92	53 - 110	11	30
Acenaphthylene	<7.9		1750	1440		ug/Kg	*	82	51 - 110	6	30
Anthracene	<8.1		1750	1410		ug/Kg	*	81	52 - 110	7	30
Benzo[a]anthracene	<7.2		1750	1320		ug/Kg	*	76	57 - 110	6	30
Benzo[a]pyrene	<6.3		1750	1560		ug/Kg	*	89	56 - 110	5	30
Benzo[b]fluoranthene	<6.7		1750	1560		ug/Kg	*	89	50 - 110	0	30
Benzo[g,h,i]perylene	<12		1750	1470		ug/Kg	*	84	54 - 117	5	30
Benzo[k]fluoranthene	<8.2		1750	1480		ug/Kg	*	85	43 - 121	10	30
Chrysene	<7.8		1750	1260		ug/Kg	*	72	54 - 110	5	30
Dibenz(a,h)anthracene	<9.6		1750	1430		ug/Kg	*	82	52 - 118	5	30

TestAmerica Chicago



## Lab Chronicle

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-1A**

**Lab Sample ID: 500-54804-1**

Date Collected: 02/22/13 08:30

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 95.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			178758	02/22/13 08:30	WRE	TAL CHI
Total/NA	Analysis	8260B		50	178864	03/01/13 15:28	BDA	TAL CHI
Total/NA	Prep	3541			178739	02/27/13 16:07	JP	TAL CHI
Total/NA	Analysis	8270D		1	178911	03/01/13 17:29	PMF	TAL CHI
Total/NA	Analysis	Moisture		1	178654	02/27/13 08:06	CMV	TAL CHI

**Client Sample ID: BS-1B**

**Lab Sample ID: 500-54804-2**

Date Collected: 02/22/13 08:45

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 96.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			178758	02/22/13 08:45	WRE	TAL CHI
Total/NA	Analysis	8260B		50	178864	03/01/13 15:51	BDA	TAL CHI
Total/NA	Prep	3541			178739	02/27/13 16:07	JP	TAL CHI
Total/NA	Analysis	8270D		1	178911	03/01/13 17:49	PMF	TAL CHI
Total/NA	Analysis	Moisture		1	178654	02/27/13 08:06	CMV	TAL CHI

**Client Sample ID: BS-2A**

**Lab Sample ID: 500-54804-3**

Date Collected: 02/22/13 09:30

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 97.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			178758	02/22/13 09:30	WRE	TAL CHI
Total/NA	Analysis	8260B		50	178864	03/01/13 16:13	BDA	TAL CHI
Total/NA	Prep	3541			178739	02/27/13 16:07	JP	TAL CHI
Total/NA	Analysis	8270D		1	178911	03/01/13 18:08	PMF	TAL CHI
Total/NA	Analysis	Moisture		1	178654	02/27/13 08:06	CMV	TAL CHI

**Client Sample ID: BS-2B**

**Lab Sample ID: 500-54804-4**

Date Collected: 02/22/13 09:50

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 95.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			178758	02/22/13 09:50	WRE	TAL CHI
Total/NA	Analysis	8260B		50	178864	03/01/13 16:36	BDA	TAL CHI
Total/NA	Prep	3541			178739	02/27/13 16:07	JP	TAL CHI
Total/NA	Analysis	8270D		1	178911	03/01/13 18:28	PMF	TAL CHI
Total/NA	Analysis	Moisture		1	178654	02/27/13 08:06	CMV	TAL CHI

TestAmerica Chicago

# Lab Chronicle

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: BS-3A**

**Lab Sample ID: 500-54804-5**

Date Collected: 02/22/13 10:20

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 96.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			178758	02/22/13 10:20	WRE	TAL CHI
Total/NA	Analysis	8260B		50	178864	03/01/13 16:58	BDA	TAL CHI
Total/NA	Prep	3541			178739	02/27/13 16:07	JP	TAL CHI
Total/NA	Analysis	8270D		1	178911	03/01/13 18:48	PMF	TAL CHI
Total/NA	Analysis	Moisture		1	178654	02/27/13 08:06	CMV	TAL CHI

**Client Sample ID: BS-3B**

**Lab Sample ID: 500-54804-6**

Date Collected: 02/22/13 10:45

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 97.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			178758	02/22/13 10:45	WRE	TAL CHI
Total/NA	Analysis	8260B		50	178864	03/01/13 17:20	BDA	TAL CHI
Total/NA	Prep	3541			178739	02/27/13 16:07	JP	TAL CHI
Total/NA	Analysis	8270D		1	178911	03/01/13 19:07	PMF	TAL CHI
Total/NA	Analysis	Moisture		1	178654	02/27/13 08:06	CMV	TAL CHI

**Client Sample ID: BS-4A**

**Lab Sample ID: 500-54804-7**

Date Collected: 02/22/13 11:05

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 82.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			178758	02/22/13 11:05	WRE	TAL CHI
Total/NA	Analysis	8260B		50	178864	03/01/13 17:43	BDA	TAL CHI
Total/NA	Prep	3541			178739	02/27/13 16:07	JP	TAL CHI
Total/NA	Analysis	8270D		1	178911	03/01/13 19:27	PMF	TAL CHI
Total/NA	Analysis	Moisture		1	178654	02/27/13 08:06	CMV	TAL CHI

**Client Sample ID: BS-4B**

**Lab Sample ID: 500-54804-8**

Date Collected: 02/22/13 11:45

Matrix: Solid

Date Received: 02/26/13 10:30

Percent Solids: 94.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			178758	02/22/13 11:45	WRE	TAL CHI
Total/NA	Analysis	8260B		50	178864	03/01/13 18:05	BDA	TAL CHI
Total/NA	Prep	3541			178739	02/27/13 16:07	JP	TAL CHI
Total/NA	Analysis	8270D		1	178911	03/01/13 19:47	PMF	TAL CHI
Total/NA	Analysis	Moisture		1	178654	02/27/13 08:06	CMV	TAL CHI

TestAmerica Chicago

# Lab Chronicle

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

**Client Sample ID: MEOH BLANK**

**Lab Sample ID: 500-54804-9**

Date Collected: 02/22/13 00:00

Matrix: Solid

Date Received: 02/26/13 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			178758	02/22/13 00:00	WRE	TAL CHI
Total/NA	Analysis	8260B		50	178864	03/01/13 18:27	BDA	TAL CHI

**Laboratory References:**

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

# Certification Summary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge 03-04630

TestAmerica Job ID: 500-54804-1

## Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAP	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-13
Kentucky (UST)	State Program	4	66	04-11-13
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-13
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
 Phone: 708.534.5200 Fax: 708.534.5211

Report To \_\_\_\_\_ (optional)  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 E-Mail: \_\_\_\_\_

Bill To \_\_\_\_\_ (optional)  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 PO#/Reference# \_\_\_\_\_

## Chain of Custody Record

Lab Job #: 500-54804  
 Chain of Custody Number: \_\_\_\_\_  
 Page 1 of 1  
 Temperature °C of Cooler: 1.9

Client		Client Project #		Preservative		Parameter		Matrix		Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other
Project Name		Lab Project #		Parameter		Matrix		Comments		
Project Location/State		Lab Project #		Parameter		Matrix				
Sampler		Lab PIA		Parameter		Matrix				
Lab ID	MS/MSD	Sample ID	Date	Time	# of Containers	Matrix	Matrix	Matrix	Matrix	Matrix
1		BS-1A	2-22-13	8:30	3	S	VOCs	PAHS		
2		BS-1B		8:45	3	S				
3		BS-2A		9:30	3	S				
4		BS-2B		9:50	3	S				
5		BS-3A		10:20	3	S				
6		BS-3B		10:45	3	S				
7		BS-4A		11:05	3	S				
8		BS-4B		11:45	3	S				
9		MEOH Blank		-	1					

Turnaround Time Required (Business Days)

\_\_\_ 1 Day \_\_\_ 2 Days \_\_\_ 5 Days \_\_\_ 7 Days \_\_\_ 10 Days  15 Days \_\_\_ Other

Requested Due Date \_\_\_\_\_

Sample Disposal

Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>[Signature]</u>	Company: <u>AET</u>	Date: <u>2-25-13</u>	Time: <u>13:00</u>	Received By: <u>[Signature]</u>	Company: <u>FA</u>	Date: <u>2/27/13</u>	Time: <u>1020</u>
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____

Lab Courier: \_\_\_\_\_  
 Shipped:   
 Hand Delivered: \_\_\_\_\_

Matrix Key  
 WW - Wastewater SE - Sediment  
 W - Water SO - Soil  
 S - Soil L - Leachate  
 SL - Sludge WI - Wipe  
 MS - Miscellaneous DW - Drinking Water  
 OL - Oil O - Other  
 A - Air

Client Comments: \_\_\_\_\_

Lab Comments: \_\_\_\_\_



**COOLER RECEIPT FORM**

Cooler Received/Opened On 2/26/2013 @ 0800

1. Tracking # 7389 (last 4 digits, FedEx)

Courier: FedEx IR Gun ID 17610176

2. Temperature of rep. sample or temp blank when opened: 2.6 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES NO NA

If yes, how many and where: \_\_\_\_\_

5. Were the seals intact, signed, and dated correctly? YES...NO NA

6. Were custody papers inside cooler? YES...NO...NA DA

I certify that I opened the cooler and answered questions 1-6 (initial) DA

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry Ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # \_\_\_\_\_

I certify that I unloaded the cooler and answered questions 7-14 (initial) \_\_\_\_\_

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES..NO..NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) \_\_\_\_\_

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) \_\_\_\_\_

I certify that I attached a label with the unique LIMS number to each container (initial) \_\_\_\_\_

21. Were there Non-Conformance Issues at login? YES...NO Was a NCM generated? YES...NO...# \_\_\_\_\_

## Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-54804-1

Login Number: 54804  
List Number: 1  
Creator: Scott, Sherri L

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
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	1.9
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 $<6\text{mm}$ ( $1/4''$ ).	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Appendix D

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WDNR Soil Boring Logs (Form 4400-122) and  
Borehole Abandonment (Form 3300-5)



AMERICAN  
ENGINEERING  
TESTING, INC.

# SUBSURFACE BORING LOG

AET JOB NO: 03-04630

LOG OF BORING NO. B-1 (p. 1 of 1)

PROJECT: PDM Bridge; Eau Claire, WI

DEPTH IN FEET	SURFACE ELEVATION: _____ MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS							
							WC	DEN	LL	PL	%-#200			
1	SAND, fine grained, brown, frozen to 2 feet then moist, loose (SP)	COARSE ALLUVIUM												
2														
3														
4														
5														
6														
7														
8														
9					7	M	SS	12						
10														
11														
12														
13			SAND WITH GRAVEL, fine to coarse grained, brown, moist, medium dense (SP)											
14														
15					25	M	SS	14						
16														
17					13	M	SS	16						
18														
19					13	M	SS	17						
20														
21					11	M	SS	16						
End of boring at 21.0 feet.														

AET CORP 03-04630 - BORING LOGS.GPJ AET+CPT+WELL.GDT 2/26/13

DEPTH:	DRILLING METHOD	WATER LEVEL MEASUREMENTS						NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG	
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL		WATER LEVEL
0-19'	3.25" HSA	2/22/13	8:56	21.0	19.0	20.8			None
BORING COMPLETED: 2/22/13									
DR: GM LG: MH Rig: 30									



# SUBSURFACE BORING LOG

AET JOB NO: **03-04630** LOG OF BORING NO. **B-2 (p. 1 of 1)**  
 PROJECT: **PDM Bridge; Eau Claire, WI**

DEPTH IN FEET	SURFACE ELEVATION: _____ MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS					
							WC	DEN	LL	PL	%-#200	
1	SILTY SAND WITH GRAVEL, fine grained, brown, frozen to 2 feet then moist, very dense to medium dense (SM)	COARSE ALLUVIUM										
2												
3			95	M	SS	24						
4												
5												
6												
7	SAND, fine to medium grained, brown, moist, loose (SP)											
8			10	M	SS	18						
9												
10	SAND, fine to coarse grained, brown, moist, loose to medium dense (SP)											
11			10	M	SS	16						
12												
13												
14												
15												
16												
17												
18												
19												
19	End of boring at 19.0 feet.											

DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS						NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG	
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL		WATER LEVEL
0-17'	3.25" HSA	2/22/13	9:48	19.0	17.0	18.7			None
BORING COMPLETED: 2/22/13									
DR: GM LG: MH Rig: 30									

AET\_CORP 03-04630 - BORING LOGS.GPJ AET-CPT+WELL.GDT 2/26/13



# SUBSURFACE BORING LOG

AET JOB NO: **03-04630**

LOG OF BORING NO. **B-3 (p. 1 of 1)**

PROJECT: **PDM Bridge; Eau Claire, WI**

DEPTH IN FEET	SURFACE ELEVATION: _____ MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS						
							WC	DEN	LL	PL	%-#200		
1	SILTY SAND WITH GRAVEL, fine to medium grained, brown, frozen to 2 feet then moist, very dense to loose (SM)	COARSE ALLUVIUM											
2													
3			97.9	M	SS	14							
4													
5													
6													
7													
8													
9													
10													
11													
12			SAND, fine to coarse grained, brown, moist, medium dense (SP)										
13	16	M			SS	14							
14													
15													
16													
17													
18													
19													
End of boring at 19.0 feet.													

AET\_CORP 03-04630 - BORING LOGS.GPJ AET+CPT+WELL.GDT 2/28/13

DEPTH:	DRILLING METHOD	WATER LEVEL MEASUREMENTS						NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG	
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL		WATER LEVEL
0-17'	3.25" HSA	2/22/13	10:43	19.0	17.0	18.6			None
BORING COMPLETED: 2/22/13									
DR: GM LG: MH Rig: 30									



# SUBSURFACE BORING LOG

AET JOB NO: **03-04630**

LOG OF BORING NO. **B-4 (p. 1 of 1)**

PROJECT: **PDM Bridge; Eau Claire, WI**

DEPTH IN FEET	SURFACE ELEVATION: _____ MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS					
							WC	DEN	LL	PL	%-#200	
1	SILTY SAND WITH GRAVEL, fine grained, brown, frozen to 2 feet then moist, very dense to medium dense (SM)	COARSE ALLUVIUM										
2			50.4	M	SS	8						
3												
4												
5												
6					19	M	SS	14				
7	SAND, fine to medium grained, brown, moist, loose (SP)											
8			8	M	SS	18						
9												
10	SAND, fine to coarse grained, brown, moist, medium dense (SP)											
11												
12												
13			19	M	SS	16						
14												
15												
16												
17												
18					15	M	SS	14				
19	End of boring at 19.0 feet.											

AET\_CORP 03-04630 - BORING LOGS.GPJ AET+CPT+WELL.GDT 2/26/13

DEPTH: DRILLING METHOD		WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
		DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
0-17'	3.25" HSA	2/22/13	11:22	19.0	17.0	18.8		None	
BORING COMPLETED: 2/22/13									
DR: GM LG: MH Rig: 30									

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**[X] Verification Only of Fill and Seal**

Route to:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

**1. Well Location Information**      **2. Facility / Owner Information**

County: **EAU CLAIRE**      WI Unique Well # of Removed Well: \_\_\_\_\_      Licap #: \_\_\_\_\_

Latitude / Longitude (Degrees and Minutes): \_\_\_\_\_ 'N  
\_\_\_\_\_ 'W

Method Code (see instructions): \_\_\_\_\_

1/4 NE    1/4 SW    Section: **33**    Township: **28 N**    Range: **9**     E     W

Well Street Address: **2800 Melby Street**

Well City, Village or Town: **Eau Claire**      Well ZIP Code: **54702-**

Subdivision Name: \_\_\_\_\_      Lot #: \_\_\_\_\_

Facility Name: **PDM Bridge AST site**

Facility ID (FID or PWS): \_\_\_\_\_

License/Permit/Monitoring #: \_\_\_\_\_

Original Well Owner: \_\_\_\_\_

Present Well Owner: **PDM Bridge, LLC**

Mailing Address of Present Owner: **2800 Melby Street**

City of Present Owner: **Eau Claire**      State: **WI**      ZIP Code: **54702-**

Reason For Removal From Service: **Geotech Borehole Termination**      WI Unique Well # of Replacement Well: \_\_\_\_\_

**3. Well / Drillhole / Borehole Information**

Monitoring Well       Water Well       Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): **2/22/2013**

If a Well Construction Report is available, please attach: \_\_\_\_\_

Construction Type:  Drilled       Driven (Sandpoint)       Dug       Other (specify): \_\_\_\_\_

Formation Type:  Unconsolidated Formation       Bedrock

Total Well Depth From Ground Surface (ft.): **21**      Casing Diameter (in.): **6**

Lower Drillhole Diameter (in.): **2**      Casing Depth (ft.): **19**

Was well annular space grouted?  Yes     No     Unknown

If yes, to what depth (feet)? \_\_\_\_\_      Depth to Water (feet): \_\_\_\_\_

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?  Yes     No     N/A

Liner(s) removed?  Yes     No     N/A

Screen removed?  Yes     No     N/A

Casing left in place?  Yes     No     N/A

Was casing cut off below surface?  Yes     No     N/A

Did sealing material rise to surface?  Yes     No     N/A

Did material settle after 24 hours?  Yes     No     N/A

If yes, was hole retopped?  Yes     No     N/A

If bentonite chips were used, were they hydrated with water from a known safe source?  Yes     No     N/A

Required Method of Placing Sealing Material

Conductor Pipe-Gravity       Conductor Pipe-Pumped

Screened & Poured (Bentonite Chips)       Other (Explain): **Loose Dumped**

Sealing Materials

Neat Cement Grout       Clay-Sand Slurry (11 lb./gal. wt.)

Sand-Cement (Concrete) Grout       Bentonite-Sand Slurry " "

Concrete       Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:

Bentonite Chips       Bentonite - Cement Grout

Granular Bentonite       Bentonite - Sand Slurry

5. Material Used To Fill Well / Drillhole	From (ft.)	To (ft.)	Sacks Sealant	Mix Ratio
Natural Soil	Surface	2		
3/8" Bentonite Chips	2	21	5	
Bentonite Sand Slurry				9.1 lb/gal

**6. Comments**

SB-1

**7. Supervision of Work**      **DNR Use Only**

Name of Person or Firm Doing Filling & Sealing: **American Engineering Testing, Inc.**      License #: \_\_\_\_\_      Date of Filling & Sealing (mm/dd/yyyy): **2/22/2013**      Date Received: \_\_\_\_\_      Noted By: \_\_\_\_\_

Street or Route: **1837 County Highway OO**      Telephone Number: **(715) 861-5045**      Comments: \_\_\_\_\_

City: **Chippewa Falls**      State: **WI**      ZIP Code: **54729-**      Signature of Person Doing Work: *[Signature]*      Date Signed: **2/26/2013**



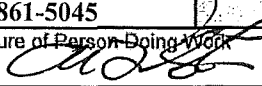
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Verification Only of Fill and Seal

Route to:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

Waste Management       Other: \_\_\_\_\_

<b>1. Well Location Information</b>				<b>2. Facility / Owner Information</b>			
County <b>EAU CLAIRE</b>		WI Unique Well # of Removed Well _____		Facility Name <b>PDM Bridge AST site</b>		Facility ID (FID or PWS) _____	
Latitude / Longitude (Degrees and Minutes) ____ ° ____ ' N ____ ° ____ ' W		Method Code (see instructions) _____		License/Permit/Monitoring # _____		Original Well Owner _____	
1/4 NE    1/4 SW or Gov't Lot #		Section <b>33</b>	Township <b>28 N</b>	Range <b>9</b>	<input type="checkbox"/> E <input checked="" type="checkbox"/> W		
Well Street Address <b>2800 Melby Street</b>				Present Well Owner <b>PDM Bridge, LLC</b>			
Well City, Village or Town <b>Eau Claire</b>				Mailing Address of Present Owner <b>2800 Melby Street</b>			
Subdivision Name _____				City of Present Owner <b>Eau Claire</b>		State <b>WI</b>	ZIP Code <b>54702-</b>
Reason For Removal From Service <b>Geotech Borehole Termination</b>		WI Unique Well # of Replacement Well _____		<b>4. Pump, Liner, Screen, Casing &amp; Sealing Material</b>			
<input type="checkbox"/> Monitoring Well <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Borehole / Drillhole		Original Construction Date (mm/dd/yyyy) <b>2/22/2013</b>		Pump and piping removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
<b>3. Well / Drillhole / Borehole Information</b>		If a Well Construction Report is available, please attach.		Liner(s) removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____				Screen removed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock				Casing left in place? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Total Well Depth From Ground Surface (ft.) <b>19</b>		Casing Diameter (in.) <b>6</b>		Was casing cut off below surface? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Lower Drillhole Diameter (in.) <b>2</b>		Casing Depth (ft.) <b>17</b>		Did sealing material rise to surface? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown		Depth to Water (feet) _____		Did material settle after 24 hours? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
If yes, to what depth (feet)? _____				If yes, was hole retopped? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
				If bentonite chips were used, were they hydrated with water from a known safe source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A			
<b>5. Material Used To Fill Well / Drillhole</b>				Required Method of Placing Sealing Material			
Natural Soil		Surface		<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped		<input type="checkbox"/> Screened & Poured (Bentonite Chips) <input checked="" type="checkbox"/> Other (Explain): <b>Loose Dumped</b>	
3/8" Bentonite Chips		2		2		19	
Bentonite Sand Slurry						4	
						9.1 lb/gal	
<b>6. Comments</b> SB-2				<b>Sealing Materials</b>			
				<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)			
				<input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry " "			
				<input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Bentonite Chips			
				<b>For Monitoring Wells and Monitoring Well Boreholes Only:</b>			
				<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout			
				<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry			
<b>7. Supervision of Work</b>				<b>DNR Use Only</b>			
Name of Person or Firm Doing Filling & Sealing <b>American Engineering Testing, Inc.</b>		License # _____	Date of Filling & Sealing (mm/dd/yyyy) <b>2/22/2013</b>		Date Received _____		Noted By _____
Street or Route <b>1837 County Highway OO</b>		Telephone Number <b>( 715 ) 861-5045</b>		Comments _____			
City <b>Chippewa Falls</b>	State <b>WI</b>	ZIP Code <b>54729-</b>	Signature of Person Doing Work 		Date Signed <b>2/26/2013</b>		

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**[X] Verification Only of Fill and Seal**

Route to:

Drinking Water       Watershed/Wastewater       Remediation/Redevelopment

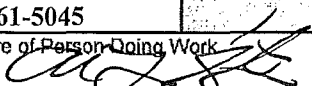
Waste Management       Other: \_\_\_\_\_

<b>1. Well Location Information</b>				<b>2. Facility / Owner Information</b>			
County <b>EAU CLAIRE</b>		WI Unique Well # of Removed Well _____		Hicap # _____		Facility Name <b>PDM Bridge Ast site</b>	
Latitude / Longitude (Degrees and Minutes) ____ ° ____ ' ____ " N ____ ° ____ ' ____ " W				Facility ID (FID or PWS) _____			
Method Code (see instructions) _____				License/Permit/Monitoring # _____			
1/4 NE or Gov't Lot #		Section <b>33</b>		Township <b>28 N</b>		Range <b>9</b> <input type="checkbox"/> E <input checked="" type="checkbox"/> W	
Well Street Address <b>2800 Melby Street</b>				Original Well Owner _____			
Well City, Village or Town <b>Eau Claire</b>				Present Well Owner <b>PDM Bridge, LLC</b>			
Subdivision Name _____				Mailing Address of Present Owner <b>2800 Melby Street</b>			
Well ZIP Code <b>54702-</b>				City of Present Owner <b>Eau Claire</b>		State ZIP Code <b>WI 54702-</b>	
Reason For Removal From Service <b>Geotech Borehole Termination</b>				WI Unique Well # of Replacement Well _____			

<b>3. Well / Drillhole / Borehole Information</b>				<b>4. Pump, Liner, Screen, Casing &amp; Sealing Material</b>					
<input type="checkbox"/> Monitoring Well		Original Construction Date (mm/dd/yyyy) <b>2/22/2013</b>		Pump and piping removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
<input type="checkbox"/> Water Well		If a Well Construction Report is available, please attach.		Liner(s) removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
<input checked="" type="checkbox"/> Borehole / Drillhole				Screen removed?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Construction Type: <input checked="" type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug				Casing left in place?				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
<input type="checkbox"/> Other (specify): _____				Was casing cut off below surface?				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Formation Type: <input checked="" type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock				Did sealing material rise to surface?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Total Well Depth From Ground Surface (ft.) <b>19</b>		Casing Diameter (in.) <b>6</b>		Did material settle after 24 hours?				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Lower Drillhole Diameter (in.) <b>2</b>		Casing Depth (ft.) <b>17</b>		If yes, was hole retopped?				<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Was well annular space grouted? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown				If bentonite chips were used, were they hydrated with water from a known safe source?				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
If yes, to what depth (feet)? _____				Depth to Water (feet) _____				Required Method of Placing Sealing Material	
				<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped					
				<input type="checkbox"/> Screened & Poured (Bentonite Chips) <input checked="" type="checkbox"/> Other (Explain): <b>Loose Dumped</b>					
				Sealing Materials					
				<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)					
				<input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite-Sand Slurry " "					
				<input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Bentonite Chips					
				For Monitoring Wells and Monitoring Well Boreholes Only:					
				<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout					
				<input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry					

<b>5. Material Used To Fill Well / Drillhole</b>				From (ft.)	To (ft.)	Sacks Sealant	Mix Ratio
Natural Soil				Surface	2		
3/8" Bentonite Chips				2	19	4	
Bentonite Sand Slurry							9.1 lb/gal

**6. Comments**  
SB-3

<b>7. Supervision of Work</b>				<b>DNR Use Only</b>			
Name of Person or Firm Doing Filling & Sealing <b>American Engineering Testing, Inc.</b>		License # _____		Date of Filling & Sealing (mm/dd/yyyy) <b>2/22/2013</b>		Date Received _____	
Street or Route <b>1837 County Highway OO</b>		Telephone Number <b>(715) 861-5045</b>		Comments _____		Noted By _____	
City <b>Chippewa Falls</b>		State <b>WI</b>		ZIP Code <b>54729-</b>		Signature of Person Doing Work 	
						Date Signed <b>2/26/2013</b>	

**Well / Drillhole / Borehole Filling & Sealing**

Form 3300-005 (R 4/08)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

**[X] Verification Only of Fill and Seal**

Route to:

Drinking Water

Watershed/Wastewater

Remediation/Redevelopment

Waste Management

Other: \_\_\_\_\_

**1. Well Location Information**

County <b>EAU CLAIRE</b>	WI Unique Well # of Removed Well _____	Parcel # _____
Latitude / Longitude (Degrees and Minutes)		Method Code (see instructions)
____ ° ____ ' ____ " N		_____
____ ° ____ ' ____ " W		_____
1/4 NE or Gov't Lot #	Section	Township
_____	33	28 N
1/4 SW	Range	_____
_____	9	<input type="checkbox"/> E <input checked="" type="checkbox"/> W
Well Street Address 2800 Melby Street		
Well City, Village or Town Eau Claire		Well ZIP Code 54702-
Subdivision Name		Lot #
Reason For Removal From Service Geotech Borehole Termination		WI Unique Well # of Replacement Well _____

**2. Facility / Owner Information**

Facility Name <b>PDM Bridge AST site</b>
Facility ID (FID or PWS) _____
License/Permit/Monitoring # _____
Original Well Owner _____
Present Well Owner <b>PDM Bridge, LLC</b>
Mailing Address of Present Owner 2800 Melby Street
City of Present Owner Eau Claire
State WI
ZIP Code 54702-

**3. Well / Drillhole / Borehole Information**

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy) <b>2/22/2013</b>
<input type="checkbox"/> Water Well	
<input checked="" type="checkbox"/> Borehole / Drillhole	If a Well Construction Report is available, please attach. _____
Construction Type:	
<input checked="" type="checkbox"/> Drilled	<input type="checkbox"/> Driven (Sandpoint)
<input type="checkbox"/> Other (specify): _____	<input type="checkbox"/> Dug
Formation Type:	
<input checked="" type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock
Total Well Depth From Ground Surface (ft.) <b>19</b>	Casing Diameter (in.) <b>6</b>
Lower Drillhole Diameter (in.) <b>2</b>	Casing Depth (ft.) <b>17</b>
Was well annular space grouted?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
If yes, to what depth (feet)?	Depth to Water (feet)

**4. Pump, Liner, Screen, Casing & Sealing Material**

Pump and piping removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Liner(s) removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Screen removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Casing left in place?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Was casing cut off below surface?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
Did sealing material rise to surface?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Did material settle after 24 hours?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
If yes, was hole retopped?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A
Required Method of Placing Sealing Material	
<input type="checkbox"/> Conductor Pipe-Gravity	<input type="checkbox"/> Conductor Pipe-Pumped
<input type="checkbox"/> Screened & Poured (Bentonite Chips)	<input checked="" type="checkbox"/> Other (Explain): <b>Loose Dumped</b>
Sealing Materials	
<input type="checkbox"/> Neat Cement Grout	<input type="checkbox"/> Clay-Sand Slurry (11 lb./gal. wt.)
<input type="checkbox"/> Sand-Cement (Concrete) Grout	<input type="checkbox"/> Bentonite-Sand Slurry " "
<input type="checkbox"/> Concrete	<input checked="" type="checkbox"/> Bentonite Chips
For Monitoring Wells and Monitoring Well Boreholes Only:	
<input type="checkbox"/> Bentonite Chips	<input type="checkbox"/> Bentonite - Cement Grout
<input type="checkbox"/> Granular Bentonite	<input type="checkbox"/> Bentonite - Sand Slurry

**5. Material Used To Fill Well / Drillhole**

Material	From (ft.)	To (ft.)	Sacks Sealant	Mix Ratio
Natural Soil	Surface	2		
3/8" Bentonite Chips	2	19	4	
Bentonite Sand Slurry				9.1 lb/gal

**6. Comments**

SB-4

**7. Supervision of Work**

Name of Person or Firm Doing Filling & Sealing American Engineering Testing, Inc.	License # _____	Date of Filling & Sealing (mm/dd/yyyy) 2/22/2013	DNR Use Only	
Street or Route 1837 County Highway OO		Telephone Number (715) 861-5045	Date Received _____	Noted By _____
City Chippewa Falls	State WI	ZIP Code 54729-	Signature of Person Doing Work 	Date Signed 2/26/2013

# Appendix E

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NR 746 Risk Analysis

## PDM Bridge Site NR 746 Risk Analysis

Wisconsin Administrative Code Chapter NR 746 was created to "measure the environmental, safety and health risks associated with petroleum contaminations, and to determine a required action level which could include, but not be limited to, adequate source control and measures to address environmental risk factors, or whether the site may be closed without additional action." The following risks must be evaluated during a site investigation.

746.06(2)(a) – Do any of the following risks, as defined in NR 746 exist at this site?

- |   |                              |  |                             |
|---|------------------------------|--|-----------------------------|
| 1. Documented expansion of plume margin?                                      | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> NA |
| 2. Verified PAL exceedance in a private or public potable well?               | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> NA |
| 3. Contamination within, or within 1 meter of, bedrock?                       | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> NA |
| 4. More than 0.01 inches of free product during more than one sampling event? | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> NA |
| 5. Documented contamination discharges to surface waters or wetlands?         | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> NA |

746.06(2)(b) – Do soil contaminants exceed Table 1 levels?  Yes  No  NA

746.06(2)(c) – Is soil contamination within 4 feet of the ground surface present at concentrations exceeding Table 2 values?  Yes  No  NA

746.06(2)(d) – Have human health risks from direct contact been addressed for other contaminants of concern?  Yes  No  NA

746.06(2)(f) – Is the most recent petroleum release greater than 10 years?  Yes  No  NA

746.06(2)(g) – Is there evidence of petroleum product contaminant migration within a utility corridor or within a permeable material or soil along which vapors, free product, or contaminated water may flow?  Yes  No  NA

746.06(2)(h) – Is there evidence of migration or imminent migration of petroleum product contamination to building foundation drain tile, sumps or other points of entry into a basement or other enclosed structure where petroleum vapors could collect and create odors or an adverse impact on indoor air quality or where the contaminants may pose an explosion hazard?  Yes  No  NA

746.06(2)(i) – Is there an ES exceedance in any groundwater within 1,000 feet of a public utility well or 100 feet of any other well used to provide water for human consumption?  Yes  No  NA



- CONSULTANTS
- ENVIRONMENTAL
- GEOTECHNICAL
- MATERIALS
- FORENSICS

February 4, 2013

Gina Keenan  
WDNR  
P.O. Box 4001  
Eau Claire, WI 54702-4001

Re: Site Investigation at the PDM Bridge AST Site, 2800 Melby Street, Eau Claire,  
Chippewa County, Wisconsin. AET Project No. 03-04630.  
**WDNR BRRTS No. 02-09-560002.**

Dear Ms. Keenan:

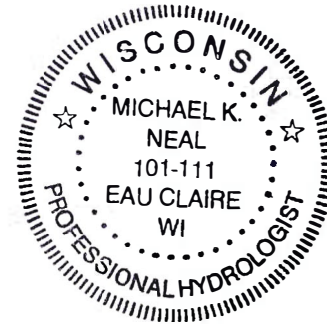
American Engineering Testing, Inc. (AET) has been retained by PDM Bridge to investigate soil contamination encountered during a tank system site assessment (TSSA) completed in December 2012. Enclosed for your review is the site investigation work plan.

If you have any questions, I can be reached at 715-861-5045.

Sincerely,

A handwritten signature in black ink that reads 'michael k neal'.

Michael K. Neal, Professional Hydrologist  
Geomorphologist



cc: Bill Partlo, PDM Bridge, 2800 Melby Street, Eau Claire, WI 54703



CONSULTANTS  
• ENVIRONMENTAL  
• GEOTECHNICAL  
• MATERIALS  
• FORENSICS

## SITE INVESTIGATION

### WORK PLAN per NR 716.09

**Site Name and Location:** **PDM Bridge AST Site**  
2800 Melby Street, Eau Claire,  
Chippewa County, Wisconsin.  
NE¼ SE¼, Sec. 33, T.28N., R.9W.  
**WDNR BRRTS #02-09-560002.**

**Responsible Party:** PDM Bridge  
2800 Melby Street  
Eau Claire, WI 54703  
Contact: Bill Partlo, 715-835-2250

**Consultant:** American Engineering Testing, Inc. (AET)  
1837 County Highway OO  
Chippewa Falls, WI 54729  
Contact: Michael K. Neal, 715-861-5045  
AET Project #03-04630

### Objective

1) To define the extent and degree of soil contamination associated with the petroleum storage tank system release. 2) To evaluate potential for groundwater contamination. 3) To evaluate potential impact to local water supply wells, wetlands, sensitive ecosystems, and potential migration pathways. 4) To evaluate the need for site remediation and the applicability of selected remediation methods.

### Figures

Site Location and Site Features maps are attached.

### Site Investigation Scope

The Department of Natural Resources (WDNR) has directed the PDM Bridge to investigate and remediate the site. A responsible party letter was issued on January 25, 2013 after soil contamination was encountered during a tank system site assessment (TSSA) on the PDM Bridge AST site. One 2,000-gallon unleaded gasoline and one 8,000-gallon diesel aboveground storage tanks (ASTs) are present at the site. The TSSA was completed on removed underground piping and the gasoline and diesel dispensers. The extent of soil and/or groundwater contamination attributable to this release is known.

The site is located in an industrial area in the City of Eau Claire. The area is served by a municipal water supply and sewer system. We are not aware of any petroleum impacts attributable to this release to private potable wells.

There does not appear to be a threat to state- or federal-listed endangered species, sensitive ecosystems, wetlands, outstanding or exceptional resource waters, or historical or archeological sites. No immediate or interim actions have been warranted at this site.

### **Physiographical and Geological Setting**

The site is located in the Central Plain Physiographic Province of northwestern Wisconsin. Fluvial processes have been an important geologic agent in determining the surface geology and physiography of the site. The site is situated on alluvial deposits.

Soils encountered at the site are primarily silty sands. Interspersed layers of coarse sand, gravel and varying amounts of silt and/or fine sand is also present. Sandstone bedrock is estimated to be greater than 50 feet below ground surface.

Topography at the site is relatively level. The direction of shallow groundwater flow is southwest toward the Chippewa River. Depth to groundwater at the site is estimated to be greater than 40 feet below ground surface.

No potential migration pathways at this site have been identified.

### **Sampling and Analyses Strategy**

This investigation will be based on procedures outlined in the most recent WDNR publications, including "Site Assessments for Underground Storage Tanks - Technical Guidance" and "LUST and Petroleum Analytical and Quality Assurance Guidance."

#### *Soil Sampling Procedures*

We will collect subsurface soil samples with a one-inch diameter, split-spoon sampler. All drilling tools and equipment will be cleaned prior to the start of sampling work. All sampling tools will also be washed with Alconox<sup>TM</sup> and water between sampling points to prevent cross contamination.

AET will select the boring locations based on the site layout, the suspected direction of groundwater flow, and any additional information obtained during this investigation. Locations may be modified based on the results of initial borings or if site conditions vary significantly from those anticipated prior to drilling. We will place borings to efficiently delimit the vertical and lateral extent of contamination.

Borings will be advanced until groundwater is encountered. Soil samples will be collected from the zone of highest contamination as indicated by a field photoionization detector (PID), the interval in which seasonal high groundwater is encountered, or from the deepest interval sampled. Two soil samples will be collected from each boring.

AET estimates the completion of 4 soil borings within the vicinity of the diesel pump. Soils will be sampled at 2-foot intervals. Soils will be described according to the Unified Soil Classification System. Soils will be field screened for volatile organic compounds (VOCs) with a PID using the headspace method described below. See enclosed figure for soil boring locations.

Each soil sample will be analyzed for VOCs and PAHs.



### *Field Screening Procedures*

We will field screen samples with a PID to determine which samples will be chemically analyzed and to assist in determining the contamination extent. The headspace procedure will be conducted as follows:

- Headspace samples will be collected in clean glass jars that will be partially filled with the sample material.
- The mouth of the headspace jar will then be covered with heavy gauge aluminum foil.
- The sample will then be agitated to break soil clods and release headspace vapors.
- If ambient air temperature is below 70°F, the headspace samples will be placed in a warm environment out of direct sunlight and allowed to equilibrate to approximately 70°F. If ambient air temperature is above 70°F, samples will be placed in a cooler environment out of direct sunlight and allowed to equilibrate to approximately 70°F.
- Following equilibration, the sample headspace will be analyzed by inserting the PID probe through a single, small hole in the foil seal to a position half-way between the seal and sample surface and then recording the highest instrument readings (benzene equivalent ppm).
- Clean headspace jars will be used for each site. After use, the headspace jars will be cleaned with an Alconox™ and water solution and allowed to dry. If no VOC carryover is identified with a PID, the jars will be reused.

### *Soil Samples Submitted for Laboratory Analysis*

Soil samples will be collected from the sampling device using clean disposable latex gloves. A discrete sample will be collected and split into a laboratory sample and a field screening sample. The laboratory sample will be immediately transferred into the appropriate containers as follows:

<b>ANALYTE</b>	<b>CONTAINER TYPE</b>	<b>FIELD PRESERVATIVE</b>	<b>Method</b>
VOC	2 oz. TLC jar	Methanol	EPA 5030/8021 or 8260
PAHs	2 oz. TLC jar	None	EPA 8310

TLC = Teflon lined cap

Quantitative results will be determined on dry-weight basis.

Samples will then be packed on ice in a cooler and transported to the laboratory. All samples will be identified by site name, sample number, sample location, date and time of collection, analysis requested, and initials of sampler.

**Following the delineation of soil contamination groundwater monitoring wells will be installed using the following procedures, if necessary.**

*Groundwater Sampling Procedures*

We will collect groundwater samples from monitoring wells constructed and developed in compliance with NR 141. Following well development, groundwater samples will be collected with new disposable polyethylene bailers and immediately transferred into the appropriate laboratory container.

AET will select the locations of monitoring wells based on site layout and information obtained from the soil borings. Four monitoring wells and one piezometer will be installed at the site (see Figure). Laboratory results of groundwater samples and the groundwater elevation data will be used to determine if additional wells are necessary at the site. Monitoring wells will typically be inspected and sampled quarterly until closure of this project.

Each groundwater sample will be analyzed for VOCs and PAHs initially, and for PVOCs+naphthalene and PAHs during subsequent sampling events unless significant chlorinated compounds are identified.

AET will sample any nearby public and private water supply wells and incorporate this sampling into a monitoring program.

*Groundwater Measurement Procedures*

AET will measure and record static water level to the nearest 0.01-foot in each well prior to obtaining a groundwater sample. AET will survey and record to the nearest 0.01-foot the well casing and ground surface elevation at each monitoring well. Both measurements will be the top of the well casing and will be identified on the well. In addition, ground surface elevations will be also measured at each soil boring location for use in constructing cross-sections.

Local hydraulic conductivity will be determined by conducting monitoring well slug tests. The slug test will involve removing a pre-determined volume of water from each well and measuring the drawdown and the time required to re-establish static water level. The data will be evaluated using the technique developed by Bouwer and Rice (1989) for slug test analysis.

*Groundwater Samples Submitted for Laboratory Analyses*

After proper development, groundwater samples will be collected by inserting a new disposable polyethylene bailer into the well and transferring the bailer contents to the appropriate containers as follows:

<b>ANALYTE</b>	<b>CONTAINER TYPE</b>	<b>FIELD PRESERVATIVE</b>	<b>Method</b>
VOC/PVOC	40 ml vial	hydrochloric acid	EPA 5030/8021
PAH	1 liter amber bottle	None	EPA 8310

Groundwater samples will then be packed on ice in a cooler and transported to the laboratory. All samples will be identified with the site name, sample number, sample location, date and time of collection, analysis requested, and initials of sampler.

### *Quality Control and Quality Assurance*

The site investigation will be accurately documented by field notes and instrument logs.

All laboratory samples will be analyzed by a NR 149-certified laboratory. All laboratory samples will be logged on a WDNR-format chain of custody that will accompany the samples to the laboratory. When transferring sample custody, the individuals relinquishing and receiving the samples will sign, date, and note the time on the chain of custody record. A copy of the chain of custody record will be then retained by the laboratory until analyses are completed.

Soil and groundwater samples will be packed in a cooler, cooled to 4° C on ice, and transported to the laboratory. All samples will be labeled with the site name, sample number, sample location, date and time of collection, analysis requested, and name of sampler.

All samples will be kept on ice in a cooler until arriving at the laboratory. Water samples will include one duplicate sample, one field blank and one trip blank; to be analyzed for VOCs. Disposable gloves and bailers will be used to collect the soil and water samples; other sampling devices will be thoroughly washed with clean water and detergent and rinsed with clean water.

### *Investigative Wastes*

All soil cuttings producing PID readings in excess of one ppm will be stockpiled on-site either within impermeable plastic or labeled 55-gallon drums. All contaminated well purge water will be drummed in labeled 55-gallon drums and kept on-site. Disposal methods will be determined after receipt of laboratory analysis and completion of the site investigation.

### *Evaluation of Results*

The field and laboratory results obtained in this investigation will be combined with other information to evaluate the degree and extent of soil and groundwater contamination at the site. Tetra Tech will prepare site maps and cross-sections to demonstrate the estimated contamination plumes. Tetra Tech will use current technologies to best demonstrate and predict contaminant extent and migration. This information will be used to evaluate which remediation options would be most applicable for the site.

### **Site Management**

AET will use appropriate barriers and warnings to enhance safety while performing the site investigation. Tetra Tech will also prepare and administer a site-specific safety plan. All soil borings not completed as monitoring wells will be abandoned according to NR141 by filling the hole with bentonite and patching as necessary.

### **Schedule**

Fieldwork is tentatively scheduled for late March 2010. Completion of laboratory analyses is anticipated three to four weeks after sample collection. The report will be submitted within 45 days after completion of field work. The report will contain soil boring logs, monitoring well construction reports, site photographs, laboratory data sheets, site location and features maps, soil profile cross-sections, and estimated extent of soil and groundwater contamination maps.



Map Created on Jan 14, 2013



**Legend**

- Open Sites (ongoing cleanups)
- Open Sites (ongoing cleanups) - site boundaries shown
- Closed Sites (completed cleanups)
- Closed Sites (completed cleanups) - site boundaries shown
- County Boundary
- Railroads
- County Roads (WDOT)
- County Trunk Highway
- State and U.S. Highways (WDOT)
- State Trunk Highway
- US Highway
- Interstate Highways (WDOT)
- Interstate Highway
- Local Roads (WDOT)
- Civil Towns
- Civil Town
- 24K Open Water
- 24K Rivers and Shorelines
- Municipalities



Map created on Jan 14, 2013

Note: Not all RR Sites have been geo-located yet.

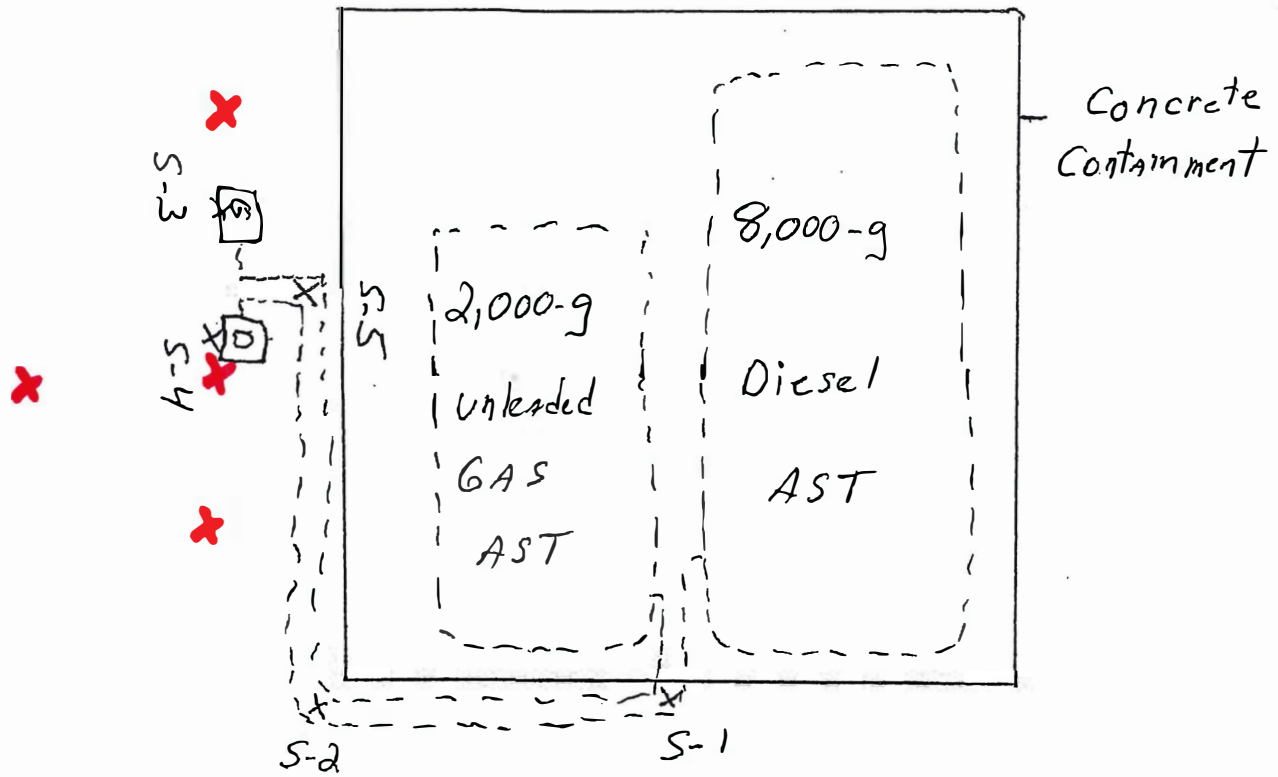


Scale: 1:7,183

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Rows of steel

X = Proposed Soil Boring Locations



Rows of steel

XS-1 = Soil Sample Location

G = Gasoline Dispenser

D = Diesel Dispenser

Rows of steel



AMERICAN ENGINEERING TESTING, INC.



Scale: 1:10

**Figure 1**

Site Features

TSSA Report

PDM Bridge AST Site

2800 Melby Street

Eau Claire, Wisconsin

Date: 01/11/2013

AET Project No. 03-04609



January 25, 2013

Mr. Bill Partlo  
PDM Bridge  
2800 Melby Street  
Eau Claire, Wisconsin 54703

SUBJECT: Reported Contamination at PDM Bridge AST Site, 2800 Melby Street, Eau Claire.  
WDNR BRRTS#02-09- 560002.

Dear Mr. Partlo:

On January 21, 2013, your environmental consultant, Mike Neal of American Engineering Testing, notified the Wisconsin Department of Natural Resources ("WDNR") that petroleum contamination had been detected at the site described above. Based on the information that has been submitted to the WDNR regarding this site, we believe you are responsible for investigating and restoring the environment at the above-described site under Section 292.11, Wisconsin Statutes, known as the hazardous substances spills law.

This letter describes the legal responsibilities of a person who is responsible under section 292.11, Wis. Stats., explains what you need to do to investigate and clean up the contamination, and provides you with information about cleanups, environmental consultants, possible financial assistance, and working cooperatively with the WDNR or the Department of Safety and Professional Services (DSPS).

#### **Legal Responsibilities:**

Your legal responsibilities are defined both in statute and in administrative codes. The hazardous substances spill law, Section 292.11 (3) Wisconsin Statutes, states:

•**RESPONSIBILITY.** A person who possesses or controls a hazardous substance which is discharged or who causes the discharge of a hazardous substance shall take the actions necessary to restore the environment to the extent practicable and minimize the harmful effects from the discharge to the air, lands, or waters of the state.

Wisconsin Administrative Code chapters NR 700 through NR 749 establish requirements for emergency and interim actions, public information, site investigations, design and operation of remedial action systems, and case closure. Wisconsin Administrative Code chapter NR 140 establishes groundwater standards for contaminants that reach groundwater.

#### **Steps to Take:**

The longer contamination is left in the environment, the farther it can spread and the more it may cost to clean up. Quick action may lessen damage to your property and neighboring properties and reduce your costs in investigating and cleaning up the contamination. To ensure that your cleanup complies with Wisconsin's laws and administrative codes, you should hire a professional environmental consultant who understands what needs to be done. These are the first steps to take:

1. Within the next 30 days, by November 7, 2012, you should submit written verification (such as a letter from the consultant) that you have hired an environmental consultant. If you do not take action within this time frame, the WDNR may initiate enforcement action against you.

2. Within the next 60 days, by December 7, 2012, your consultant should submit a work plan and schedule for the investigation. The consultant must comply with the requirements in the NR 700 Wis. Adm. Code rule series and should adhere to current WDNR technical guidance documents.
3. Within 30 days of completion of the site investigation, your consultant should submit a Site Investigation Report to the WDNR or other agency with administrative authority.

For sites with petroleum contamination, when your investigation has established the degree and extent of contamination, your consultant will be able to determine whether the Department of Safety and Professional Services or the WDNR has authority over the case. For agrichemicals, your case will be transferred to the Department of Agriculture, Trade and Consumer Protection for oversight.

Sites where discharges to the environment have been reported are entered into the Bureau for Remediation and Redevelopment Tracking System ("BRRTS"), a version of which appears on the WDNR's internet site. You may view the information related to your site at any time (<http://dnr.wi.gov/botw/SetUpBasicSearchForm.do>) and use the feedback system to alert us to any errors in the data.

If you want a formal written response from the department on a specific submittal, please be aware that a review fee is required in accordance with ch. NR 749, Wis. Adm. Code. If a fee is not submitted with your reports, you should proceed under the advice of your consultant to complete the site investigation and cleanup to maintain your compliance with the spills law and chapters NR 700 through NR 749. Do not delay the investigation of your site by waiting for an agency response. We have provided detailed technical guidance to environmental consultants. Your consultant is expected to know our technical procedures and administrative rules and should be able to answer your questions on meeting cleanup requirements.

All correspondence regarding this site should be sent to:

Gina Keenan  
Remediation and Redevelopment Program  
Wisconsin Department of Natural Resources  
1300 West Clairemont Avenue  
Eau Claire, WI 54701  
[gina.keenan@wisconsin.gov](mailto:gina.keenan@wisconsin.gov)

Unless otherwise requested, please send only one copy of plans and reports. In addition to the paper copy, an electronic copy may also be submitted. To speed processing, correspondence should reference the BRRTS numbers shown at the top of this letter.

#### **Site Investigation and Vapor Pathway Analysis**

As you develop the site investigation work plan, we want to remind you to include an assessment of the vapor intrusion pathway. Chapter NR 716, Wisconsin Administrative Code outlines the requirements for investigation of contamination in the environment. Specifically, s. NR 716.11(3)(a) requires that the field investigation determine the "nature, degree and extent, both areal and vertical, of the hazardous substances or environmental pollution in all affected media". In addition, section NR 716.11(5) specifies that the field investigation include an evaluation of the "pathways for migration of the contamination, including drainage improvements, utility corridors, bedrock and permeable material or soil along which vapors, free product or contaminated water may flow".

You will need to include documentation with the Site Investigation Report that explains how the assessment was done. If the pathway is being ruled out, then the report needs to provide the appropriate justification for reaching

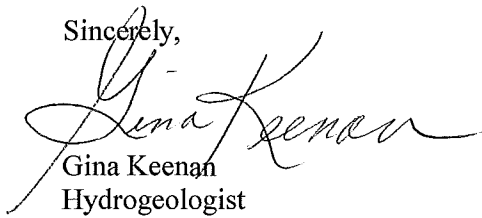


this conclusion. If the pathway cannot be ruled out, then investigation and, if appropriate, remedial action must be taken to address the risk presented prior to submitting the site for closure. The WDNR has developed guidance to help responsible parties and their consultants comply with the requirements described above. The guidance includes a detailed explanation of how to assess the vapor intrusion pathway and provides criteria which identify when an investigation is necessary. The guidance is available at: <http://dnr.wi.gov/files/PDF/pubs/rr/RR800.pdf>.

We encourage you to visit our website at <http://dnr.wi.gov/topic/Brownfields/>, where you can find information on selecting a consultant, financial assistance and understanding the cleanup process. You will also find information there about liability clarification letters, post-cleanup liability and more.

If you have questions, please call Gina Keenan at 715.839.3765 or email at [gina.keenan@wisconsin.gov](mailto:gina.keenan@wisconsin.gov) for more information or visit the RR web site at the address above. Thank you for your cooperation.

Sincerely,



Gina Keenan  
Hydrogeologist  
Remediation & Redevelopment Program

**Relevant E-mail links:**

Environmental Contamination Basics, RR-674  
<http://dnr.wi.gov/files/PDF/pubs/rr/RR674.pdf>

Petroleum Environmental Cleanup Fund Award, Information about PECFA Reimbursement, DSPS publication ERS-10083-P  
[http://dps.wi.gov/er/pdf/pecfa/ER-PECFA-ERS10083%28Info%29\\_REV\\_7-11.pdf](http://dps.wi.gov/er/pdf/pecfa/ER-PECFA-ERS10083%28Info%29_REV_7-11.pdf)

cc: Michael Neal, American Engineering Testing, 1837 Count Highway OO, Chippewa Falls, WI 54729  
WCR case file

To GINA  
1-25-12



**AMERICAN  
ENGINEERING  
TESTING, INC.**

American Engineering Testing, Inc  
1837 Cty Hwy 00  
Chippewa Falls, WI 54729  
Phone: 715-861-5045  
Fax: 715-861-5048  
[www.amengtest.com](http://www.amengtest.com)

Date: 1-21-13

No. of pages including cover sheet 4

To: R+R Program Associate

Company: WDNR

Phone: \_\_\_\_\_

Fax: 715 839 6076

From: Mike Neal

**REMARKS**

**For your review. Reply ASAP. Please confirm.**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Notification For Hazardous Substance Discharge  
 (Non-Emergency Only)**

**Emergency Discharges / Spills should be reported via the 24-Hour Hotline: 1-800-943-0003**

**Notice: Hazardous substance discharges must be reported immediately** according to the "Spills Law", s. 292.11 Wis. Stats., Section NR 706.05(1)(b), Wis. Adm. Code, requires that hazardous substance discharges are to be reported by: telephoning the Department (toll free Spill Hotline number above), telefaxing a report to the Department, e-mailing or visiting a Department office in person. If you choose to notify the Department by telefax, you should use this form to be sure that all necessary information is included. However use of this form is not mandatory. Under s. 292.99, Wis. Stats., the penalty for violating the reporting requirements of ch. 292 Wis. Stats., shall be no less than \$10 nor more than \$5000 for each violation. Each day of continued violation is a separate offense. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than program administration. However, information submitted on this form may also be made available to requesters under Wisconsin's Open Records Law (ss. 19.31 – 19.39, Wis. Stats.).

Confirmatory laboratory data should be included with this form, to assist the DNR in processing this Hazardous Substance Release Notification.

Complete this form. **TYPE or PRINT LEGIBLY.** NOTIFY appropriate DNR region (see next page) **IMMEDIATELY** upon discovery of a potential release from (check one):

- Underground Petroleum Storage Tank System  
 Aboveground Petroleum Storage Tank System  
 Dry Cleaner Facility (DERP eligibility based on:  Facility owner/operator  Property owner of licensed facility)  
 Other - Describe: \_\_\_\_\_

ATTN DNR: **R & R Program Associate**

Date DNR Notified: Jan 21, 2013

**1. Discharge Reported By**

Name Michael K. Neal	Firm American Engineering Testing	(Area Code) Phone Number (715) 861-5045
Mailing Address 1837 County Highway OO, Chippewa Falls, WI 54729		E-mail Address mneal@amengtest.com

**2. Site Information**

Name of site at which discharge occurred. Include local name of site/business, not responsible party name, unless a residence/vacant property. PDM Bridge AST Site

Location: Include street address, not PO Box. If no street address, describe as precisely as possible, i.e., 1/4 mile NW of CTHs 60 & 123 on E side of CTH 60.

2800 Melby Street

Municipality: (City, Village, Township) Specify municipality in which the site is located, not mailing address/city.

Eau Claire

County: Chippewa	Legal Description: NE 1/4 SE 1/4 Sec 33 Tn 28N Range 9	WTM: X 403739 Y 488764
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**3. Responsible Party (RP) and/or RP Representative**

Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary.

PDM Bridge

Reported in compliance with s. 292.11(2), Wis. Stats., by a local government exempt from liability under s. 292.11(9)(e), Wis. Stats. For more information see [http://dnr.wi.gov/org/aw/rr/liability/muni\\_1.html](http://dnr.wi.gov/org/aw/rr/liability/muni_1.html).

Contact Person Name (if different) Bill Partlo	Phone Number (715) 835-2250	E-mail Address bpartlo@pdmbridge.com	
Mailing Address 2800 Melby Street	City Eau Claire	State WI	ZIP Code 54703

(continued)

*Faxed to WDNR 1-21-13*

**4. Hazardous Substance Impact Information**

Identify hazardous substance discharged (check all that apply):

**METALS**

- Arsenic
- Chromium
- Lead
- Mercury
- Metals (specify): \_\_\_\_\_

**INDUSTRIAL CHEMICALS**

- Ammonia
- Cyanide
- Paint
- PCB's
- VOC's
- Leachate
- RCRA Hazardous Waste

**PETROLEUM**

- Diesel/Fuel Oil
- Engine Oil/Waste Oil
- Mineral/Transmission/Hydraulic Oil
- Gasoline (Pb/Non-Pb/Unknown)
- Jet Fuel/Kerosene
- MTBE
- VOC's
- PAH's/SVOC
- Petroleum-Unknown Type

**SOLVENTS**

- Solvent-Chlorinated
- Solvent-Non Chlorinated
- PERC
- VOC's

**AG CHEMICALS**

- Fertilizers
- Pesticide/Herbicide/Insecticide(s)

**OTHER**

- Unknown
- Other (specify): naphthalene

**5. Impacts to the Environment Information**

Enter "K" for known/confirmed or "P" for potential for all that apply.

- Air Contamination
- Co-Contamination
- Concrete/Asphalt
- Contained/Recovered
- Contamination Within 1 Meter of Bedrock
- Contaminated Private Well
- Contaminated Public Well
- Contamination in Fractured Bedrock
- Contamination in Right of Way
- Direct Contact
- Expanding Plume
- Fire Explosion Threat
- Free Product
- Groundwater Contamination
- Off-Site Contamination
- Other (specify): \_\_\_\_\_
- Sanitary Sewer Contamination
- Soil Contamination
- Storm Sewer Contamination
- Surface Water Contamination
- Within 100 ft of Private Well
- Within 1000 ft of Public Well

Contamination was discovered as a result of:

- Tank closure assessment
  - Site assessment
  - Other - Describe \_\_\_\_\_
- Date  Date  Date

**6. Federal Energy Act Requirements (Section 9002(d) of the Solid Waste Disposal Act (SWDA))**

For all UST's please provide the following information:

Quantity	Source	Quantity	Cause
—	Tank	—	Spill
—	Piping	—	Overfill
X	Dispenser	—	Corrosion
—	Submersible Turbine Pump	—	Physical or Mechanical Damage
—	Delivery Problem	—	Installation Problem
—	Other (specify): _____	—	Other (does not fit any of above)
		X	Unknown

Lab results:  Lab results will be faxed upon receipt  Lab results are attached

Additional Comments: Include a brief description of immediate actions taken to halt the release and contain or cleanup hazardous substances that have been discharged.

Contact information to report non-emergency releases in DNR's five regions are as follows:

- Northeast Region (FAX: 920-662-5197); Attention -- R&R Program Associate: DNRRRNER@wisconsin.gov**  
 Brown, Calumet, Door, Fond du Lac (except City of Waupun - see South Central Region), Green Lake, Kewaunee, Manitowoc, Marinette, Marquette, Menominee, Oconto, Outagamie, Shawano, Waupaca, Waushara, Winnebago counties
- Northern Region (FAX: 715-623-6773); Attention -- R&R Program Associate: DNRRRNOR@wisconsin.gov**  
 Ashland, Barron, Bayfield, Burnett, Douglas, Forest, Florence, Iron, Langlade, Lincoln, Oneida, Polk, Price, Rusk, Sawyer, Taylor, Vilas, Washburn counties
- South Central Region (FAX: 608-275-3338); Attention -- R&R Program Associate: DNRRRSCR@wisconsin.gov**  
 Columbia, Dane, Dodge, Fond du Lac (City of Waupun only), Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk counties
- Southeast Region (FAX: 414-263-8550); Attention -- R&R Program Associate: DNRRRSER@wisconsin.gov**  
 Kenosha, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth, Washington, Waukesha counties
- West Central Region (FAX: 715-839-6076); Attention -- R&R Program Associate: DNRRRWCR@wisconsin.gov**  
 Adams, Buffalo, Chippewa, Clark, Crawford, Dunn, Eau Claire, Jackson, Juneau, LaCrosse, Marathon, Monroe, Pepin, Pierce, Portage, St. Croix, Trempealeau, Vernon, Wood counties



AMERICAN  
ENGINEERING  
TESTING, INC.

CONSULTANTS  
• ENVIRONMENTAL  
• GEOTECHNICAL  
• MATERIALS  
• FORENSICS

January 14, 2013

Bill Partlo  
PDM Bridge  
2800 Melby Street  
Eau Claire, WI 54703

Re: Tank system site assessment for the PDM Bridge AST Site,  
2800 Melby Street, Eau Claire, Chippewa County, Wisconsin.  
AET Project No. 31-00567.

Dear Mr. Partlo:

Enclosed are copies of the tank system site assessment form and laboratory results from soil samples collected beneath the piping and dispensers from the aboveground storage tank (AST) system located at the PDM Bridge site.

High concentrations (12,000 parts per million [ppm]) of diesel range organics (DROs) were detected in one of the five soil samples collected at concentrations exceeding laboratory detection limits. This concentration exceeds the Wisconsin Department of Natural Resources (WDNR) generic soil residual contaminant levels (RCL) as outline in NR 720 of the Wisconsin Administrative Code. Naphthalene (24,000 parts per billion [ppb]) was detected in one of the five soil samples collected at a concentration that exceeds the WDNRs generic soil RCL of 400 ppb as outline in NR 720 of the Wisconsin Administrative Code.

Based on visual observation, the condition of the diesel pump, and the laboratory results of soil samples collected beneath the diesel pump there is an indication that a release of petroleum to the environment has occurred from this system. The original forms were sent to the WDNR notifying them of soil sample results.

American Engineering Testing (AET) recommends additional soil testing to determine the vertical and horizontal extent of soil contamination.

If you have any questions, I can be reach at 715-861-5045.

Sincerely,

Michael K. Neal, Professional Hydrologist  
Geomorphologist



cc: Michael Laska, Eau Claire Fire Dept., 216 S. Dewey Street, Eau Claire, WI 54701

Pat Collins, WDNR, 890 Spruce Street, Baldwin, WI 54002

**Part B – To be completed by environmental professional**

Submit original Part B to the WDNR along with a copy of Part A

**I. TANK-SYSTEM SITE ASSESSMENT (TSSA)**

Site Name: PDM Bridge

Address: 2800 Melby Road, Eau Claire, WI 54703

Note: Site name and address must match with Part A Section 1.

To determine if a TSSA is required, see Comm 10 and section II part B of ASSESSMENT AND REPORTING OF SUSPECTED AND OBVIOUS RELEASES FROM UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS.

If a TSSA is required, then follow the procedures detailed in ASSESSMENT AND REPORTING OF SUSPECTED AND OBVIOUS RELEASES FROM UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS.

**1. Site Information**

a. Has there been a previously documented release at this site?  Y  N

If yes, provide the Commerce # 54703057000, or DNR BRRT's # 03-09-000619.

b. Number of active tanks<sup>1</sup> at facility prior to completion of current services USTs \_\_\_\_\_ ASTs 2.

(NOTE 1: Do not include previously closed systems or system components.)

c. Excavation/trench dimensions (in feet). (Photos must be provided.)

EXCAVATION/TRENCH #	LENGTH	WIDTH	DEPTH
<u>Only piping</u>	<u>and dispensers</u>	<u>were removed</u>	<u>3 ft</u>

**2. Visual Excavation/Trench Inspection** (Photos must be provided for "Yes" responses, except item b.)

Do any of the following conditions exist in or about the excavation(s)?

a. Stained soils:  Y  N b. Petroleum odor:  Y  N c. Water in excavation/trench:  Y  N

d. Free product in the excavation/trench:  Y  N e. Sheen or free product on water:  Y  N

**3. Geology/Hydrogeology**

a. Depth to groundwater 720 ft feet b. Indicate type of geology<sup>2</sup> Sand

(Note 2: Use these symbols individually or in combination as appropriate: C = Clay, SLT = Silt, S = Sand, Gr = Gravel)

**4. Receptors**

a. Water supply well(s) within 250 feet of the facility?  Y  N If yes, specify \_\_\_\_\_

b. Surface water(s) within 1000 feet of the facility?  Y  N If yes, specify \_\_\_\_\_

**5. Sampling**

a. Follow the procedures detailed in ASSESSMENT AND REPORTING OF SUSPECTED AND OBVIOUS RELEASES FROM UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS.

b. Complete Tables 1 and 2 as appropriate. (Attach chain-of-custody and laboratory analytical reports.)

c. Attach a detailed map of site features and sample locations.

**J. NOTE RELEVANT OBSERVATIONS, SPECIFIC PROBLEMS OR CONCERNS BELOW**

Stained soil and petroleum odors were observed beneath the diesel pump dispenser.

**TABLE 1 SOIL FIELD SCREENING & GRO/DRO LABORATORY ANALYTICAL RESULTS-FOR PETROLEUM PRODUCTS**

Sample ID #	Sample Location & Soil/Geologic Description	Sample Collection Method				Depth Below Tank/Piping (feet)	Field Screening Result (ppm)	GRO (mg/kg)	DRO (mg/kg)
		Grab	Shelby Tube	Direct Push	Split Spoon				
S-1	Piping South Sand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	< 1	< 2.4	15
S-2	Piping SW Sand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	< 1	< 2.4	21.4
S-3	GAS PUMP Sand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	< 1	< 2.2	—
S-4	Diesel Pump sand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	285	—	12,000
S-5	Piping West Sand	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3	< 1	2.8	11
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

**TABLE 2 SOIL LABORATORY ANALYTICAL RESULTS-FOR PETROLEUM PRODUCTS**

Sample ID #	BENZENE	TOLUENE	ETHYLBENZENE	MTBE	TRIMETHYL - BENZENES (TOTAL)	XYLENES (TOTAL)	NAPHTHALENE
	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
S-1	< 17	< 16	< 18	< 11	31	< 29	< 110
S-2	< 17	< 16	< 18	< 12	< 15	< 29	< 120
S-3	< 16	75	< 17	< 11	25	75	< 110
S-4	< 35	< 33	2800	< 23	7400	430	24,000
S-5	< 19	< 18	< 20	< 13	< 16	< 32	< 130

**K. TANK-SYSTEM SITE ASSESSMENT INFORMATION**

- As a tank-system site assessor certified under Wis. Admin. Code section Comm 5.83, it is my opinion that there is no indication of a release of a regulated substance to the environment.
- Sampling at the site indicates there has been a release to the environment. Pursuant to Wis. Admin. Code section Comm 10.585 (2) (a) and Wis. Stats. section 292.11 (2) (a), the owner or operator or contractor performing work under chapter Comm 10 shall immediately report any release of a regulated substance to the Wisconsin Department of Natural Resources. Failure to do so may result in forfeitures of a minimum of \$10 and a maximum of \$5000 for each violation under Wis. Stats. section 101.09 (5). Each day of continued violation and each tank are treated as separate offenses.

Michael K. Neal  
Tank-System Site Assessor Name (print)

*Michael K. Neal*  
Tank-System Site Assessor Signature

41917  
Certification Number #

715 861 5045  
Tank-System Site Assessor Telephone Number

1-11-13  
Date Signed

American Engineering Testing  
Company Name

# Map Created on Jan 14, 2013

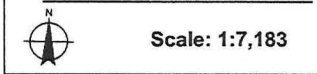


### Legend

- Open Sites (ongoing cleanups)
- Open Sites (ongoing cleanups) - site boundaries shown
- Closed Sites (completed cleanups)
- Closed Sites (completed cleanups) - site boundaries shown
- County Boundary
- Railroads
- County Roads (WDOT)
- County Trunk Highway
- State and U.S. Highways (WDOT)
- State Trunk Highway
- US Highway
- Interstate Highways (WDOT)
- Interstate Highway
- Local Roads (WDOT)
- Civil Towns
- Civil Town
- 24K Open Water
- 24K Rivers and Shorelines
- Municipalities



Map created on Jan 14, 2013  
 Note: Not all RR Sites have been geo-located yet.



This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.



**TABLE 1**  
**ANALYTICAL RESULTS - TSSA SOIL SAMPLES**  
**PDM BRIDGE SITE, EAU CLAIRE, WISCONSIN**

	NR720 Generic RCLs	NR 746 Table 1 Values	NR 746 Table 2 Values	Samples				
				S-1	S-2	S-3	S-4	S-5
Date				19-Dec-12	19-Dec-12	19-Dec-12	19-Dec-12	19-Dec-12
Location				Piping South	Piping SW	Gasoline Pump	Diesel Pump	Piping West
Depth (feet)				3	3	3	3	3
PID (Instrument Units)				< 1	< 1	< 1	285	< 1
GRO (ppm)	100			< 2.4	< 2.4	< 2.2	---	2.8
DRO (ppm)	100			15	< 1.4	---	<b>12,000</b>	11
PVOCs (ppb)								
Benzene	25	<i>8,500</i>	<i>1,100</i>	< 17	< 17	< 16	< 35	< 19
Ethylbenzene	2,900	<i>4,600</i>		< 18	< 18	< 17	2,800	< 20
MTBE				< 11	< 12	< 11	< 23	< 13
Naphthalene	400	<i>2,700</i>		< 110	< 120	< 110	<b>24,000</b>	< 130
Toluene	<i>1,500</i>	<i>38,000</i>		< 16	< 16	75	< 33	< 18
1,2,4-TMB		<i>83,000</i>		31	< 15	25	2,500	< 16
1,3,5-TMB		<i>11,000</i>		< 14	< 15	< 13	4,900	< 16
Total Xylenes	<i>4,100</i>	<i>42,000</i>		< 29	< 29	75	430	< 32

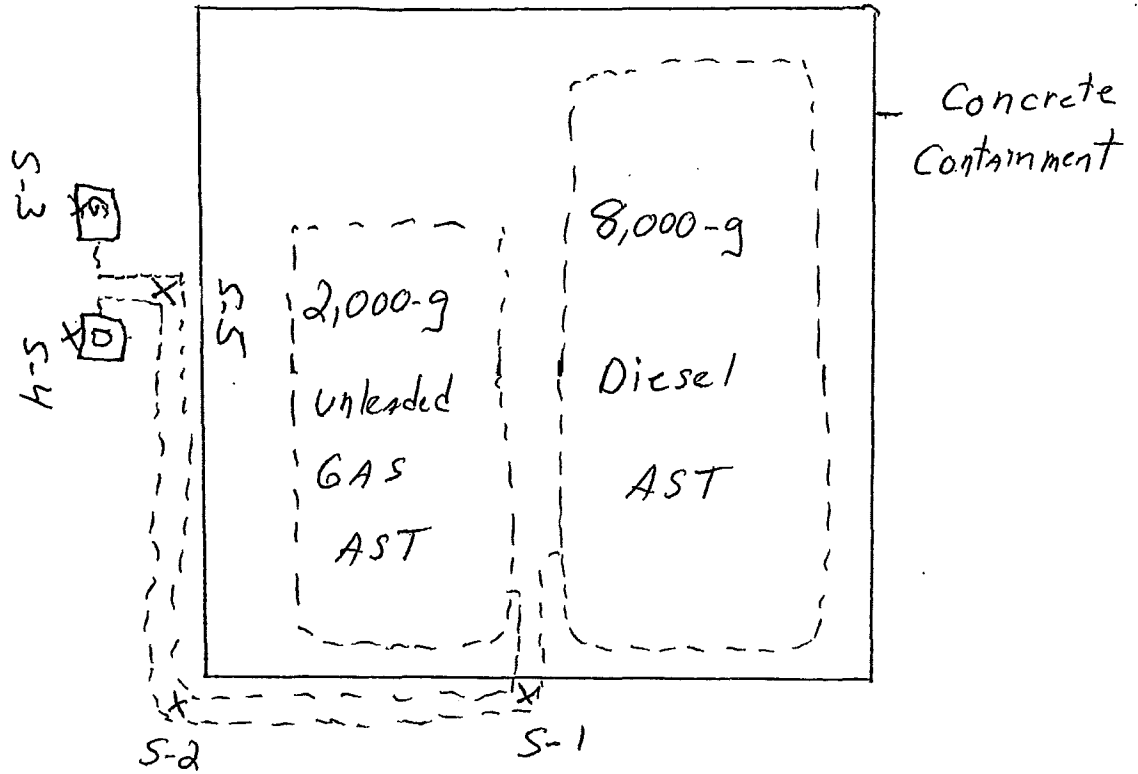
GRO = gasoline range organics    DRO = diesel range organics    MTBE = methyl-tert-butylether    --- = not analyzed

PVOC = petroleum volatile organic compounds    TMB = trimethylbenzene

**Bold areas** indicate soil contaminant concentrations exceed WDNR's RCLs.

**Bold italics areas** indicate soil contaminant concentrations exceed NR 746 Table Values.

Rows of steel



XS-1 = Soil Sample Location

G = Gasoline Dispenser

D = Diesel Dispenser

Rows of steel

Rows of steel



AMERICAN  
ENGINEERING  
TESTING, INC.



Scale: 1:10

**Figure 1**  
Site Features  
TSSA Report

PDM Bridge AST Site  
2800 Melby Street  
Eau Claire, Wisconsin

Date: 01/11/2013

AET Project No. 03-04609



UNLEADED

FLAMMABLE MATERIALS

3

3

3

1993

12/19/2012



12/19/2012



EXPERIMENTAL MATERIALS

DO NOT OPERATE

12/19/2012



12/19/2012

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica Chicago  
2417 Bond Street  
University Park, IL 60484  
Tel: (708)534-5200

TestAmerica Job ID: 500-53463-1  
Client Project/Site: PDM Bridge - 03-04609

For:  
American Engineering Testing Inc.  
1837 Cty Hwy OO  
Chippewa Falls, Wisconsin 54729

Attn: Mr. Michael Neal



Authorized for release by:  
1/8/2013 11:30:49 AM

Sandie Fredrick  
Project Manager I  
sandie.fredrick@testamericainc.com

### LINKS

Review your project  
results through  
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**?** Ask  
The  
Expert

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

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*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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## Case Narrative

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

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**Job ID: 500-53463-1**

---

**Laboratory: TestAmerica Chicago**

**Narrative**

---

**Job Narrative**  
500-53463-1

**Comments**

No additional comments.

**Receipt**

The samples were received on 12/20/2012 10:49 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

**GC VOA**

No analytical or quality issues were noted.

**GC Semi VOA**

Method(s) WI-DRO: Due to the level of dilution required for the following sample(s), surrogate recoveries are not accurate: S-4 (500-53463-4).

Method(s) WI-DRO: The following sample(s) was analyzed outside of analytical holding time: (500-53463-1 MS), (500-53463-1 MSD), S-1 (500-53463-1), S-2 (500-53463-2), S-4 (500-53463-4), S-5 (500-53463-5). LIMS login issue created the missed hold time for DRO.

No other analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.

**VOA Prep**

No analytical or quality issues were noted.

## Detection Summary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

### Client Sample ID: S-1

Lab Sample ID: 500-53463-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	31		24	14	ug/Kg	1	*	WDNR	Total/NA
WI Diesel Range Organics (C10-C28)	15	H B	5.3	1.5	mg/Kg	1	*	WI-DRO	Total/NA

### Client Sample ID: S-2

Lab Sample ID: 500-53463-2

No Detections

### Client Sample ID: S-3

Lab Sample ID: 500-53463-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	25		22	13	ug/Kg	1	*	WDNR	Total/NA
Toluene	75		22	15	ug/Kg	1	*	WDNR	Total/NA
Xylenes, Total	75		66	26	ug/Kg	1	*	WDNR	Total/NA

### Client Sample ID: S-4

Lab Sample ID: 500-53463-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2500		49	29	ug/Kg	2	*	WDNR	Total/NA
1,3,5-Trimethylbenzene	4900		49	29	ug/Kg	2	*	WDNR	Total/NA
Ethylbenzene	2800		49	37	ug/Kg	2	*	WDNR	Total/NA
Naphthalene	24000		490	230	ug/Kg	2	*	WDNR	Total/NA
Xylenes, Total	430		150	58	ug/Kg	2	*	WDNR	Total/NA
WI Diesel Range Organics (C10-C28)	12000	H B	1300	370	mg/Kg	250	*	WI-DRO	Total/NA

### Client Sample ID: S-5

Lab Sample ID: 500-53463-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Wisconsin GRO	2800	J	5300	2600	ug/Kg	1	*	WDNR	Total/NA
WI Diesel Range Organics (C10-C28)	11	H B	5.3	1.5	mg/Kg	1	*	WI-DRO	Total/NA

### Client Sample ID: MEOH BLANK

Lab Sample ID: 500-53463-6

No Detections

## Method Summary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

Method	Method Description	Protocol	Laboratory
WDNR	Wisconsin - Gasoline Range Organics (GC)	WI-GRO	TAL NSH
WI-DRO	Wisconsin - Diesel Range Organics (GC)	WI-DRO	TAL NSH
Moisture	Percent Moisture	EPA	TAL NSH

### Protocol References:

EPA = US Environmental Protection Agency

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

WI-GRO = "Modified GRO: Method For Determining Gasoline Range Organics", Wisconsin DNR, Publ-SW-140, September, 1995.

### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

# Sample Summary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-53463-1	S-1	Solid	12/19/12 08:30	12/20/12 10:49
500-53463-2	S-2	Solid	12/19/12 08:45	12/20/12 10:49
500-53463-3	S-3	Solid	12/19/12 09:15	12/20/12 10:49
500-53463-4	S-4	Solid	12/19/12 09:30	12/20/12 10:49
500-53463-5	S-5	Solid	12/19/12 09:45	12/20/12 10:49
500-53463-6	MEOH BLANK	Solid	12/19/12 00:00	12/20/12 10:49

# Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

**Client Sample ID: S-1**

**Lab Sample ID: 500-53463-1**

Date Collected: 12/19/12 08:30

Matrix: Solid

Date Received: 12/20/12 10:49

Percent Solids: 93.2

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	31		24	14	ug/Kg	✱	12/21/12 14:25	12/29/12 00:43	1
1,3,5-Trimethylbenzene	<14		24	14	ug/Kg	✱	12/21/12 14:25	12/29/12 00:43	1
Benzene	<17		24	17	ug/Kg	✱	12/21/12 14:25	12/29/12 00:43	1
Ethylbenzene	<18		24	18	ug/Kg	✱	12/21/12 14:25	12/29/12 00:43	1
Methyl tert-butyl ether	<11		24	11	ug/Kg	✱	12/21/12 14:25	12/29/12 00:43	1
Naphthalene	<110		240	110	ug/Kg	✱	12/21/12 14:25	12/29/12 00:43	1
Toluene	<16		24	16	ug/Kg	✱	12/21/12 14:25	12/29/12 00:43	1
Xylenes, Total	<29		72	29	ug/Kg	✱	12/21/12 14:25	12/29/12 00:43	1
Wisconsin GRO	<2400		4800	2400	ug/Kg	✱	12/21/12 14:25	12/29/12 00:43	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	97		80 - 120				12/21/12 14:25	12/29/12 00:43	1
a,a,a-Trifluorotoluene	99		80 - 120				12/21/12 14:25	12/29/12 00:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	15	H B	5.3	1.5	mg/Kg	✱	01/04/13 11:31	01/07/13 19:32	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
C35 (Surr)	98		19 - 150				01/04/13 11:31	01/07/13 19:32	1

**Client Sample ID: S-2**

**Lab Sample ID: 500-53463-2**

Date Collected: 12/19/12 08:45

Matrix: Solid

Date Received: 12/20/12 10:49

Percent Solids: 93.9

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<15		24	15	ug/Kg	✱	12/21/12 14:25	12/29/12 01:21	1
1,3,5-Trimethylbenzene	<15		24	15	ug/Kg	✱	12/21/12 14:25	12/29/12 01:21	1
Benzene	<17		24	17	ug/Kg	✱	12/21/12 14:25	12/29/12 01:21	1
Ethylbenzene	<18		24	18	ug/Kg	✱	12/21/12 14:25	12/29/12 01:21	1
Methyl tert-butyl ether	<12		24	12	ug/Kg	✱	12/21/12 14:25	12/29/12 01:21	1
Naphthalene	<120		240	120	ug/Kg	✱	12/21/12 14:25	12/29/12 01:21	1
Toluene	<16		24	16	ug/Kg	✱	12/21/12 14:25	12/29/12 01:21	1
Xylenes, Total	<29		73	29	ug/Kg	✱	12/21/12 14:25	12/29/12 01:21	1
Wisconsin GRO	<2400		4800	2400	ug/Kg	✱	12/21/12 14:25	12/29/12 01:21	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	97		80 - 120				12/21/12 14:25	12/29/12 01:21	1
a,a,a-Trifluorotoluene	100		80 - 120				12/21/12 14:25	12/29/12 01:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	<1.4	H	5.2	1.4	mg/Kg	✱	01/04/13 11:31	01/07/13 21:19	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
C35 (Surr)	63		19 - 150				01/04/13 11:31	01/07/13 21:19	1

TestAmerica Chicago

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

**Client Sample ID: S-3**

**Lab Sample ID: 500-53463-3**

Date Collected: 12/19/12 09:15

Matrix: Solid

Date Received: 12/20/12 10:49

Percent Solids: 93.7

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	25		22	13	ug/Kg	*	12/21/12 14:25	12/29/12 02:00	1
1,3,5-Trimethylbenzene	<13		22	13	ug/Kg	*	12/21/12 14:25	12/29/12 02:00	1
Benzene	<16		22	16	ug/Kg	*	12/21/12 14:25	12/29/12 02:00	1
Ethylbenzene	<17		22	17	ug/Kg	*	12/21/12 14:25	12/29/12 02:00	1
Methyl tert-butyl ether	<11		22	11	ug/Kg	*	12/21/12 14:25	12/29/12 02:00	1
Naphthalene	<110		220	110	ug/Kg	*	12/21/12 14:25	12/29/12 02:00	1
Toluene	75		22	15	ug/Kg	*	12/21/12 14:25	12/29/12 02:00	1
Xylenes, Total	75		66	26	ug/Kg	*	12/21/12 14:25	12/29/12 02:00	1
Wisconsin GRO	<2200		4400	2200	ug/Kg	*	12/21/12 14:25	12/29/12 02:00	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	97		80 - 120				12/21/12 14:25	12/29/12 02:00	1
a,a,a-Trifluorotoluene	101		80 - 120				12/21/12 14:25	12/29/12 02:00	1

**Client Sample ID: S-4**

**Lab Sample ID: 500-53463-4**

Date Collected: 12/19/12 09:30

Matrix: Solid

Date Received: 12/20/12 10:49

Percent Solids: 91.8

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	2500		49	29	ug/Kg	*	12/21/12 14:25	12/30/12 23:28	2
1,3,5-Trimethylbenzene	4900		49	29	ug/Kg	*	12/21/12 14:25	12/30/12 23:28	2
Benzene	<35		49	35	ug/Kg	*	12/21/12 14:25	12/30/12 23:28	2
Ethylbenzene	2800		49	37	ug/Kg	*	12/21/12 14:25	12/30/12 23:28	2
Methyl tert-butyl ether	<23		49	23	ug/Kg	*	12/21/12 14:25	12/30/12 23:28	2
Naphthalene	24000		490	230	ug/Kg	*	12/21/12 14:25	12/30/12 23:28	2
Toluene	<33		49	33	ug/Kg	*	12/21/12 14:25	12/30/12 23:28	2
Xylenes, Total	430		150	58	ug/Kg	*	12/21/12 14:25	12/30/12 23:28	2
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	93		80 - 120				12/21/12 14:25	12/30/12 23:28	2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	12000	H B	1300	370	mg/Kg	*	01/04/13 11:31	01/07/13 22:13	250
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
C35 (Surr)	0	X	19 - 150				01/04/13 11:31	01/07/13 22:13	250

**Client Sample ID: S-5**

**Lab Sample ID: 500-53463-5**

Date Collected: 12/19/12 09:45

Matrix: Solid

Date Received: 12/20/12 10:49

Percent Solids: 92.4

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<16		26	16	ug/Kg	*	12/21/12 14:25	12/29/12 03:12	1
1,3,5-Trimethylbenzene	<16		26	16	ug/Kg	*	12/21/12 14:25	12/29/12 03:12	1
Benzene	<19		26	19	ug/Kg	*	12/21/12 14:25	12/29/12 03:12	1
Ethylbenzene	<20		26	20	ug/Kg	*	12/21/12 14:25	12/29/12 03:12	1
Methyl tert-butyl ether	<13		26	13	ug/Kg	*	12/21/12 14:25	12/29/12 03:12	1

TestAmerica Chicago

## Client Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

**Client Sample ID: S-5**

**Lab Sample ID: 500-53463-5**

Date Collected: 12/19/12 09:45

Matrix: Solid

Date Received: 12/20/12 10:49

Percent Solids: 92.4

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	<130		260	130	ug/Kg	*	12/21/12 14:25	12/29/12 03:12	1
Toluene	<18		26	18	ug/Kg	*	12/21/12 14:25	12/29/12 03:12	1
Xylenes, Total	<32		79	32	ug/Kg	*	12/21/12 14:25	12/29/12 03:12	1
Wisconsin GRO	2800	J	5300	2600	ug/Kg	*	12/21/12 14:25	12/29/12 03:12	1
<b>Surrogate</b>									
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	98		80 - 120				12/21/12 14:25	12/29/12 03:12	1
a,a,a-Trifluorotoluene	99		80 - 120				12/21/12 14:25	12/29/12 03:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	11	H B	5.3	1.5	mg/Kg	*	01/04/13 11:31	01/07/13 22:39	1
<b>Surrogate</b>									
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
C35 (Surr)	75		19 - 150				01/04/13 11:31	01/07/13 22:39	1

**Client Sample ID: MEOH BLANK**

**Lab Sample ID: 500-53463-6**

Date Collected: 12/19/12 00:00

Matrix: Solid

Date Received: 12/20/12 10:49

**Method: WDNR - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	<15		25	15	ug/Kg		12/21/12 14:25	12/28/12 16:01	1
1,3,5-Trimethylbenzene	<15		25	15	ug/Kg		12/21/12 14:25	12/28/12 16:01	1
Benzene	<18		25	18	ug/Kg		12/21/12 14:25	12/28/12 16:01	1
Ethylbenzene	<19		25	19	ug/Kg		12/21/12 14:25	12/28/12 16:01	1
Methyl tert-butyl ether	<12		25	12	ug/Kg		12/21/12 14:25	12/28/12 16:01	1
Naphthalene	<120		250	120	ug/Kg		12/21/12 14:25	12/28/12 16:01	1
Toluene	<17		25	17	ug/Kg		12/21/12 14:25	12/28/12 16:01	1
Xylenes, Total	<30		75	30	ug/Kg		12/21/12 14:25	12/28/12 16:01	1
<b>Surrogate</b>									
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
a,a,a-Trifluorotoluene	98		80 - 120				12/21/12 14:25	12/28/12 16:01	1

## Definitions/Glossary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

### Qualifiers

#### GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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)



## QC Association Summary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

### GC VOA

#### Prep Batch: 45869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-53463-1	S-1	Total/NA	Solid	5035	
500-53463-2	S-2	Total/NA	Solid	5035	
500-53463-3	S-3	Total/NA	Solid	5035	
500-53463-4	S-4	Total/NA	Solid	5035	
500-53463-5	S-5	Total/NA	Solid	5035	
500-53463-6	MEOH BLANK	Total/NA	Solid	5035	

#### Analysis Batch: 47203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-53463-1	S-1	Total/NA	Solid	WDNR	45869
500-53463-2	S-2	Total/NA	Solid	WDNR	45869
500-53463-3	S-3	Total/NA	Solid	WDNR	45869
500-53463-5	S-5	Total/NA	Solid	WDNR	45869
500-53463-6	MEOH BLANK	Total/NA	Solid	WDNR	45869
LCS 490-47203/2	Lab Control Sample	Total/NA	Solid	WDNR	
LCSD 490-47203/3	Lab Control Sample Dup	Total/NA	Solid	WDNR	
MB 490-47203/19	Method Blank	Total/NA	Solid	WDNR	
MB 490-47203/5	Method Blank	Total/NA	Solid	WDNR	

#### Analysis Batch: 47613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-53463-4	S-4	Total/NA	Solid	WDNR	45869
LCS 490-47613/2	Lab Control Sample	Total/NA	Solid	WDNR	
LCSD 490-47613/3	Lab Control Sample Dup	Total/NA	Solid	WDNR	
MB 490-47613/5	Method Blank	Total/NA	Solid	WDNR	

### GC Semi VOA

#### Prep Batch: 48526

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-53463-1	S-1	Total/NA	Solid	WI DRO PREP	
500-53463-1 MS	S-1	Total/NA	Solid	WI DRO PREP	
500-53463-1 MSD	S-1	Total/NA	Solid	WI DRO PREP	
500-53463-2	S-2	Total/NA	Solid	WI DRO PREP	
500-53463-4	S-4	Total/NA	Solid	WI DRO PREP	
500-53463-5	S-5	Total/NA	Solid	WI DRO PREP	
LCS 490-48526/2-A	Lab Control Sample	Total/NA	Solid	WI DRO PREP	
LCSD 490-48526/10-A	Lab Control Sample Dup	Total/NA	Solid	WI DRO PREP	
MB 490-48526/1-A	Method Blank	Total/NA	Solid	WI DRO PREP	

#### Analysis Batch: 49078

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-53463-1	S-1	Total/NA	Solid	WI-DRO	48526
500-53463-1 MS	S-1	Total/NA	Solid	WI-DRO	48526
500-53463-1 MSD	S-1	Total/NA	Solid	WI-DRO	48526
500-53463-2	S-2	Total/NA	Solid	WI-DRO	48526
500-53463-4	S-4	Total/NA	Solid	WI-DRO	48526
500-53463-5	S-5	Total/NA	Solid	WI-DRO	48526
LCS 490-48526/2-A	Lab Control Sample	Total/NA	Solid	WI-DRO	48526
LCSD 490-48526/10-A	Lab Control Sample Dup	Total/NA	Solid	WI-DRO	48526

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## QC Association Summary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

### GC Semi VOA (Continued)

#### Analysis Batch: 49078 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 490-48526/1-A	Method Blank	Total/NA	Solid	WI-DRO	48526

### General Chemistry

#### Analysis Batch: 45844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-53463-1	S-1	Total/NA	Solid	Moisture	
500-53463-1 DU	S-1	Total/NA	Solid	Moisture	
500-53463-2	S-2	Total/NA	Solid	Moisture	
500-53463-3	S-3	Total/NA	Solid	Moisture	
500-53463-4	S-4	Total/NA	Solid	Moisture	
500-53463-5	S-5	Total/NA	Solid	Moisture	

## Surrogate Summary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

### Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TFT (80-120)	TFT (80-120)
500-53463-1	S-1	97	97
500-53463-2	S-2	97	97
500-53463-3	S-3	97	97
500-53463-4	S-4	93	93
500-53463-5	S-5	98	98
500-53463-6	MEOH BLANK	98	98
LCS 490-47203/2	Lab Control Sample	102	102
LCS 490-47613/2	Lab Control Sample	102	102
LCSD 490-47203/3	Lab Control Sample Dup	102	102
LCSD 490-47613/3	Lab Control Sample Dup	100	100
MB 490-47203/19	Method Blank	97	97
MB 490-47203/5	Method Blank	99	99
MB 490-47613/5	Method Blank	92	92

**Surrogate Legend**  
TFT = a,a,a-Trifluorotoluene

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		C35 (Surr) (19-150)	
500-53463-1	S-1	98	
500-53463-1 MS	S-1	60	
500-53463-1 MSD	S-1	85	
500-53463-2	S-2	63	
500-53463-4	S-4	0 X	
500-53463-5	S-5	75	
LCS 490-48526/2-A	Lab Control Sample	25	
LCSD 490-48526/10-A	Lab Control Sample Dup	39	
MB 490-48526/1-A	Method Blank	34	

**Surrogate Legend**  
C35 (Surr) = C35 (Surr)

# QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC)

Lab Sample ID: MB 490-47203/19										Client Sample ID: Method Blank	
Matrix: Solid										Prep Type: Total/NA	
Analysis Batch: 47203											
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
1,2,4-Trimethylbenzene	<15		25	15	ug/Kg			12/28/12 22:16	1		
1,3,5-Trimethylbenzene	<15		25	15	ug/Kg			12/28/12 22:16	1		
Benzene	<18		25	18	ug/Kg			12/28/12 22:16	1		
Ethylbenzene	<19		25	19	ug/Kg			12/28/12 22:16	1		
Methyl tert-butyl ether	<12		25	12	ug/Kg			12/28/12 22:16	1		
Naphthalene	<120		250	120	ug/Kg			12/28/12 22:16	1		
Toluene	<17		25	17	ug/Kg			12/28/12 22:16	1		
Xylenes, Total	<30		75	30	ug/Kg			12/28/12 22:16	1		
Wisconsin GRO	<2500		5000	2500	ug/Kg			12/28/12 22:16	1		
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac		
a,a,a-Trifluorotoluene	97		80 - 120					12/28/12 22:16	1		
a,a,a-Trifluorotoluene	100		80 - 120					12/28/12 22:16	1		

Lab Sample ID: MB 490-47203/5										Client Sample ID: Method Blank	
Matrix: Solid										Prep Type: Total/NA	
Analysis Batch: 47203											
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
1,2,4-Trimethylbenzene	<15		25	15	ug/Kg			12/28/12 13:31	1		
1,3,5-Trimethylbenzene	<15		25	15	ug/Kg			12/28/12 13:31	1		
Benzene	<18		25	18	ug/Kg			12/28/12 13:31	1		
Ethylbenzene	<19		25	19	ug/Kg			12/28/12 13:31	1		
Methyl tert-butyl ether	<12		25	12	ug/Kg			12/28/12 13:31	1		
Naphthalene	<120		250	120	ug/Kg			12/28/12 13:31	1		
Toluene	<17		25	17	ug/Kg			12/28/12 13:31	1		
Xylenes, Total	<30		75	30	ug/Kg			12/28/12 13:31	1		
Wisconsin GRO	<2500		5000	2500	ug/Kg			12/28/12 13:31	1		
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac		
a,a,a-Trifluorotoluene	99		80 - 120					12/28/12 13:31	1		
a,a,a-Trifluorotoluene	98		80 - 120					12/28/12 13:31	1		

Lab Sample ID: LCS 490-47203/2										Client Sample ID: Lab Control Sample	
Matrix: Solid										Prep Type: Total/NA	
Analysis Batch: 47203											
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits				
1,2,4-Trimethylbenzene	100	101		ug/Kg		101	60 - 140				
1,3,5-Trimethylbenzene	100	101		ug/Kg		101	74 - 133				
Benzene	100	87.6		ug/Kg		88	76 - 120				
Ethylbenzene	100	99.0		ug/Kg		99	77 - 120				
Methyl tert-butyl ether	100	80.4		ug/Kg		80	73 - 120				
Naphthalene	100	97.4		ug/Kg		97	74 - 127				
Toluene	100	95.1		ug/Kg		95	79 - 120				
Xylenes, Total	300	298		ug/Kg		99					
Wisconsin GRO	1000	912		ug/Kg		91	80 - 120				

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# QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: LCS 490-47203/2  
Matrix: Solid  
Analysis Batch: 47203

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
a,a,a-Trifluorotoluene	102		80 - 120
a,a,a-Trifluorotoluene	100		80 - 120

Lab Sample ID: LCSD 490-47203/3  
Matrix: Solid  
Analysis Batch: 47203

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,2,4-Trimethylbenzene	100	106		ug/Kg		106	60 - 140	5	50
1,3,5-Trimethylbenzene	100	107		ug/Kg		107	74 - 133	6	42
Benzene	100	92.7		ug/Kg		93	76 - 120	6	27
Ethylbenzene	100	105		ug/Kg		105	77 - 120	6	49
Methyl tert-butyl ether	100	88.4		ug/Kg		88	73 - 120	9	31
Naphthalene	100	111		ug/Kg		111	74 - 127	13	50
Toluene	100	101		ug/Kg		101	79 - 120	6	37
Xylenes, Total	300	313		ug/Kg		104		5	
Wisconsin GRO	1000	946		ug/Kg		95	80 - 120	4	20

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
a,a,a-Trifluorotoluene	102		80 - 120
a,a,a-Trifluorotoluene	100		80 - 120

Lab Sample ID: MB 490-47613/5  
Matrix: Solid  
Analysis Batch: 47613

Client Sample ID: Method Blank  
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,4-Trimethylbenzene	<15		25	15	ug/Kg		12/30/12 20:48	1	
1,3,5-Trimethylbenzene	<15		25	15	ug/Kg		12/30/12 20:48	1	
Benzene	<18		25	18	ug/Kg		12/30/12 20:48	1	
Ethylbenzene	<19		25	19	ug/Kg		12/30/12 20:48	1	
Methyl tert-butyl ether	<12		25	12	ug/Kg		12/30/12 20:48	1	
Naphthalene	<120		250	120	ug/Kg		12/30/12 20:48	1	
Toluene	<17		25	17	ug/Kg		12/30/12 20:48	1	
Xylenes, Total	<30		75	30	ug/Kg		12/30/12 20:48	1	

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
a,a,a-Trifluorotoluene	92		80 - 120		12/30/12 20:48	1

Lab Sample ID: LCS 490-47613/2  
Matrix: Solid  
Analysis Batch: 47613

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trimethylbenzene	100	106		ug/Kg		106	60 - 140
1,3,5-Trimethylbenzene	100	107		ug/Kg		107	74 - 133
Benzene	100	101		ug/Kg		101	76 - 120

TestAmerica Chicago

# QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

## Method: WDNR - Wisconsin - Gasoline Range Organics (GC) (Continued)

Lab Sample ID: LCS 490-47613/2				Client Sample ID: Lab Control Sample			
Matrix: Solid				Prep Type: Total/NA			
Analysis Batch: 47613							
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethylbenzene	100	105		ug/Kg		105	77 - 120
Methyl tert-butyl ether	100	90.1		ug/Kg		90	73 - 120
Naphthalene	100	96.0		ug/Kg		96	74 - 127
Toluene	100	103		ug/Kg		103	79 - 120
Xylenes, Total	300	314		ug/Kg		105	
		<b>LCS</b>	<b>LCS</b>				
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
a,a,a-Trifluorotoluene	102		80 - 120				

Lab Sample ID: LCSD 490-47613/3				Client Sample ID: Lab Control Sample Dup					
Matrix: Solid				Prep Type: Total/NA					
Analysis Batch: 47613									
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trimethylbenzene	100	102		ug/Kg		102	60 - 140	4	50
1,3,5-Trimethylbenzene	100	103		ug/Kg		103	74 - 133	3	42
Benzene	100	97.9		ug/Kg		98	76 - 120	3	27
Ethylbenzene	100	102		ug/Kg		102	77 - 120	3	49
Methyl tert-butyl ether	100	91.7		ug/Kg		92	73 - 120	2	31
Naphthalene	100	102		ug/Kg		102	74 - 127	6	50
Toluene	100	100		ug/Kg		100	79 - 120	3	37
Xylenes, Total	300	306		ug/Kg		102		3	
		<b>LCSD</b>	<b>LCSD</b>						
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
a,a,a-Trifluorotoluene	100		80 - 120						

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

Lab Sample ID: MB 490-48526/1-A				Client Sample ID: Method Blank					
Matrix: Solid				Prep Type: Total/NA					
Analysis Batch: 49078				Prep Batch: 48526					
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Diesel Range Organics (C10-C28)	1.53	J	5.0	1.4	mg/Kg		01/04/13 11:31	01/07/13 19:06	1
		<b>MB</b>	<b>MB</b>						
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>	<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>			
C35 (Surr)	34		19 - 150	01/04/13 11:31	01/07/13 19:06	1			

Lab Sample ID: LCS 490-48526/2-A				Client Sample ID: Lab Control Sample			
Matrix: Solid				Prep Type: Total/NA			
Analysis Batch: 49078				Prep Batch: 48526			
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
WI Diesel Range Organics (C10-C28)	19.7	15.7		mg/Kg		80	70 - 120

TestAmerica Chicago

## QC Sample Results

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

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

Lab Sample ID: LCS 490-48526/2-A  
Matrix: Solid  
Analysis Batch: 49078

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 48526

Surrogate	LCS %Recovery	LCS Qualifier	Limits
C35 (Surr)	25		19 - 150

Lab Sample ID: LCSD 490-48526/10-A  
Matrix: Solid  
Analysis Batch: 49078

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 48526

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
WI Diesel Range Organics (C10-C28)	19.8	17.9		mg/Kg		90	70 - 120	13	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
C35 (Surr)	39		19 - 150

Lab Sample ID: 500-53463-1 MS  
Matrix: Solid  
Analysis Batch: 49078

Client Sample ID: S-1  
Prep Type: Total/NA  
Prep Batch: 48526

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
WI Diesel Range Organics (C10-C28)	15	H B	21.2	26.5	H	mg/Kg	*	55	48 - 155

Surrogate	MS %Recovery	MS Qualifier	Limits
C35 (Surr)	60		19 - 150

Lab Sample ID: 500-53463-1 MSD  
Matrix: Solid  
Analysis Batch: 49078

Client Sample ID: S-1  
Prep Type: Total/NA  
Prep Batch: 48526

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
WI Diesel Range Organics (C10-C28)	15	H B	21.1	29.3	H	mg/Kg	*	69	48 - 155	10	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
C35 (Surr)	85		19 - 150

# Lab Chronicle

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

**Client Sample ID: S-1**

**Lab Sample ID: 500-53463-1**

Date Collected: 12/19/12 08:30

Matrix: Solid

Date Received: 12/20/12 10:49

Percent Solids: 93.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			45869	12/21/12 14:25	ML	TAL NSH
Total/NA	Analysis	WDNR		1	47203	12/29/12 00:43	FG	TAL NSH
Total/NA	Prep	WI DRO PREP			48526	01/04/13 11:31	PA	TAL NSH
Total/NA	Analysis	WI-DRO		1	49078	01/07/13 19:32	JJ	TAL NSH
Total/NA	Analysis	Moisture		1	45844	12/21/12 13:44	RS	TAL NSH

**Client Sample ID: S-2**

**Lab Sample ID: 500-53463-2**

Date Collected: 12/19/12 08:45

Matrix: Solid

Date Received: 12/20/12 10:49

Percent Solids: 93.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			45869	12/21/12 14:25	ML	TAL NSH
Total/NA	Analysis	WDNR		1	47203	12/29/12 01:21	FG	TAL NSH
Total/NA	Prep	WI DRO PREP			48526	01/04/13 11:31	PA	TAL NSH
Total/NA	Analysis	WI-DRO		1	49078	01/07/13 21:19	JJ	TAL NSH
Total/NA	Analysis	Moisture		1	45844	12/21/12 13:44	RS	TAL NSH

**Client Sample ID: S-3**

**Lab Sample ID: 500-53463-3**

Date Collected: 12/19/12 09:15

Matrix: Solid

Date Received: 12/20/12 10:49

Percent Solids: 93.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			45869	12/21/12 14:25	ML	TAL NSH
Total/NA	Analysis	WDNR		1	47203	12/29/12 02:00	FG	TAL NSH
Total/NA	Analysis	Moisture		1	45844	12/21/12 13:44	RS	TAL NSH

**Client Sample ID: S-4**

**Lab Sample ID: 500-53463-4**

Date Collected: 12/19/12 09:30

Matrix: Solid

Date Received: 12/20/12 10:49

Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			45869	12/21/12 14:25	ML	TAL NSH
Total/NA	Analysis	WDNR		2	47613	12/30/12 23:28	FG	TAL NSH
Total/NA	Prep	WI DRO PREP			48526	01/04/13 11:31	PA	TAL NSH
Total/NA	Analysis	WI-DRO		250	49078	01/07/13 22:13	JJ	TAL NSH
Total/NA	Analysis	Moisture		1	45844	12/21/12 13:44	RS	TAL NSH



## Lab Chronicle

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

**Client Sample ID: S-5**

**Lab Sample ID: 500-53463-5**

Date Collected: 12/19/12 09:45

Matrix: Solid

Date Received: 12/20/12 10:49

Percent Solids: 92.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			45869	12/21/12 14:25	ML	TAL NSH
Total/NA	Analysis	WDNR		1	47203	12/29/12 03:12	FG	TAL NSH
Total/NA	Prep	WI DRO PREP			48526	01/04/13 11:31	PA	TAL NSH
Total/NA	Analysis	WI-DRO		1	49078	01/07/13 22:39	JJ	TAL NSH
Total/NA	Analysis	Moisture		1	45844	12/21/12 13:44	RS	TAL NSH

**Client Sample ID: MEOH BLANK**

**Lab Sample ID: 500-53463-6**

Date Collected: 12/19/12 00:00

Matrix: Solid

Date Received: 12/20/12 10:49

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			45869	12/21/12 14:25	ML	TAL NSH
Total/NA	Analysis	WDNR		1	47203	12/28/12 16:01	FG	TAL NSH

**Laboratory References:**

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

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## Certification Summary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

### Laboratory: TestAmerica Chicago

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-13
California	NELAP	9	01132CA	04-30-13
Georgia	State Program	4	N/A	04-30-13
Georgia	State Program	4	939	04-30-13
Hawaii	State Program	9	N/A	04-30-13
Illinois	NELAP	5	100201	04-30-13
Indiana	State Program	5	C-IL-02	04-30-13
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-12
Kentucky (UST)	State Program	4	66	04-11-13
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-13
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-13
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	04-30-13
Texas	NELAP	6	T104704252-09-TX	02-28-13
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	04-30-13

### Laboratory: TestAmerica Nashville

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

Authority	Program	EPA Region	Certification ID	Expiration Date
	ACIL		393	10-30-13
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alabama	State Program	4	41150	05-31-13
Alaska (UST)	State Program	10	UST-087	07-24-13
Arizona	State Program	9	AZ0473	05-05-13
Arkansas DEQ	State Program	6	88-0737	04-25-13
California	NELAP	9	1168CA	10-31-13
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Colorado	State Program	8	N/A	02-28-13
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAP	4	E87358	06-30-13
Illinois	NELAP	5	200010	12-09-13
Iowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-13
Kentucky (UST)	State Program	4	19	09-15-13
Louisiana	NELAP	6	30613	06-30-13
Maryland	State Program	3	316	03-31-13
Massachusetts	State Program	1	M-TN032	06-30-13
Minnesota	NELAP	5	047-999-345	12-31-13
Mississippi	State Program	4	N/A	06-30-13
Montana (UST)	State Program	8	NA	01-01-15
Nevada	State Program	9	TN00032	07-31-13
New Hampshire	NELAP	1	2963	10-09-13
New Jersey	NELAP	2	TN965	06-30-13

TestAmerica Chicago

## Certification Summary

Client: American Engineering Testing Inc.  
Project/Site: PDM Bridge - 03-04609

TestAmerica Job ID: 500-53463-1

### Laboratory: TestAmerica Nashville (Continued)

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

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	11342	04-01-13
North Carolina DENR	State Program	4	387	12-31-12
North Dakota	State Program	8	R-146	06-30-13
Ohio VAP	State Program	5	CL0033	01-19-14
Oklahoma	State Program	6	9412	08-31-13
Oregon	NELAP	10	TN200001	04-30-13
Pennsylvania	NELAP	3	68-00585	06-30-13
Rhode Island	State Program	1	LAO00268	12-30-13
South Carolina	State Program	4	84009 (001)	02-28-13
South Carolina	State Program	4	84009 (002)	02-23-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-13
USDA	Federal		S-48469	11-02-13
Utah	NELAP	8	TAN	06-30-13
Virginia	NELAP	3	460152	06-14-13
Washington	State Program	10	C789	07-19-13
West Virginia DEP	State Program	3	219	02-28-13
Wisconsin	State Program	5	998020430	08-31-13
Wyoming (UST)	A2LA	8	453.07	12-31-13

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
 Phone: 708.534.5200 Fax 708.534.5211

Report To (optional)  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 E-Mail: \_\_\_\_\_

Bill To (optional)  
 Contact: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 PO#Reference# \_\_\_\_\_

## Chain of Custody Record

Lab Job #: 500-53463  
 Chain of Custody Number: \_\_\_\_\_  
 Page 1 of 1  
 Temperature °C of Cooler: \_\_\_\_\_

Lab ID		MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Preservative	Parameter	Sampler	Lab Project #	Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other
Unit	MS/MSD		Date	Time								
1			S-1	12-19-12	8:30	3	SO	MEOH 8	MEOH	GR0/PVOC + Naphthalene	WD	
2			S-2		8:45	3	SO			DRO		
3			S-3		9:15	2	SO			PVOC + Naphthalene		
4			S-4		9:30	3	SO			Dry wt		
5			S-5		9:45	3	SO					
6			MEOH Blank		-	1	-					

Turnaround Time Required (Business Days) Standard  
 1 Day 2 Days 5 Days 7 Days 10 Days 15 Days  Other  
 Requested Due Date \_\_\_\_\_ Sample Disposal  Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Shipped By <u>Michael K. Nerl</u>	Company AET	Date 12-19-12	Time 1300	Received By <u>Fed X</u>	Company Fed X	Date _____	Time _____	Lab Courier _____
Shipped By	Company	Date	Time	Received By	Company	Date	Time	Shipped _____
Shipped By	Company	Date	Time	Received By	Company	Date	Time	Hand Delivered _____

<p>Matrix Key</p> <ul style="list-style-type: none"> <li>W - Wastewater</li> <li>SE - Sediment</li> <li>Water</li> <li>SO - Soil</li> <li>Soil</li> <li>L - Leachate</li> <li>Sludge</li> <li>WI - Wipe</li> <li>S - Miscellaneous</li> <li>DW - Drinking Water</li> <li>L - Oil</li> <li>O - Other</li> <li>- Air</li> </ul>	Client Comments	Lab Comments
---	-----------------	--------------

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

## COOLER RECEIPT FORM



Cooler Received/Opened On 12/20/2012 @ 0830

1. Tracking # 3208 (last 4 digits, FedEx)

Courier: Fedex IR Gun ID 94660220

2. Temperature of rep. sample or temp blank when opened: 5.1 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO... NA

4. Were custody seals on outside of cooler? YES... NO...NA

If yes, how many and where: \_\_\_\_\_

5. Were the seals intact, signed, and dated correctly? YES...NO... NA

6. Were custody papers inside cooler?  YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (Initial) [Signature]

7. Were custody seals on containers: YES  NO and Intact YES...NO... NA

Were these signed and dated correctly? YES...NO... NA

8. Packing mat'l used?  Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process:  Ice Ice-pack Ice (direct contact) Dry Ice Other None

10. Did all containers arrive in good condition (unbroken)?  YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)?  YES...NO...NA

12. Did all container labels and tags agree with custody papers?  YES...NO...NA

13a. Were VOA vials received?  YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO... NA 50% /

14. Was there a Trip Blank in this cooler?  YES...NO...NA If multiple coolers, sequence # \_\_\_\_\_

I certify that I unloaded the cooler and answered questions 7-14 (Initial) [Signature]

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO... NA

b. Did the bottle labels indicate that the correct preservatives were used  YES...NO...NA

16. Was residual chlorine present? YES...NO... NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (Initial) [Signature]

17. Were custody papers properly filled out (Ink, signed, etc)?  YES...NO...NA

18. Did you sign the custody papers in the appropriate place?  YES...NO...NA

19. Were correct containers used for the analysis requested?  YES...NO...NA

20. Was sufficient amount of sample sent in each container?  YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (Initial) [Signature]

I certify that I attached a label with the unique LIMS number to each container (Initial) [Signature]

21. Were there Non-Conformance Issues at login? YES... NO. Was a NCM generated? YES... NO...# \_\_\_\_\_

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
Phone: 708.534.5200 Fax: 708.534.5211

Report To _____ (optional)	Bill To _____ (optional)
Contact: _____	Contact: _____
Company: _____	Company: _____
Address: _____	Address: _____
Address: _____	Address: _____
Phone: _____	Phone: _____
Fax: _____	Fax: _____
E-Mail: _____	PC#/Reference# _____

## Chain of Custody Record

Lab Job #: \_\_\_\_\_

Chain of Custody Number: \_\_\_\_\_

Page 1 of 1

Temperature °C of Cooler: \_\_\_\_\_

Client		Client Project #		Preservative		Parameter		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Preservative Key 1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other
AET		03-04609		MEOH		8		MEOH																
Project Name		Lab Project #		Parameter		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Comments
PDM Bridge				GRO/PVOC + Naphthalene		DRO		PVOC + Naphthalene		Dry		WT												
Project Location/State		Lab Project #		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Comments
WI				GRO/PVOC + Naphthalene		DRO		PVOC + Naphthalene		Dry		WT												
Sampler		Lab PM		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Matrix		Comments
Michael K. Nerl		Sandie Fredrick		GRO/PVOC + Naphthalene		DRO		PVOC + Naphthalene		Dry		WT												
Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Matrix	Comments
			Date	Time																				
		S-1	12-19-12	8:30	3	SO	X	X			X													
		S-2		8:45	3	SO	X	X			X													
		S-3		9:15	2	SO	X				X													
		S-4		9:30	3	SO		X	X	X														
		S-5		9:45	3	SO	X	X			X													
		MEOH Blank		-	1	-			X															

Loc: 500  
**53463**

Turnaround Time Required (Business Days): Standard  
 \_\_\_ 1 Day \_\_\_ 2 Days \_\_\_ 5 Days \_\_\_ 7 Days \_\_\_ 10 Days \_\_\_ 15 Days  Other  
 Requested Due Date: \_\_\_\_\_

Sample Disposal:  
 Return to Client  Disposal by Lab  Archive for \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: <u>Michael K. Nerl</u>	Company: <u>AET</u>	Date: <u>12-19-12</u>	Time: <u>1300</u>	Received By: <u>Fed X</u>	Company: _____	Date: _____	Time: _____	Lab Courier: _____
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: _____	Date: _____	Time: _____	Shipped: <u>5:10</u>
Relinquished By: _____	Company: _____	Date: _____	Time: _____	Received By: _____	Company: <u>GAN</u>	Date: <u>12-20-12</u>	Time: <u>0830</u>	Hand Delivered: _____

- Matrix Key
- WW - Wastewater
  - W - Water
  - S - Soil
  - SL - Sludge
  - MIS - Miscellaneous
  - OIL - Oil
  - A - Air
  - SE - Sediment
  - SO - Soil
  - L - Leachate
  - WI - Wipe
  - DW - Drinking Water
  - O - Other

Client Comments: \_\_\_\_\_

Lab Comments: \_\_\_\_\_

## Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-53463-1

Login Number: 53463

List Source: TestAmerica Chicago

List Number: 1

Creator: Lunt, Jeff T

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.		
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time.		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

## Login Sample Receipt Checklist

Client: American Engineering Testing Inc.

Job Number: 500-53463-1

Login Number: 53463

List Source: TestAmerica Nashville

List Number: 1

List Creation: 12/21/12 11:10 AM

Creator: Huckaba, Jimmy

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
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	
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	