

PCB Mass Loading  
American Tank Trailer Cleaning Co.  
SIRB ID: DE-1180  
Wilmington, Delaware



**BrightFields, Inc.**

## **Appendix 1-C**

**AMERICAN TANK TRAILER CLEANING CO.  
WILMINGTON, DELAWARE**

**SIRB ID: DE-1180**

## GENERAL SITE INFORMATION

**Site Name:** American Tank Trailer Cleaning Co.

**SIRB ID Number:** DE-1180

**Site Location and Description:** The American Tank Trailer Cleaning Co. property is located in the vicinity of the south side of the Christina River in Wilmington, Delaware (Figure 1). The property has most recently been operated as a salvage yard and is bordered by the Christina River to the west, Schuster's Auto Salvage to the south, and South Market Street to the east. The American Tank Trailer Cleaning Co. is an approximately 5.05-acre property consisting of one tax parcel (Tax Parcel #26-049.00-014). Surrounding land is generally commercial and/or industrial.

**Previous Site Uses:** The area of Wilmington where the American Tank Trailer Cleaning property is located was historically wetlands and was filled continuously since the 1800s. The property was most recently operated as a salvage yard.

It is possible that PCBs were introduced to the site as a result of past filling operations and/or the use of the property as a salvage yard.

**Site Regulatory Status:** This section briefly summarizes previous investigations performed on the site through the SIRB program. A current SIRB regulatory status is also included.

### ***South Wilmington Environmental Assessment Quadrants 3 and 4 (DNREC, 1996)***

DNREC completed the South Wilmington Environmental Assessment, Quadrant 3 and 4 (DE-286) in 1996 which consisted of a large investigation effort performed by DNREC-SIRB to collect samples from various properties encompassing 85-acres in South Wilmington. Quadrant 3 is the area between South Market Street and the Christina River. Quadrant 4 is located between South Market and South Walnut Streets, and south of B Street.

The Environmental Assessment Investigation took place from July through August 1995. A total of 38 soil samples were collected through shallow and deep test pit excavation and surface samples, a total of 4 groundwater samples, 2 sediment samples and 2 surface water samples were collected from the Quadrant 3 and 4 Assessment Area. The following paragraphs summarize the samples collected on the American Tank Trailer Cleaning property as part of this investigation.

### Soil Analytical Results

On the American Tank Trailer Cleaning property, three shallow soil samples were collected (SS-28, SS-29, and SS-30). Samples were screened for select parameters. Samples taken from the site area were found to be generally high in lead, with several samples exceeding the 1,000 ppm industrial benchmark. PCBs in sample SS-29 were detected at concentrations greater than 0.5 mg/kg but less than 1 mg/kg. PCBs in sample SS-30 were reported as less than 0.5 mg/kg. Samples SS-29 and SS-30 were not screened for polycyclic aromatic hydrocarbons (PAHs). DDT, DDE and DDD were reported in samples SS-29 and SS-30 at concentrations less than 0.5 mg/kg. Toxaphene was detected at concentrations greater than 0.5 mg/kg in SS-29, and was detected in SS-30 at less than 0.5 mg/kg. Gasoline range organics (GRO) and diesel range organics (DRO) were detected at concentrations less than 100 mg/kg and 1,000 mg/kg respectively in samples SS-28 and SS-30. GRO and DRO were detected at concentrations greater than 100 mg/kg and 1,000 mg/kg, respectively in sample SS-29.

Confirmatory laboratory results for SS-28 indicated that arsenic and mercury were detected at concentrations of 0.8 mg/kg and 2.9 mg/kg, respectively which exceed either the Risk Based Concentration (RBC) or three times the background level. No notable volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs) were detected in SS-28 at concentrations exceeding the RBC or background criteria. Aroclor-1254 and Aroclor-1260 were detected at concentrations of 1 mg/kg and 0.750 mg/kg, respectively. All other parameters analyzed for in SS-28 were either not detected or were detected below RBC or background criteria.

### Groundwater Analytical Results

A groundwater sample was collected from the GP-14 location and was analyzed for Target Compound List (TCL) VOCs, TCL SVOCs, TCL pesticides/PCBs, EPH, glycols, and total metals.

### Surface Water Analytical Results

No surface water samples were collected from the American Tank Trailer Cleaning Co. property.

### Sediment Analytical Results

No sediment samples were collected from the American Tank Trailer Cleaning Co. property.

***Remedial Investigation Report South Wilmington Salvage Yards (Environmental Alliance, 2001)***

In November 2000, Environmental Alliance completed a Remedial Investigation (RI) on behalf of the South Wilmington Salvage Yards (SWSY). The SWSY RI involves eight properties (approximately 26 acres) in the vicinity of the Christina River in South Wilmington. The eight properties addressed by this RI include:

- A-1 Auto Parts
- Don Wilson's Auto Parts
- Merkin Auto Spring Co., Inc.
- Junior's Auto Parts
- Two Guys Auto Parts
- American Tank Trailer Cleaning Co.
- Casper's Auto Parts
- Shuster's Auto Salvage

During this investigation, a total of 30 surface soil samples and 4 deep soil samples were collected across the study area. The samples were field screened using a Photo Ionization Detector (PID); submitted for screening at DNREC's laboratory for VOCs, SVOCs, metals, PCBs and pesticides; and select samples were submitted for confirmation analysis at Lancaster Laboratories. The samples selected for confirmation analysis were analyzed for VOCs, SVOCs, metals, PCBs/pesticides, ethylene glycol, tetraethyl lead, total petroleum hydrocarbons diesel range organics (TPH-DRO), volatile petroleum hydrocarbons (VPH), and/or extractable petroleum hydrocarbons (EPH). Additionally, synthetic precipitation leaching procedure (SPLP) and toxicity characteristic leaching procedure (TCLP) metal analysis was performed on select soil samples.

Groundwater samples were collected from four soil borings locations (GP02 at Two Guy's Auto Parts, GP-11 at Merkin Auto Springs Co., Inc., GP-14 at American Tank Trailer Cleaning Co., and GP-15 at Casper's Auto Parts. In addition, groundwater samples were collected from three of the four previously existing monitoring wells in the study region. The wells incorporated into this RI include MW-4 (A-1 Auto Parts), MW-5 (across the street from Don Wilson's Auto) and MW-7 (Shuster's Auto Salvage).

A total of seven sediment samples were collected from the potential tributary that transects Garasches Lane and the drainage ditch south of the A.M. Domino, A-1 Auto Parts, and Two Guys Auto Parts properties.

A total of five surface water samples were collected where surface water was present. The following is a summary of analytical results that were collected from the American Tank Trailer Cleaning property as part of this investigation.

#### Soil Analytical Results

Several of the proposed RI soil samples could not be sampled due to accessibility to those locations and/or subsurface material causing sample refusal. Four surface soil samples were collected from locations GP-14 and EX-10 through EX-12. One deep soil sample was collected from GP-14. PID readings ranged from 0.0 units to 10.6 units on the soil samples. DNREC screening results reported the presence of PAHs in all soil samples. All other organic parameters analyzed by DNREC were not detected. DNREC's screening results for metals in the five soil samples reported antimony (GP-14 3.5-4.5'), arsenic (all sample locations except EX-10), iron (EX-11), and lead (GP-14 3.5-4.5' and EX-11) above their respective restricted use URS levels. All other metals reported were either non-detect, or were below their respective URS restricted use level. Soil sample EX-10 (1.5-2') was analyzed at Lancaster Laboratories for TCL VOCs, TCL SVOCs and total metals. Additionally, EX-11(1.5-2') was analyzed for TCLP/SPLP lead and GP-14(0.5-1') and GP-14 (3.5-4.5') were analyzed for arsenic and lead at Lancaster Laboratories. Metals were not detected above their respective URS criteria in sample EX-10. All other analytical results for this sample were either not detected or were below their respective URS criteria. TCLP lead was detected at a concentration of 1.76 mg/L, which is below hazardous waste criteria of 5 mg/L and SPLP lead was not detected in sample EX-11. Arsenic and lead were detected at concentrations below their respective URS criteria in sample GP-14 (0.5-1'). Lead was detected at concentrations below URS criteria and arsenic was detected above URS criteria in sample GP-14 (3.5-4.5).

#### Groundwater Analytical Results

A groundwater sample was collected from the GP-14 location and was analyzed for TCL VOCs, TCL SVOCs, TCL pesticides/PCBs, EPH, glycols, and total metals. Iron and manganese were detected above their respective URS levels. PCBs and all other parameters analyzed for were not detected or were below URS criteria.

#### Summary and Conclusions

The following conclusions were reached for the American Tank Trailer Cleaning Co., portion of the RI:

- Although metals (arsenic) and PAHs (below URS levels) are reported in soils, evaluation of the detected constituents in the site-specific risk assessment does not indicate they pose a concern based on current site usage and degraded nature of the SWSY area. Based on the reported arsenic concentration of 6.6 mg/kg, the lifetime carcinogenic risk for arsenic is  $1.7 \times 10^{-6}$ , which is below the HSCA target value of  $1 \times 10^{-5}$  risk. Chronic risk for arsenic is 0.01, which is below the HSCA target hazard index of 1.
- The risk for the property Constituent of Concern (arsenic only) is  $1.7 \times 10^{-6}$ , which is below the HSCA target value of  $1.5 \times 10^{-5}$  risk.
- The groundwater aquifer sampled is not a potable source of water and public water is available to the SWSY area, therefore, exposure to groundwater is eliminated and not considered a concern.

**Current Regulatory Status:**

A Remedial Investigation Report was submitted to DNREC SIRB on June 13, 2001. On May 10, 2002 DNREC issued a response letter requesting that Environmental Alliance analyze more samples at the laboratory. Environmental Alliance attempted to negotiate with the property owners concerning additional laboratory fees, but no owners agreed. In 2001 DNREC issued a Memorandum of Agreement. This document stated that a groundwater management zone shall be established in this area, no new public or domestic water supply wells shall be allowed or permitted, monitoring/observation/containment recovery wells may be installed in the GMZ area after review and approval, and permits may only be issued by the DWR and DAWM.

## SUMMARY OF SITE PCB INFORMATION

### Site Investigation PCB Findings:

PCBs (Aroclor-1260) were detected in one surface soil sample, SS-28 at a concentration of 1.75 mg/kg which exceeds the URS criteria for total PCBs of 1 mg/kg.

Due to the fact that there was only one detection in the surface soil this detected value was used in the calculation instead of calculating the 95% UCL of the mean across the site. There were no PCBs detected in groundwater or the subsurface saturated soils.

Concentrations of PCBs on Site			
Sample Matrix	Corresponding Figure	Analytical Methods	Range of Total PCBs
Surface Soil	Figure 2	Immunoassay & Method 8082	1.75
Subsurface Soil (unsaturated)	Figure 3	Method 8082	Not Analyzed
Subsurface Soil (saturated)	Figure 4	Immunoassay Kits	Not Detected
Ground Water	Figure 5	Method 8082	Not detected

A summary of all samples collected for PCBs are presented in the attached Tables 1 through 3.

### Acreage where PCBs detected:

The estimated surface soil area impacted by PCBs is 2.4 acres (Figure 2). There is no information indicating that the subsurface soil on the American Tank Trailer Cleaning property has been affected by PCBs.

### PCB Remediation Status:

The American Tank Trailer Cleaning Property has not been required to perform any remediation activities as of September 30, 2008. A Memorandum of Agreement has been established by DNREC to restrict the use of groundwater in the area.



## **PCB MASS LOADING SUMMARY**

The PCB mass loading rate to surface water via overland flow is discussed below. There were no reported concentrations of PCBs in the subsurface saturated zone or in the groundwater; therefore, groundwater transport is not considered a mechanism of transport for PCBs at this site. A summary of the results is included below and the details of the calculations are included as attachments to this Appendix.

### **OVERLAND FLOW:**

Overland flow has been determined on this site by using the Revised Universal Soil Loss Equation (RUSLE). The RUSLE predicts the long term average annual rate of erosion on an area based on rainfall patterns, soil type, topography, cover/canopy factors and support management practices. These factors are site-specific and require information pertaining directly to the site. A breakdown of the individual factors is presented below with a brief explanation of their selection.

#### **Ground Cover and Canopy:**

A site inspection was performed to estimate the current site ground cover and canopy on August 28, 2008. The evaluation incorporated the use of aerial photography as well as the site visit due to the limited access to the site. The cover/management factor (C) assigned to the site and associated flow path is 0.45 from the USGS RUSLE2 model, which corresponds to bare ground. Photographs were unable to be taken because the site is a private property.

#### **Site Sediment and Erosion Control Practices:**

There are currently no erosion and sediment controls in place at the American Tank Trailer Cleaning Property.

#### **Input Factors and Results:**

A breakdown of the individual factors is presented below with a brief explanation of their choice.

<b>RUSLE Factors</b>	<b>Values</b>	<b>Explanation of Selection</b>
R = rainfall-runoff erosivity index (10 <sup>2</sup> ft-tonf-in/ac-hr)	170	An appropriate value for R for the site was determined from plots of Rainfall patterns for the Eastern U.S. (Wischmeier and Smith, 1978).
K = soil erodibility (0.01 tonf acre hr/acre ft-ton in)	0.237	The soil erodibility factor was chosen based on the information provided on the native soils. This information was inferred from the boring logs of the neighboring parcels due to insufficient data quality for the specific site. The USGS model selected the value based on generalized soil type.
LS = topographic factor (dimensionless)	0.192	The slope length was estimated to be 551 feet, which is the distance between the centroid and the Christina River along the overland flow path. The assumed slope (1.1 %) and slope length were used to calculate a topographic factor of 0.192.
C = cover/management factor (dimensionless)	0.450	The cover/management factor C was assigned to the site and associated flow path by the USGS windows based application was 0.450, which corresponds to bare ground.
P = support practice factor (dimensionless)	1.0	There are currently no sediment and erosion controls in place at the American Tank Trailer Cleaning Property.

The average annual erosion rate is based on the windows based RUSLE2 program (RUSLE2 License, version 2006-Jul-24).

Based on the calculations performed, the total PCB loading from the American Tank Trailer Cleaning Property to the Christina River via erosion under current site conditions is 12 grams per year.

**Uncertainty Evaluation:**

**Specific Areas and Degree of Uncertainty for the American Tank Trailer Cleaning Property**

	<b>Samples Per Acre (site)</b>	<b>Chemical Data Quality*</b>	<b>Topography</b>	<b>Soil Type</b>	<b>Site Coverage</b>	<b>Map Quality</b>	<b>Distance to Discharge Points</b>
<b>Site Specific Information</b>	1.4	Immunoassay Kits and method 8082	Estimated using topography	Based on logs from off-site borings.	Based on a limited site assessment and through aerial photography.	Scaled Map	551 feet
<b>Degree of Uncertainty</b>	Moderate to High	High	Moderate	High	Moderate to High	Moderate to High	High



\* Primary analysis used in the historical samples

Sources of uncertainty for the American Tank Trailer Cleaning Property include the following: due the restricted access to the site a thorough assessment of the property could not be conducted. Assumptions were made from an aerial photograph to assess the land cover. Sample coverage of the site was not extensive, so areas of concern could not be confined to smaller areas because of large data gaps. Soil type was inferred based on the soil observed during the investigation of neighboring salvage yards because no logs could be found for soil on this property. Based on these evaluations the overall level of uncertainty associated with PCB mass loading from the American Tank Trailer Cleaning Property is **moderate to high**.

PCB Mass Loading  
American Tank Trailer Cleaning Co.  
SIRB ID: DE-1180  
Wilmington, Delaware



**BrightFields, Inc.**

**Site References:**

Environmental Alliance, 2001, Remedial Investigation Report, South Wilmington Salvage Yards  
June 13, 2001.

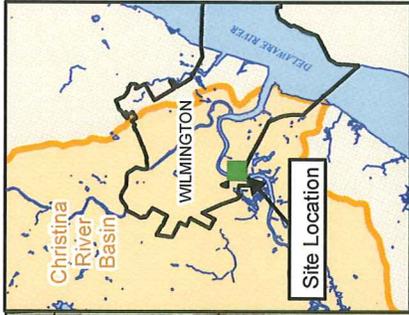
Delaware Department of Natural Resources and Environmental Control (DNREC) – Superfund  
Branch, 1996, Environmental Assessment of the South Wilmington (East) Quadrants 1 and 2  
Study Area, April 1996.

PCB Mass Loading  
American Tank Trailer Cleaning Co.  
SIRB ID: DE-1180  
Wilmington, Delaware



**BrightFields, Inc.**

# Figures



Site Location



**BrightFields, Inc.**

Environmental Evaluation  
Investigation, and Remediation

801 Industrial Street, Suite 1  
Wilmington, Delaware 19801  
302-656-9600  
302-656-9700 fax

Historic Sample Locations and  
Aerial Photograph (2007)  
American Tank Cleaning  
Wilmington, Delaware

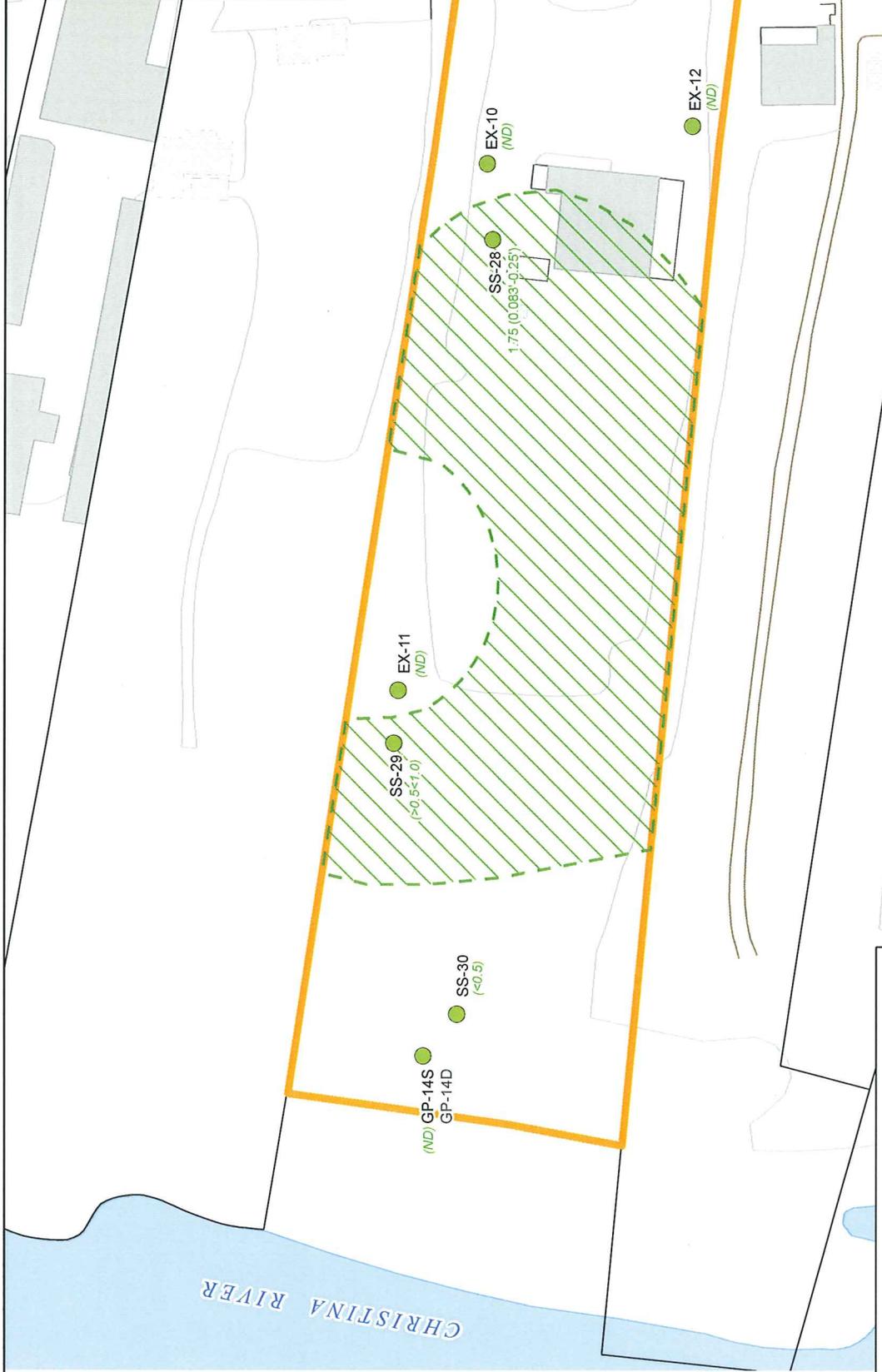
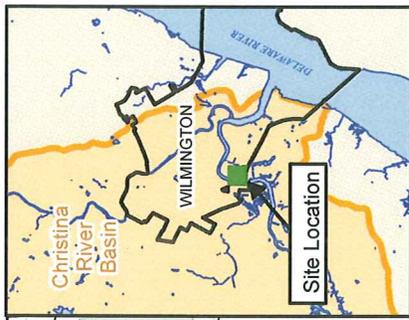
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Drawn	SMD	1:1500	am tank aerial.mxd
Checked	JPR	8/13/08	
Project #	0985.26.51	Fig. No.	Figure 1
0	62.5	125	



**Legend**

- Soil Boring Location
- Tax Parcel
- American Tank Property Boundary

Total Site Area= 5.05 acres



**BrightFields, Inc.**  
 Environmental Evaluation  
 Investigation, and Remediation

801 Industrial Street, Suite 1  
 Wilmington, Delaware 19801

302-656-9600  
 302-656-9700 fax

PCB Distribution in Surface Soil (0'-2' bgs)  
 American Tank Cleaning  
 Wilmington, Delaware

By	Date	Scale:	File Name:
Drawn	SMD 1/8/09	1:1500	am tank 0-2.mxd
Checked	JPR 1/8/09	Fig. No.	Figure 2
Project #	0985.26.51	Figure 2	

0 62.5 125 Feet

Note: Samples in gray indicate that no sample was collected from this depth or the sample was not analyzed for PCBs

**Legend**

1.75 (0.083-0.25)  
 Screening Result  
 (<0.5)

Soil Boring Location

Estimated PCB Distribution

Existing Building

Historic Building

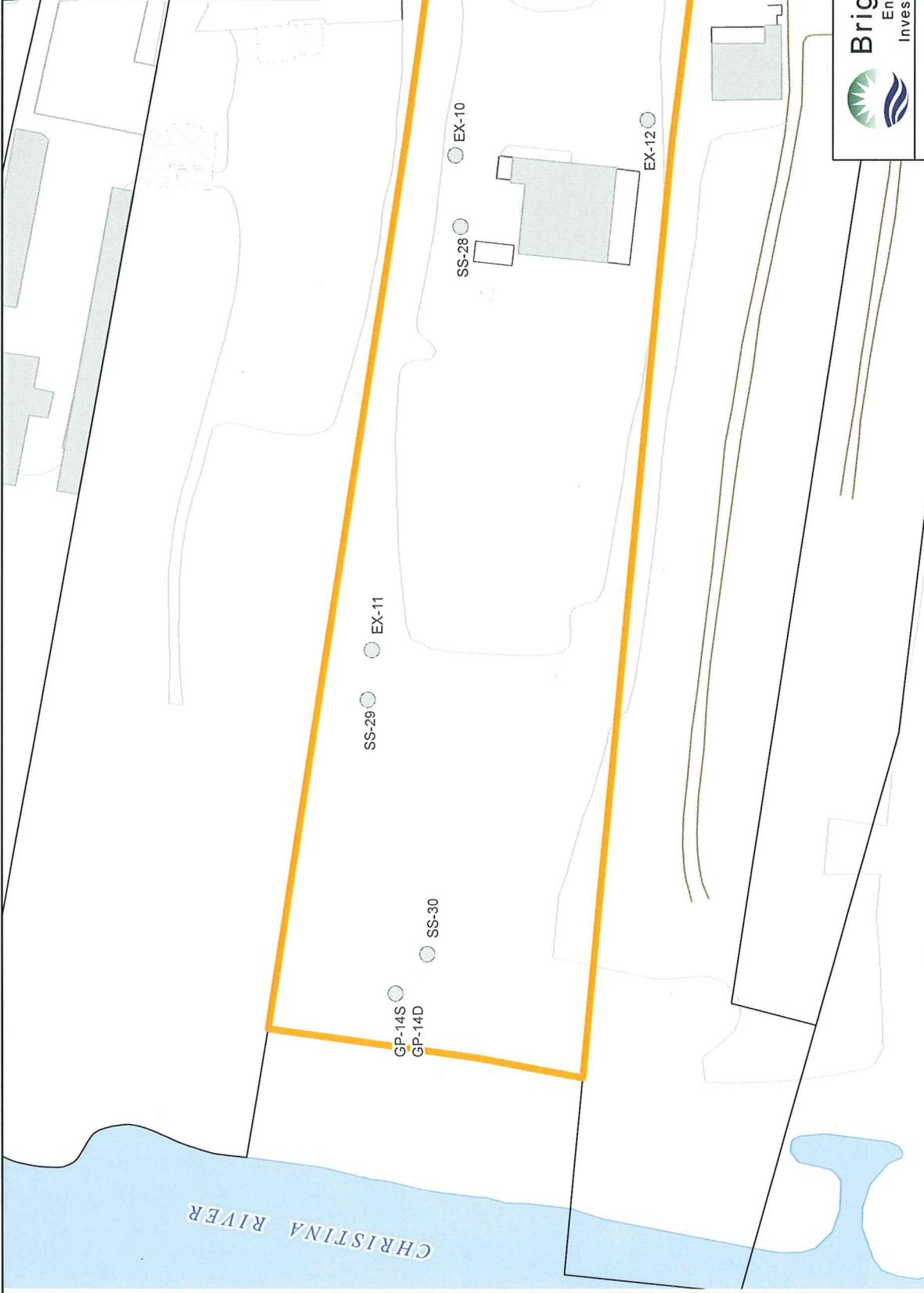
Water

Tax Parcel

American Tank Property Boundary



Site Location



- Legend**
- Soil Boring Location
  - Existing Building
  - Historic Building
  - Water
  - Tax Parcel
  - American Tank Property Boundary

Note: Samples in gray indicate that no sample was collected from this depth or the sample was not analyzed for PCBs



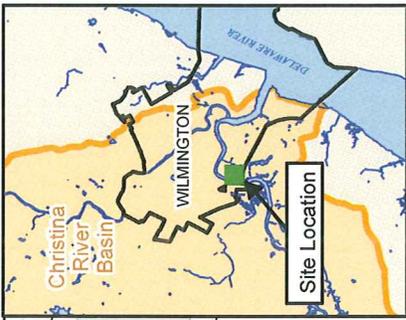
**BrightFields, Inc.**  
 Environmental Evaluation  
 Investigation, and Remediation

801 Industrial Street, Suite 1  
 Wilmington, Delaware 19801  
 302-656-9600  
 302-656-9700 fax

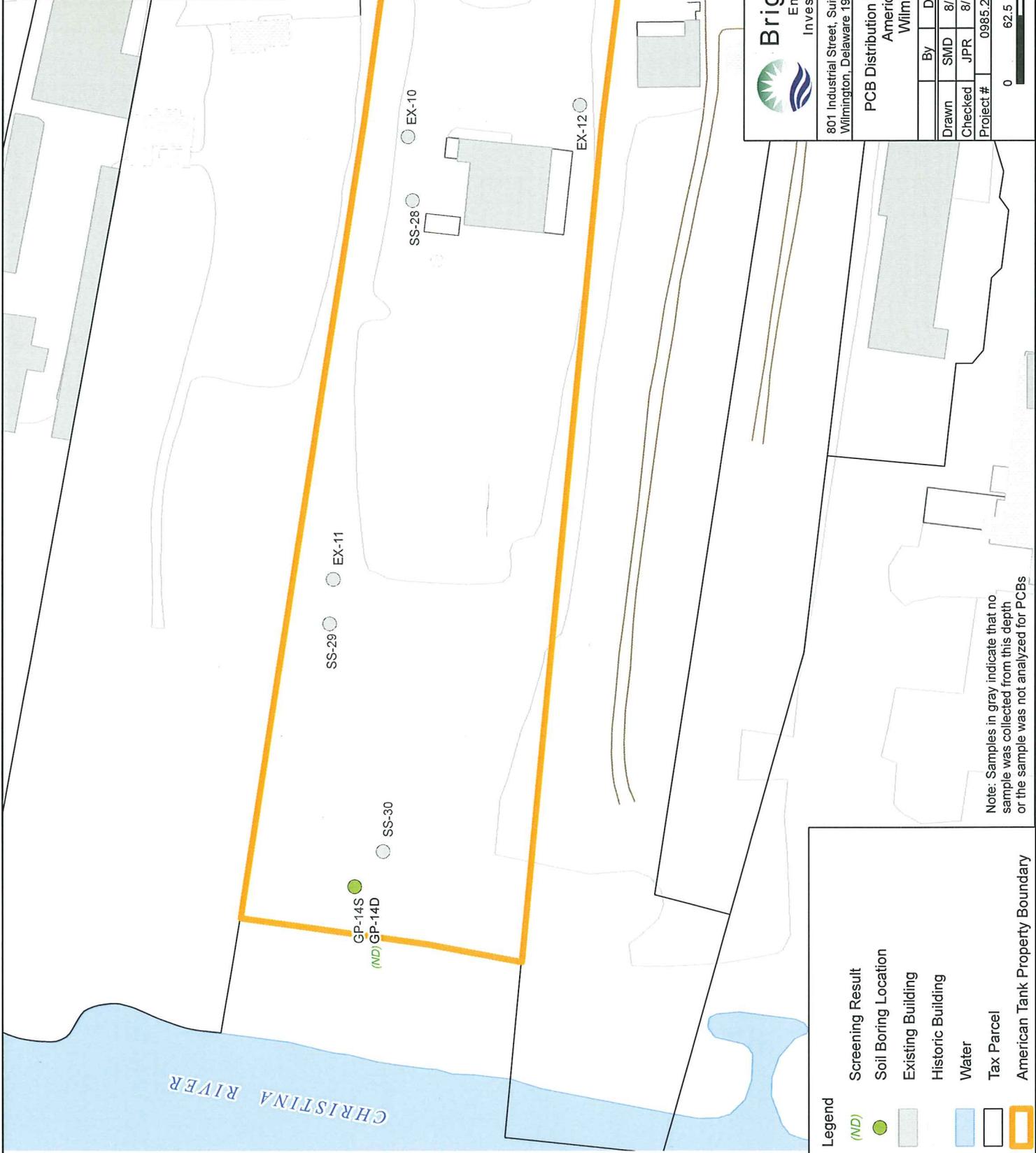
PCB Distribution in Subsurface Unsaturated Soil  
 American Tank Cleaning  
 Wilmington, Delaware

By	Date	Scale:	File Name:
Drawn SMD	8/13/08	1:1500	am tank unsat.mxd
Checked JPR	8/13/08	Fig. No.	Figure 3
Project #	0985.26.51		
0	62.5	125	





Site Location



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 Investigation, and Remediation

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 Wilmington, Delaware 19801  
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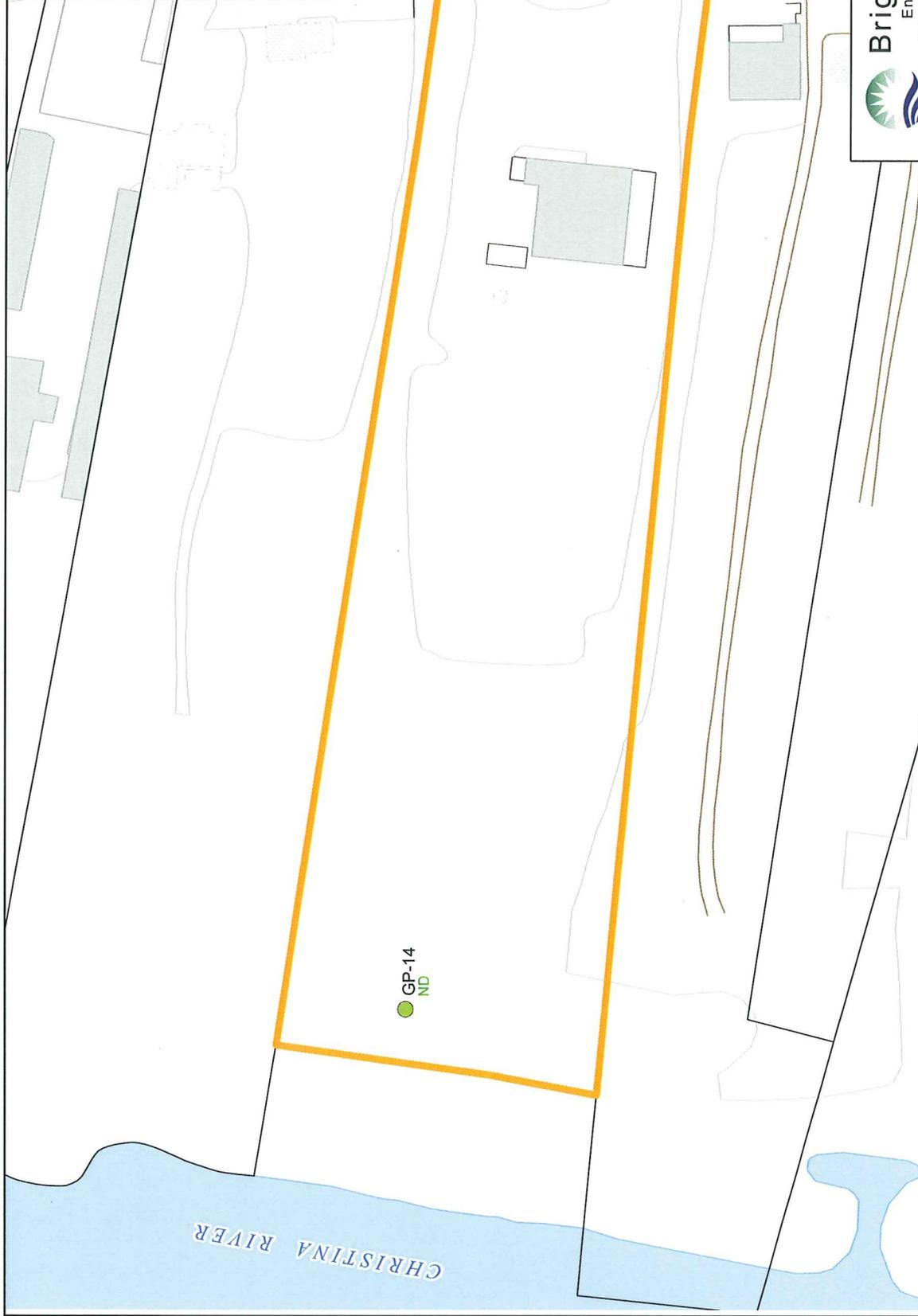
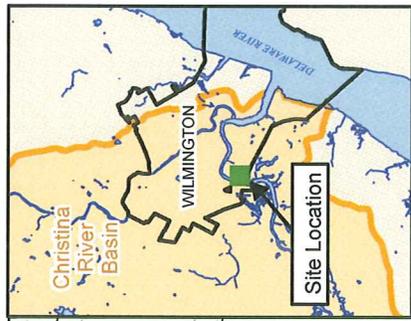
PCB Distribution in Subsurface Saturated Soil  
 American Tank Cleaning  
 Wilmington, Delaware

By	Date	Scale:	File Name:
Drawn	SMD 8/13/08	1:1500	am tank sat.mxd
Checked	JPR 8/13/08	Fig. No.	Figure 4
Project #	0985.26.51	0	62.5
		125	Feet

Note: Samples in gray indicate that no sample was collected from this depth or the sample was not analyzed for PCBs

**Legend**

- (ND)
- Screening Result
- Soil Boring Location
- Existing Building
- Historic Building
- Water
- Tax Parcel
- American Tank Property Boundary



**BrightFields, Inc.**  
Environmental Evaluation  
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Wilmington, Delaware 19801  
302-656-9600  
302-656-9700 fax

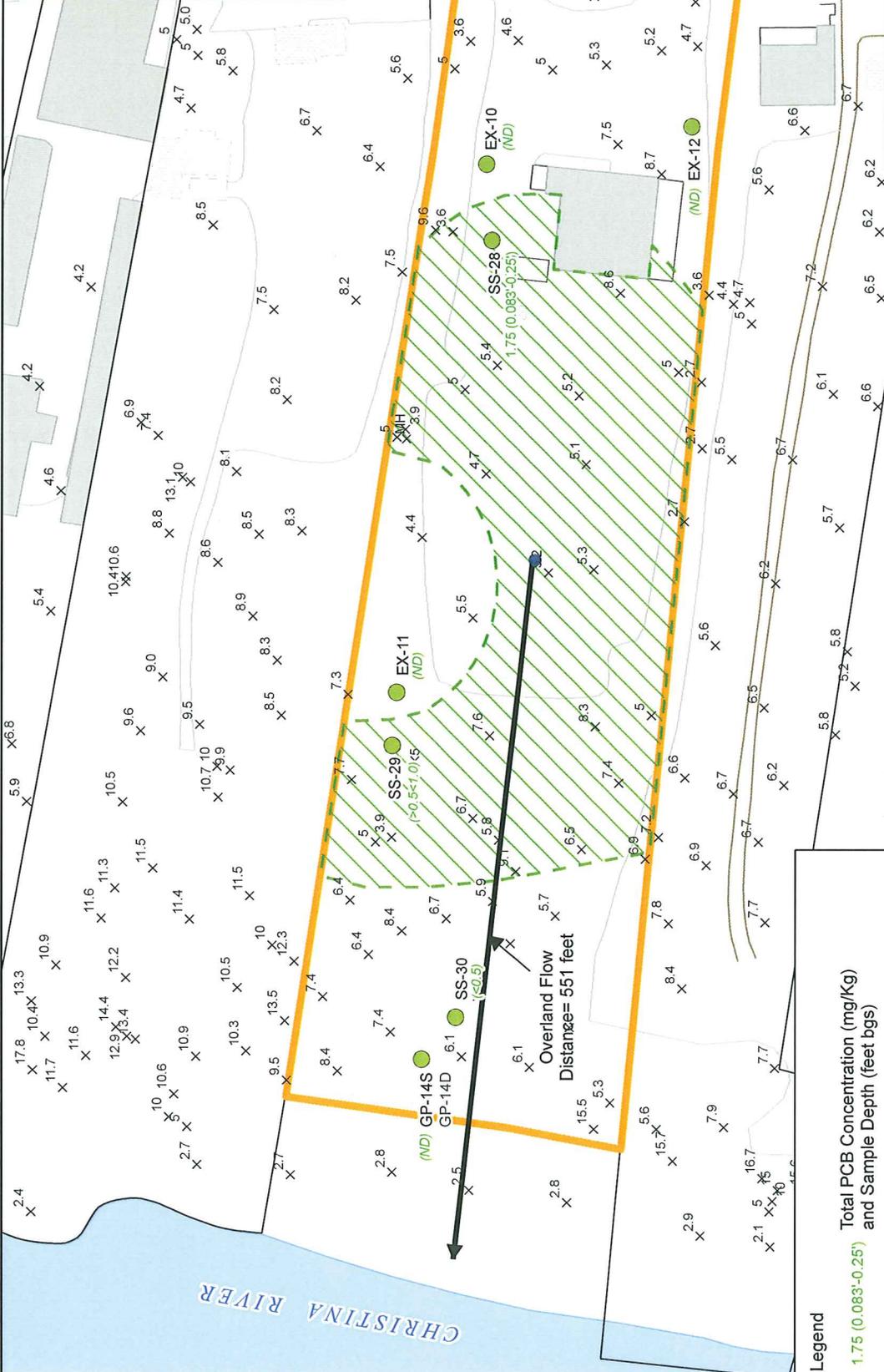
PCB Distribution in Groundwater  
American Tank Cleaning  
Wilmington, Delaware

By	Date	Scale:	File Name:
Drawn SMD	8/13/08	1:1500	am tank gw.mxd
Checked JPR	8/13/08	Fig. No.	Figure 5
Project #	0985.26.51	0	62.5
		125	Feet



**Legend**

ND	PCBs Not Detected
●	Soil Boring Location
▒	Existing Building
▒	Historic Building
■	Water
□	Tax Parcel
▭	American Tank Property Boundary



**BrightFields, Inc.**  
 Environmental Evaluation  
 Investigation, and Remediation

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 Wilmington, Delaware 19801  
 302-656-9600  
 302-656-9700 fax

**Overland Flow Map**  
 American Tank Cleaning  
 Wilmington, Delaware

By	Date	Scale:	File Name:
Drawn	SMD 5/19/09	1:1500	am tank topo.mxd
Checked	JEC 5/19/09		
Project #	0985.26.51	Fig. No.	Figure 6
0	62.5	125	Feet

Note: Samples in gray indicate that no sample was collected from this depth or the sample was not analyzed for PCBs

**Legend**

- 1.75 (0.083-0.25) and Sample Depth (feet bgs)
- Screening Result
- Contour Elevation (feet)
- Centroid of PCB Distribution
- Soil Boring Location
- Overland Flow Direction
- Estimated PCB Contribution via Overland Flow
- Existing Building
- Historic Building
- Tax Parcel
- Water
- American Tank Property Boundary

PCB Mass Loading  
American Tank Trailer Cleaning Co.  
SIRB ID: DE-1180  
Wilmington, Delaware



**BrightFields, Inc.**

# Tables

Table 1  
 PCB Analytical Results For Soil  
 American Tank Trailer Cleaning Property  
 Wilmington, DE  
 SIRB ID: DE-1180

Sample ID Sampling Depth (feet bgs) Sampling Date Units Report Issued	DNREC URS for Protection of Human Health Non-critical Water Resource Area mg/Kg		SS-28 0-0.25 7/17/95 mg/Kg DNREC (1998)
	Unrestricted Use	Restricted Use	
<b>PCBs</b>			
Aroclor-1016	5	82	ND
Aroclor-1221	0.3	3	ND
Aroclor-1232	0.3	3	ND
Aroclor-1242	0.3	3	ND
Aroclor-1248	0.3	3	ND
Aroclor-1254	0.3	3	1.0 J
Aroclor-1260	0.3	3	0.75 J

DNREC (1998) - South Wilmington Assessment Quadrants 3 & 4

Qualifiers

- U - The compound was not detected above the indicated laboratory detection limit
- NR - Not analyzed
- ND - The compound was not detected above the laboratory detection limit, but the detection limit could not be found
- nca - no criteria available
- bold - concentration is above DNREC URS unrestricted use criteria
- shaded - concentration is above DNREC URS restricted use criteria
- J - The concentration given is an approximate value.

Table 2  
 PCB Analytical Results For Groundwater  
 American Tank Trailer Cleaning Property  
 Wilmington, DE  
 SIRB ID: DE-1180

Sample ID Sampling Date Units Report Issued	DNREC URS for Protection of Human Health ug/L	GP14 11/20/00 ug/L EA (2001)
<b>PCBs</b>		
Aroclor-1016	0.1	ND
Aroclor-1221	0.03	ND
Aroclor-1232	0.03	ND
Aroclor-1242	0.03	ND
Aroclor-1248	0.03	ND
Aroclor-1254	0.03	ND
Aroclor-1260	0.03	ND

EA (2001) - Salvage Yards Remedial Investigation Report

Qualifiers

- U - The compound was not detected above the indicated laboratory detection limit
- NR - Not analyzed
- ND - The compound was not detected above the laboratory detection limit, but the detection limit could not be found
- nca - no criteria available
- bold - concentration is above DNREC URS unrestricted use criteria
- shaded - concentration is above DNREC URS restricted use criteria

Table 3  
 DNREC PCB Screening Data  
 American Tank Trailer Cleaning Property  
 Wilmington, DE  
 SIRB ID: DE-1180

Sample ID	Sample Depth	Investigation Report	Sample Date	DNREC URS for Protection of Human Health (Non-critical Water Resource Area) Unrestricted Use (mg/kg)	Total PCBs (mg/kg)
SS-30	1"-3"	DNREC (1998)	7/17/95	1	<0.5
SS-29	1"-2"	DNREC (1998)	7/17/95	1	>0.5, <1.0
GP-14S	0.5'-1'	EA (2001)	11/21/00	1	ND
EX-11	1'-1.5'	EA (2001)	11/30/00	1	ND
EX-10	1.5'-2'	EA (2001)	11/30/00	1	ND
EX-12	1.5'-2'	EA (2001)	11/30/00	1	ND
GP-14D	3.5'-4.5'	EA (2001)	11/21/00	1	ND

DNREC (1998) - South Wilmington  
 Assessment Quadrants 1 & 2

EA (2001) - Salvage Yards Remedial  
 Investigation Report

Qualifiers:

ND - compound was not detected

Bold - concentration exceeds URS

nca - no criteria available

PCB Mass Loading  
American Tank Trailer Cleaning Co.  
SIRB ID: DE-1180  
Wilmington, Delaware



**BrightFields, Inc.**

# **Site Photographs (Not Applicable)**

PCB Mass Loading  
American Tank Trailer Cleaning Co.  
SIRB ID: DE-1180  
Wilmington, Delaware



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# Overland Flow Calculations

**PCB Loading Calculations from the Universal Soil Loss Equation  
 American Tank Trailer Cleaning Property  
 Wilmington, DE  
 DE-1180**

Surface PCB Concentration 1.75 mg/kg

Symbol	Factor	Value	Units
R	Rainfall/Runoff Erosivity Index	170	10 <sup>2</sup> ft-tonf in/acre hr
K	Soil Erodibility	0.237	0.01 tonf acre hr/ac ft-ton in
	Estimated Slope Length	551	Feet
	Estimated Elevation Difference	5.8	Feet
	Slope	1.1	Percent
	Erodeable Area	2.37	Acres
LS	Topographic Factor	0.192	Dimensionless
C	Cover and Management Factor	0.45	Dimensionless
P	Support Practice Factor	1	Dimensionless
	Average Annual Soil Loss	2.80	ton/ac/yr

**PCB Loading via Overland Flow** 10.5 **grams/year - PCBs**

# American Tank Trailer Cleaning Overland Flow Calculations

Location: USA\Delaware\New Castle County

Net C factor: 0.45  
 Net LS factor: 0.18  
 Net K factor: 0.24  
 Net contour factor: 1.0  
 Net ridge factor: 1.0  
 Net ponding factor: 0.86

Rock cover, %: 0  
 Adjust rock cover: open  
 General yield level: Set by user  
 Surf. res. cov. values: Surf. cover  
 Adjust res. burial level: Normal res. burial

Soil conditioning index: open  
 Insk:   
 Cof:   
 Energy use for entire simulation, BTU/ac: 0

Avg. slope steepness, %: 1.1  
 Detachment on slope, t/ac/yr: 2.8  
 Sediment delivery, t/ac/yr: 2.8  
 Fuel type for entire run: (none)

Soil loss erod. portion, t/ac/yr: 2.8  
 Soil loss for cons. plan, t/ac/yr: 2.84  
 T value, t/ac/yr: 3.0  
 Crit. slope length, ft: 300

Equiv. diesel use for entire simulation, gal/ac: 0  
 Fuel cost for entire simulation, US\$/ac: 0

Align of oper on segments | General composite segment info | Biomass by layer | Biomass summary | C subfactor by day | C subfactor by period | C subfactor by operation  
 Ridges\_contour by day | Erosion by day | Erosion by period | Erosion by operation | Erosion by year | Extra C, L, crit. length values | Hydrology | Management output by day  
 Management output by period | Residue values | Roughness | STRIPS\_AND\_BARRIERS | MANAGEMENT\_STRIP\_BUILDER | Runoff / Sediment overall results  
 Runoff / Sediment results by day | Sediment results by flow path | Sediment by segment | Sediment by segment by day | Soil output by day | Yield values | Visuals | Info  
 Soil | MISC\_CALCULATIONST | Topography | Management | Strips / Barriers | Irrigation / Subsurface drainage | Division/terrace, sediment basin

Segment	Soil	Seg length (horiz), ft	Soil loss, t/ac/yr	Sed. del., t/ac/yr	Consolidatio n time, yr
1	Generic Soils\ sandy loam (l-m DM)	550	2.8	2.8	7