



March 15, 2011

Ms. Kathy Halbur  
On-Scene Coordinator  
Emergency Response Branch  
U.S. Environmental Protection Agency, Region 5  
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**Subject:       Site Assessment Report  
                  Mirro-Spirtas Site  
                  Manitowoc, Manitowoc County, Wisconsin  
                  Technical Direction Document No. TO-05-10-12-0002  
                  OTIE Contract No. EP-S5-10-10**

Dear Ms. Halbur:

OTIE is submitting the enclosed Draft Site Assessment report for the Mirro-Spirtas Site in Manitowoc, Wisconsin. If you have any questions or comments about the report or need additional copies, please contact me at (312) 220-7000 or Raghu Nagam at (312) 220-7005.

Sincerely,

A handwritten signature in black ink, appearing to read "Naren Babu", is written over a light blue horizontal line.

Naren Babu  
Project Manager

Enclosure

cc:       Raghu Nagam, START Program Manager

**SITE ASSESSMENT REPORT  
MIRRO-SPIRTAS SITE  
MANITOWOC, MANITOWOC COUNTY, WISCONSIN**

Prepared for:

U.S. Environmental Protection Agency, Region 5  
Emergency Response Branch,  
77 West Jackson Boulevard  
Chicago, IL 60604

TDD No.:	TO-05-10-12-0002
Date Prepared:	March 15, 2011
Contract No.:	EP-S5-10-10
Prepared by:	OTIE
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- A PHOTOGRAPHIC LOG
- B VALIDATED ANALYTICAL DATA PACKAGE

## 1. INTRODUCTION

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Oneida Total Integrated Enterprises (OTIE) has prepared this Site Assessment report in accordance with the requirements of U.S. Environmental Protection Agency (U.S. EPA) Technical Direction Document (TDD) No. TO-05-10-12-0002 under the Superfund Technical Assessment and Response Team (START) contract No. EP-S5-10-10. The scope of this TDD was to conduct a Site Assessment at the Mirro-Spirtas Site in Manitowoc, Manitowoc County, Wisconsin to identify the drums with PCBs and unknown liquid, identify the areas where PCBs were spilled and determine the need for a removal action. START was tasked to prepare a site-specific Health and Safety Plan, field sampling and analysis plan, subcontract an analytical laboratory, collect drum, soil and wipe samples, evaluate analytical data, document on-site conditions with written logbook notes and still photographs, and prepare this Site Assessment Report. Naren Babu was the START Project Manager and Caitlin Ruza assisted with the sampling activities.

This Site Assessment Report summarizes the site background; discusses the assessment activities; provides a summary of the analytical data; and discusses potential site-related threats. The attachments for this report include a photographic log of the site (Appendix A) and the validated sample analytical results (Appendix B).



## 2. SITE BACKGROUND

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This section provides Site background information and the history of the Site.

### 2.1 Site Description

The Mirro-Spirtas Site (Site) is an industrial building located at 1512 Washington Street in Manitowoc, WI at 44.0889402 latitude and -87.6677455 longitude (Figure 1 - Site Location Map). The property consists of 17 buildings of different heights and ages built to form one large structure that occupies the entirety of City Block 246 (Figure 2 – Site Layout Map). The buildings are identified by letters A-P and V. The building has been vacant since 2001, but large pieces of equipment still remain in the building, mainly on the first floor. The property is under the ownership of Eric Spirtas. The Site is bordered by Franklin St. to the North, 15<sup>th</sup> Street to the East, Washington Street to the South and 16<sup>th</sup> Street to the West. The site is surrounded by industrial, commercial, and residential properties with the Canadian National Railroad running north of the Site north of Franklin Street. Sherman Creek crosses the northwest corner of the site and merges with the Manitowoc River which is located approximately ¼ mile from the site to the northeast.

### 2.2 Site History

Several structures existed on the property between 1883 and 1904. The existing building structure was constructed in phases between 1904 and 1927. Aluminum products, including cookware were manufactured on the property starting in 1898 until 2001 when all manufacturing activities had ceased. Mirro corporate and engineering offices remained in operation on the sixth and seventh floors until 2003. The existing building has remained vacant since 2003.

Mirro was a division of the Newell Company and the property was purchased from Newell Holdings Delaware, Inc. by Union St. Partners, LLC on March 26, 2004. The property was then sold to Kenneth J. Lemberger, Sr. on November 18, 2005. On March 23, 2006 the property was transferred to the ownership of Mirro Building, LLC and finally sold to EJ Spirtas Manitowoc, LLC on June 20, 2006.

Previous investigations identified the presence of Asbestos Containing material (ACM) in the building, trichloroethylene (TCE) and polychlorinated biphenyls (PCBs) under the west drainage channel in Building C, and volatile organic compounds (VOCS), semi-volatile organic compounds (SVOCs), and polychlorinated biphenyls (PCBs) in the subsurface soil. A subsurface soil sample collected at 4 ft depth below ground surface at soil boring location GP-8 in building K near the black wheeled bins (Figure 3-

Sampling Location Map) was reported to contain 210 mg/Kg PCB Aroclor 1260. WDNR, City of Manitowoc and U.S. EPA's Brownfields program are actively involved in the demolition plans for the building, including the removal of ACM in the building.





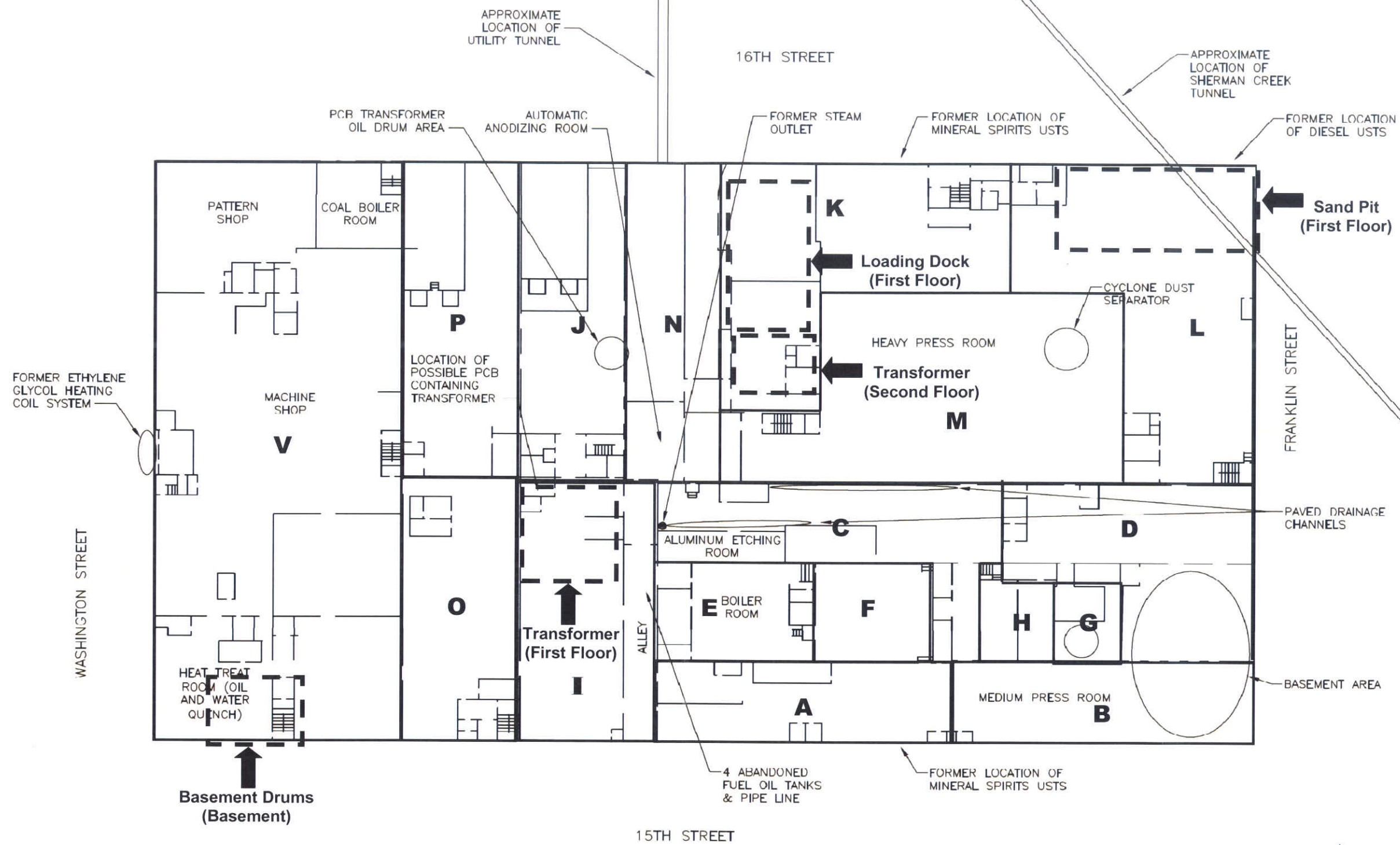
Source: USGS Manitowoc, WI  
Topographic Map 1994

Mirro-Spirtas Site  
Manitowoc, Manitowoc, Wisconsin  
TDD No. TO-05-10-12-0002

Figure 1  
Site Location Map







**KEY**  
 - Building Boundary  
 - Sampling Area



**Figure 2**  
 Site Layout Map

Source: Adapted from STS/AECOM Phase I ESA Mirro Plant 9

Mirro-Spirtas Site Assessment  
 Manitowoc, Manitowoc, Wisconsin  
 TDD No. TO-05-10-12-0002  
 EP-S5-10-10



### 3. SITE ASSESSMENT ACTIVITIES

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Site Assessment and Site reconnaissance activities for the investigation at the Mirro-Spirtas Site, including sampling events, are discussed below.

#### 3.1 Site Reconnaissance

On December 30, 2010, On-Scene Coordinator (OSC) Kathy Halbur, and START members Naren Babu and Caitlin Ruza of OTIE conducted Site reconnaissance. The OSC and START met with representatives from the WDNR, EPA, the property owner, the city of Manitowoc, and former employees of the Mirro plant. The RAE Systems MultiRAE personal monitoring equipment was calibrated prior to conducting the Site reconnaissance. START also took background radiation readings for site surveillance using a Ludlum-192. Site reconnaissance began at approximately 10:30 and site conditions were recorded in the Mirro-Spirtas Site logbook.

Site reconnaissance was conducted in five separate areas of the property and began in Building O (Figure 2 – Site Layout Map). The property was locked but evidence of trespassing was found during the site reconnaissance. Pieces from a probable Halloween costume were found in Building O. The building was found in poor condition. Lead based paint covered the walls and ceilings and was peeling and chipping. Structural damage was apparent resulting in overhanging walking hazards. Many of the windows on the first floor were broken and visibility was poor in most areas of the building. Numerous white 15 gallon drums were found in four of the five main areas of the building. The wooden floor overlays are uneven and warped due to water saturation creating a tripping hazard. No significant readings above background levels were detected by the MultiRAE or the Ludlum-192.

The ground level of Building I contains a large transformer inside a room at the southwest corner. The transformer was known to contain PCBs. The inner structure of the transformer had been taken apart possibly by trespassers trying to access resalable materials inside the transformer. A small tray containing liquid was located underneath the transformer. In the back corner of the transformer room were six white 15 gallon drums. The drums had different labels, but appeared to contain the same liquid in all drums. These drums appeared to have been refilled and clearly do not contain the original contents described on the labels. Some of the labels read “LIQUID COUNT-DOWN A highly concentrated CIP cleaner” and others read “TRANSCEND Sanitizing 1% Iodine Barrier TEAT dip”. Some of the drums labeled as “LIQUID COUNT-DOWN” also displayed a “Corrosive” placard. A small mat containing a puddle was located in the entranceway of the transformer room. An electrical insulator was spotted near the room. Two white drums were located to the left of the entranceway to the transformer room and three white



drums were located to the right. These drums were also labeled as “LIQUID COUNT-DOWN” and “TRANSCEND” and appeared to be the same liquid as the drums inside the transformer room. A smaller room with a railing attached to it was located adjacent to the transformer room. Staining of the flooring from possible PCB saturation was apparent in and around the rooms. The staining was darkest near the transformer. Former Mirro employees explained that the flooring in this area has a concrete base covered with maple wood flooring. The flooring was also uneven in some areas.

Site reconnaissance then moved to Building K which contained the loading dock (Figure 2 – Site Layout Map). The loading dock has metal doors labeled “Door #6” and “Door #7”. A liquid sludge with a slight sheen was observed on the floor of the loading dock (Photo #1a). Two wheeled black bins are located in the area in front of the loading dock Door #7 (Photo #1b). One black bin was observed to be lying on its side and the other was observed to contain some liquid. A former Mirro employee explained that a transformer located on the second floor was draining into the bin that contained liquid. The bins were located on top of wooden planks but the surrounding flooring was concrete. Staining around the bins was apparent on the planks and concrete flooring surrounding the bins. Cherry fruit pits were also observed to be scattered around the black bins.

An open sand pit in Building L was the next area observed (Figure 2 – Site Layout Map). The sand pit is located in the northwest corner of Building L. Former Mirro employees suggested that the pit was used to collect runoff oil from machinery during operation.

Site reconnaissance continued on to the second floor of Building K (Figure 2 – Site Layout Map). The area of investigation was another large transformer. The inner structure of the transformer had been taken apart possibly by trespassers trying to access resalable materials inside the transformer. The transformer had a hose draining from the side of it through the floor down to the black bin on the ground level near the loading dock. This transformer is also known to contain PCB fluid. Fourteen-15 gallon white drums were located in the back corner of the transformer room. These drums were similar to the drums found in the transformer room in Building I with mismatching labels and similar liquid. Staining of the flooring in and around the transformer room was observed.

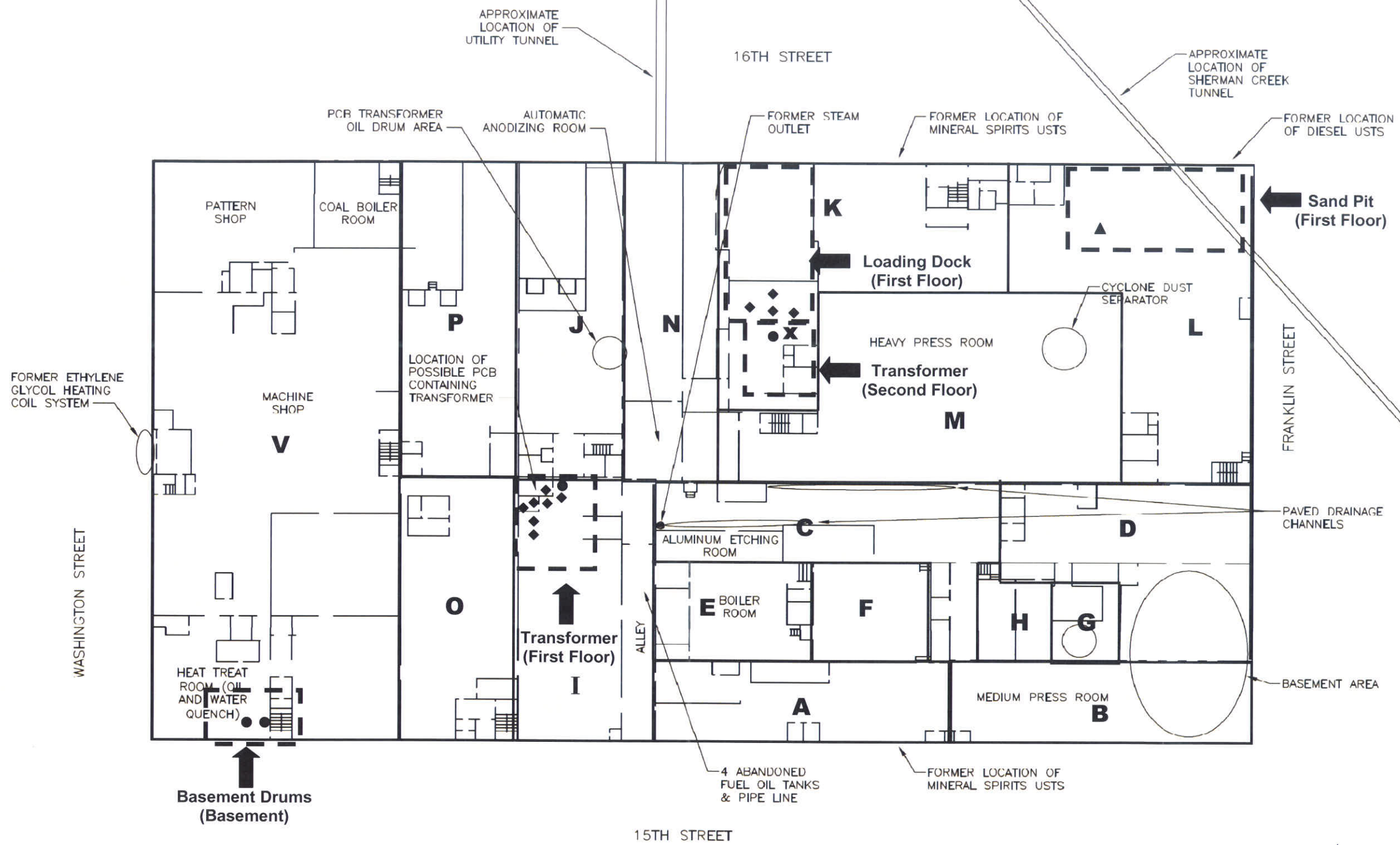
The last investigation area during site reconnaissance was the basement area of Building V. On the walk down to the basement, the OSC and START observed a large pile of empty and nearly-empty 15 gallon drums near the basement stairwell of Building V (Photo 2). Some of the drums were labeled “LIQUID-COUNTDOWN”, “FC-350”, and “Elite”. Once in the basement area of Building V, OSC and START observed six-15 gallon white drums that were stored in a corridor behind the stairwell (Figure 2 – Site



Layout Map). The six full drums were illuminated using a spotlight and the contents of the drums appeared red/orange in color in the light. The drums displayed different labels but appeared to contain the same liquid. Some labels displayed "LIQUID-COUNTDOWN with corrosive placards and some read "FC-590 Chlorinated CIP Cleaner". Staining on the walls was observed and former Mirro employees explained that the basement often flooded resulting in the visible water mark.

The OSC and START planned to collect drum samples from Buildings I, K, and V, wipe samples from stained and unstained flooring in Buildings I and K and a sand sample from Building L during a future planned Site Assessment.

OSC Kathy Halbur returned to the Site for a Site walkthrough with local and state officials and the property owner to discuss demolition plans on February 15<sup>th</sup>, 2011. During this Site activity, 4 suspected PCB-containing drums were observed on the sixth floor as well as 5 additional drums on the upper floors which are assumed to contain anti-freeze based on other similarly labeled containers in the area.



- KEY**
- Building Boundary
  - Sampling Area
  - ◆ - Wipe Sample
  - - Drum Sample
  - ▲ - Sand Sample
  - ✕ - Historic Soil Boring



Figure 3  
Sample Location Map

Source: Adapted from STS/AECOM Phase I ESA Mirro Plant 9

Mirro-Spirtas Site Assessment  
Manitowoc, Manitowoc, Wisconsin  
TDD No. TO-05-10-12-0002  
EP-S5-10-10



### 3.2 Site Assessment Sampling Activities

After the Site reconnaissance, START members and the OSC discussed selection of specific sampling locations prior to sampling activities (Figure 3 – Sampling Location Map). On January 24, 2011, START and the OSC returned to the site to conduct a Site Assessment. OSC Kathy Halbur and START members Naren Babu and Caitlin Ruza of OTIE conducted the Site Assessment. They met with the property owner Eric Spirtas as well as representatives from the WDNR, U.S. EPA, Mirro, and property owner’s contractors. Prior to conducting the Site Assessment, Eric Spirtas was briefed on the sampling activities. START calibrated the RAE Systems MultiRAE personal monitoring equipment in Building O. It was noted that the oxygen sensor on the equipment was drifting.

All sampling activities were conducted in Level C personal protective equipment. Liquid drum, wipe, and solid sand samples were collected during the Site Assessment. Liquid drum samples are identified with the letters “DR”, wipe samples with the letters “WP” and the sand sample with the word “SAND”. Drum and sand sample ID numbers and locations are presented in Table 1 while wipe sample ID numbers, locations, and staining description are presented in Table 2.

Drum samples MS-1DR (Photo #3) and MS-2DR (Photo #4) were collected from two of the six drums located on the basement level in Building V (Figure 3 – Sampling Location Map). Each sample was collected using a dedicated glass drum thief and directly transferred into a lab-supplied clean sample jar. Both samples appeared to be viscous and yellow in color when contained in the glass drum thief. These samples were submitted for VOCs, SVOCs, metals, PCBs, diesel range organics (DROs) and gasoline range organics (GROs) analyses. MS-1DR was collected in four-4oz amber jars and MS-2DR was collected in two-4oz amber jars. A duplicate sample, MS-1DR-D, was collected from the same drum that was sampled for MS-1DR and was analyzed for PCBs and SVOCs. The duplicate sample was collected in one-4oz amber jar.

After collecting the drum samples from the basement level of Building V, sampling activities were moved to the transformer on the ground level of Building I for drum and wipe sampling activities (Figure 3- Sampling Location Map). Wipe samples were collected using clean, dedicated 10 cm x 10 cm templates for a 100 cm<sup>2</sup> sampling area. Lab supplied gauze wipes were wetted with hexane as a solvent and used in a two-pass “S-wipe” sample collection motion with the second wipe pass perpendicular to the first wipe pass. This method was used for all wipe samples collected from the Site. MS-WP-1 was collected from the stained flooring in the small room adjacent to the transformer room (Photo #5a). MS-WP-2 was



collected from the unstained flooring in the same small room (Photo #5b). MS-WP-3 was collected from an area which was bordered by a rail on one side and located adjacent to the transformer room (Photo #5c). MS-WP-4 was collected near the edge of visible staining on the floor outside of the transformer room (Photo #5d). MS-WP-5 was collected outside of the apparent saturation staining on the floor outside of the transformer room (Photo #6a). MW-WP-6 (Photo #6b) was collected from a puddle of dark liquid on the floor of the entranceway of the transformer room. MW-WP-7 was collected from the stained floor just outside the entranceway of the transformer room (Photo #6c). All wipe samples from the transformer room in Building I area were analyzed for PCBs.

After all wipe samples in the transformer room in Building I had been collected, drum sampling was conducted (Figure 3-Sampling Location Map). Five-15 gallon white labeled drums were located on either side of the transformer room entrance. The middle drum on the right side was sampled and analyzed for PCBs (Photo #7). This drum sample, MS-DR3, appeared to be viscous and was clear in color.

After drum sampling, START member Naren Babu tried to pry open the stained wooden floorboards near the transformer room in Building I for subsurface sampling. A crowbar was used in the attempt but was unable to penetrate the flooring.

The OSC and START relocated to Building K to the area on the ground level where two large black wheeled bins were located near the loading dock Door #7 (Photo #1b) (Figure 3-Sampling Location Map). One bin contained liquid draining from the transformer on the second floor. Four wipe samples were collected from the loading dock area floor and were analyzed for PCBs. MS-WP-8 was collected from the concrete floor directly in front of the black bins (Photo #1c); MS-WP-9 was collected from the concrete floor approximately 10 feet north of MS-WP-8 (Photo #1c); MS-WP-10 was collected in front of Door #7 of the loading dock (Photo #1c); and MS-WP-11 was collected in front of Door #6 of the loading dock (Photo #1d).

The OSC and START members relocated to the sand pit in the southeast corner of Building L (Figure 3 – Sampling Location Map). A 5-point composite sample of sand, MS-SAND-1, was collected in a 4-oz jar and analyzed for PCBs and Toxicity Characteristic Leaching Procedure (TCLP) metals (Photo #8).

The OSC and START members then moved to the final sample collection location, the transformer located on the second floor of Building K (Figure 3-Sampling Location Map). Fourteen-15 gallon drums were located in the transformer room, some of which were labeled and/or placarded. Labels included “TRANSCEND”. A sample from this group of 14 drums was collected from the second drum back on the right (Photo #9).

Samples were packaged and stored with ice. Wipe and sand samples were delivered to Pace Analytical in Green Bay, Wisconsin for PCB and TCLP metal analysis. Drum samples were analyzed by Test America Chicago in University Park, IL for metals, VOCs, SVOCs, PCBs, DROs and GROs analysis.

**Table 1  
Sample Locations and Descriptions  
Mirro-Spirtas Site Assessment**

Sample ID	Sample Location	Matrix	Description
MS-1DR	Basement Drum Area-furthest drum from stairwell	Oil	Viscous yellow liquid
MS-1DR-D	Basement Drum Area-furthest drum from stairwell	Oil	Viscous yellow liquid
MS-2DR	Basement Drum Area-second drum from stairwell	Oil	Viscous yellow liquid
MS-DR-3	Transformer 1 Area-middle drum	Oil	Viscous clear liquid
MS-DR-4	Transformer 2 Area-second drum back on the right	Oil	Viscous clear liquid
MS-SAND-1	Open sand area	Solid	Stained sand
MS-WP-1	Transformer 1 Area - inside adjacent room	Wipe	Stained
MS-WP-2	Transformer 1 Area - inside adjacent room	Wipe	Unstained
MS-WP-3	Transformer 1 Area - outside room inside rail	Wipe	Stained
MS-WP-4	Edge of saturation staining - Transformer 1 Area outside room	Wipe	Edge of staining
MS-WP-5	Outside saturation staining - Transformer 1 Area outside room	Wipe	Unstained
MS-WP-6	Puddle inside Transformer 1 room	Wipe	Stained
MS-WP-7	Entranceway to Transformer 1 room	Wipe	Edge of staining
MS-WP-8	From concrete surface in PCB Drain Area	Wipe	Stained
MS-WP-9	From concrete surface in PCB Drain Area	Wipe	Stained
MS-WP-10	Area in front of Door #7 of loading dock	Wipe	Stained
MS-WP-11	Area in front of Door #6 of loading dock	Wipe	Stained



#### 4. ANALYTICAL RESULTS

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START reviewed the site assessment analytical data and supporting quality assurance/quality control (QA/QC) data provided by Pace Analytical for wipe and sand samples and by Test America, Chicago, for drum samples. The validated analytical data package is included in Appendix B. Based on START's data validation, the data is acceptable for use as qualified.

All detected analytical results for drum samples are shown in Table 2. DRO results for drum Samples, MS-1DR, and MS-2DR, collected from the basement were 1,200,000 mg/Kg and 1,000,000 mg/Kg, respectively. These results indicate that the drums with unknown liquid contain pure product DRO. PCBs were detected above the Toxic Substances Control Act (TSCA) disposal limit of 50 mg/Kg in the duplicate sample MS-1DR-D. PCB Aroclor 1260 results for drum samples MS-DR3 and MS-DR4, collected from first floor and second floor in building K, were 480,000 mg/Kg and 470,000 mg/Kg, respectively. These results indicate that the drums sampled for PCBs contain pure PCB Aroclor 1260 liquid. These PCB results exceed the U.S. EPA's generic human health and environment protection level of 25 mg/Kg PCBs for industrial sites. As per TSCA PCB disposal regulations at 40 CFR 761.60, PCB wastes with a PCB concentration greater than 50 mg/Kg must be disposed of in a TSCA incinerator, TSCA chemical waste landfill, or by an U.S. EPA-approved alternative method within 1 year.

All wipe sample results are shown in Table 3. Results in Table 3 were compared against values given in "U.S. EPA Requirements for Cleanup of High-Concentration Spills and Low-Concentration Spills Involving One Pound or More PCBs by Weight" listed under Title 40 of the CFR, Section 761.125 (c) (4) (ii). All wipe samples exceeded the U.S. EPA PCB Cleanup Commercial Indoor Limit of 10  $\mu\text{g}/100\text{ cm}^2$  with the exception of MS-WP-2. MS-WP-2 was taken inside the room adjacent to the Transformer 1 Room. This wipe sample was taken from an area that was observed to be unstained flooring. Wipe sample results ranged from 3.8  $\mu\text{g}/100\text{ cm}^2$  to 459,000  $\mu\text{g}/100\text{ cm}^2$ . The highest PCB wipe sample result was reported for MS-WP-6 at 459,000  $\mu\text{g}/100\text{ cm}^2$ . MS-WP-6 was collected from the puddle of liquid in the entranceway in the Transformer 1 Room shown in Photo #5b.

Analytical results for one sand sample are shown in Table 4. Total PCB result for sand sample was below the TSCA limit of 50 mg/Kg. TCLP lead result for sand sample was below the lead TCLP limit of 5 mg/L.



**Table 2  
Drum Sample Results  
Mirro-Spirtas Site Assessment**

Analyte	MS-1DR (mg/Kg)	MS-1DR-D (mg/Kg)	MS-2DR (mg/Kg)	MS-3DR (mg/Kg)	MS-4DR (mg/Kg)
<b>PCBs</b>					
Aroclor 1260	17 J	<b>140 J</b>	15	<b>480,000</b>	<b>470,000</b>
<b>VOCs</b>					
sec-Butylbenzene	0.34J	---	ND	NA	NA
tert-Butylbenzene	0.15J	---	ND	NA	NA
Ethylbenzene	0.11J	---	ND	NA	NA
p-Isopropyltoluene	1.2	---	0.28J	NA	NA
N-Propylbenzene	0.2J	---	ND	NA	NA
Toluene	0.068J	---	ND	NA	NA
1,2,4-Trimethylbenzene	0.98J	---	0.26J	NA	NA
1,3,5-Trimethylbenzene	0.51J	---	ND	NA	NA
m&p-Xylene	0.35	---	ND	NA	NA
o-Xylene	0.44	---	ND	NA	NA
<b>SVOCs/PAHs</b>					
1,2,3-Trichlorobenzene	0.43J	ND	0.42J	NA	NA
<b>Metals</b>					
Barium	0.015J	---	0.017J	NA	NA
Lead	ND	---	0.066J	NA	NA
Potassium	0.91J	---	1.5J	NA	NA
Selenium	0.054J	---	ND	NA	NA
<b>Total Petroleum Hydrocarbons</b>					
DRO (C10-C28)	1,200,000	---	1,000,000	NA	NA
GRO (C5-C10)	200	---	86	NA	NA

Notes:

Site Assessment conducted under START contract EP-S5-10-10 on January 24, 2011.

Analyses were conducted by TestAmerica-Chicago, University Park, Illinois under TDD No: TO-05-10-12-0002 mg/Kg – milligrams per kilogram

J – result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value

ND – analyte not detected above the laboratory method detection limit

**Bold** – indicates analytical results that exceeded the TSCA disposal limit of 50 mg/Kg PCBs

NA – analyte not analyzed

<p align="center"><b>Table 3</b>  <b>Wipe Sample Results</b>  <b>Mirro-Spirtas Site Assessment</b></p>		
<b>Wipe Sample ID</b>	<b>USEPA PCB Cleanup Commercial Indoor Limit (µg/100 cm<sup>2</sup>)</b>	<b>PCB Analytical Result (µg/100 cm<sup>2</sup>)</b>
MS-WP-1	10	<b>168,000.0</b>
MS-WP-2	10	3.8 U
MS-WP-3	10	<b>57,900.0 J</b>
MS-WP-4	10	<b>70.5 J</b>
MS-WP-5	10	<b>16.1</b>
MS-WP-6	10	<b>459,000.0 J</b>
MS-WP-7	10	<b>302.0 J</b>
MS-WP-8	10	<b>10,100.0</b>
MS-WP-9	10	<b>138,000.0</b>
MS-WP-10	10	<b>83,800.0 J</b>
MS-WP-11	10	<b>594.0</b>

Notes:

Site Assessment conducted under START contract EP-S5-10-10 on January 24, 2011.

Analyses were conducted by Pace Analytical, Green Bay Wisconsin under TDD No: TO-05-10-12-0002  
µg/100cm<sup>2</sup> – micrograms per 100 square centimeters

J – Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

**Bold** – indicates analytical results that exceeded the USEPA PCB Cleanup Commercial Indoor Limit

<p align="center"><b>Table 4</b>  <b>Sand Sample Results</b>  <b>Mirro-Spirtas Site Assessment</b></p>				
<b>Group</b>	<b>Analyte</b>	<b>Units</b>	<b>Regulatory Limit</b>	<b>MS-SAND-1</b>
PCBs	PCBs, Total	mg/Kg	50 <sup>1</sup>	0.0343 J
TCLP metals	Lead	mg/L	5 <sup>2</sup>	0.5

Notes:

Analyses were conducted by Pace Analytical, Green Bay Wisconsin under TDD No: TO-05-10-12-0002

<sup>1</sup>–TSCA disposal limit for PCBs

<sup>2</sup>–TCLP limit for lead as listed under 40 CFR Part 261 Subpart C

mg/Kg – milligrams per kilogram

mg/L – milligrams per liter

J – Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

## 5. POTENTIAL SITE RELATED THREATS

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Threats posed by the site were evaluated in accordance with Title 40 of the CFR, Section 300.415(b) (2). Paragraph (b) (2) of 40 CFR Section 300.415 lists factors to be considered when determining the appropriateness of a potential removal action at a site. Potential site-related threats to human health and the environment were evaluated based on the criteria listed in 40 CFR, Sections 261.20 through 261.24. Factors that are applicable to the Site are discussed below.

### **Actual or potential exposure of nearby human populations, animals, or the food chain to hazardous substances or pollutants or contaminants**

PCB Aroclor 1260 was detected above the TSCA limit of 50 mg/Kg in one subsurface soil sample during the subsurface assessment conducted by AECOM in 2009. Results of the drum samples collected during this Site Assessment indicated the presence of PCBs, VOCs, SVOCs/ PAHs, metals, DROs and GROs.

Analytical results of the MS-DR-3 and MS-DR-4 samples collected from two drums near transformers for Aroclor-1260 were 480,000 mg/Kg and 470,000 mg/Kg, respectively. These results indicate that the drums sampled for PCBs contain pure PCB Aroclor 1260 liquid. Wipe samples collected from the flooring in different areas showed elevated levels of PCBs. All wipe samples collected with the exception of MS-WP-2 exceeded the U.S. EPA PCB Cleanup Commercial Indoor Limit of 10µg/100 cm<sup>2</sup>.

Although access to the building is restricted, signs of trespassing were apparent in different areas of the building. It is believed that the spillage observed in the drum areas and Building K was caused by trespassers. The presence of confirmed hazardous material poses a threat to trespassers and nearby residents through direct exposure. Human or ecological contact with these drums and surfaces can result in exposure to PCBs.

PCBs have been demonstrated to cause cancer, as well as a variety of other adverse health effects on the immune system, reproductive system, nervous system, and endocrine system. Human health studies reviewed by ATSDR indicate that reproductive function may be disrupted by exposure to PCBs; neurobehavioral and developmental deficits occur in newborns and continue through school-aged children who had in utero exposure to PCBs; other systemic effects (e.g., self-reported liver disease and diabetes, and effects on the thyroid and immune systems) are associated with elevated serum levels of PCBs; and increased cancer risks, e.g., non-Hodgkin's lymphoma, are associated with PCB exposures.



Once released in the environment, PCBs do not readily break down and remain for long periods of time cycling between air, water, and soil. PCBs can be carried long distances and have been found in snow and sea water in areas far away from where they were released into the environment. As a consequence, PCBs are found all over the world. PCBs can accumulate in the leaves and above-ground parts of plants and food crops. They are also taken up into the bodies of small organisms and fish. As a result, people who ingest fish may be exposed to PCBs that have bioaccumulated in the fish they are ingesting. PCB chemical contamination of Lake Michigan has resulted in lakewide fish consumption advisories for sport fish and outright bans on the commercial harvest and sale of certain important fish species.

**Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers that may pose a threat of release**

A total of 29 drums with PCB liquid and 11 drums with unknown liquid were found in the building at different floor levels. Aroclor 1260 results of the samples collected from two PCB drums, MS-DR-3 and MS-DR-4, were 480,000 mg/Kg and 470,000 mg/Kg, respectively. Analytical results for DROs in the samples collected from two unknown drums, MS-1DR and MS-2DR, were 1,200,000 mg/Kg and 1,000,000 mg/Kg, respectively. These results indicate that the unknown drums contain pure product DRO. There is evidence of spillage already in numerous areas of the building. There is also evidence of migration to the environment of spilled material in building K (in the subsurface soil). It is believed that the spillage was caused by trespassers. Additionally, in the event of a fire, the material stored in drums could result in the release of toxic gases and/or particulates, causing potential exposure to nearby residents. These drums and several other unknown drums pose a potential threat of release to the environment.

**Actual or potential contamination of drinking water supplies or sensitive ecosystems**

PCB Aroclor 1260 was detected above U.S. EPA's generic human health and environment protection level of 25 mg/Kg PCBs for industrial sites in one subsurface soil sample during the subsurface assessment conducted by AECOM in 2009. The subsurface soil sample collected at 4 ft bgs was reported to contain 210 mg/Kg PCBs. High levels of PCBs existing in subsurface soil pose a threat of potential release to the groundwater at the site. Staining leading to the sewer drain was observed in the loading dock that services Building K (photo#1). Releases thru the sewers could threaten the Manitowoc River and Lake Michigan.

**Weather conditions that may cause substances or pollutants or contaminants to migrate or be released**

Water marks on the walls in the basement area indicate that flooding has occurred. Flooding inside the building due to heavy rain may lead to tipping the drums containing DRO and releasing their contents to the surrounding area and into the nearby Manitowoc River and Lake Michigan through storm sewers.

**Threat of fire or explosion**

The two unknown drum samples, MS-1DR and MS-2DR, contained pure product DRO. Drums of anti-freeze were also discovered at the facility. These materials are flammable, and therefore, pose a potential threat of fire or explosion.

## 6. SUMMARY

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On December 30, 2010, U.S. EPA OSC Kathy Halbur and START conducted site reconnaissance activities. During the site walk through, a plan for site assessment activities was developed. The site assessment was conducted on January 24, 2011. The OSC and START conducted drum, wipe, and sand sampling from five separate sampling areas of the building. OSC Halbur returned to the facility on February 15, 2011 and identified additional hazardous materials previously not discovered.

Analytical results for the two drum samples collected from the basement level in building V showed that these drums contained pure product DROs. In case of fire, the material stored in these drums could result in the release of toxic gases and/or particulates, causing potential exposure to nearby residents. Analytical results for PCB Aroclor 1260 in the two drum samples collected in building K showed that these drums contained pure PCB Aroclor 1260 liquid. Ten out of 11 wipe sample results exceeded the U.S. EPA PCB Cleanup Commercial Indoor Limit of  $10\mu\text{g}/100\text{ cm}^2$ . A total of 29 drums with potential PCB liquid and 5 drums with potential used anti-freeze were found in different floors of the building.

In conclusion, the Mirro-Spirtas site assessment identified numerous substances in drums and flooring surfaces. Historical investigations also indicate PCB spills and subsurface PCB contamination under the floor boards. Though the site is secured, trespassing had occurred in the past. These hazardous substances present in the building and drums pose a threat of release and fire. Thus, a removal action is warranted at this Site to abate threats to human health and the environment.



**APPENDIX A**  
**PHOTOGRAPHIC LOG**  
**(9 Pages)**



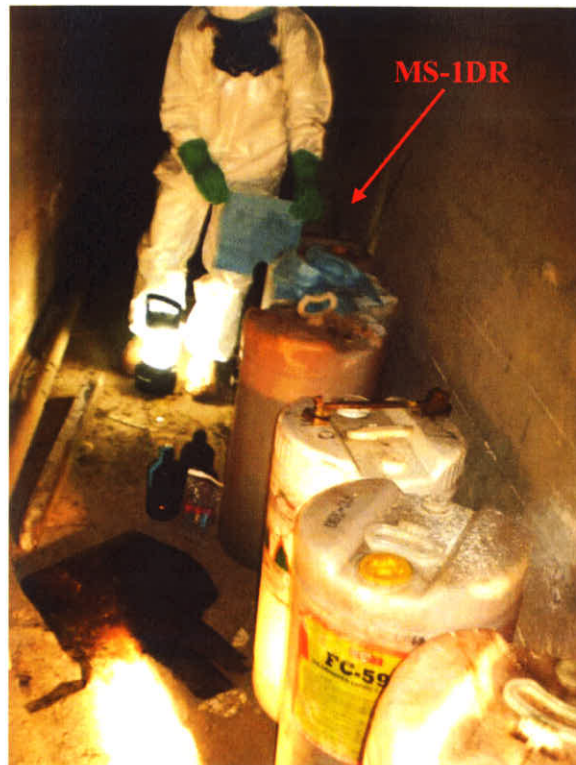
**Photograph No.:** 1                      **Photographer:** Caitlin Ruza                      **Area:** Bldg K-Loading Dock  
**TDD Number:** TO-05-10-12-0002                      **Contract:** EP-S5-10-10, OTIE                      **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** Dumped material and oil sheen leading to the drain inside the loading dock in Building K



**Photograph No.:** 2                      **Photographer:** Caitlin Ruza                      **Area:** Bldg K-Loading Dock  
**TDD Number:** TO-05-10-12-0002                      **Contract:** EP-S5-10-10, OTIE                      **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** Two wheeled bins in the loading dock area of Building K. One bin is tipped over and one contains the contents which has been drained from the transformer on the second floor above



**Photograph No.:** 3      **Photographer:** Caitlin Ruza      **Area:** Building V  
**TDD Number:** TO-05-10-12-0002      **Contract:** EP-S5-10-10, OTIE      **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** Stack of empty and nearly-empty drums near the basement stairwell in Building V



**Photograph No.:** 4      **Photographer:** Caitlin Ruza      **Area:** Bldg V-Basement  
**TDD Number:** TO-05-10-12-0002      **Contract:** EP-S5-10-10, OTIE      **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** View of all 6 basement drums MS-1DR and MS-1DR-D were both collected from the last drum in the line of drums shown above





**Photograph No.:** 5      **Photographer:** Caitlin Ruza      **Area:** Bldg V-Basement  
**TDD Number:** TO-05-10-12-0002      **Contract:** EP-S5-10-10, OTIE      **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** MS-2DR was collected from the second drum back in the line of 6 drums on the basement level of Building V



**Photograph No.:** 6      **Photographer:** Caitlin Ruza      **Area:** Building I-Transformer  
**TDD Number:** TO-05-10-12-0002      **Contract:** EP-S5-10-10, OTIE      **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** MS-WP-1 collected from stained area of small room adjacent to the transformer room in Building I (template area shown)



**Photograph No.:** 7      **Photographer:** Caitlin Ruza      **Area:** Building I-Transformer  
**TDD Number:** TO-05-10-12-0002      **Contract:** EP-S5-10-10, OTIE      **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** MS-WP-2 collected from unstained area of small room adjacent to the transformer room in Building I (template area shown)



**Photograph No.:** 8      **Photographer:** Caitlin Ruza      **Area:** Building I-Transformer  
**TDD Number:** TO-05-10-12-0002      **Contract:** EP-S5-10-10, OTIE      **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** MS-WP-3 collected from stained area of small railed in section adjacent to the transformer room in Building I (template area shown)





**Photograph No.:** 9                      **Photographer:** Caitlin Ruza                      **Area:** Building I-Transformer  
**TDD Number:** TO-05-10-12-0002                      **Contract:** EP-S5-10-10, OTIE                      **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** MS-WP-4 collected from edge of saturation staining on flooring outside of the transformer room in Building I (template area shown)



**Photograph No.:** 10                      **Photographer:** Caitlin Ruza                      **Area:** Bldg I-Transformer  
**TDD Number:** TO-05-10-12-0002                      **Contract:** EP-S5-10-10, OTIE                      **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** MS-WP-5 collected from outside of saturation staining on flooring outside of the transformer room in Building I (template area shown)





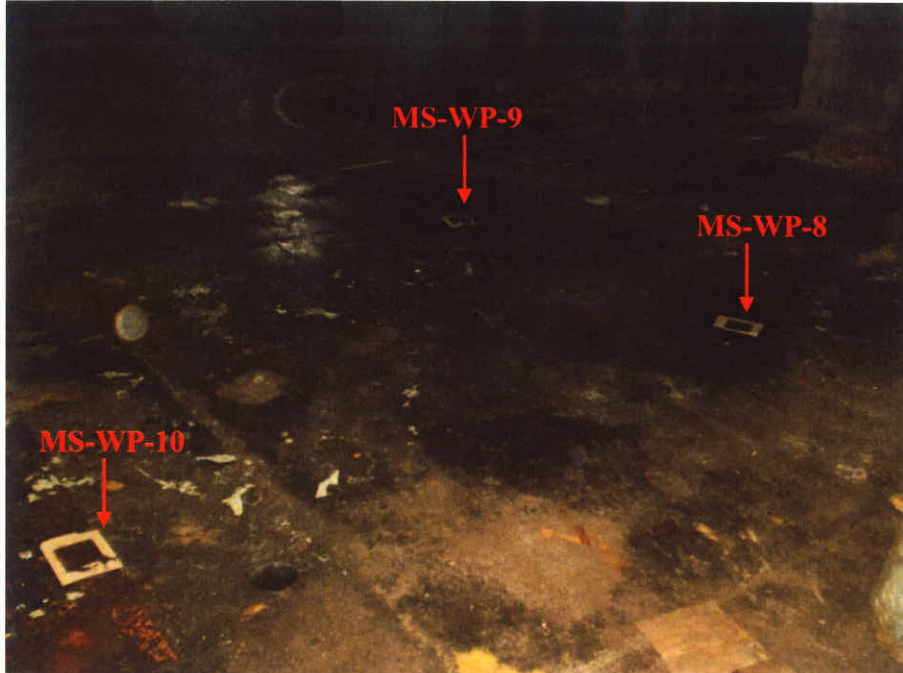
**Photograph No.:** 11      **Photographer:** Caitlin Ruza      **Area:** Bldg I-Transformer  
**TDD Number:** TO-05-10-12-0002      **Contract:** EP-S5-10-10, OTIE      **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** MS-WP-6 collected from puddle on plastic matting in the transformer room in Building I (approximate sample area shown)



**Photograph No.:** 12      **Photographer:** Caitlin Ruza      **Area:** Bldg I-Transformer  
**TDD Number:** TO-05-10-12-0002      **Contract:** EP-S5-10-10, OTIE      **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** MS-WP-7 collected from stained area outside of entranceway to the transformer room in Building I (approximate sample area shown)



**Photograph No.:** 13      **Photographer:** Caitlin Ruza      **Area:** Bldg I-Transformer  
**TDD Number:** TO-05-10-12-0002      **Contract:** EP-S5-10-10, OTIE      **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** MS-DR-3 was collected from the middle drum of three drums located to the right of the entranceway of the room containing the transformer in Building I



**Photograph No.:** 14      **Photographer:** Caitlin Ruza      **Area:** Bldg K-Loading Dock  
**TDD Number:** TO-05-10-12-0002      **Contract:** EP-S5-10-10, OTIE      **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** MS-WP-8 was taken directly in front of the bins in the loading dock in Building K. MS-WP-9 was taken adjacent to MS-WP-8. MS-WP-10 was taken in front of Door #7 of the loading dock in Building K (template areas shown)





**Photograph No.:** 15 **Photographer:** Caitlin Ruza **Area:** Bldg K-Loading Dock  
**TDD Number:** TO-05-10-12-0002 **Contract:** EP-S5-10-10, OTIE **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** MS-WP-11 was collected from in front of Door #6 (shown in the background) of the loading dock in Building K (template area shown)



**Photograph No.:** 16 **Photographer:** Caitlin Ruza **Area:** Building L-Sand Pit  
**TDD Number:** TO-05-10-12-0002 **Contract:** EP-S5-10-10, OTIE **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** MS-SAND-1 was collected as a 5-point composite sample from the sand material area in Building L





**Photograph No.:** 17      **Photographer:** Caitlin Ruza      **Area:** Building K-Transformer  
**TDD Number:** TO-05-10-12-0002      **Contract:** EP-S5-10-10, OTIE      **Date:** January 24, 2011  
**Site Name & Location:** Mirro-Spirtas Site, Manitowoc, Manitowoc County, Wisconsin  
**Photograph Subject:** MS-DR-4 was collected from the second drum back from the front of the photo on the right.  
These 14 drums are located inside the transformer room in Building K

**APPENDIX B**

**VALIDATED LABORATORY ANALYTICAL RESULTS**

**(37 Pages)**



## MEMORANDUM

**Date:** February 23, 2010  
**To:** Naren Babu, Project Manager, OTIE  
Superfund Technical Assessment and Response Team (START) for Region 5  
**Prepared by:** Keely Meadows, START chemist for Region 5  
**QA/QC**  
**Concurrence by:**  
**Subject:** Data Validation for  
Mirro Spirtas  
Manitowoc, Wisconsin  
Project TDD No. TO-05-10-12-0002

Laboratories: Test America, Chicago, IL; Pace Analytical, Green Bay, WI.  
Sample Delivery Groups (SDGs): 500-30674-1; 4041914

SDG 500-30674-1: Analyses of 2 Waste Samples for Volatile Organic Compounds (VOCs); Analyses of 3 Waste Samples for Semivolatile Organic Compounds (SVOCs); Analyses of 2 Waste Samples for Total Petroleum Hydrocarbons (TPH) Wisconsin (WI) Gasoline Range Organics (GRO), WI Diesel Range Organics (DRO), and Metals; Analyses of 5 Waste Samples for Polychlorinated Biphenyls (PCBs).

SDG 4041914: Analyses of 1 Solid Sample for Toxicity Characteristic Leaching Procedure (TCLP) Metals and Percent Moisture; Analyses of 11 Wipe Samples for PCBs.

### 1.0 INTRODUCTION

The START chemist for Region 5 validated VOCs, SVOCs, Total Petroleum Hydrocarbons, Metals, PCBs, and Percent Moisture analytical data for 2 waste samples for Volatile Organic Compounds (VOCs), 3 waste samples for Semivolatile Organic Compounds (SVOCs), 2 waste samples for Total Petroleum Hydrocarbons (TPH) Wisconsin (WI) Gasoline Range Organics (GRO), WI Diesel Range Organics (DRO), and Metals, 5 waste samples for Polychlorinated Biphenyls (PCBs), 1 solid sample for Toxicity Characteristic Leaching Procedure (TCLP) Metals and Percent Moisture, and 11 wipe samples for PCBs. Samples were collected at the Mirro Spirtas site in Manitowoc, Wisconsin on January 24, 2011. The samples were analyzed under SDGs 4041914 by Pace Analytical of Green Bay, Wisconsin and 500-30674-1 by Test America of Chicago, Illinois using U.S. Environmental Protection Agency (U.S. EPA) methods 8260B, 8270C, 6010B/7470/7471A, WI-DRO, WI-GRO, 8082, and D2974.

A revised SDG was issued for 500-30674-1 by Test America for samples MS-DR-3 and MS-DR-4. The original results for these samples were biased 10x high. Therefore, the revised report contained the corrected results for the two samples.

Laboratory data were validated using guidelines set forth in the U.S. EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (EPA540/R-99/008, October 1999), U.S. EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review (EPA 540/R-



94/013, February, 1994), and applicable methodologies. The purpose of the chemical data quality evaluation process is to assess the usability of data for the project decision-making process.

Organic data validation consisted of a review of the following QC audits:

- Chain of custody and sample receipt forms review
- Sample preservation and holding time
- Blank results
- Surrogate recoveries
- Matrix spike and Matrix Spike Duplicate (MS/MSD) recovery results
- Laboratory Control Sample (LCS) recovery results

Inorganic data validation consisted of a review of the following QC audits:

- Chain of custody and sample receipt forms review
- Sample preservation and holding time
- Blank results
- Duplicate Sample Results
- LCS recovery results
- MS/MSD recovery results

Section 2.0 of this memorandum discusses the results of organic data validation. Section 3.0 of this memorandum discusses the results of inorganic data validation. Section 4.0 presents an overall assessment of the data. The attachment to this memorandum contains the laboratory reporting forms as well as START's handwritten data qualifications where warranted.

## **2.0 ORGANIC DATA VALIDATION RESULTS**

The results of START's organic data validation are summarized below by QC audit reviewed. The data qualifiers listed below were applied to sample analytical results where warranted (see attachment):

- J – The analyte was detected. The reported concentration was considered estimated.
- U – The analyte was not detected.
- UJ – The analyte was not detected. The reporting limit was considered estimated.

After the START project staff received the data packages, they were inventoried for completeness and then reviewed according to matrix-specific protocols and data quality objectives established for the project.

## **2.1 WASTE SAMPLES BY METHOD 8260B**

### **2.1.1 SAMPLE HANDLING**

Chain of custody documentation and sample receipt forms were reviewed to ensure requested analyses were performed and that samples arrived at the laboratory intact. Soil samples were collected on January 24, 2011 and were received cool and intact by the laboratory. No discrepancies were noted.

### ***2.1.2 SAMPLE PRESERVATION AND HOLDING TIME***

Waste VOC samples were analyzed within holding time criteria. No discrepancies were noted.

### ***2.1.3 BLANK RESULTS***

The purpose of laboratory (or field) blank analysis is to determine the existence and magnitude of contamination resulting from laboratory (or field) activities. A laboratory method blank sample (MB 500-104841/4) was run with this SDG.

No method blank detects were noted.

### ***2.1.4 SURROGATE RECOVERIES***

Laboratory performance on individual samples is established by means of fortifying each sample with surrogate compounds (System Monitoring Compounds). Surrogate spike compounds included Dibromofluoromethane, Toluene-d8, 4-Bromofluorobenzene and 1,2-Dichloroethane.

No discrepancies were noted.

### ***2.1.5 MS/MSD RECOVERY RESULTS***

Data for MS/MSDs are generated to determine long-term precision and accuracy of the analytical method on various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis.

No MS/MSD samples were requested for this SDG.

### ***2.1.6 LCS RECOVERY RESULTS***

Data for the LCS is generated to provide information on the accuracy of the analytical method and on the laboratory performance. The LCS is fortified with the full list of VOCs and analyzed with each batch of samples. The LCS accuracy performance is measured by Percent Recovery (%R).

The LCS was within limits except for dichlorodifluoromethane that was recovered low at 33% on the LCS and outside accepted recovery limits. No detects were found for this compound and this non-detect was qualified as "UJ" in samples MS-1DR and MS-2DR.

### ***2.1.7 GENERAL LABORATORY OBSERVATIONS***

The laboratory noted that samples MS-1DR and MS-2DR were diluted due to the abundance of non-target analytes. Therefore, elevated reporting limits are provided.

## **2.2 WASTE SAMPLES BY METHOD 8270C**

### **2.2.1 SAMPLE HANDLING**

Chain of custody documentation and sample receipt forms were reviewed to ensure requested analyses were performed and that samples arrived at the laboratory intact. Soil samples were collected on January 24, 2011 and were received cool and intact by the laboratory. No discrepancies were noted.

### **2.2.2 SAMPLE PRESERVATION AND HOLDING TIME**

Waste samples were shipped on ice. SVOC samples were analyzed within holding time criteria. No discrepancies were noted.

### **2.2.3 BLANK RESULTS**

The purpose of laboratory (or field) blank analysis is to determine the existence and magnitude of contamination resulting from laboratory (or field) activities. One laboratory method blank sample (MB 500-104811/1-A) was run with this SDG.

No laboratory method blank detects were noted.

### **2.2.4 SURROGATE RECOVERIES**

Laboratory performance on individual samples is established by means of fortifying each sample with surrogate compounds. Surrogate spike compounds included 2-Fluorophenol, Phenol-d5, Nitrobenzene-d5, 2-Fluorobiphenyl, 2,4,6-Tribromophenol, and Terphenyl-d14.

Several surrogate recoveries were outside acceptance limit for the SVOCs. Surrogate 2-Fluorophenol was high at 124% in sample MS-2DR and high at 114% in sample MS-1DR-D. Surrogate Nitrobenzene-d5 was high at 112% in sample MS-1DR and high at 116% in sample MS-1DR-D. Surrogate 2-Fluorobiphenyl was high in all three samples, with recoveries ranging from 117% to 134%. Surrogate 2,4,6-Tribromophenol was high at 138% in sample MS-1DR. Lastly, Terphenyl-d14 was high in all three samples, with recoveries ranging from 131% to 159%. The lab noted that there were matrix interferences present. Since sample results were non-detect for all compounds analyzed, no data qualification was performed.

### **2.2.5 MS/MSD RECOVERY RESULTS**

Data for MS/MSD are generated to determine long-term precision and accuracy of the analytical method on various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis.

No MS/MSD samples were requested for this SDG.



### ***2.2.6 LCS RECOVERY RESULTS***

Data for the LCS is generated to provide information on the accuracy of the analytical method and on the laboratory performance. The LCS were fortified with the full list of SVOCs and analyzed with each batch of samples. The LCS accuracy performance is measured by %R.

LCS recoveries for 4-Chloroaniline (20%), 3-Nitroaniline (19%), and Benzidine (0.9%) were biased low. LCS recoveries for Pyridine (112%), Benzoic acid (125%), and Hexachlorocyclopentadiene (136%) were biased high. No detects were found for these compounds. Therefore, the non-detect results were qualified as estimated and flagged "UJ" in samples MS-1DR, MS-2DR, and MS-1DR-D.

### ***2.2.7 FIELD DUPLICATES***

Data for field duplicates were collected and analyzed for chemical constituents to measure the cumulative uncertainty (i.e., precision) of the sample collection, splitting, handling, storage, preparation and analysis operations, as well as natural sample heterogeneity that is not eliminated through simple mixing in the field. Field duplicates are two samples prepared by mixing a volume of sample and splitting it into two separate sample containers that are labeled as individual field samples.

Sample MS-1DR had a duplicate collected (MS-1DR-D) for SVOCs. No deficiencies were noted.

### ***2.2.8 GENERAL LABORATORY OBSERVATIONS***

The laboratory noted that samples MS-1DR, MS-1DR-D, and MS-2DR were diluted due to the abundance of non-target analytes. Therefore, elevated reporting limits are provided.

## **2.3 WASTE SAMPLES BY METHOD 8015**

### ***2.3.1 SAMPLE HANDLING***

Chain of custody documentation and sample receipt forms were reviewed to ensure requested analyses were performed and that samples arrived at the laboratory intact. Soil samples were collected on January 24, 2011 and were received cool and intact by the laboratory. No discrepancies were noted.

### ***2.3.2 SAMPLE PRESERVATION AND HOLDING TIME***

Waste samples were shipped on ice. TPH (WI DRO and WI GRO) samples were analyzed within holding time criteria. No discrepancies were noted.

### ***2.3.3 BLANK RESULTS***

The purpose of laboratory (or field) blank analysis is to determine the existence and magnitude of contamination resulting from laboratory (or field) activities. One laboratory method blank sample (MB 500-105062/2) was run for the gasoline range fraction, and one laboratory method blank sample (MB 500-104818/2-A) was run for the diesel range fraction with this SDG.

No laboratory method blank detects were noted.

### ***2.3.4 SURROGATE RECOVERIES***

Laboratory performance on individual samples is established by means of fortifying each sample with surrogate compounds. Surrogate spike compounds included n-Nonane (DRO).

Surrogate recoveries for DRO were diluted out for samples MS-1DR and MS-2DR due to high concentrations of target analytes. No data qualification was performed due to this deficiency.

### ***2.3.5 MS/MSD RECOVERY RESULTS***

Data for MS/MSD analysis are generated to determine long-term precision and accuracy of the analytical method on various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis.

MS/MSD analysis was performed on sample MS-1DR. Percent recoveries were outside QC limits for the MS (-2,145%) and the MSD (-1,941%). However, the relative percent difference (RPD) was within QC limits. Due to high target analytes, no action was taken to qualify for deficient recoveries.

### ***2.3.6 LCS and LCSD RECOVERY RESULTS***

Data for LCS and Laboratory Control Sample Duplicates (LCSDs) are generated to provide information on the accuracy of the analytical method and on the laboratory performance. LCS and LCSDs were fortified and analyzed with each batch of samples. The LCS accuracy performance is measured by %R.

The LCS and LCSD were within QC limits for both the WI DRO and the WI GRO analyses.

## **2.4 WASTE, WIPE, and SOLID SAMPLES BY METHOD 8082**

### ***2.4.1 SAMPLE HANDLING***

Chain of custody documentation and sample receipt forms were reviewed to ensure requested analyses were performed and that samples arrived at the laboratory intact. Samples were collected on January 24, 2011 and were received cool and intact by the laboratory. No discrepancies were noted.

### ***2.4.2 SAMPLE PRESERVATION AND HOLDING TIME***

Samples were shipped on ice and were analyzed within holding time criteria. No discrepancies were noted.

### ***2.4.3 BLANK RESULTS***

The purpose of laboratory blank analysis is to determine the existence and magnitude of contamination resulting from laboratory activities. Laboratory method blank samples (MB 500-105309/1-A and MB 409246) were run with this SDG.

For method blank 409246, blank contamination was found for PCB 1260. Therefore, this compound in sample MS-WP-2 is qualified as non-detect and flagged U.



#### ***2.4.4 SURROGATE RECOVERIES***

Laboratory performance on individual samples is established by means of fortifying each sample with surrogate compounds. Surrogate spike compounds included Tetrachloro-m-xylene and Decachlorobiphenyl.

Several surrogate recoveries were outside acceptance limit for the PCBs due to high concentrations of target analytes. Both surrogates were diluted out to 0% in samples MS-DR-3, MS-DR-4, MS-WP-1, MS-WP-3, MS-WP-4, MS-WP-6, MS-WP-7, MS-WP-8, MS-WP-9, MS-WP-10, and MS-WP-11. No action was taken to qualify for the surrogates being diluted out since there were high concentrations of target analytes present in the affected samples.

#### ***2.4.5 MS/MSD RECOVERY RESULTS***

Data for MS/MSD are generated to determine long-term precision and accuracy of the analytical method on various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis.

MS/MSD samples were within limits for sample MS-1DR.

#### ***2.4.6 LCS RECOVERY RESULTS***

Data for the LCS is generated to provide information on the accuracy of the analytical method and on the laboratory performance. The LCS was fortified and analyzed with each batch of samples. The LCS accuracy performance is measured by %R.

LCS recoveries were within limits.

#### ***2.4.7 FIELD DUPLICATES***

Data for field duplicates were collected and analyzed for chemical constituents to measure the cumulative uncertainty (i.e., precision) of the sample collection, splitting, handling, storage, preparation and analysis operations, as well as natural sample heterogeneity that is not eliminated through simple mixing in the field. Field duplicates are two samples prepared by mixing a volume of sample and splitting it into two separate sample containers that are labeled as individual field samples.

Sample MS-1DR had a field duplicate collected (MS-1DR-D) for PCBs. Due to the high RPD for PCB 1260 between the two results (156%), PCB 1260 in both samples is qualified as estimated and flagged "J".

#### ***2.4.8 GENERAL LABORATORY OBSERVATIONS***

The laboratory noted that samples MS-1DR, MS-1DR-D, MS-2DR, MS-DR-3, and MS-DR-4 were diluted due to the abundance of target analytes. Therefore, elevated reporting limits are provided.



### **3.0 INORGANIC DATA VALIDATION RESULTS**

The Results of START's inorganic data validation are summarized below by QC audit reviewed. The data qualifiers listed below were applied to sample analytical results where warranted (see attachment):

- J – The analyte was detected. The reported concentration was considered estimated.
- U – The analyte was not detected.
- UJ – The analyte was not detected. The reporting limit was considered estimated.

After the START project staff received the data packages, they were inventoried for completeness and then reviewed according to matrix-specific protocols and data quality objectives established for the project.

### **3.1 WASTE and SOLID SAMPLES BY METHOD 6010 B/7470/7471A**

#### ***3.1.1 SAMPLE HANDLING***

Chain of custody documentation and sample receipt forms were reviewed to ensure requested analyses were performed and that samples arrived at the laboratory intact. Waste and solid samples were received intact by the laboratory. No discrepancies were noted.

#### ***3.1.2 SAMPLE PRESERVATION AND HOLDING TIME***

Samples were analyzed within the holding time criteria. No discrepancies were noted.

#### ***3.1.3 BLANK RESULTS***

The assessment of blank analysis results is to determine the existence and magnitude of contamination resulting from laboratory and/or field activities. A laboratory method blank sample for method 6010 (500-104641/1-A), a laboratory method blank sample for method 6010 TCLP (410227), a laboratory method blank sample for method 7470 (410309), and laboratory method blank sample for method 7471A (500-104776/1-A) were run with this SDG.

For the method blank associated with the 6010 analysis (SDG 500-30674-1), blank contamination was found for aluminum, calcium, copper, iron, magnesium, and zinc. Therefore, these compounds in samples MS-1DR and MS-2DR are qualified as non-detect and flagged U if detected.

#### ***3.1.4 LCS RECOVERY RESULTS***

The LCS serves as a monitor of the overall performance of each step during the analysis, including the sample preparation. The LCS is fortified with each analyte of interest and analyzed with each batch of samples. The LCS accuracy performance is measured by %R.

Laboratory Control Samples for method 6010 (500-104641/2-A), method 6010 TCLP (410228), method 7470 (410310), and method 7471A (500-104776/2-A), were all within acceptable recovery limits.

### ***3.1.5 MS/MSD RECOVERY RESULTS***

The spiked sample analysis is designed to provide information about the effect of each sample matrix on the sample preparation procedures and the measurement methodology. The MS/MSD accuracy performance is measured by %R.

No MS/MSD samples were requested for this SDG.

### **4.0 OVERALL ASSESSMENT OF DATA**

The analytical results meet the data quality objectives defined by the applicable method and validation guidance documentation. The analytical data is usable and acceptable as reported by the laboratory.

**ATTACHMENT**  
**SUMMARY OF ANALYTICAL RESULTS**  
**AND**  
**CHAIN-OF-CUSTODY**  
(27 Pages)



km



4041914

**CHAIN OF CUSTODY**

Preservation Codes  
 A=None B-HCL C=H2SO4 D=HNO3 E=DI Water F=Mehtanol G=NaOH  
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?  
(YES/NO)  
 PRESERVATION  
(CODE)  
 Regulatory Program:

Data Package Options  
 EPA Level III  
 EPA Level IV  
 On your sample (billable)  
 NOT needed on your sample

Matrix Codes  
 W = Water  
 DW = Drinking Water  
 GW = Ground Water  
 SW = Surface Water  
 WW = Waste Water  
 WP = Wipes

PACE LAB #	CLIENT FIELD ID	DATE	COLLECTION TIME		MATRIX
			DATE	TIME	
	MS-IDR	12-11-11	12:00		
001	MS-IDR	1-24-11	12:00		D
002	MS-2DR	1-24-11	12:00		O
003	MS-IDR-D	1-24-11	12:00		O
004	MS-DR-3	1-24-11	13:48		O
005	MS-IDR-4	1-24-11	14:32		O
006	MS-SAND-1	1-24-11	14:20		S
007	MS-WP-1	1/24	13:10		WP
008	MS-WP-2		13:14		
009	MS-WP-3		13:20		
010	MS-WP-4		13:27		
011	MS-WP-5		13:30		
012	MS-WP-6		13:35		

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	ONE
Invoice To Address:	

CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
	H-4ozaga	
	V	
	a-4ozaga	
	1-4ozaga	

Received By:	Date/Time:	PACE Project No.
W. Johnson - J. Johnson	1/24/11 16:00	4041914
Received By:	Date/Time:	Receipt Temp = ROZ °C
W. Johnson - J. Johnson	1/24/11 17:40	ROZ

Relinquished By:	Date/Time:	Relinquished By:	Date/Time:
W. Johnson	1/24/11 16:00	W. Johnson - J. Johnson	1/24/11 17:40
Relinquished By:	Date/Time:	Relinquished By:	Date/Time:
W. Johnson	1/24/11 17:40		





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404914

CHAIN OF CUSTODY

Preservation Codes: A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED? (YES/NO) PRESERVATION (CODE)

Company Name: OTE
Branch/Location: CHICAGO
Project Contact: Naren Babu
Phone: 312-656-7685
Project Number: MICRO-SPIRIDS
Project State: WI
Sampled By (Print): Naren Babu
Sampled By (Sign): [Signature]
PO #: [Blank]

Data Package Options (billable)
EPA Level III
EPA Level IV
CLIENT FIELD ID

Table with columns: PACE LAB #, DATE, TIME, MATRIX. Rows include samples 013 through 018 with collection dates and times.

Table with columns: Y/N, PCB, Analysis Requested. Contains handwritten 'X' marks and 'PCB' label.

Quote #: [Blank]
Mail To Contact: [Blank]
Mail To Company: [Blank]
Mail To Address: [Blank]
Invoice To Contact: [Blank]
Invoice To Company: [Blank]
Invoice To Address: [Blank]
Invoice To Phone: [Blank]
CLIENT COMMENTS: [Blank]
LAB COMMENTS: 1-H2O2ag A

Rush Turnaround Time Requested - Prelims
Date Needed: [Blank]
Transmit Prelim Rush Results by (complete what you want): [Blank]
Email #1: [Blank]
Email #2: [Blank]
Telephone: [Blank]
Fax: [Blank]

Received By: [Signature] Date/Time: 1/24/11 16:00
Relinquished By: [Signature] Date/Time: 1/24/11 17:40
Received By: [Signature] Date/Time: 1/24/11 17:40
Relinquished By: [Signature] Date/Time: [Blank]
Received By: [Signature] Date/Time: [Blank]
Relinquished By: [Signature] Date/Time: [Blank]

\* Added to Ann to Data 1/25/11 km

### ANALYTICAL RESULTS

Project: MIRRO-SPIRTAS  
Pace Project No.: 4041914

Sample: MS-SAND-1 Lab ID: 4041914006 Collected: 01/24/11 14:20 Received: 01/24/11 17:40 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3541									
PCB-1016 (Aroclor 1016)	<23.7	ug/kg	100	23.7	1	01/26/11 10:00	01/27/11 13:20	12674-11-2	
PCB-1221 (Aroclor 1221)	<23.7	ug/kg	100	23.7	1	01/26/11 10:00	01/27/11 13:20	11104-28-2	
PCB-1232 (Aroclor 1232)	<23.7	ug/kg	100	23.7	1	01/26/11 10:00	01/27/11 13:20	11141-16-5	
PCB-1242 (Aroclor 1242)	34.3J	ug/kg	100	23.7	1	01/26/11 10:00	01/27/11 13:20	53469-21-9	
PCB-1248 (Aroclor 1248)	<23.7	ug/kg	100	23.7	1	01/26/11 10:00	01/27/11 13:20	12672-29-6	
PCB-1254 (Aroclor 1254)	<23.7	ug/kg	100	23.7	1	01/26/11 10:00	01/27/11 13:20	11097-69-1	
PCB-1260 (Aroclor 1260)	<23.7	ug/kg	100	23.7	1	01/26/11 10:00	01/27/11 13:20	11096-82-5	
PCB, Total	34.3J	ug/kg	100	23.7	1	01/26/11 10:00	01/27/11 13:20	1336-36-3	
Tetrachloro-m-xylene (S)	65	%	46-130		1	01/26/11 10:00	01/27/11 13:20	877-09-8	
Decachlorobiphenyl (S)	68	%	50-130		1	01/26/11 10:00	01/27/11 13:20	2051-24-3	
<b>6010 MET ICP, TCLP</b>									
Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Leachate Method/Date: EPA 1311; 01/26/11 00:00									
Arsenic	<0.12	mg/L	0.25	0.12	1	01/31/11 07:00	01/31/11 17:36	7440-38-2	
Barium	<1.2	mg/L	2.5	1.2	1	01/31/11 07:00	01/31/11 17:36	7440-39-3	
Cadmium	<0.012	mg/L	0.025	0.012	1	01/31/11 07:00	01/31/11 17:36	7440-43-9	
Chromium	<0.12	mg/L	0.25	0.12	1	01/31/11 07:00	01/31/11 17:36	7440-47-3	
Lead	0.50	mg/L	0.038	0.019	1	01/31/11 07:00	01/31/11 17:36	7439-92-1	
Selenium	<0.12	mg/L	0.25	0.12	1	01/31/11 07:00	01/31/11 17:36	7782-49-2	
Silver	<0.12	mg/L	0.25	0.12	1	01/31/11 07:00	01/31/11 17:36	7440-22-4	
<b>7470 Mercury, TCLP</b>									
Analytical Method: EPA 7470 Preparation Method: EPA 7470									
Leachate Method/Date: EPA 1311; 01/26/11 00:00									
Mercury	<0.10	ug/L	0.20	0.10	1	01/31/11 13:35	02/01/11 12:02	7439-97-6	
<b>Percent Moisture</b>									
Analytical Method: ASTM D2974-87									
Percent Moisture	0.19	%	0.10	0.10	1		01/27/11 07:53		

*KSM*



### ANALYTICAL RESULTS

Project: MIRRO-SPIRTAS  
Pace Project No.: 4041914

Sample: MS-WP-1      Lab ID: 4041914007      Collected: 01/24/11 13:10      Received: 01/24/11 17:40      Matrix: Wipe

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3580 (Wipe)									
PCB-1016 (Aroclor 1016)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:15	12674-11-2	
PCB-1221 (Aroclor 1221)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:15	11104-28-2	
PCB-1232 (Aroclor 1232)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:15	11141-16-5	
PCB-1242 (Aroclor 1242)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:15	53469-21-9	
PCB-1248 (Aroclor 1248)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:15	12672-29-6	
PCB-1254 (Aroclor 1254)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:15	11097-69-1	
PCB-1260 (Aroclor 1260)	168000	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:15	11096-82-5	
PCB, Total	168000	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:15	1336-36-3	
Tetrachloro-m-xylene (S)	0 %		42-130		100000	01/27/11 14:54	02/01/11 00:15	877-09-8	S4
Decachlorobiphenyl (S)	0 %		38-137		100000	01/27/11 14:54	02/01/11 00:15	2051-24-3	S4

*KSM*

### ANALYTICAL RESULTS

Project: MIRRO-SPIRTAS  
Pace Project No.: 4041914

Sample: **MS-WP-2** Lab ID: **4041914008** Collected: 01/24/11 13:14 Received: 01/24/11 17:40 Matrix: Wipe

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3580 (Wipe)									
PCB-1016 (Aroclor 1016)	<2.2	Total ug	10.0	2.2	10	01/27/11 14:54	02/01/11 00:33	12674-11-2	
PCB-1221 (Aroclor 1221)	<2.2	Total ug	10.0	2.2	10	01/27/11 14:54	02/01/11 00:33	11104-28-2	
PCB-1232 (Aroclor 1232)	<2.2	Total ug	10.0	2.2	10	01/27/11 14:54	02/01/11 00:33	11141-16-5	
PCB-1242 (Aroclor 1242)	<2.2	Total ug	10.0	2.2	10	01/27/11 14:54	02/01/11 00:33	53469-21-9	
PCB-1248 (Aroclor 1248)	<2.2	Total ug	10.0	2.2	10	01/27/11 14:54	02/01/11 00:33	12672-29-6	
PCB-1254 (Aroclor 1254)	<2.2	Total ug	10.0	2.2	10	01/27/11 14:54	02/01/11 00:33	11097-69-1	
PCB-1260 (Aroclor 1260)	3.8J	Total ug	10.0	2.2	10	01/27/11 14:54	02/01/11 00:33	11096-82-5	B U
PCB, Total	3.8J	Total ug	10.0	2.2	10	01/27/11 14:54	02/01/11 00:33	1336-36-3	U
Tetrachloro-m-xylene (S)	74 %		42-130		10	01/27/11 14:54	02/01/11 00:33	877-09-8	
Decachlorobiphenyl (S)	79 %		38-137		10	01/27/11 14:54	02/01/11 00:33	2051-24-3	

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### ANALYTICAL RESULTS

Project: MIRRO-SPIRTAS  
Pace Project No.: 4041914

Sample: MS-WP-3      Lab ID: 4041914009      Collected: 01/24/11 13:20      Received: 01/24/11 17:40      Matrix: Wipe

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>		Analytical Method: EPA 8082 Preparation Method: EPA 3580 (Wipe)							
PCB-1016 (Aroclor 1016)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:50	12674-11-2	
PCB-1221 (Aroclor 1221)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:50	11104-28-2	
PCB-1232 (Aroclor 1232)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:50	11141-16-5	
PCB-1242 (Aroclor 1242)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:50	53469-21-9	
PCB-1248 (Aroclor 1248)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:50	12672-29-6	
PCB-1254 (Aroclor 1254)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:50	11097-69-1	
PCB-1260 (Aroclor 1260)	57900J	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:50	11096-82-5	
PCB, Total	57900J	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 00:50	1336-36-3	
Tetrachloro-m-xylene (S)	0 %		42-130		100000	01/27/11 14:54	02/01/11 00:50	877-09-8	S4
Decachlorobiphenyl (S)	0 %		38-137		100000	01/27/11 14:54	02/01/11 00:50	2051-24-3	S4

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## ANALYTICAL RESULTS

Project: MIRRO-SPIRTAS  
Pace Project No.: 4041914

Sample: **MS-WP-4**      Lab ID: **4041914010**      Collected: 01/24/11 13:29      Received: 01/24/11 17:40      Matrix: Wipe

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082    Preparation Method: EPA 3580 (Wipe)									
PCB-1016 (Aroclor 1016)	<44.2	Total ug	200	44.2	200	01/27/11 14:54	02/01/11 01:08	12674-11-2	
PCB-1221 (Aroclor 1221)	<44.2	Total ug	200	44.2	200	01/27/11 14:54	02/01/11 01:08	11104-28-2	
PCB-1232 (Aroclor 1232)	<44.2	Total ug	200	44.2	200	01/27/11 14:54	02/01/11 01:08	11141-16-5	
PCB-1242 (Aroclor 1242)	<44.2	Total ug	200	44.2	200	01/27/11 14:54	02/01/11 01:08	53469-21-9	
PCB-1248 (Aroclor 1248)	<44.2	Total ug	200	44.2	200	01/27/11 14:54	02/01/11 01:08	12672-29-6	
PCB-1254 (Aroclor 1254)	<44.2	Total ug	200	44.2	200	01/27/11 14:54	02/01/11 01:08	11097-69-1	
PCB-1260 (Aroclor 1260)	70.5J	Total ug	200	44.2	200	01/27/11 14:54	02/01/11 01:08	11096-82-5	
PCB, Total	70.5J	Total ug	200	44.2	200	01/27/11 14:54	02/01/11 01:08	1336-36-3	
Tetrachloro-m-xylene (S)	0 %		42-130		200	01/27/11 14:54	02/01/11 01:08	877-09-8	S4
Decachlorobiphenyl (S)	0 %		38-137		200	01/27/11 14:54	02/01/11 01:08	2051-24-3	S4

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### ANALYTICAL RESULTS

Project: MIRRO-SPIRTAS  
Pace Project No.: 4041914

Sample: MS-WP-5      Lab ID: 4041914011      Collected: 01/24/11 13:30      Received: 01/24/11 17:40      Matrix: Wipe

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3580 (Wipe)									
PCB-1016 (Aroclor 1016)	<1.1 Total ug		5.0	1.1	5	01/27/11 14:54	02/01/11 01:25	12674-11-2	
PCB-1221 (Aroclor 1221)	<1.1 Total ug		5.0	1.1	5	01/27/11 14:54	02/01/11 01:25	11104-28-2	
PCB-1232 (Aroclor 1232)	<1.1 Total ug		5.0	1.1	5	01/27/11 14:54	02/01/11 01:25	11141-16-5	
PCB-1242 (Aroclor 1242)	<1.1 Total ug		5.0	1.1	5	01/27/11 14:54	02/01/11 01:25	53469-21-9	
PCB-1248 (Aroclor 1248)	<1.1 Total ug		5.0	1.1	5	01/27/11 14:54	02/01/11 01:25	12672-29-6	
PCB-1254 (Aroclor 1254)	<1.1 Total ug		5.0	1.1	5	01/27/11 14:54	02/01/11 01:25	11097-69-1	
PCB-1260 (Aroclor 1260)	16.1 Total ug		5.0	1.1	5	01/27/11 14:54	02/01/11 01:25	11096-82-5	B
PCB, Total	16.1 Total ug		5.0	1.1	5	01/27/11 14:54	02/01/11 01:25	1336-36-3	
Tetrachloro-m-xylene (S)	74 %		42-130		5	01/27/11 14:54	02/01/11 01:25	877-09-8	
Decachlorobiphenyl (S)	76 %		38-137		5	01/27/11 14:54	02/01/11 01:25	2051-24-3	

*KSM*

### ANALYTICAL RESULTS

Project: MIRRO-SPIRTAS  
Pace Project No.: 4041914

Sample: MS-WP-6      Lab ID: 4041914012      Collected: 01/24/11 13:35      Received: 01/24/11 17:40      Matrix: Wipe

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3580 (Wipe)									
PCB-1016 (Aroclor 1016)	<111000	Total ug	500000	111000	500000	01/27/11 14:54	02/01/11 01:42	12674-11-2	
PCB-1221 (Aroclor 1221)	<111000	Total ug	500000	111000	500000	01/27/11 14:54	02/01/11 01:42	11104-28-2	
PCB-1232 (Aroclor 1232)	<111000	Total ug	500000	111000	500000	01/27/11 14:54	02/01/11 01:42	11141-16-5	
PCB-1242 (Aroclor 1242)	<111000	Total ug	500000	111000	500000	01/27/11 14:54	02/01/11 01:42	53469-21-9	
PCB-1248 (Aroclor 1248)	<111000	Total ug	500000	111000	500000	01/27/11 14:54	02/01/11 01:42	12672-29-6	
PCB-1254 (Aroclor 1254)	<111000	Total ug	500000	111000	500000	01/27/11 14:54	02/01/11 01:42	11097-69-1	
PCB-1260 (Aroclor 1260)	459000J	Total ug	500000	111000	500000	01/27/11 14:54	02/01/11 01:42	11096-82-5	
PCB, Total	459000J	Total ug	500000	111000	500000	01/27/11 14:54	02/01/11 01:42	1336-36-3	
Tetrachloro-m-xylene (S)	0 %		42-130		500000	01/27/11 14:54	02/01/11 01:42	877-09-8	S4
Decachlorobiphenyl (S)	0 %		38-137		500000	01/27/11 14:54	02/01/11 01:42	2051-24-3	S4

*KSM*



### ANALYTICAL RESULTS

Project: MIRRO-SPIRTAS  
Pace Project No.: 4041914

Sample: MS-WP-7      Lab ID: 4041914013      Collected: 01/24/11 13:39      Received: 01/24/11 17:40      Matrix: Wipe

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3580 (Wipe)									
PCB-1016 (Aroclor 1016)	<111 Total ug		500	111	500	01/27/11 14:54	02/01/11 02:00	12674-11-2	
PCB-1221 (Aroclor 1221)	<111 Total ug		500	111	500	01/27/11 14:54	02/01/11 02:00	11104-28-2	
PCB-1232 (Aroclor 1232)	<111 Total ug		500	111	500	01/27/11 14:54	02/01/11 02:00	11141-16-5	
PCB-1242 (Aroclor 1242)	<111 Total ug		500	111	500	01/27/11 14:54	02/01/11 02:00	53469-21-9	
PCB-1248 (Aroclor 1248)	<111 Total ug		500	111	500	01/27/11 14:54	02/01/11 02:00	12672-29-6	
PCB-1254 (Aroclor 1254)	<111 Total ug		500	111	500	01/27/11 14:54	02/01/11 02:00	11097-69-1	
PCB-1260 (Aroclor 1260)	302J Total ug		500	111	500	01/27/11 14:54	02/01/11 02:00	11096-82-5	
PCB, Total	302J Total ug		500	111	500	01/27/11 14:54	02/01/11 02:00	1336-36-3	
Tetrachloro-m-xylene (S)	0 %		42-130		500	01/27/11 14:54	02/01/11 02:00	877-09-8	S4
Decachlorobiphenyl (S)	0 %		38-137		500	01/27/11 14:54	02/01/11 02:00	2051-24-3	S4

*KSM*

### ANALYTICAL RESULTS

Project: MIRRO-SPIRTAS  
Pace Project No.: 4041914

Sample: **MS-WP-8**      Lab ID: **4041914014**      Collected: 01/24/11 14:05      Received: 01/24/11 17:40      Matrix: Wipe

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3580 (Wipe)									
PCB-1016 (Aroclor 1016)	<1110 Total ug		5000	1110	5000	01/27/11 14:54	02/01/11 02:17	12674-11-2	
PCB-1221 (Aroclor 1221)	<1110 Total ug		5000	1110	5000	01/27/11 14:54	02/01/11 02:17	11104-28-2	
PCB-1232 (Aroclor 1232)	<1110 Total ug		5000	1110	5000	01/27/11 14:54	02/01/11 02:17	11141-16-5	
PCB-1242 (Aroclor 1242)	<1110 Total ug		5000	1110	5000	01/27/11 14:54	02/01/11 02:17	53469-21-9	
PCB-1248 (Aroclor 1248)	<1110 Total ug		5000	1110	5000	01/27/11 14:54	02/01/11 02:17	12672-29-6	
PCB-1254 (Aroclor 1254)	<1110 Total ug		5000	1110	5000	01/27/11 14:54	02/01/11 02:17	11097-69-1	
PCB-1260 (Aroclor 1260)	10100 Total ug		5000	1110	5000	01/27/11 14:54	02/01/11 02:17	11096-82-5	
PCB, Total	10100 Total ug		5000	1110	5000	01/27/11 14:54	02/01/11 02:17	1336-36-3	
Tetrachloro-m-xylene (S)	0 %		42-130		5000	01/27/11 14:54	02/01/11 02:17	877-09-8	S4
Decachlorobiphenyl (S)	0 %		38-137		5000	01/27/11 14:54	02/01/11 02:17	2051-24-3	S4

*KSM*

### ANALYTICAL RESULTS

Project: MIRRO-SPIRTAS  
Pace Project No.: 4041914

Sample: MS-WP-9      Lab ID: 4041914015      Collected: 01/24/11 14:07      Received: 01/24/11 17:40      Matrix: Wipe

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3580 (Wipe)									
PCB-1016 (Aroclor 1016)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:35	12674-11-2	
PCB-1221 (Aroclor 1221)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:35	11104-28-2	
PCB-1232 (Aroclor 1232)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:35	11141-16-5	
PCB-1242 (Aroclor 1242)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:35	53469-21-9	
PCB-1248 (Aroclor 1248)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:35	12672-29-6	
PCB-1254 (Aroclor 1254)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:35	11097-69-1	
PCB-1260 (Aroclor 1260)	138000	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:35	11096-82-5	
PCB, Total	138000	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:35	1336-36-3	
Tetrachloro-m-xylene (S)	0 %		42-130		100000	01/27/11 14:54	02/01/11 02:35	877-09-8	S4
Decachlorobiphenyl (S)	0 %		38-137		100000	01/27/11 14:54	02/01/11 02:35	2051-24-3	S4

*KSM*



### ANALYTICAL RESULTS

Project: MIRRO-SPIRTAS  
Pace Project No.: 4041914

Sample: MS-WP-10      Lab ID: 4041914016      Collected: 01/24/11 14:09      Received: 01/24/11 17:40      Matrix: Wipe

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3580 (Wipe)									
PCB-1016 (Aroclor 1016)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:52	12674-11-2	
PCB-1221 (Aroclor 1221)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:52	11104-28-2	
PCB-1232 (Aroclor 1232)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:52	11141-16-5	
PCB-1242 (Aroclor 1242)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:52	53469-21-9	
PCB-1248 (Aroclor 1248)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:52	12672-29-6	
PCB-1254 (Aroclor 1254)	<22100	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:52	11097-69-1	
PCB-1260 (Aroclor 1260)	83800J	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:52	11096-82-5	
PCB, Total	83800J	Total ug	100000	22100	100000	01/27/11 14:54	02/01/11 02:52	1336-36-3	
Tetrachloro-m-xylene (S)	0 %		42-130		100000	01/27/11 14:54	02/01/11 02:52	877-09-8	S4
Decachlorobiphenyl (S)	0 %		38-137		100000	01/27/11 14:54	02/01/11 02:52	2051-24-3	S4

*KSM*

**ANALYTICAL RESULTS**

Project: MIRRO-SPIRTAS  
Pace Project No.: 4041914

Sample: MS-WP-11 Lab ID: 4041914017 Collected: 01/24/11 14:11 Received: 01/24/11 17:40 Matrix: Wipe

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
<b>8082 GCS PCB</b>									
Analytical Method: EPA 8082 Preparation Method: EPA 3580 (Wipe)									
PCB-1016 (Aroclor 1016)	<111 Total ug		500	111	500	01/27/11 14:54	02/01/11 03:09	12674-11-2	
PCB-1221 (Aroclor 1221)	<111 Total ug		500	111	500	01/27/11 14:54	02/01/11 03:09	11104-28-2	
PCB-1232 (Aroclor 1232)	<111 Total ug		500	111	500	01/27/11 14:54	02/01/11 03:09	11141-16-5	
PCB-1242 (Aroclor 1242)	<111 Total ug		500	111	500	01/27/11 14:54	02/01/11 03:09	53469-21-9	
PCB-1248 (Aroclor 1248)	<111 Total ug		500	111	500	01/27/11 14:54	02/01/11 03:09	12672-29-6	
PCB-1254 (Aroclor 1254)	<111 Total ug		500	111	500	01/27/11 14:54	02/01/11 03:09	11097-69-1	
PCB-1260 (Aroclor 1260)	594 Total ug		500	111	500	01/27/11 14:54	02/01/11 03:09	11096-82-5	
PCB, Total	594 Total ug		500	111	500	01/27/11 14:54	02/01/11 03:09	1336-36-3	
Tetrachloro-m-xylene (S)	0 %		42-130		500	01/27/11 14:54	02/01/11 03:09	877-09-8	S4
Decachlorobiphenyl (S)	0 %		38-137		500	01/27/11 14:54	02/01/11 03:09	2051-24-3	S4

*KSM*

UPPER MIDWEST REGION  
MN: 612-607-1700 WI: 920-469-2436

Quote #: 500-30674 4041914



### CHAIN OF CUSTODY

None  
 B-HCL C-12504  
 H-Sodium Bisulfate Solution  
 D-HNO3  
 E-SP1 Water  
 F-Methanol  
 G-NaOH  
 H-Sodium Bisulfate Solution  
 I-Sodium Thiosulfate  
 J-Other

FILTERED BY (YES/NO)  
 PRESERVATION (CODE)

Matrix Codes  
 W - Water  
 DW - Drinking Water  
 GW - Ground Water  
 SW - Surface Water  
 WW - Waste Water  
 WP - Wipe

Data Package Options  
 EPA Level III  
 EPA Level IV

MS/MSD  
 On your sample (billable)  
 NOT needed on your sample

CLIENT FIELD ID  
 MS-IDR

DATE TIME  
 12-24-11 12:00  
 1-24-11 12:00  
 1-24-11 12:00  
 1-24-11 13:42  
 1-24-11 14:32  
 1-24-11 14:20  
 1/24 13:10 WP  
 12:14  
 13:20  
 13:27  
 13:30  
 13:35

ANALYSES REQUESTED  
 PCB  
 METALS  
 VOC  
 SVOC/PHH  
 DRG+GRD  
 TCLP METALS

RECEIVED BY  
 Date/Time  
 1/24/11 16:00  
 1/24/10 17:40  
 1/20/11 15:30  
 1/20/11 14:00

RECEIVED BY  
 Date/Time  
 1/24/11 16:00  
 1/24/10 17:40  
 1/20/11 15:30  
 1/20/11 14:00

RECEIVED BY  
 Date/Time  
 1/24/11 16:00  
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 1/20/11 14:00

RECEIVED BY  
 Date/Time  
 1/24/11 16:00  
 1/24/10 17:40  
 1/20/11 15:30  
 1/20/11 14:00

(Please Print Clearly)  
 Company Name: AFIE  
 Branch/Location: CHICAGO  
 Project Contact: Nanen Babar  
 Phone: 312-656-7685  
 Project Number:  
 Project Name: MIRLS-SPRINTAS  
 Project State: WI  
 Sampled By (Print): Nanen Babar  
 Sampled By (Sign): [Signature]  
 PO #:

regulatory Program:  
 Matrix Codes  
 A = Air  
 B = Biota  
 C = Charcoal  
 O = Oil  
 S = Soil  
 SL = Sludge

PAGE LAB #	CLIENT FIELD ID	DATE	TIME	MATRIX
1 001	MS-IDR	1-24-11	12:00	O
2 002	MS-IDR	1-24-11	12:00	O
3 003	MS-IDR-D	1-24-11	12:00	O
4 004	MS-IDR-3	1-24-11	13:42	O
5 005	MS-IDR-4	1-24-11	14:32	O
006	MS-SUND-1	1-24-11	14:20	S
007	MS-WP-1	1/24	13:10	WP
008	MS-WP-2		12:14	
009	MS-WP-3		13:20	
010	MS-WP-4		13:27	
011	MS-WP-5		13:30	
012	MS-WP-6		13:35	

Rush Turnaround Time Requested - Prelims  
 (Rush TAT subject to approval/surcharge)  
 Date Needed:  
 Transmittal Prelim Results by (complete what you want):  
 Email #1:  
 Email #2:  
 Telephone:  
 Fax:  
 Samples on HOLD are subject to special pricing and release of liability

RECEIVED BY  
 Date/Time  
 1/24/11 16:00  
 1/24/10 17:40  
 1/20/11 15:30  
 1/20/11 14:00

RECEIVED BY  
 Date/Time  
 1/24/11 16:00  
 1/24/10 17:40  
 1/20/11 15:30  
 1/20/11 14:00

RECEIVED BY  
 Date/Time  
 1/24/11 16:00  
 1/24/10 17:40  
 1/20/11 15:30  
 1/20/11 14:00



# Analytical Data

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: Site Assessment Manitowoc WI

TestAmerica Job ID: 500-30674-1

Client Sample ID: MS-1DR

Lab Sample ID: 500-30674-1

Date Collected: 01/24/11 12:00

Matrix: Waste

Date Received: 01/27/11 16:00

Method: 8260B - Volatile Organic Compounds (GC/MS)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U *	1.0	0.36	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Chloromethane	1.0	U	1.0	0.22	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Vinyl chloride	0.12	U	0.12	0.041	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Bromomethane	1.0	U	1.0	0.33	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Chloroethane	1.0	U	1.0	0.30	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Trichlorofluoromethane	1.0	U	1.0	0.18	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
1,1-Dichloroethene	0.50	U	0.50	0.15	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Carbon disulfide	2.5	U	2.5	0.20	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Acetone	2.5	U	2.5	1.2	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Methylene Chloride	1.0	U	1.0	0.30	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
trans-1,2-Dichloroethene	0.50	U	0.50	0.17	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Methyl tert-butyl ether	1.0	U	1.0	0.15	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
1,1-Dichloroethane	0.50	U	0.50	0.096	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
2,2-Dichloropropane	0.50	U	0.50	0.12	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
cis-1,2-Dichloroethene	0.50	U	0.50	0.15	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Methyl Ethyl Ketone	2.5	U	2.5	0.94	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Bromochloromethane	1.0	U	1.0	0.41	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Chloroform	0.50	U	0.50	0.074	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
1,1,1-Trichloroethane	0.50	U	0.50	0.15	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
1,1-Dichloropropene	0.50	U	0.50	0.14	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Carbon tetrachloride	0.50	U	0.50	0.22	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Benzene	0.12	U	0.12	0.056	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
1,2-Dichloroethane	0.50	U	0.50	0.12	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Trichloroethene	0.12	U	0.12	0.049	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
1,2-Dichloropropane	0.50	U	0.50	0.15	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Dibromomethane	1.0	U	1.0	0.39	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Bromodichloromethane	1.0	U	1.0	0.19	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
cis-1,3-Dichloropropene	0.50	U	0.50	0.082	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
methyl isobutyl ketone	2.5	U	2.5	0.55	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
<b>Toluene</b>	<b>0.068</b>	<b>J</b>	0.12	0.040	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
trans-1,3-Dichloropropene	0.50	U	0.50	0.18	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
1,1,2-Trichloroethane	0.50	U	0.50	0.22	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Tetrachloroethene	0.50	U	0.50	0.14	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
1,3-Dichloropropane	0.50	U	0.50	0.14	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
2-Hexanone	2.5	U	2.5	0.47	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Dibromochloromethane	1.0	U	1.0	0.20	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
1,2-Dibromoethane	1.0	U	1.0	0.34	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Chlorobenzene	0.50	U	0.50	0.11	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.11	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
<b>Ethylbenzene</b>	<b>0.11</b>	<b>J</b>	0.12	0.049	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
<b>m&amp;p-Xylene</b>	<b>0.35</b>		0.25	0.11	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
<b>o-Xylene</b>	<b>0.44</b>		0.12	0.025	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Styrene	0.50	U	0.50	0.16	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Bromoform	1.0	U	1.0	0.26	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Isopropylbenzene	1.0	U	1.0	0.17	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
Bromobenzene	1.0	U	1.0	0.16	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.16	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
1,2,3-Trichloropropane	1.0	U	1.0	0.34	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
<b>N-Propylbenzene</b>	<b>0.20</b>	<b>J</b>	1.0	0.11	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
2-Chlorotoluene	0.50	U	0.50	0.11	mg/Kg		01/30/11 08:02	02/03/11 22:56	500

*KSM*

# Analytical Data

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: Site Assessment Manitowoc WI

TestAmerica Job ID: 500-30674-1

**Client Sample ID: MS-1DR**

**Lab Sample ID: 500-30674-1**

**Date Collected: 01/24/11 12:00**

**Matrix: Waste**

**Date Received: 01/27/11 16:00**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>1,3,5-Trimethylbenzene</b>	<b>0.51</b>	<b>J</b>	1.0	0.15	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
4-Chlorotoluene	0.50	U	0.50	0.097	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
<b>tert-Butylbenzene</b>	<b>0.15</b>	<b>J</b>	0.50	0.12	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
<b>1,2,4-Trimethylbenzene</b>	<b>0.98</b>	<b>J</b>	1.0	0.13	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
<b>sec-Butylbenzene</b>	<b>0.34</b>	<b>J</b>	0.50	0.10	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
<b>p-Isopropyltoluene</b>	<b>1.2</b>		1.0	0.15	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
n-Butylbenzene	0.50	U	0.50	0.094	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.29	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
<b>1,2,3-Trichlorobenzene</b>	<b>0.43</b>	<b>J</b>	1.0	0.37	mg/Kg		01/30/11 08:02	02/03/11 22:56	500
<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)	103		77 - 124				01/30/11 08:02	02/03/11 22:56	500
Toluene-d8 (Surr)	100		80 - 121				01/30/11 08:02	02/03/11 22:56	500
4-Bromofluorobenzene (Surr)	99		77 - 112				01/30/11 08:02	02/03/11 22:56	500
Dibromofluoromethane	99		78 - 119				01/30/11 08:02	02/03/11 22:56	500

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Pyridine	2000	U *	2000	1000	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Bis(2-chloroethyl)ether	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
1,3-Dichlorobenzene	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
1,4-Dichlorobenzene	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
1,2-Dichlorobenzene	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Benzyl alcohol	990	U	990	500	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
2-Methylphenol	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
3 & 4 Methylphenol	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
2,2'-oxybis[1-chloropropane]	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
N-Nitrosod-n-propylamine	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Hexachloroethane	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
2-Chlorophenol	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Nitrobenzene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Bis(2-chloroethoxy)methane	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
1,2,4-Trichlorobenzene	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Benzoic acid	5000	U *	5000	2500	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Isophorone	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
2,4-Dimethylphenol	990	U	990	500	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Hexachlorobutadiene	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Naphthalene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
2,4-Dichlorophenol	990	U	990	500	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
4-Chloroaniline	990	U *	990	500	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
2,4,6-Trichlorophenol	990	U	990	500	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
2,4,5-Trichlorophenol	990	U	990	500	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Hexachlorocyclopentadiene	2000	U *	2000	1000	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
2-Methylnaphthalene	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
2-Nitroaniline	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
2-Chloronaphthalene	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
4-Chloro-3-methylphenol	990	U	990	500	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
2,6-Dinitrotoluene	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
2-Nitrophenol	990	U	990	500	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
3-Nitroaniline	990	U *	990	500	mg/Kg		02/03/11 08:00	02/04/11 22:44	10

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# Analytical Data

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: Site Assessment Manitowoc WI

TestAmerica Job ID: 500-30674-1

**Client Sample ID: MS-1DR**

**Date Collected: 01/24/11 12:00**

**Date Received: 01/27/11 16:00**

**Lab Sample ID: 500-30674-1**

**Matrix: Waste**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
2,4-Dinitrophenol	2000	U	2000	1000	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Acenaphthylene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
2,4-Dinitrotoluene	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Acenaphthene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Dibenzofuran	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
4-Nitrophenol	2000	U	2000	1000	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Fluorene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
4-Nitroaniline	990	U	990	500	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
4-Bromophenyl phenyl ether	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Hexachlorobenzene	200	U	200	100	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Diethyl phthalate	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
4-Chlorophenyl phenyl ether	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Pentachlorophenol	2000	U	2000	1000	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
N-Nitrosodiphenylamine	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
4,6-Dinitro-2-methylphenol	990	U	990	500	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Phenanthrene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Anthracene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Carbazole	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Di-n-butyl phthalate	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Benzidine	2000	U *	2000	1000	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Fluoranthene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Pyrene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Butyl benzyl phthalate	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Benzo[a]anthracene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Chrysene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
3,3'-Dichlorobenzidine	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Bis(2-ethylhexyl) phthalate	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Di-n-octyl phthalate	500	U	500	250	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Benzo[b]fluoranthene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Benzo[k]fluoranthene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Benzo[a]pyrene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Indeno[1,2,3-cd]pyrene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Dibenz(a,h)anthracene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10
Benzo[g,h,i]perylene	99	U	99	50	mg/Kg		02/03/11 08:00	02/04/11 22:44	10

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	109		30 - 110	02/03/11 08:00	02/04/11 22:44	10
Phenol-d5	92		26 - 112	02/03/11 08:00	02/04/11 22:44	10
Nitrobenzene-d5	112	X	22 - 110	02/03/11 08:00	02/04/11 22:44	10
2-Fluorobiphenyl	117	X	27 - 113	02/03/11 08:00	02/04/11 22:44	10
2,4,6-Tribromophenol	138	X	30 - 137	02/03/11 08:00	02/04/11 22:44	10
Terphenyl-d14	143	X	33 - 129	02/03/11 08:00	02/04/11 22:44	10

**Method: WI-GRO - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Gasoline Range Organics (C5-C10)	200		15	4.3	mg/Kg		01/30/11 08:02	02/06/11 14:24	500

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	10	U	10	5.0	mg/Kg		02/09/11 14:30	02/10/11 11:45	20

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# Analytical Data

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: Site Assessment Manitowoc WI

TestAmerica Job ID: 500-30674-1

**Client Sample ID: MS-1DR**

**Lab Sample ID: 500-30674-1**

**Date Collected: 01/24/11 12:00**

**Matrix: Waste**

**Date Received: 01/27/11 16:00**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	10	U	10	5.0	mg/Kg		02/09/11 14:30	02/10/11 11:45	20
PCB-1232	10	U	10	5.0	mg/Kg		02/09/11 14:30	02/10/11 11:45	20
PCB-1242	10	U	10	5.0	mg/Kg		02/09/11 14:30	02/10/11 11:45	20
PCB-1248	10	U	10	5.0	mg/Kg		02/09/11 14:30	02/10/11 11:45	20
PCB-1254	10	U	10	5.0	mg/Kg		02/09/11 14:30	02/10/11 11:45	20
PCB-1260	17	J	10	5.0	mg/Kg		02/09/11 14:30	02/10/11 11:45	20

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	98		28 - 124	02/09/11 14:30	02/10/11 11:45	20
DCB Decachlorobiphenyl	130		38 - 130	02/09/11 14:30	02/10/11 11:45	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	1200000		480000	240000	mg/Kg		02/03/11 08:00	02/04/11 13:44	1000

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Nonane	0	D	44 - 148	02/03/11 08:00	02/04/11 13:44	1000

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1.3	J-B U	4.0	0.33	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Antimony	0.40	U	0.40	0.044	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Arsenic	0.20	U	0.20	0.036	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Barium	0.015	J	0.20	0.012	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Beryllium	0.080	U	0.080	0.0046	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Cadmium	0.040	U	0.040	0.0044	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Calcium	2.8	J-B U	4.0	0.20	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Chromium	0.20	U	0.20	0.042	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Cobalt	0.10	U	0.10	0.010	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Copper	0.20	U	0.20	0.056	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Iron	1.1	J-B U	4.0	0.98	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Lead	0.10	U	0.10	0.046	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Magnesium	0.82	J-B U	2.0	0.35	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Manganese	0.20	U	0.20	0.014	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Nickel	0.20	U	0.20	0.016	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Potassium	0.91	J	10	0.67	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Selenium	0.054	J	0.20	0.046	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Silver	0.10	U	0.10	0.016	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Sodium	20	U	20	0.95	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Thallium	0.20	U	0.20	0.064	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Vanadium	0.10	U	0.10	0.022	mg/Kg		01/31/11 09:35	02/01/11 03:31	1
Zinc	0.050	J-B U	0.40	0.044	mg/Kg		01/31/11 09:35	02/01/11 03:31	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	U	0.016	0.0016	mg/Kg		02/03/11 08:20	02/03/11 12:11	1

*KSM*

# Analytical Data

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: Site Assessment Manitowoc WI

TestAmerica Job ID: 500-30674-1

**Client Sample ID: MS-2DR**

**Date Collected: 01/24/11 12:00**

**Date Received: 01/27/11 16:00**

**Lab Sample ID: 500-30674-2**

**Matrix: Waste**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U * J	1.0	0.36	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Chloromethane	1.0	U	1.0	0.22	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Vinyl chloride	0.12	U	0.12	0.041	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Bromomethane	1.0	U	1.0	0.33	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Chloroethane	1.0	U	1.0	0.30	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Trichlorofluoromethane	1.0	U	1.0	0.18	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
1,1-Dichloroethene	0.50	U	0.50	0.15	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Carbon disulfide	2.5	U	2.5	0.20	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Acetone	2.5	U	2.5	1.2	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Methylene Chloride	1.0	U	1.0	0.30	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
trans-1,2-Dichloroethene	0.50	U	0.50	0.17	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Methyl tert-butyl ether	1.0	U	1.0	0.15	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
1,1-Dichloroethane	0.50	U	0.50	0.096	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
2,2-Dichloropropane	0.50	U	0.50	0.12	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
cis-1,2-Dichloroethene	0.50	U	0.50	0.15	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Methyl Ethyl Ketone	2.5	U	2.5	0.94	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Bromochloromethane	1.0	U	1.0	0.41	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Chloroform	0.50	U	0.50	0.074	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
1,1,1-Trichloroethane	0.50	U	0.50	0.15	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
1,1-Dichloropropene	0.50	U	0.50	0.14	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Carbon tetrachloride	0.50	U	0.50	0.22	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Benzene	0.12	U	0.12	0.056	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
1,2-Dichloroethane	0.50	U	0.50	0.12	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Trichloroethene	0.12	U	0.12	0.049	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
1,2-Dichloropropane	0.50	U	0.50	0.15	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Dibromomethane	1.0	U	1.0	0.39	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Bromodichloromethane	1.0	U	1.0	0.19	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
cis-1,3-Dichloropropene	0.50	U	0.50	0.082	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
methyl isobutyl ketone	2.5	U	2.5	0.55	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Toluene	0.12	U	0.12	0.040	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
trans-1,3-Dichloropropene	0.50	U	0.50	0.18	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
1,1,2-Trichloroethane	0.50	U	0.50	0.22	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Tetrachloroethene	0.50	U	0.50	0.14	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
1,3-Dichloropropane	0.50	U	0.50	0.14	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
2-Hexanone	2.5	U	2.5	0.47	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Dibromochloromethane	1.0	U	1.0	0.20	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
1,2-Dibromoethane	1.0	U	1.0	0.34	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Chlorobenzene	0.50	U	0.50	0.11	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.11	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Ethylbenzene	0.12	U	0.12	0.049	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
m&p-Xylene	0.25	U	0.25	0.11	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
o-Xylene	0.12	U	0.12	0.025	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Styrene	0.50	U	0.50	0.16	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Bromoform	1.0	U	1.0	0.26	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Isopropylbenzene	1.0	U	1.0	0.17	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
Bromobenzene	1.0	U	1.0	0.16	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
1,1,2,2-Tetrachloroethane	0.50	U	0.50	0.16	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
1,2,3-Trichloropropane	1.0	U	1.0	0.34	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
N-Propylbenzene	1.0	U	1.0	0.11	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
2-Chlorotoluene	0.50	U	0.50	0.11	mg/Kg		01/30/11 08:02	02/03/11 23:44	500

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# Analytical Data

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: Site Assessment Manitowoc WI

TestAmerica Job ID: 500-30674-1

**Client Sample ID: MS-2DR**

**Lab Sample ID: 500-30674-2**

**Date Collected: 01/24/11 12:00**

**Matrix: Waste**

**Date Received: 01/27/11 16:00**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	1.0	U	1.0	0.15	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
4-Chlorotoluene	0.50	U	0.50	0.097	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
tert-Butylbenzene	0.50	U	0.50	0.12	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
<b>1,2,4-Trimethylbenzene</b>	<b>0.26</b>	<b>J</b>	1.0	0.13	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
sec-Butylbenzene	0.50	U	0.50	0.10	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
<b>p-Isopropyltoluene</b>	<b>0.28</b>	<b>J</b>	1.0	0.15	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
n-Butylbenzene	0.50	U	0.50	0.094	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.29	mg/Kg		01/30/11 08:02	02/03/11 23:44	500
<b>1,2,3-Trichlorobenzene</b>	<b>0.42</b>	<b>J</b>	1.0	0.37	mg/Kg		01/30/11 08:02	02/03/11 23:44	500

### Surrogate

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 124	01/30/11 08:02	02/03/11 23:44	500
Toluene-d8 (Surr)	102		80 - 121	01/30/11 08:02	02/03/11 23:44	500
4-Bromofluorobenzene (Surr)	92		77 - 112	01/30/11 08:02	02/03/11 23:44	500
Dibromofluoromethane	101		78 - 119	01/30/11 08:02	02/03/11 23:44	500

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Pyridine	1900	U *	1900	970	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Bis(2-chloroethyl)ether	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
1,3-Dichlorobenzene	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
1,4-Dichlorobenzene	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
1,2-Dichlorobenzene	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Benzyl alcohol	960	U	960	480	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
2-Methylphenol	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
3 & 4 Methylphenol	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
2,2'-oxybis[1-chloropropane]	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
N-Nitrosodi-n-propylamine	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Hexachloroethane	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
2-Chlorophenol	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Nitrobenzene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Bis(2-chloroethoxy)methane	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
1,2,4-Trichlorobenzene	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Benzoic acid	4800	U *	4800	2400	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Isophorone	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
2,4-Dimethylphenol	960	U	960	480	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Hexachlorobutadiene	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Naphthalene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
2,4-Dichlorophenol	960	U	960	480	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
4-Chloroaniline	960	U *	960	480	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
2,4,6-Trichlorophenol	960	U	960	480	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
2,4,5-Trichlorophenol	960	U	960	480	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Hexachlorocyclopentadiene	1900	U *	1900	970	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
2-Methylnaphthalene	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
2-Nitroaniline	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
2-Chloronaphthalene	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
4-Chloro-3-methylphenol	960	U	960	480	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
2,6-Dinitrotoluene	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
2-Nitrophenol	960	U	960	480	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
3-Nitroaniline	960	U *	960	480	mg/Kg		02/03/11 08:00	02/04/11 23:06	10

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# Analytical Data

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: Site Assessment Manitowoc WI

TestAmerica Job ID: 500-30674-1

**Client Sample ID: MS-2DR**

**Date Collected: 01/24/11 12:00**

**Date Received: 01/27/11 16:00**

**Lab Sample ID: 500-30674-2**

**Matrix: Waste**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
2,4-Dinitrophenol	1900	U	1900	970	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Acenaphthylene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
2,4-Dinitrotoluene	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Acenaphthene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Dibenzofuran	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
4-Nitrophenol	1900	U	1900	970	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Fluorene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
4-Nitroaniline	960	U	960	480	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
4-Bromophenyl phenyl ether	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Hexachlorobenzene	190	U	190	97	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Diethyl phthalate	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
4-Chlorophenyl phenyl ether	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Pentachlorophenol	1900	U	1900	970	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
N-Nitrosodiphenylamine	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
4,6-Dinitro-2-methylphenol	960	U	960	480	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Phenanthrene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Anthracene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Carbazole	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Di-n-butyl phthalate	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Benzidine	1900	U * J	1900	970	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Fluoranthene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Pyrene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Butyl benzyl phthalate	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Benzo[a]anthracene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Chrysene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
3,3'-Dichlorobenzidine	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Bis(2-ethylhexyl) phthalate	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Di-n-octyl phthalate	480	U	480	240	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Benzo[b]fluoranthene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Benzo[k]fluoranthene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Benzo[a]pyrene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Indeno[1,2,3-cd]pyrene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Dibenz(a,h)anthracene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10
Benzo[g,h,i]perylene	96	U	96	48	mg/Kg		02/03/11 08:00	02/04/11 23:06	10

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	124	X	30 - 110	02/03/11 08:00	02/04/11 23:06	10
Phenol-d5	109		26 - 112	02/03/11 08:00	02/04/11 23:06	10
Nitrobenzene-d5	108		22 - 110	02/03/11 08:00	02/04/11 23:06	10
2-Fluorobiphenyl	134	X	27 - 113	02/03/11 08:00	02/04/11 23:06	10
2,4,6-Tribromophenol	121		30 - 137	02/03/11 08:00	02/04/11 23:06	10
Terphenyl-d14	131	X	33 - 129	02/03/11 08:00	02/04/11 23:06	10

**Method: WI-GRO - Wisconsin - Gasoline Range Organics (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
WI Gasoline Range Organics (C5-C10)	86		15	4.3	mg/Kg		01/30/11 08:02	02/06/11 14:58	500

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	9.9	U	9.9	4.9	mg/Kg		02/09/11 14:30	02/10/11 12:27	20

*KOM*

# Analytical Data

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: Site Assessment Manitowoc WI

TestAmerica Job ID: 500-30674-1

**Client Sample ID: MS-2DR**

**Date Collected: 01/24/11 12:00**

**Date Received: 01/27/11 16:00**

**Lab Sample ID: 500-30674-2**

**Matrix: Waste**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1221	9.9	U	9.9	4.9	mg/Kg		02/09/11 14:30	02/10/11 12:27	20
PCB-1232	9.9	U	9.9	4.9	mg/Kg		02/09/11 14:30	02/10/11 12:27	20
PCB-1242	9.9	U	9.9	4.9	mg/Kg		02/09/11 14:30	02/10/11 12:27	20
PCB-1248	9.9	U	9.9	4.9	mg/Kg		02/09/11 14:30	02/10/11 12:27	20
PCB-1254	9.9	U	9.9	4.9	mg/Kg		02/09/11 14:30	02/10/11 12:27	20
<b>PCB-1260</b>	<b>15</b>		9.9	4.9	mg/Kg		02/09/11 14:30	02/10/11 12:27	20

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		28 - 124	02/09/11 14:30	02/10/11 12:27	20
DCB Decachlorobiphenyl	112		38 - 130	02/09/11 14:30	02/10/11 12:27	20

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>1000000</b>		460000	230000	mg/Kg		02/03/11 08:00	02/04/11 17:22	1000

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Nonane	0	D	44 - 148	02/03/11 08:00	02/04/11 17:22	1000

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Aluminum</b>	<b>1.8</b>	<b>J-B</b> U	4.0	0.33	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
Antimony	0.40	U	0.40	0.043	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
Arsenic	0.20	U	0.20	0.036	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
<b>Barium</b>	<b>0.017</b>	<b>J</b>	0.20	0.012	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
Beryllium	0.079	U	0.079	0.0045	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
Cadmium	0.040	U	0.040	0.0043	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
<b>Calcium</b>	<b>1.4</b>	<b>J-B</b> U	4.0	0.19	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
Chromium	0.20	U	0.20	0.042	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
Cobalt	0.099	U	0.099	0.0099	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
Copper	0.20	U	0.20	0.055	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
<b>Iron</b>	<b>2.2</b>	<b>J-B</b> U	4.0	0.97	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
<b>Lead</b>	<b>0.066</b>	<b>J</b>	0.099	0.045	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
<b>Magnesium</b>	<b>0.70</b>	<b>J-B</b> U	2.0	0.34	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
Manganese	0.20	U	0.20	0.013	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
Nickel	0.20	U	0.20	0.016	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
<b>Potassium</b>	<b>1.5</b>	<b>J</b>	9.9	0.67	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
Selenium	0.20	U	0.20	0.045	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
Silver	0.099	U	0.099	0.015	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
Sodium	20	U	20	0.95	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
Thallium	0.20	U	0.20	0.063	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
Vanadium	0.099	U	0.099	0.022	mg/Kg		01/31/11 09:35	02/01/11 03:37	1
<b>Zinc</b>	<b>0.058</b>	<b>J-B</b> U	0.40	0.043	mg/Kg		01/31/11 09:35	02/01/11 03:37	1

**Method: 7471A - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	U	0.016	0.0017	mg/Kg		02/03/11 08:20	02/03/11 12:13	1

KSM



# Analytical Data

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: Site Assessment Manitowoc WI

TestAmerica Job ID: 500-30674-1

**Client Sample ID: MS-1DR-D**

**Lab Sample ID: 500-30674-3**

**Date Collected: 01/24/11 12:00**

**Matrix: Waste**

**Date Received: 01/27/11 16:00**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Pyridine	1900	U *	J	1900	940	mg/Kg	02/03/11 08:00	02/04/11 23:29	10
Bis(2-chloroethyl)ether	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
1,3-Dichlorobenzene	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
1,4-Dichlorobenzene	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
1,2-Dichlorobenzene	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Benzyl alcohol	940	U	940	470	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
2-Methylphenol	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
3 & 4 Methylphenol	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
2,2'-oxybis[1-chloropropane]	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
N-Nitrosodi-n-propylamine	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Hexachloroethane	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
2-Chlorophenol	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Nitrobenzene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Bis(2-chloroethoxy)methane	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
1,2,4-Trichlorobenzene	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Benzoic acid	4700	U *	J	4700	2400	mg/Kg	02/03/11 08:00	02/04/11 23:29	10
Isophorone	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
2,4-Dimethylphenol	940	U	940	470	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Hexachlorobutadiene	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Naphthalene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
2,4-Dichlorophenol	940	U	940	470	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
4-Chloroaniline	940	U *	J	940	470	mg/Kg	02/03/11 08:00	02/04/11 23:29	10
2,4,6-Trichlorophenol	940	U	940	470	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
2,4,5-Trichlorophenol	940	U	940	470	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Hexachlorocyclopentadiene	1900	U *	J	1900	940	mg/Kg	02/03/11 08:00	02/04/11 23:29	10
2-Methylnaphthalene	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
2-Nitroaniline	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
2-Chloronaphthalene	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
4-Chloro-3-methylphenol	940	U	940	470	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
2,6-Dinitrotoluene	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
2-Nitrophenol	940	U	940	470	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
3-Nitroaniline	940	U *	J	940	470	mg/Kg	02/03/11 08:00	02/04/11 23:29	10
Dimethyl phthalate	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
2,4-Dinitrophenol	1900	U	1900	940	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Acenaphthylene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
2,4-Dinitrotoluene	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Acenaphthene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Dibenzofuran	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
4-Nitrophenol	1900	U	1900	940	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Fluorene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
4-Nitroaniline	940	U	940	470	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
4-Bromophenyl phenyl ether	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Hexachlorobenzene	190	U	190	94	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Diethyl phthalate	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
4-Chlorophenyl phenyl ether	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Pentachlorophenol	1900	U	1900	940	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
N-Nitrosodiphenylamine	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
4,6-Dinitro-2-methylphenol	940	U	940	470	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Phenanthrene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10

*KSM*



# Analytical Data

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: Site Assessment Manitowoc WI

TestAmerica Job ID: 500-30674-1

**Client Sample ID: MS-1DR-D**

**Lab Sample ID: 500-30674-3**

**Date Collected: 01/24/11 12:00**

**Matrix: Waste**

**Date Received: 01/27/11 16:00**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Carbazole	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Di-n-butyl phthalate	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Benzidine	1900	U *	J	1900	940	mg/Kg	02/03/11 08:00	02/04/11 23:29	10
Fluoranthene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Pyrene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Butyl benzyl phthalate	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Benzo[a]anthracene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Chrysene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
3,3'-Dichlorobenzidine	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Bis(2-ethylhexyl) phthalate	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Di-n-octyl phthalate	470	U	470	230	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Benzo[b]fluoranthene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Benzo[k]fluoranthene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Benzo[a]pyrene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Indeno[1,2,3-cd]pyrene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Dibenz(a,h)anthracene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10
Benzo[g,h,i]perylene	94	U	94	47	mg/Kg		02/03/11 08:00	02/04/11 23:29	10

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	114	X	30 - 110	02/03/11 08:00	02/04/11 23:29	10
Phenol-d5	107		26 - 112	02/03/11 08:00	02/04/11 23:29	10
Nitrobenzene-d5	116	X	22 - 110	02/03/11 08:00	02/04/11 23:29	10
2-Fluorobiphenyl	124	X	27 - 113	02/03/11 08:00	02/04/11 23:29	10
2,4,6-Tribromophenol	123		30 - 137	02/03/11 08:00	02/04/11 23:29	10
Terphenyl-d14	159	X	33 - 129	02/03/11 08:00	02/04/11 23:29	10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	10	U	10	5.0	mg/Kg		02/09/11 14:30	02/10/11 12:41	20
PCB-1221	10	U	10	5.0	mg/Kg		02/09/11 14:30	02/10/11 12:41	20
PCB-1232	10	U	10	5.0	mg/Kg		02/09/11 14:30	02/10/11 12:41	20
PCB-1242	10	U	10	5.0	mg/Kg		02/09/11 14:30	02/10/11 12:41	20
PCB-1248	10	U	10	5.0	mg/Kg		02/09/11 14:30	02/10/11 12:41	20
PCB-1254	10	U	10	5.0	mg/Kg		02/09/11 14:30	02/10/11 12:41	20
<b>PCB-1260</b>	<b>140</b>	<b>J</b>	10	5.0	mg/Kg		02/09/11 14:30	02/10/11 12:41	20

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		28 - 124	02/09/11 14:30	02/10/11 12:41	20
DCB Decachlorobiphenyl	122		38 - 130	02/09/11 14:30	02/10/11 12:41	20

*KSM*

# Analytical Data

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: Site Assessment Manitowoc WI

TestAmerica Job ID: 500-30674-1

**Client Sample ID: MS-DR-3**

**Lab Sample ID: 500-30674-4**

**Date Collected: 01/24/11 13:48**

**Matrix: Waste**

**Date Received: 01/27/11 16:00**

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	49000	U	49000	25000	mg/Kg		02/09/11 14:30	03/09/11 15:21	100000
PCB-1221	49000	U	49000	25000	mg/Kg		02/09/11 14:30	03/09/11 15:21	100000
PCB-1232	49000	U	49000	25000	mg/Kg		02/09/11 14:30	03/09/11 15:21	100000
PCB-1242	49000	U	49000	25000	mg/Kg		02/09/11 14:30	03/09/11 15:21	100000
PCB-1248	49000	U	49000	25000	mg/Kg		02/09/11 14:30	03/09/11 15:21	100000
PCB-1254	49000	U	49000	25000	mg/Kg		02/09/11 14:30	03/09/11 15:21	100000
<b>PCB-1260</b>	<b>480000</b>		49000	25000	mg/Kg		02/09/11 14:30	03/09/11 15:21	100000
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Tetrachloro-m-xylene	0	D	28 - 124				02/09/11 14:30	03/09/11 15:21	100000
DCB Decachlorobiphenyl	0	D	38 - 130				02/09/11 14:30	03/09/11 15:21	100000

*KSM*



# Analytical Data

Client: Oneida Total Integrated Enterprises LLC  
 Project/Site: Site Assessment Manitowoc WI

TestAmerica Job ID: 500-30674-1

**Client Sample ID: MS-DR-4**

**Lab Sample ID: 500-30674-5**

Date Collected: 01/24/11 14:32

Matrix: Waste

Date Received: 01/27/11 16:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	49000	U	49000	25000	mg/Kg		02/09/11 14:30	03/09/11 16:04	100000
PCB-1221	49000	U	49000	25000	mg/Kg		02/09/11 14:30	03/09/11 16:04	100000
PCB-1232	49000	U	49000	25000	mg/Kg		02/09/11 14:30	03/09/11 16:04	100000
PCB-1242	49000	U	49000	25000	mg/Kg		02/09/11 14:30	03/09/11 16:04	100000
PCB-1248	49000	U	49000	25000	mg/Kg		02/09/11 14:30	03/09/11 16:04	100000
PCB-1254	49000	U	49000	25000	mg/Kg		02/09/11 14:30	03/09/11 16:04	100000
<b>PCB-1260</b>	<b>470000</b>		49000	25000	mg/Kg		02/09/11 14:30	03/09/11 16:04	100000
<b>Surrogate</b>	<b>% Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Tetrachloro-m-xylene	0	D	28 - 124				02/09/11 14:30	03/09/11 16:04	100000
DCB Decachlorobiphenyl	0	D	38 - 130				02/09/11 14:30	03/09/11 16:04	100000

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