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**130 Liberty Street  
New York, New York**

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**Additional Waste Characterization  
Sampling Summary Report**

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**Settled Dust Waste Characterization, 40/41  
Mechanical Floor Paint Chip, and Caulking  
Sampling Results**

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Prepared for:

**Lower Manhattan Development Corporation**

One Liberty Plaza, 20<sup>th</sup> Floor, New York, NY 10006



Prepared By:



**TRC Environmental Corp.**

1430 Broadway, 10<sup>th</sup> Floor

New York, New York 10018

**November 10, 2005**

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## 1.0 INTRODUCTION

TRC Environmental Corporation (TRC) was contracted and authorized by the Lower Manhattan Development Corporation (LMDC) to conduct additional Waste Sampling and Management investigations as required by Section 1 of the LMDC Deconstruction Plan for the cleaning, abatement, and deconstruction of the building located at 130 Liberty Street in the City of New York (Building). The Deconstruction Plan was prepared to permit LMDC to commence and complete this work in a safe and effective manner in full compliance with applicable law.

The objective of the September 7, 2005 Waste Sampling and Management Plan (the Plan) is to properly classify, manage, containerize, transport, and dispose of (or recycle), in conformance with all applicable laws and regulations, waste streams that will be generated as part of the 130 Liberty Street - Deconstruction Project. The Plan included sampling and analysis of three material types:

- Settled Dust and Materials potentially impacted by WTC Dust was collected and analyzed for Toxic Characteristic Leaching Protocol (TCLP) and Resource Conservation and Recovery Act (RCRA) characteristics.
- Paint from equipment and materials surfaces located on the 40/41 mechanical floor was collected and analyzed for Total Cadmium and Total Chromium.
- Caulking material installed on building surfaces and components was collected and analyzed for polychlorinated biphenyl (PCB) content.

This Additional Waste Characterization Sampling Summary Report (Summary Report) presents the results of the above listed sampling as required by the Plan.

### 1.1 Background

The Building is located across the street and south of the WTC site and is a former office building comprised of 40 stories and approximately 1.5 million square feet. This report summarizes the waste characterization sampling results for settled dust, paint chips on the 40/41 mechanical floor, and caulking.

Extensive sampling of the settled dust is required as part of the Building deconstruction due to the massive debris generated from the collapse of the South Tower of the WTC, allowing a combination of soot, dust, dirt, debris, and contaminants to settle in and on the Building.

Paint chip sampling was warranted on the 40/41 mechanical floor (Zone 1B) based on the identification of elevated cadmium results in one composite dust sample collected on November 14, 2004. This sample collected on the 40<sup>th</sup> mechanical floor subjected to TCLP analysis exhibited a concentration of cadmium that exceeded 40 CFR section 261.24 hazardous waste characteristic threshold. This sample was collected as part of the supplemental investigation as summarized in the Preliminary Waste Characterization Sampling Summary Results of the Supplemental Investigation Summary Report (Preliminary Waste Characterization Summary) dated February 10, 2005.

Polychlorinated biphenyls (PCBs) are commonly found in caulking as a plasticizer. As a result, caulking sampling was conducted to determine if the caulking waste stream contains hazardous levels of PCBs.

Sampling and analytical results of the settled dust, paint chips on the 40/41 mechanical floor, and caulking will determine required disposal measures of associated waste generated during the Building deconstruction.

## **1.2 Scope of Work**

### **1.2.1 Settled Dust**

As per Section 4.1.2.1 Settled Dust and Materials Impacted by WTC Dust of the Plan, all settled dust, including but not limited to WTC settled dust, was sampled and further characterized for waste classification to determine if it must be handled as a hazardous waste in addition to being handled as an asbestos waste.

TRC collected 84 representative composite bulk and four duplicate samples of settled dust on all Building floors for analysis to provide a determination if settled dust/waste materials meet the criteria for characterization as a hazardous waste. Samples were collected in August 2005 and were analyzed for Toxicity Characteristic Leaching Procedure (TCLP) parameters and Resource Conservation and Recovery Act (RCRA) characteristics.

### **1.2.2 Paint Chips**

As per Section 4.1.2.1 of the Plan entitled Settled Dust and Materials Impacted by WTC Dust, paint chip sampling of painted surfaces for cadmium analysis was performed on the 40/41 mechanical floors to assess the potential contribution of cadmium in painted surfaces/mechanical equipment to the elevated cadmium result identified in the Preliminary Waste Characterization Summary. In addition, as required by the New York State Department of Environmental Conservation (NYSDEC), the paint chip sampling on

the 40/41 mechanical floor included chromium. This additional testing was completed prior to any abatement work on the 40/41 mechanical floor.

TRC collected 21 representative paint chip samples and one duplicate sample for analysis to help assess the potential contribution of cadmium in painted surfaces/mechanical equipment to the TCLP cadmium results of the Preliminary Waste Characterization Summary. Samples were collected on September 14, 2005 and analyzed for Total Cadmium and Total Chromium.

### **1.2.3 Caulking**

As per section 4.4.2.1 of the Plan entitled PCB Light Ballasts and Other Polychlorinated Biphenyl (PCB) Wastes, PCBs may be used as a caulking plasticizer. Consequently, TRC collected a total of 15 representative samples of caulking material. Fourteen caulking samples were collected on August 9, 2005 in accessible Building areas and one caulking sample was collected on October 20, 2005 in a Building area previously inaccessible. The samples were tested to determine if the caulking contains concentrations of PCBs greater than the Federal Toxic Substance Control Act (TSCA) and New York State Hazardous Waste limits of 50,000 micrograms per kilogram (ug/kg). If the PCB concentration exceeds this limit, the caulking shall be handled, packaged, and labeled as required for disposal as a PCB regulated and hazardous waste and all hauler, transportation, and disposal facilities requirements shall also conform to the requirements for these categories of waste.

### **1.3 Purpose and Objectives**

This Additional Waste Characterization Sampling Summary Report presents the analytical results of the settled dust waste characterization, paint chip sampling, and caulking sampling to provide necessary information regarding waste disposal requirements during Phase I Deconstruction Activities.

Settled dust sampling for hazardous waste characteristics was performed in advance of sampling of materials impacted by settled dust. If the settled dust classification sampling indicates that the settled dust is not a hazardous waste, then by extension, any non-hazardous materials potentially impacted by settled dust (e.g. fireproofing, gypsum wall board, carpets, etc.) would also not be a hazardous waste. Those materials would then not be sampled for hazardous waste characteristics unless there is an independent concern that they might be hazardous waste due to the inherent composition of the component, subcomponent or waste stream (e.g., light ballasts which may contain PCBs, items coated with lead-based paint, lead-sheathed electrical components, etc.).

The paint chip sample results for cadmium will provide guidance as to whether the paint on the 40/41 mechanical floor potentially contributed to the TCLP cadmium results identified on the 40/41 mechanical floor during the Preliminary Waste Characterization Summary.

Caulking was sampled since PCBs may be used as a caulking plasticizer. Caulking is located throughout the Building in different forms (e.g. along windows and air ducts). These different caulking forms required sampling to determine if they needed to be disposed of as a regulated waste.

## 2.0 METHODOLOGY

This section presents the methodologies implemented for the settled dust characterization, paint chip sampling, and caulking sampling within the Building. These tasks were implemented in accordance with standard industry practice.

TRC collected representative bulk samples from settled dust from all floors, paint chips on the 40/41 mechanical floors, and caulking where present within the Building.

A unique sample identifier for each sample along with requested analytical parameters were tracked and recorded using a Chain-of-Custody (COC) form. Sample management and quality assurance/quality control (QA/QC) guidelines are outlined in Attachment 3 to the Plan.

### 2.1 Settled Dust

Settled dust samples were collected and analyzed for all TCLP parameters using the United States Environmental Protection Agency (USEPA) Test Methods for Evaluating Solid Wastes (SW 846) as listed below:

- 8260B for volatile organic compounds (VOCs)
- 8270C for semi-volatile organic compounds (SVOCs)
- 6010B and 7470A for metals
- 8081A for pesticides
- 8151 for herbicides
- 9045C for RCRA characteristic corrosivity
- 1010 for RCRA characteristic ignitability
- Chapter 7 for RCRA characteristic reactivity

As a minimum, all porous materials were previously classified as asbestos waste. The composite samples were analyzed for all hazardous waste characteristics as identified above to determine if the settled dust must also be managed as hazardous waste and identify whether other deconstruction wastes might be hazardous pending additional waste characterization testing.

Samples were collected as per section 4.1.3 of the Plan entitled Waste Characterization Sampling Frequency for Settled Dust. Two composite samples of the settled dust were collected from each interior floor of the building and the building exterior (i.e. roof and exterior building facades). Each composite sample consisted of, at a minimum, ten grab

samples (five from porous locations and five from non-porous locations). Sampling was conducted in two events. During the first event, one sample was collected from each floor. Each sample weighed at least 400 grams, as requested by the laboratory. During the second event, one additional sample was collected from each floor. In some cases, a final sample weight of less than the 400 grams was collected due to the absence of sufficient dust. If less than 400 grams of material was obtained for any one sample, the laboratory was instructed to perform as many analyses as possible with the sample mass provided. Analyses were done in the following order of precedence: TCLP, corrosivity, ignitability, and reactivity. Despite samples of less than 400 grams of material at some sampling locations, all analyses were completed for each sample.

Settled dust samples were delivered for analysis to Chemtech, located in Mountainside, New Jersey, an independent laboratory certified under the New York State Department of Health Environmental Laboratory Approval Program (NYSDOH ELAP # 11376).

## 2.2 Paint Chips

Samples were collected as per section 4.1.3 of the Plan entitled Waste Characterization Sampling Frequency for Settled Dust. TRC collected six bulk paint chip samples from the 40<sup>th</sup> floor area and fifteen bulk paint chip samples from the 41<sup>st</sup> floor area. Samples were collected using a chisel to chip paint from painted surfaces and analyzed for Total Cadmium and Total Chromium Method by SW-846 Method 6010B. Samples were collected from the following locations:

Sample ID	Floor	Sample Description and Location
DH-PH1-41-001-G-P-01	41	Blue paint on elevator machines
DH-PH1-41-002-G-P-01	41	Green paint on columns in elevator machine room
DH-PH1-41-003-G-P-01	41	Cream paint on electrical switch covers
DH-PH1-41-004-G-P-01	41	Brown paint on floors of elevator machine room
DH-PH1-41-005-G-P-01	41	Gray paint on electrical switch covers in elevator machine room
DH-PH1-41-006-G-P-01	41	Brown paint on electrical switch covers in elevator machine room
DH-PH1-41-007-G-P-01	41	Green paint on steps in elevator machine room
DH-PH1-41-008-G-P-01	41	Light gray paint on stair railings throughout
DH-PH1-41-009-G-P-01	41	Dark blue-gray paint on floors and base of units throughout
DH-PH1-41-010-G-P-01	41	Cream and gray paint on units in generator room
DH-PH1-41-011-G-P-01	41	Black paint on doors throughout
DH-PH1-41-012-G-P-01	41	White paint on walls throughout
DH-PH1-41-013-G-P-01	41	Dark blue on circuit covers/transistors



Sample ID	Floor	Sample Description and Location
DH-PH1-41-014-G-P-01	41	Yellow paint on generator
DH-PH1-41-015-G-P-01	41	Red paint on diesel tank
DH-PH1-40-016-G-P-01	40	Red paint on floors
DH-PH1-40-017-G-P-01	40	Red paint on fire system components (all)
DH-PH1-40-018-G-P-01	40	Green paint on water system pipes and tanks
DH-PH1-40-019-G-P-01	40	Light blue paint on air conditioning unit water drinking filter Z1-39
DH-PH1-40-020-G-P-01	40	Yellow paint on air conditioning motor covers
DH-PH1-40-021-G-P-01	40	Light green paint on chiller

Samples were delivered for analysis to EMSL Analytical Inc. laboratory, located in Westmont, New Jersey, an independent New York State Department of Health certified laboratory (NYSDOH ELAP # 11506).

### 2.3 Caulking

TRC collected 13 grab caulking samples and two duplicate samples from various Building locations and analyzed each sample by SW-846 Method 8082, Polychlorinated Biphenyls (PCBs) by Gas Chromatography. One sample was collected from each caulking type. The caulking type was grouped based on a visual inspection using caulking color, texture, and location (e.g. caulking along a duct, caulking on the roof, or caulking on a window). Samples were collected from the following locations:

Sample ID	Floor	Sample Description and Location
KD-PH1-ROOF-001-G-CK-01	Roof	Roof exhaust fan caulk
KD-PH1-ROOF-002-G-CK-01	Roof	Roof exterior window caulk
KD-PH1-ROOF-003-G-CK-01	Roof	Roof interior window caulk
KD-PH1-ROOF-004-G-CK-01	Roof	Louver caulk
KD-PH1-40-41-005-G-CK-01	40/41	HVAC duct joint caulk
KD-PH1-29-006-G-CK-01	29	Black duct caulk in HVAC Room
KD-PH1-23-007-G-CK-01	23	HVAC red duct caulking/sealant above ceiling
KD-PH1-23-008-G-CK-01	23	HVAC duct gray caulking above ceiling
KD-PH1-1-009-G-CK-01	1	Exterior window caulk
KD-PH1-1-010-G-CK-01	1	Black, aluminum column cover caulk
KD-PH1-1-011-G-CK-01	1	Aluminum column cover interior caulk
KD-PH1-A-013-G-CK-01	A	Cable entrance caulk in network compartment
KD-PH1-A-015-G-CK-01	A	Red, around large cable conduit in former switchboard room

Samples were delivered for analysis to Chemtech, located in Mountainside, New Jersey, an independent laboratory certified under the New York State Department of Health Environmental Laboratory Approval Program (NYSDOH ELAP # 11376).

## **3.0 RESULTS**

### **3.1 TCLP for Settled Dust**

All TCLP settled dust results are presented in the attached Tables 1 through 5. Results were compared to 40 CFR 261.24 Maximum Concentration of Contaminants (MCC) for the Toxicity Characteristics. Of the 84 samples collected, no pesticides or herbicides were detected. VOCs and SVOCs were detected below the MCC criteria. Of the metals, there were two exceedances of the MCC threshold for cadmium of 1,000 micrograms per liter (ug/L). Sample KD-PH1-32-077-C-D-01 had a cadmium concentration of 1,290 ug/L and sample KD-PH1-41-087-C-D-01 had a cadmium concentration of 1,410 ug/L. These samples were collected from settled dust located on the respective 32<sup>nd</sup> and 41<sup>st</sup> floors within the Building.

### **3.2 RCRA Characteristics for Settled Dust**

All RCRA Characteristic settled dust results are provided in Table 6. Results were compared to 40 CFR 261 parts 21 through 23. In addition, the cyanide and sulfide reactivity results were compared to SW 846 Chapter 7, Characteristics Introduction and Regulatory Definitions Interim Guidance Values. None of the samples exhibited a RCRA characteristic of reactivity, ignitability, or corrosivity.

### **3.3 Total Cadmium and Total Chromium for Paint Chips**

Total Cadmium and Total Chromium results for paint chip samples are provided in Table 7. Cadmium results ranged from not detected above the reporting limit to 23 milligrams per kilogram (mg/kg). Chromium results ranged from 5.1 mg/kg to 21,000 mg/kg. These results are not compared to any project action limit. They are used to determine the influence of cadmium and chromium present in the paint relative to the characterization of waste streams.

### **3.4 Polychlorinated Biphenyls for Caulking**

PCB results are provided in Table 8. Results of the 13 caulking samples were compared to the New York State criteria of 50,000 ug/kg. Of the 13 sample results, one exceeded the 50,000 ug/kg criteria. KD-PH1-A-013-G-CK-01 had a total PCB concentration of 220,000 ug/kg. The sample is from caulking installed around cables located in the southernmost network compartment on level A. This type of caulking was identified

only in the six network compartments, which are located along the western extent of level A.

### **3.5 Data Validation Summary**

As per Attachment 3, Section 16 of the Plan, a limited data validation was performed on all samples. All data validation reports are attached at the end of this Summary Report.

#### **3.5.1 Settled Dust**

Settled dust sample results were validated in accordance with *USEPA Region 2 Guidelines, the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, EPA 540/R-99-008 (October 1999) and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, EPA 540-R-04-004 (October 2004). All guidelines were modified as necessary to include method-specific criteria, as detailed throughout the QAPP.

In general, the data are valid based on parameters listed in the attached data validation report and may be used for decision-making purposes. Potential uncertainty exists for select samples due to field duplicate and serial dilution nonconformities, low recovery in laboratory control sample analysis, or high recoveries in matrix spike analysis. These qualifications have minor impact on the data usability since the affected results were below the project action levels.

The cadmium project action level exceedance in settled dust samples KD-PH1-32-077-C-D-01 and KD-PH1-41-087-C-D-01 may be a result of high recoveries in the matrix spike analysis. Despite the potential high bias of these two samples, TRC conservatively recommends sampling of materials impacted by the settled dust on the floors from which these samples were collected. Details of this recommendation are outlined in Section 5.1 below.

#### **3.5.2 Paint Chips**

Paint chip sample results were validated in accordance with *Evaluation of Metals Data for the CLP Program*, SOP HW-2, Revision 11 (January 1992). Where Region 2 guidelines do not exist, the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, EPA 540-R-04-004 (October 2004) were used. All guidelines were modified as necessary to include method specific criteria, as detailed throughout the QAPP.

In general, the data are valid based on parameters listed in the attached data validation report and may be used for decision making purposes. Potential uncertainty exists for chromium results based on the field duplicate variability. Since these data were collected for informational purposes only and not for comparison to project action levels, the overall data usability was not significantly affected.

A matrix spike and matrix spike duplicate (MSD) analyses was performed on two samples. As a result of the cadmium recovery being slightly above the acceptance limits in the MSD analysis for one sample, the positive results for cadmium were qualified as estimated (J) in paint chip samples. As a result of a high relative percent difference for chromium when comparing a sample and its duplicate, the positive results for chromium were qualified as estimated (J) in all paint chip samples.

### **3.5.3 Caulking**

Caulking sample results in accordance with *Validating PCB Compounds by SW-846 Method 8082*, SOP HW-23B, Revision 1.0 (May 2002). Where Region 2 guidelines do not exist, the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, EPA 540/R-99-008 (October 1999) were used. All guidelines were modified as necessary to include method specific criteria, as detailed throughout the QAPP.

In general, the data are valid based on parameters listed in the attached data validation report and may be used for decision-making purposes. Potential low bias exists for the PCB Aroclor results in sample KD-PH1-ROOF-002-G-CK-01 due to low surrogate recoveries and potential high bias exists for the PCB Aroclor results in samples KD-PH1-29-006-G-CK-01 and KD-PH1-1-009-G-CK-01 due to high surrogate recoveries; in all cases, the overall data usability was not adversely affected as the results were significantly below the project action level. Potential low bias exists for the PCB Aroclor results in samples KD-PH1-A-013-G-CK-01 and KD-PH1-A-014-G-CK-02 due to high surrogate recoveries; since the results were significantly greater than the project action levels, the overall data usability was not adversely affected.

## 4.0 FINDINGS

Results of the 84 settled dust samples were compared to criteria provided in 40 CFR 261 parts 21 through 24 and SW 846 Chapter 7. None of the 84 samples collected exceeded the criteria provided in 40 CFR 261 parts 21 through 23 or SW 846 Chapter 7. Review of the TCLP laboratory results indicated the cadmium levels detected in two samples exceeded the 1,000 ug/L Maximum Concentration of Contamination for the Toxicity Characteristics provided in 40 CFR 261.24. Cadmium concentrations detected for one sample collected on the 32<sup>nd</sup> floor and one sample collected on the 41<sup>st</sup> floor were 1,290 ug/L and 1,410 ug/L, respectively.

The 21 paint chip results indicate the presence of chromium and cadmium in paint. These results indicate that paint may have contributed to the TCLP cadmium concentrations found on the 40/41 mechanical floor.

Results of the 13 caulking samples were compared to the TSCA criteria of 50,000 ug/kg. One of the 13 caulking samples exceeded the TSCA criteria. This caulking sample is representative of caulking around cable conduit entrances in network compartments located on level A.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

The results of the settled dust, paint chip, and caulking testing performed per the Plan revealed levels of contaminants that should be addressed in connection with the deconstruction of the Building.

### 5.1 Settled Dust

Two of the 84 settled dust samples exhibited levels of cadmium that exceeded criteria provided in 40 CFR 261.24. While the majority of the settled dust samples do not exceed the regulatory requirements in 40 CFR 261.24, results of the waste characterization sampling described in Section 4.1.3 of the Plan for these two settled dust samples indicate that the settled dust on floors 32 and 40/41 exceeds the regulatory threshold for cadmium. In addition, as discussed on the Preliminary Waste Characterization Summary, one sample from the 40<sup>th</sup> floor exhibited a level of cadmium that exceeded criteria provided in 40 CFR 261.24. Accordingly, as required by the Plan, the settled dust represented by the samples that exceeded the cadmium threshold, as well as materials impacted by such settled dust and confirmed through additional testing in accordance with Section 4.2.3 (porous waste) or 4.3.3 (non-porous waste) of the Plan to be a part of a hazardous waste stream, will be managed as both a hazardous waste of the appropriate waste code and

asbestos waste. Potential disposal facilities are identified in Section 8 and Attachment 4 of the Plan. All final disposal facilities must be approved by LMDC and its insurers before waste is shipped.

Waste classification samples of porous deconstruction waste for hazardous waste characteristics will only be collected and analyzed for that parameter which exceeds the regulatory limits for RCRA characteristic waste, in this case cadmium. As per the Plan, TRC recommends collection of composite samples that are representative of anticipated porous deconstruction generated waste on the 32, 40 (as previously identified in the Preliminary Waste Characterization Summary) and 41 floors. The representative composite samples should consist of an adequate sample size necessary for chemical analysis. Each composite sample should consist of a minimum of four grab samples; however, the number of grab samples per composite may be increased based on field conditions. Each grab sample should consist of a bulk or core sample that collects both the porous deconstruction material and any entrained settled dust. Samples should be collected and analyzed in accordance with the QAPP.

For non-porous deconstruction material identified that will not be cleaned, one composite sample should be collected from the non-cleaned, non-porous deconstruction materials that are present on the 32, 40 (as previously identified in the Preliminary Waste Characterization Summary) and 41 floors where testing identified settled dust exceeding the regulatory limits for hazardous characteristic waste. Each composite sample should consist of a minimum of four grab samples; however, the number of grab samples per composite may be increased based on field conditions. Each grab sample should consist of a bulk or core sample that collects both the non-porous deconstruction material and any entrained settled dust. The samples will be analyzed for RCRA characteristics as identified in Section 4.1.3 of the Plan to determine if these materials must be managed as hazardous waste (in addition to being managed as asbestos waste).

## **5.2 Paint Chips**

The 21 paint chip sample results indicate the presence of chromium and cadmium in paint, which may have contributed to the TCLP cadmium results identified on 40/41 mechanical floors during the Preliminary and Additional Waste Characterization summaries.

The influence of the cadmium and chromium present in the paint relative to characterization of waste streams will be further evaluated in accordance with the Plan.

Specifically, as per Section 4.2.3 of the Plan, sampling must be conducted for TCLP cadmium in porous material waste streams prior to disposal. Upon receipt of the analytic data, it will be determined whether the porous waste in the 40/41 mechanical floors will be disposed of as asbestos waste only or as an asbestos and hazardous waste for cadmium.

As per section 4.3.1 of the Plan, for cleaned (wet-wiped/HEPA vacuumed) non-porous deconstruction waste, only those components that are painted and disposed of (i.e. not recycled) will be sampled prior to disposal. Cleaned metal components painted and recycled will not be sampled. Components to be sampled will be analyzed for the hazardous waste characteristics via TCLP metals analysis of a representative sample of the waste stream to determine if the painted surfaces would cause the material to be classified as a hazardous waste.

### **5.3 Caulking**

One sample of caulking located on level A in a network compartment indicated the presence of PCBs above the TSCA level. This sample was representative of caulking that is found around cable in some or all of the network compartment rooms on level A. Therefore, caulking of this type will be located and removed from the remaining network compartments on level A and disposed of as a PCB regulated and hazardous waste.



**ATTACHMENT 1**  
**DATA SUMMARY TABLES**

Waste Characterization Sampling  
LMDC  
130 Liberty Street  
New York, New York  
November 2005

## TABLE OF CONTENTS

<b>Table Number</b>	<b>Sampling Matrix</b>	<b>Compound</b>
1	Settled Dust	TCLP Volatile Organic Compounds
2	Settled Dust	TCLP Semi-Volatile Organic Compounds
3	Settled Dust	TCLP Metals
4	Settled Dust	TCLP Pesticides
5	Settled Dust	TCLP Herbicides
6	Settled Dust	TCLP RCRA Characteristics
7	Paint Chips	Total Cadmium and Total Chromium
8	Caulking	TSCA Polychlorinated Biphenyls

TCLP - Toxicity Characteristic Leaching Protocol  
TSCA - Toxic Substance Control Act

Table 1  
Waste Characterization Sampling - Settled Dust  
Volatile Organic Compounds, Toxicity Characteristic Leaching Protocol (SW 846 Method 8260B)

LMDC  
130 Liberty Street  
November 2005

VOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-41-001(001A)-C-D-01	KD-PH1-41-002(002A)-C-D-01	KD-PH1-39-003(003A)-C-D-01	DH-PH1-3-(004)(004A)-C-D-01	DH-PH1-3-005(005A)-C-D-01	DH-PH1-4-006(006A)-C-D-01	DH-PH1-7-007(007A)-C-D-01
		Lab ID	T4088-01	T4088-02	T4088-03	T4088-04	T4088-05	T4088-06	T4088-07
		Date	08/01/05	08/01/05	08/02/05	08/03/05	08/03/05	08/03/05	08/03/05
Vinyl Chloride	200		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Butanone	200000		120 U	120 U	120 U	120 U	120 U	120 U	120 U
Carbon Tetrachloride	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chloroform	6000		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,2-Dichloroethane	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Trichloroethene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Tetrachloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chlorobenzene	100000		25 U	25 U	25 U	25 U	25 U	25 U	25 U

VOC (ug/L)	Toxicity Regulatory Level	Sample ID	DH-PH1-8-008(008A)-C-D-01	KD-PH1-9-009(009A)-C-D-01	KD-PH1-10-010(010A)-C-D-01	KD-PH1-11-011(011A)-C-D-01	KD-PH1-12-012(012A)-C-D-01	KD-PH1-12-013(013A)-C-D-01	KP-PH1-14-014(014A)-C-D-01
		Lab ID	T4088-08	T4088-09	T4088-10	T4088-11	T4088-12	T4088-13	T4088-14
		Date	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05
Vinyl Chloride	200		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Butanone	200000		120 U	120 U	120 U	120 U	120 U	120 U	120 U
Carbon Tetrachloride	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chloroform	6000		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,2-Dichloroethane	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Trichloroethene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Tetrachloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chlorobenzene	100000		25 U	25 U	25 U	25 U	25 U	25 U	25 U

VOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-16-015(015A)-C-D-01	KD-PH1-17-016(016A)-C-D-01	KD-PH1-18-017(017A)-C-D-01	KD-PH1-21-018(018A)-C-D-01	KD-PH1-22-019(019A)-C-D-01	KD-PH1-29-030(030A)-C-D-01	DH-PH1-30-031(031A)-C-D-01
		Lab ID	T4088-15	T4088-16	T4088-17	T4088-18	T4088-19	T4145-01	T4145-02
		Date	08/03/05	08/04/05	38569	08/05/05	08/05/05	08/05/05	08/06/05
Vinyl Chloride	200		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Butanone	200000		120 U	120 U	120 U	120 U	120 U	74 J	120 U
Carbon Tetrachloride	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chloroform	6000		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,2-Dichloroethane	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Trichloroethene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Tetrachloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chlorobenzene	100000		25 U	25 U	25 U	25 U	25 U	25 U	25 U

VOC (ug/L)	Toxicity Regulatory Level	Sample ID	DH-PH1-31-032(032A)-C-D-01	DH-PH1-32-033(033A)-C-D-01	DH-PH1-33-034(034A)-C-D-01	DK-PH1-34-035(035A)-C-D-01	DK-PH1-35-036(036A)-C-D-01	DK-PH1-36-037(037A)-C-D-01	DK-PH1-37-038(038A)-C-D-01
		Lab ID	T4145-03	T4145-04	T4145-05	T4145-06	T4145-07	T4145-08	T4145-09
		Date	08/06/05	08/06/05	08/06/05	08/07/05	08/07/05	08/07/05	08/07/05
Vinyl Chloride	200		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Butanone	200000		120 U	120 U	120 U	120 U	120 U	120 U	120 U
Carbon Tetrachloride	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chloroform	6000		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,2-Dichloroethane	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Trichloroethene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Tetrachloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chlorobenzene	100000		25 U	25 U	25 U	25 U	25 U	25 U	25 U

VOC (ug/L)	Toxicity Regulatory Level	Sample ID	DK-PH1-38-039(039A)-C-D-01	KD-PH1-15(020,020A)-C-D-01	KD-PH1-19(021,021A)-C-D-01	KD-PH1-20(022,022A)-C-D-01	KD-PH1-23(023,023A)-C-D-01	KD-PH1-24(024,024A)-C-D-01	KD-PH1-25(025,025A)-C-D-01
		Lab ID	T4145-10	T4145-11	T4145-12	T4145-13	T4145-14	T4145-15	T4145-16
		Date	08/07/05	08/05/05	08/05/05	08/05/05	08/05/05	08/05/05	08/05/05
Vinyl Chloride	200		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Butanone	200000		120 U	120 U	120 U	120 U	120 U	120 U	36 J
Carbon Tetrachloride	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chloroform	6000		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,2-Dichloroethane	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Trichloroethene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Tetrachloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chlorobenzene	100000		25 U	25 U	25 U	25 U	25 U	25 U	25 U

VOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-26(026,026A)-C-D-01	KD-PH1-26(027,027A)-C-D-01	KD-PH1-27(028,028A)-C-D-01	KD-PH1-28(029,029A)-C-D-01	DK-PH1-40ROOF-040(040A)-C-D-01	DK-PH1-R-EXT-041(041A)-C-D-01	KD-PH1-A-042-C-D-01
		Lab ID	T4145-17	T4145-18	T4145-19	T4145-20	T4145-21	T4145-22	T4340-01
		Date	08/05/05	08/05/05	08/05/05	08/05/05	08/07/05	08/07/05	08/18/05
Vinyl Chloride	200		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Butanone	200000		120 U	120 U	120 U	120 U	120 U	120 U	120 U
Carbon Tetrachloride	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chloroform	6000		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,2-Dichloroethane	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Trichloroethene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Tetrachloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chlorobenzene	100000		25 U	25 U	25 U	25 U	25 U	25 U	25 U

VOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-1-043-C-D-01	KD-PH1-1-044-C-D-02	KD-PH1-MEZ-045-C-D-01	KD-PH1-2-046-C-D-01	KD-PH1-3-047-C-D-01	KD-PH1-4-048-C-D-01	KD-PH1-4-049-C-D-02
		Lab ID	T4340-02	T4340-03	T4340-04	T4340-05	T4340-06	T4340-07	T4340-08
		Date	08/15/05	08/15/05	08/18/05	08/18/05	08/18/05	08/18/05	08/18/05
Vinyl Chloride	200		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Butanone	200000		120 U	120 U	120 U	120 U	120 U	120 U	120 U
Carbon Tetrachloride	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chloroform	6000		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,2-Dichloroethane	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Trichloroethene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Tetrachloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chlorobenzene	100000		25 U	25 U	25 U	25 U	25 U	25 U	25 U

VOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-5-6-050-C-D-01	KD-PH1-7-051-C-D-01	KD-PH1-7-052-C-D-02	KD-PH1-8-053-C-D-01	KD-PH1-9-054-C-D-01	KD-PH1-10-055-C-D-01	KD-PH1-11-056-C-D-01
		Lab ID	T4340-09	T4340-10	T4340-11	T4340-12	T4340-13	T4340-14	T4340-15
		Date	08/17/05	08/18/05	08/15/05	08/15/05	08/15/05	08/15/05	08/15/05
Vinyl Chloride	200		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Butanone	200000		120 U	120 U	120 U	120 U	120 U	120 U	120 U
Carbon Tetrachloride	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chloroform	6000		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,2-Dichloroethane	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Trichloroethene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Tetrachloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chlorobenzene	100000		25 U	25 U	25 U	25 U	25 U	25 U	25 U

VOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-12-057-C-D	KD-PH1-14-058-C-D	KD-PH1-15-059-C-D	KD-PH1-16-060-C-D	KD-PH1-17-061-C-D	KD-PH1-17A-062-C-D	T4342-02
		Lab ID	01	01	01	01	01	D-02	T4342-02
		Date	T4340-16	T4340-17	T4340-18	T4340-19	T4340-20	T4342-01	T4342-02
		Date	08/15/05	08/15/05	08/16/05	08/16/05	08/16/05	08/16/05	08/16/05
Vinyl Chloride	200		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Butanone	200000		120 U	120 U	120 U	120 U	120 U	120 U	120 U
Carbon Tetrachloride	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chloroform	6000		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,2-Dichloroethane	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Trichloroethene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Tetrachloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chlorobenzene	100000		25 U	25 U	25 U	25 U	25 U	25 U	25 U

VOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-19-064-C-D	KD-PH1-20-065-C-D	KD-PH1-21-066-C-D	KD-PH1-22-067-C-D	KD-PH1-23-068-C-D	KD-PH1-24-069-C-D	KD-PH1-25-070-C-D
		Lab ID	01	01	01	01	01	01	01
		Date	T4342-03	T4342-04	T4342-05	T4342-06	T4342-07	T4342-08	T4342-09
		Date	08/16/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05
Vinyl Chloride	200		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Butanone	200000		120 U	120 U	120 U	120 U	120 U	120 U	120 U
Carbon Tetrachloride	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chloroform	6000		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,2-Dichloroethane	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Trichloroethene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Tetrachloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chlorobenzene	100000		25 U	25 U	25 U	25 U	25 U	25 U	25 U

VOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-26-071-C-D	KD-PH1-27-072-C-D	KD-PH1-28-073-C-D	KD-PH1-29-074-C-D	KD-PH1-30-075-C-D	KD-PH1-31-076-C-D	KD-PH1-32-077-C-D
		Lab ID	01	01	01	01	01	01	01
		Date	T4342-10	T4342-11	T4342-12	T4342-13	T4342-14	T4342-15	T4342-16
		Date	08/17/05	08/16/05	08/18/05	08/18/05	08/17/05	08/17/05	08/17/05
Vinyl Chloride	200		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Butanone	200000		120 U	120 U	120 U	120 U	120 U	120 U	120 U
Carbon Tetrachloride	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chloroform	6000		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,2-Dichloroethane	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Trichloroethene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Tetrachloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chlorobenzene	100000		25 U	25 U	25 U	25 U	25 U	25 U	25 U

VOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-33-078-C-D	KD-PH1-34-079-C-D	KD-PH1-35-080-C-D	KD-PH1-36-081-C-D	KD-PH1-37-082-C-D	KD-PH1-38-083-C-D	KD-PH1-39-084-C-D
		Lab ID	01	01	01	01	01	01	01
		Date	T4342-17	T4342-18	T4342-19	T4342-20	T4342-21	T4342-22	T4342-23
		Date	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05
Vinyl Chloride	200		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,1-Dichloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
2-Butanone	200000		120 U	120 U	120 U	120 U	120 U	120 U	120 U
Carbon Tetrachloride	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chloroform	6000		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Benzene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
1,2-Dichloroethane	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Trichloroethene	500		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Tetrachloroethene	700		25 U	25 U	25 U	25 U	25 U	25 U	25 U
Chlorobenzene	100000		25 U	25 U	25 U	25 U	25 U	25 U	25 U

VOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-40-085-C-D	KD-PH1-40A-086-C-D	KD-PH1-41-087-C-D	KD-PH1-ROOF-EXTERIOR-088-C-D
		Lab ID	01	D-01	01	01
		Date	T4342-24	T4342-25	T4342-26	T4342-27
		Date	08/17/05	08/17/05	08/17/05	08/17/05
Vinyl Chloride	200		25 U	25 U	25 U	25 U
1,1-Dichloroethene	700		25 U	25 U	25 U	25 U
2-Butanone	200000		120 U	120 U	120 U	120 U
Carbon Tetrachloride	500		25 U	25 U	25 U	25 U
Chloroform	6000		25 U	25 U	25 U	25 U
Benzene	500		25 U	25 U	25 U	25 U
1,2-Dichloroethane	500		25 U	25 U	25 U	25 U
Trichloroethene	500		25 U	25 U	25 U	25 U
Tetrachloroethene	700		25 U	25 U	25 U	25 U
Chlorobenzene	100000		25 U	25 U	25 U	25 U

ug/L - Micrograms per liter

J - Value is an estimate.

U - The compound was not detected at the indicated concentration.

Sample Designation: For example, for sample ID: KD-PH1-41-001(001A)-C-D-01, "KD" is the sampler's initials, "PH1" indicates Phase 1 of the sampling, "41" indicates the floor the sample was collected, "001(001A)" indicates sample number, "C" indicates composite, "D" indicates dust, and "01" indicates that it is a regular sample; "02" would indicate it is a duplicate.

Table 2

Waste Characterization Sampling - Settled Dust

Semi-Volatile Organic Compounds, Toxicity Characteristic Leaching Protocol (SW 846 Method 8270C)

LMDC

130 Liberty Street

November 2005

SVOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-41-001(001A)-C-D-01	KD-PH1-41-002(002A)-C-D-01	KD-PH1-39-003(003A)-C-D-01	DH-PH1-3-(004)(004A)-C-D-01	DH-PH1-3-005(005A)-C-D-01	DH-PH1-4-006(006A)-C-D-01	DH-PH1-7-007(007A)-C-D-01
		Lab ID	T4088-01	T4088-02	T4088-03	T4088-04	T4088-05	T4088-06	T4088-07
		Date	08/01/05	08/01/05	08/02/05	08/03/05	08/03/05	08/03/05	08/03/05
Pyridine	5000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	7500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	--		10 U	10 U	10 U	10 U	10 U	10 U	10 U
3+4-Methylphenols	--		2 J	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	3000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	400000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	100000		10 U	10 U	10 U	10 U	10 U	10 U	2 J

SVOC (ug/L)	Toxicity Regulatory Level	Sample ID	DH-PH1-8-008(008A)-C-D-01	KD-PH1-9-009(009A)-C-D-01	KD-PH1-10-010(010A)-C-D-01	KD-PH1-11-011(011A)-C-D-01	KD-PH1-12-012(012A)-C-D-01	KD-PH1-12-013(013A)-C-D-01	KP-PH1-14-014(014A)-C-D-01
		Lab ID	T4088-08	T4088-09	T4088-10	T4088-11	T4088-12	T4088-13	T4088-14
		Date	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05
Pyridine	5000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	7500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	--		10 U	10 U	10 U	10 U	10 UJ	76 J	10 U
3+4-Methylphenols	--		10 U	10 U	2 J	10 U	10 U	10 U	10 U
Hexachloroethane	3000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	400000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	100000		10 U	5 J	4 J	10 U	10 U	10 U	2 J



SVOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-16-015(015A)-C-D-01	KD-PH1-17-016(016A)-C-D-01	KD-PH1-18-017(017A)-C-D-01	KD-PH1-21-018(018A)-C-D-01	KD-PH1-22-019(019A)-C-D-01	KD-PH1-29-030(030A)-C-D-01	DH-PH1-30-031(031A)-C-D-01
		Lab ID	T4088-15	T4088-16	T4088-17	T4088-18	T4088-19	T4145-01	T4145-02
		Date	08/03/05	08/04/05	08/04/05	08/05/05	08/05/05	08/05/05	08/06/05
Pyridine	5000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	7500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	--		10 U	10 U	10 U	10 U	10 U	10 U	10 U
3+4-Methylphenols	--		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	3000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	400000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	100000		10 U	10 U	10 U	10 U	10 U	10 U	10 U

SVOC (ug/L)	Toxicity Regulatory Level	Sample ID	DH-PH1-31-032(032A)-C-D-01	DH-PH1-32-033(033A)-C-D-01	DH-PH1-33-034(034A)-C-D-01	DK-PH1-34-035(035A)-C-D-01	DK-PH1-35-036(036A)-C-D-01	DK-PH1-36-037(037A)-C-D-01	DK-PH1-37-038(038A)-C-D-01
		Lab ID	T4145-03	T4145-04	T4145-05	T4145-06	T4145-07	T4145-08	T4145-09
		Date	08/06/05	08/06/05	08/06/05	08/07/05	08/07/05	08/07/05	08/07/05
Pyridine	5000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	7500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	--		10 U	10 U	10 U	10 U	10 U	10 U	10 U
3+4-Methylphenols	--		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	3000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	400000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	100000		10 U	7.0 J	2.0 J	2.0 J	2.0 J	10 U	10 U

SVOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-15(020,020A)-C-D-	KD-PH1-19(021,021A)-C-D-	KD-PH1-20(022,022A)-C-D-	KD-PH1-23(023,023A)-C-D-	KD-PH1-24(024,024A)-C-D-	KD-PH1-25(025,025A)-C-D-
		DK-PH1-38-039(039A)-C-D-01	01	01	01	01	01	01
		Lab ID	T4145-11	T4145-12	T4145-13	T4145-14	T4145-15	T4145-16
Date	08/07/05	08/05/05	08/05/05	08/05/05	08/05/05	08/05/05	08/05/05	
Pyridine	5000	10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	7500	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U
3+4-Methylphenols	--	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	3000	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	2000	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	500	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	400000	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	2000	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	130	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	130	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	100000	10 U	10 U	10 U	10 U	10 U	10 U	10 U

SVOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-26(026,026A)-C-D-	KD-PH1-26(027,027A)-C-D-	KD-PH1-27(028,028A)-C-D-	KD-PH1-28(029,029A)-C-D-	DK-PH1-40ROOF-040(040A)-C-D-01	DK-PH1-R-EXT-041(041A)-C-D-01	KD-PH1-A-042-C-D-01
		01	01	01	01	01	01	01	D-01
		Lab ID	T4145-17	T4145-18	T4145-19	T4145-20	T4145-21	T4145-22	T4340-01
Date	08/05/05	08/05/05	08/05/05	08/05/05	08/07/05	08/07/05	08/18/05		
Pyridine	5000	10 U	10 U	10 U	10 U	10 U J	10 U J	10 U	
1,4-Dichlorobenzene	7500	10 U	10 U	10 U	10 U	1.2 U	1.2 U	10 U	
2-Methylphenol	--	10 U	10 U	10 U	10 U	1.5 U	1.5 U	10 U	
3+4-Methylphenols	--	10 U	10 U	10 U	10 U	1.3 U	1.3 U	10 U	
Hexachloroethane	3000	10 U	10 U	10 U	10 U	1.2 U	1.2 U	10 U	
Nitrobenzene	2000	10 U	10 U	10 U	10 U	1.6 U	1.6 U	10 U	
Hexachlorobutadiene	500	10 U	10 U	10 U	10 U	1.4 U	1.4 U	10 U	
2,4,5-Trichlorophenol	400000	10 U	10 U	10 U	10 U	1.2 U	1.2 U	10 U	
2,4,6-Trichlorophenol	2000	10 U	10 U	10 U	10 U	1.1 U	1.1 U	10 U	
2,4-Dinitrotoluene	130	10 U	10 U	10 U	10 U	1.2 U	1.2 U	10 U	
Hexachlorobenzene	130	10 U	10 U	10 U	10 U	1.2 U	1.2 U	10 U	
Pentachlorophenol	100000	10 U	10 U	10 U	10 U	1.6 U	1.6 U	10 U	

SVOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-1-043-C-	KD-PH1-1-044-C-	KD-PH1-MEZ-045-	KD-PH1-2-046-C-	KD-PH1-3-047-C-	KD-PH1-4-048-C-	KD-PH1-4-049-C-
		Lab ID	D-01	D-02	C-D-01	D-01	D-01	D-01	D-02
		Date	T4340-02	T4340-03	T4340-04	T4340-05	T4340-06	T4340-07	T4340-08
			08/15/05	08/15/05	08/18/05	08/18/05	08/18/05	08/18/05	08/18/05
Pyridine	5000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	7500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	--		10 U	10 U	10 U	10 U	10 U	10 U	10 U
3+4-Methylphenols	--		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	3000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	400000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	100000		10 U	10 U	10 U	10 U	10 U	10 U	10 U

SVOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-5-6-050-C-	KD-PH1-7-051-C-	KD-PH1-7-052-C-	KD-PH1-8-053-C-	KD-PH1-9-054-C-	KD-PH1-10-055-C-	KD-PH1-11-056-C-
		Lab ID	D-01	D-01	D-02	D-01	D-01	D-01	D-01
		Date	T4340-09	T4340-10	T4340-11	T4340-12	T4340-13	T4340-14	T4340-15
			08/17/05	08/18/05	08/15/05	08/15/05	08/15/05	08/15/05	08/15/05
Pyridine	5000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	7500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	--		10 U	10 U	10 U	10 U	10 U	10 U	10 U
3+4-Methylphenols	--		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachloroethane	3000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	400000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	100000		10 U	10 U	10 U	10 U	10 U	10 U	10 U

SVOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-12-057-C-	KD-PH1-14-058-C-	KD-PH1-15-059-C-	KD-PH1-16-060-C-	KD-PH1-17-061-C-	KD-PH1-17A-062-	KD-PH1-18-063-C-
		Lab ID	D-01	D-01	D-01	D-01	D-01	C-D-02	D-01
		Date	T4340-16	T4340-17	T4340-18	T4340-19	T4340-20	T4342-01	T4342-02
			08/15/05	08/15/05	08/16/05	08/16/05	08/16/05	08/16/05	08/16/05
Pyridine	5000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	7500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	--		10 U	10 U	10 U	10 U	10 U	10 U	10 U
3+4-Methylphenols	--		10 U	10 U	10 U	7.0 J	10 U	2 J	2 J
Hexachloroethane	3000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	400000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	100000		10 U	10 U	10 U	10 U	10 U	10 U	10 U

SVOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-19-064-C-	KD-PH1-20-065-C-	KD-PH1-21-066-C-	KD-PH1-22-067-C-	KD-PH1-23-068-C-	KD-PH1-24-069-C-	KD-PH1-25-070-C-
		Lab ID	D-01	D-01	D-01	D-01	D-01	D-01	D-01
		Date	T4342-03	T4342-04	T4342-05	T4342-06	T4342-07	T4342-08	T4342-09
			08/16/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05
Pyridine	5000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
1,4-Dichlorobenzene	7500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Methylphenol	--		10 U	10 U	10 U	10 U	10 U	10 U	10 U
3+4-Methylphenols	--		10 U	3 J	2 J	1 J	10 U	5 J	3 J
Hexachloroethane	3000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Nitrobenzene	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobutadiene	500		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	400000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4,6-Trichlorophenol	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Hexachlorobenzene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U
Pentachlorophenol	100000		10 U	10 U	10 U	10 U	10 U	10 U	10 U

SVOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-26-071-C-	KD-PH1-27-072-C-	KD-PH1-28-073-C-	KD-PH1-29-074-C-	KD-PH1-30-075-C-	KD-PH1-31-076-C-	KD-PH1-32-077-C-	
		Lab ID	D-01	D-01	D-01	D-01	D-01	D-01	D-01	D-01
		Date	T4342-10	T4342-11	T4342-12	T4342-13	T4342-14	T4342-15	T4342-16	T4342-16
			08/17/05	08/16/05	08/18/05	08/18/05	08/17/05	08/17/05	08/17/05	
Pyridine	5000		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
1,4-Dichlorobenzene	7500		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
2-Methylphenol	--		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
3+4-Methylphenols	--		2 J	4 J	10 U	2 J	2 J	4 J	10 U	
Hexachloroethane	3000		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Nitrobenzene	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Hexachlorobutadiene	500		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
2,4,5-Trichlorophenol	400000		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
2,4,6-Trichlorophenol	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
2,4-Dinitrotoluene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Hexachlorobenzene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Pentachlorophenol	100000		10 U	10 U	10 U	10 U	10 U	10 U	10 U	

SVOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-33-078-C-	KD-PH1-34-079-C-	KD-PH1-35-080-C-	KD-PH1-36-081-C-	KD-PH1-37-082-C-	KD-PH1-38-083-C-	KD-PH1-39-084-C-	
		Lab ID	D-01	D-01	D-01	D-01	D-01	D-01	D-01	D-01
		Date	T4342-17	T4342-18	T4342-19	T4342-20	T4342-21	T4342-22	T4342-23	T4342-23
			08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	
Pyridine	5000		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
1,4-Dichlorobenzene	7500		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
2-Methylphenol	--		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
3+4-Methylphenols	--		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Hexachloroethane	3000		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Nitrobenzene	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Hexachlorobutadiene	500		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
2,4,5-Trichlorophenol	400000		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
2,4,6-Trichlorophenol	2000		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
2,4-Dinitrotoluene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Hexachlorobenzene	130		10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Pentachlorophenol	100000		10 U	10 U	10 U	10 U	10 U	10 U	10 U	

SVOC (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-40-085-C-	KD-PH1-40A-086-	KD-PH1-41-087-C-	KD-PH1-ROOF-
		Lab ID	D-01	C-D-01	D-01	EXTERIOR-088-C-
		Date	T4342-24	T4342-25	T4342-26	T4342-27
		Date	08/17/05	08/17/05	08/17/05	08/17/05
Pyridine	5000	10 U	10 U	10 U	10 U	
1,4-Dichlorobenzene	7500	10 U	10 U	10 U	10 U	
2-Methylphenol	--	10 U	10 U	10 U	10 U	
3+4-Methylphenols	--	10 U	10 U	10 U	10 U	
Hexachloroethane	3000	10 U	10 U	10 U	10 U	
Nitrobenzene	2000	10 U	10 U	10 U	10 U	
Hexachlorobutadiene	500	10 U	10 U	10 U	10 U	
2,4,5-Trichlorophenol	400000	10 U	10 U	10 U	10 U	
2,4,6-Trichlorophenol	2000	10 U	10 U	10 U	10 U	
2,4-Dinitrotoluene	130	10 U	10 U	10 U	10 U	
Hexachlorobenzene	130	10 U	10 U	10 U	10 U	
Pentachlorophenol	100000	10 U	10 U	10 U	10 U	

ug/L - Micrograms per liter

J - Value is an estimate.

U - The compound was not detected at the indicated concentration.

Sample Designation: For example, for sample ID: KD-PH1-41-001(001A)-C-D-01, "KD" is the sampler's initials, "PH1" indicates Phase 1 of the sampling, "41" indicates the floor the sample was collected, "001(001A)" indicates sample number, "C" indicates composite, "D" indicates dust, and "01" indicates that it is a regular sample; "02" would indicate it is a duplicate.

Table 3  
Waste Characterization Sampling - Settled Dust  
Metals, Toxicity Characteristic Leaching Protocol (SW 846 Methods 6010B and 7470A)

LMDC  
130 Liberty Street  
November 2005

Metals (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-41-001(001A)-C-D-01	KD-PH1-41-002(002A)-C-D-01	KD-PH1-39-003(003A)-C-D-01	DH-PH1-3-(004)(004A)-C-D-01	DH-PH1-3-005(005A)-C-D-01	DH-PH1-4-006(006A)-C-D-01	DH-PH1-7-007(007A)-C-D-01
		Lab ID	T4088-01	T4088-02	T4088-03	T4088-04	T4088-05	T4088-06	T4088-07
		Date	08/01/05	08/01/05	08/02/05	08/03/05	08/03/05	08/03/05	08/03/05
Arsenic	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Barium	100000		204 J	251 J	23.1 J	222 J	151 J	204 J	180 J
Cadmium	1000		447 J	822 J	246 J	50 U	50 U	50 U	50 U
Chromium	5000		100 U	100 U	100 U	161	100 U	100 U	100 U
Lead	5000		102 U	196	85.7 U J	2860 J	50 U J	70.9 U J	50 U J
Selenium	1000		100 U	100 U	100 U	486	100 U	100 U	100 U
Silver	5000		100 U J	100 U J	100 U J	100 U J	100 U J	100 U J	100 U J
Mercury	200		2 U	2 U	2 U	2 U	2 U	2 U	2 U

Metals (ug/L)	Toxicity Regulatory Level	Sample ID	DH-PH1-8-008(008A)-C-D-01	KD-PH1-9-009(009A)-C-D-01	KD-PH1-10-010(010A)-C-D-01	KD-PH1-11-011(011A)-C-D-01	KD-PH1-12-012(012A)-C-D-01	KD-PH1-12-013(013A)-C-D-01	KP-PH1-14-014(014A)-C-D-01
		Lab ID	T4088-08	T4088-09	T4088-10	T4088-11	T4088-12	T4088-13	T4088-14
		Date	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05
Arsenic	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Barium	100000		145 J	162 J	254 J	235 J	153 J	168 J	220 J
Cadmium	1000		261 J	50 U	50 U	127 J	112 J	135 J	118 J
Chromium	5000		103 U	118 U	100 U	114 U	100 U	100 U	101 U
Lead	5000		53.5 U J	66.7 U J	174 U J	205 J	50.1 U	54.2 U	309 J
Selenium	1000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Silver	5000		100 U J	100 U J	100 U J	100 U J	100 U J	100 U J	100 U J
Mercury	200		2 U	2 U	2 U	2 U	2 U	2 U	2 U

Metals (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-16-015(015A)-C-D-01	KD-PH1-17-016(016A)-C-D-01	KD-PH1-18-017(017A)-C-D-01	KD-PH1-21-018(018A)-C-D-01	KD-PH1-22-019(019A)-C-D-01	KD-PH1-29-030(030A)-C-D-01	DH-PH1-30-031(031A)-C-D-01
		Lab ID	T4088-15	T4088-16	T4088-17	T4088-18	T4088-19	T4145-01	T4145-02
		Date	08/03/05	08/04/05	08/04/05	08/05/05	08/05/05	08/05/05	08/06/05
Arsenic	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Barium	100000		166 J	112 J	133 J	138 J	2000 U	253 J	249 J
Cadmium	1000		50 U	50 U	50 U	381 J	123 J	182 U	297
Chromium	5000		428	100 U	100 U	100 U	100 U	157	194
Lead	5000		50 U J	106 U J	1050 J	163 U J	50 U J	501 J	945 J
Selenium	1000		100 U	100 U	100 U	100 U	100 U	100 U	152 U
Silver	5000		100 U J	100 U J	100 U J	100 U J	100 U J	100 U	100 U
Mercury	200		2 U	2 U	2 U	2 U	2 U	0.62 J	0.66 J

Metals (ug/L)	Toxicity Regulatory Level	Sample ID	DH-PH1-31-032(032A)-C-D-01	DH-PH1-32-033(033A)-C-D-01	DH-PH1-33-034(034A)-C-D-01	DK-PH1-34-035(035A)-C-D-01	DK-PH1-35-036(036A)-C-D-01	DK-PH1-36-037(037A)-C-D-01	DK-PH1-37-038(038A)-C-D-01
		Lab ID	T4145-03	T4145-04	T4145-05	T4145-06	T4145-07	T4145-08	T4145-09
		Date	08/06/05	08/06/05	08/06/05	08/07/05	08/07/05	08/07/05	08/07/05
Arsenic	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Barium	100000		233 J	192 J	206 J	190 J	166 J	178 J	222 J
Cadmium	1000		222 U	276	347	441	92.5 U	113 U	618
Chromium	5000		47.2 J	228	108	261	142	258	48.6 J
Lead	5000		51.6 U	189	233 J	266 J	50 U	50 U	66.1 U
Selenium	1000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Silver	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Mercury	200		2 U	1.1 J	0.41 J	0.34 J	2 U	2 U	0.41 J

Metals (ug/L)	Toxicity Regulatory Level	Sample ID	DK-PH1-38-039(039A)-C-D-01	KD-PH1-15(020,020A)-C-D-01	KD-PH1-19(021,021A)-C-D-01	KD-PH1-20(022,022A)-C-D-01	KD-PH1-23(023,023A)-C-D-01	KD-PH1-24(024,024A)-C-D-01	KD-PH1-25(025,025A)-C-D-01
		Lab ID	T4145-10	T4145-11	T4145-12	T4145-13	T4145-14	T4145-15	T4145-16
		Date	08/07/05	08/05/05	08/05/05	08/05/05	08/05/05	08/05/05	08/05/05
Arsenic	5000		100 U	100 U	100 U	100 U	100 U	100 U	105 U
Barium	100000		179 J	382 J	203 J	174 J	226 J	134 J	202 J
Cadmium	1000		204 U	141 U	410	115 U	314	162 U	305
Chromium	5000		233	45.1 J	347	68.4 J	278	47.2 J	373
Lead	5000		64.7 U	158	875 J	145 U	808 J	150 U	629 J
Selenium	1000		100 U	100 U	145 U	100 U	141 U	100 U	139 U
Silver	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Mercury	200		1.6 J	2.6	1.7 J	0.59 J	2.3	2 U	1.9 J



Metals (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-26(026,026A)-C-D-01	KD-PH1-26(027,027A)-C-D-01	KD-PH1-27(028,028A)-C-D-01	KD-PH1-28(029,029A)-C-D-01	DK-PH1-40ROOF-040(040A)-C-D-01	DK-PH1-R-EXT-041(041A)-C-D-01	KD-PH1-A-042-C-D-01
		Lab ID	T4145-17	T4145-18	T4145-19	T4145-20	T4145-21	T4145-22	T4340-01
		Date	08/05/05	08/05/05	08/05/05	08/05/05	08/07/05	08/07/05	08/18/05
Arsenic	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Barium	100000		2000 U	138 J	156 J	151 J	610 J	269 J	2000 U
Cadmium	1000		124 J	139 U	104 U	210 U	183 U	71.1 U	50 U
Chromium	5000		101 U	111	74.7 J	197	71.9 J	65.5 J	100 U
Lead	5000		262 J	285 J	207	495 J	294 J	89.3 U	68.0 U
Selenium	1000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Silver	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Mercury	200		2 U	2 U	2 U	0.7 J	2 U	2 U	2 U

Metals (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-1-043-C-D-01	KD-PH1-1-044-C-D-02	KD-PH1-MEZ-045-C-D-01	KD-PH1-2-046-C-D-01	KD-PH1-3-047-C-D-01	KD-PH1-4-048-C-D-01	KD-PH1-4-049-C-D-02
		Lab ID	T4340-02	T4340-03	T4340-04	T4340-05	T4340-06	T4340-07	T4340-08
		Date	08/15/05	08/15/05	08/18/05	08/18/05	08/18/05	08/18/05	08/18/05
Arsenic	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Barium	100000		2000 U	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
Cadmium	1000		106 U	129 U	50 U	109 U	50 U	79.8 U	50 U
Chromium	5000		107 J	124 J	157 J	100 U	207 J	125 J	110 J
Lead	5000		222 U	230 U	50 U	229 U	62.8 U	74.8 U	69.0 U
Selenium	1000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Silver	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Mercury	200		2.4 U	2 U	2 U	2 U	2 U	2.2 U	2 U

Metals (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-5-6-050-C-D-01	KD-PH1-7-051-C-D-01	KD-PH1-7-052-C-D-02	KD-PH1-8-053-C-D-01	KD-PH1-9-054-C-D-01	KD-PH1-10-055-C-D-01	KD-PH1-11-056-C-D-01
		Lab ID	T4340-09	T4340-10	T4340-11	T4340-12	T4340-13	T4340-14	T4340-15
		Date	08/17/05	08/18/05	08/15/05	08/15/05	08/15/05	08/15/05	08/15/05
Arsenic	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Barium	100000		2000 U	2000 U	2000 U	2000 U	2000 U	2000 U	2000 U
Cadmium	1000		80.9 U	50 U	337 J	50 U	50 U	50 U	78.3 U
Chromium	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Lead	5000		50 U	76.7 U	244 U	64.0 U	99.3 U	140 U	94.4 U
Selenium	1000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Silver	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Mercury	200		2 U	2 U	2 U	2 U	2 U	2 U	2 U

Metals (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-12-057-C-	KD-PH1-14-058-C-	KD-PH1-15-059-C-	KD-PH1-16-060-C-	KD-PH1-17-061-C-	KD-PH1-17A-062-	KD-PH1-18-063-C-
		Lab ID	D-01	D-01	D-01	D-01	D-01	C-D-02	D-01
		Date	T4340-16 08/15/05	T4340-17 08/15/05	T4340-18 08/16/05	T4340-19 08/16/05	T4340-20 08/16/05	T4342-01 08/16/05	T4342-02 08/16/05
Arsenic	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Barium	100000		2000 U	2000 U	2000 U	2000 U	2000 U	226 J	22.7 J
Cadmium	1000		88.3 U	123 U	76.9 U	170 J	141 U	104 U	50.8 U
Chromium	5000		100 U	102 J	100 U	298 J	120 J	104 J	100 U
Lead	5000		195 U	230 U	182 U	532 J	122 U	126 J	67.5 J
Selenium	1000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Silver	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Mercury	200		2 U	2 U	2 U	3.6	2.5 U	2 U	2 U

Metals (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-19-064-C-	KD-PH1-20-065-C-	KD-PH1-21-066-C-	KD-PH1-22-067-C-	KD-PH1-23-068-C-	KD-PH1-24-069-C-	KD-PH1-25-070-C-
		Lab ID	D-01	D-01	D-01	D-01	D-01	D-01	D-01
		Date	T4342-03 08/16/05	T4342-04 08/17/05	T4342-05 08/17/05	T4342-06 08/17/05	T4342-07 08/17/05	T4342-08 08/17/05	T4342-09 08/17/05
Arsenic	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Barium	100000		312 J	269 J	164 J	33.2 J	130 J	135 J	2000 U
Cadmium	1000		50 U	446 J	160 J	96.4 U	139 U	50 U	138 U
Chromium	5000		100 U	118 J	100 U	100 U	196 J	100 U	85.2 J
Lead	5000		95.1 J	181 J	116 J	50 U	251 J	155 J	31.9 J
Selenium	1000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Silver	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Mercury	200		2 U	3.8 U	2 U	5.7	2 U	2 U	2 U

Metals (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-26-071-C-	KD-PH1-27-072-C-	KD-PH1-28-073-C-	KD-PH1-29-074-C-	KD-PH1-30-075-C-	KD-PH1-31-076-C-	KD-PH1-32-077-C-
		Lab ID	D-01	D-01	D-01	D-01	D-01	D-01	D-01
		Date	T4342-10 08/17/05	T4342-11 08/16/05	T4342-12 08/18/05	T4342-13 08/18/05	T4342-14 08/17/05	T4342-15 08/17/05	T4342-16 08/17/05
Arsenic	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Barium	100000		157 J	20.4 J	101 J	191 J	143 J	150 J	83.2 J
Cadmium	1000		90.1 U	208 J	129 U	134 U	241 J	478 J	1290 J
Chromium	5000		100 U	172 J	100 U	132 J	108 J	195 J	206 J
Lead	5000		108 J	29.4 J	148 J	96.1 J	115 J	376 J	149 J
Selenium	1000		100 U	69.3 J	100 U	100 U	100 U	100 U	100 U
Silver	5000		100 U	100 U	100 U	100 U	100 U	100 U	100 U
Mercury	200		2 U	2 U	2 U	2 U	2 U	2 U	2.3 U

	Sample ID Lab ID Date	KD-PH1-33-078-C-	KD-PH1-34-079-C-	KD-PH1-35-080-C-	KD-PH1-36-081-C-	KD-PH1-37-082-C-	KD-PH1-38-083-C-	KD-PH1-39-084-C-
		D-01	D-01	D-01	D-01	D-01	D-01	D-01
		T4342-17 08/17/05	T4342-18 08/17/05	T4342-19 08/17/05	T4342-20 08/17/05	T4342-21 08/17/05	T4342-22 08/17/05	T4342-23 08/17/05
Metals (ug/L)	Toxicity Regulatory Level							
Arsenic	5000	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Barium	100000	266 J	484 J	165 J	188 J	98.6 J	310 J	175 J
Cadmium	1000	194 J	237 J	101 U	113 U	50 U	95.6 U	273 J
Chromium	5000	188 J	155 J	156 J	100 J	100 U	100 U	103 J
Lead	5000	513 J	874 J	135 J	71.5 J	87.0 J	33.3 J	372 J
Selenium	1000	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Silver	5000	100 U	100 U	100 U	100 U	100 U	100 U	100 U
Mercury	200	2.5 U	2 U	2 U	2 U	2 U	2 U	2 U

	Sample ID Lab ID Date	KD-PH1-40-085-C-	KD-PH1-40A-086-	KD-PH1-41-087-C-	KD-PH1-ROOF-
		D-01	C-D-01	D-01	EXTERIOR-088-C-
		T4342-24 08/17/05	T4342-25 08/17/05	T4342-26 08/17/05	T4342-27 08/17/05
Metals (ug/L)	Toxicity Regulatory Level				
Arsenic	5000	100 U	100 U	100 U	100 U
Barium	100000	245 J	406 J	256 J	266 J
Cadmium	1000	307 J	115 U	1410 J	89.4 U
Chromium	5000	100 U	100 U	143 J	127 J
Lead	5000	93.3 J	99.4 J	185 J	104 J
Selenium	1000	100 U	100 U	100 U	43.6 J
Silver	5000	100 U	100 U	100 U	100 U
Mercury	200	6.4	2 U	2 U	2 U

ug/L - Micrograms per liter

J - Value is an estimate.

U - The compound was not detected at the indicated concentration.

Sample Designation: For example, for sample ID: KD-PH1-41-001(001A)-C-D-01, "KD" is the sampler's initials, "PH1" indicates Phase 1 of the sampling, "41" indicates the floor the sample was collected, "001(001A)" indicates sample number, "C" indicates composite, "D" indicates dust, and "01" indicates that it is a regular sample; "02" would indicate it is a duplicate.

Table 4  
Waste Characterization Sampling - Settled Dust  
Pesticides, Toxicity Characteristic Leaching Protocol (SW 846 Method 8081A)

LMDC  
130 Liberty Street  
November 2005

Pesticides (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-41-001(001A)-C-D-01	KD-PH1-41-002(002A)-C-D-01	KD-PH1-39-003(003A)-C-D-01	DH-PH1-3-(004)(004A)-C-D-01	DH-PH1-3-005(005A)-C-D-01	DH-PH1-4-006(006A)-C-D-01	DH-PH1-7-007(007A)-C-D-01
		Lab ID	T4088-01	T4088-02	T4088-03	T4088-04	T4088-05	T4088-06	T4088-07
		Date	08/01/05	08/01/05	08/02/05	08/03/05	08/03/05	08/03/05	08/03/05
gamma-BHC (Lindane)	400		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endrin	20		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	10000		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	500		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlordane	30		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Pesticides (ug/L)	Toxicity Regulatory Level	Sample ID	DH-PH1-8-008(008A)-C-D-01	KD-PH1-9-009(009A)-C-D-01	KD-PH1-10-010(010A)-C-D-01	KD-PH1-11-011(011A)-C-D-01	KD-PH1-12-012(012A)-C-D-01	KD-PH1-12-013(013A)-C-D-01	KP-PH1-14-014(014A)-C-D-01
		Lab ID	T4088-08	T4088-09	T4088-10	T4088-11	T4088-12	T4088-13	T4088-14
		Date	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05
gamma-BHC (Lindane)	400		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endrin	20		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	10000		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	500		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlordane	30		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Pesticides (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-16-015(015A)-C-D-01	KD-PH1-17-016(016A)-C-D-01	KD-PH1-18-017(017A)-C-D-01	KD-PH1-21-018(018A)-C-D-01	KD-PH1-22-019(019A)-C-D-01	KD-PH1-29-030(030A)-C-D-01	DH-PH1-30-031(031A)-C-D-01
		Lab ID	T4088-15	T4088-16	T4088-17	T4088-18	T4088-19	T4145-01	T4145-02
		Date	08/03/05	08/04/05	08/04/05	08/05/05	08/05/05	08/05/05	08/06/05
gamma-BHC (Lindane)	400		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endrin	20		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	10000		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	500		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlordane	30		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Pesticides (ug/L)	Toxicity Regulatory Level	Sample ID	DH-PH1-31-032(032A)-C-D-01	DH-PH1-32-033(033A)-C-D-01	DH-PH1-33-034(034A)-C-D-01	DK-PH1-34-035(035A)-C-D-01	DK-PH1-35-036(036A)-C-D-01	DK-PH1-36-037(037A)-C-D-01	DK-PH1-37-038(038A)-C-D-01
		Lab ID	T4145-03	T4145-04	T4145-05	T4145-06	T4145-07	T4145-08	T4145-09
		Date	08/06/05	08/06/05	08/06/05	08/07/05	08/07/05	08/07/05	08/07/05
gamma-BHC (Lindane)	400		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endrin	20		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	10000		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	500		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlordane	30		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Pesticides (ug/L)	Toxicity Regulatory Level	Sample ID	DK-PH1-38-039(039A)-C-D-01	KD-PH1-15(020,020A)-C-D-01	KD-PH1-19(021,021A)-C-D-01	KD-PH1-20(022,022A)-C-D-01	KD-PH1-23(023,023A)-C-D-01	KD-PH1-24(024,024A)-C-D-01	KD-PH1-25(025,025A)-C-D-01
		Lab ID	T4145-10	T4145-11	T4145-12	T4145-13	T4145-14	T4145-15	T4145-16
		Date	08/07/05	08/05/05	08/05/05	08/05/05	08/05/05	08/05/05	08/05/05
gamma-BHC (Lindane)	400		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endrin	20		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	10000		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	500		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlordane	30		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Pesticides (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-26(026,026A)-C-D-01	KD-PH1-26(027,027A)-C-D-01	KD-PH1-27(028,028A)-C-D-01	KD-PH1-28(029,029A)-C-D-01	DK-PH1-40ROOF-040(040A)-C-D-01	DK-PH1-R-EXT-041(041A)-C-D-01	KD-PH1-A-042-C-D-01
		Lab ID	T4145-17	T4145-18	T4145-19	T4145-20	T4145-21	T4145-22	T4340-01
		Date	08/05/05	08/05/05	08/05/05	08/05/05	08/07/05	08/07/05	08/18/05
gamma-BHC (Lindane)	400		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endrin	20		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	10000		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	500		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlordane	30		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Pesticides (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-1-043-C-	KD-PH1-1-044-C-	KD-PH1-MEZ-045-	KD-PH1-2-046-C-	KD-PH1-3-047-C-	KD-PH1-4-048-C-	KD-PH1-4-049-C-	
		Lab ID	D-01	D-02	C-D-01	D-01	D-01	D-01	D-01	D-02
		Date	T4340-02	T4340-03	T4340-04	T4340-05	T4340-06	T4340-07	T4340-08	T4340-08
			08/15/05	08/15/05	08/18/05	08/18/05	08/18/05	08/18/05	08/18/05	
gamma-BHC (Lindane)	400		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Heptachlor	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Heptachlor epoxide	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Endrin	20		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Methoxychlor	10000		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Toxaphene	500		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Chlordane	30		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	

Pesticides (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-5-6-050-	KD-PH1-7-051-C-	KD-PH1-7-052-C-	KD-PH1-8-053-C-	KD-PH1-9-054-C-	KD-PH1-10-055-C-	KD-PH1-11-056-C-
		Lab ID	C-D-01	D-01	D-02	D-01	D-01	D-01	D-01
		Date	T4340-09	T4340-10	T4340-11	T4340-12	T4340-13	T4340-14	T4340-15
			08/17/05	08/18/05	08/15/05	08/15/05	08/15/05	08/15/05	08/15/05
gamma-BHC (Lindane)	400		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endrin	20		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	10000		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	500		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlordane	30		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Pesticides (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-12-057-C-	KD-PH1-14-058-C-	KD-PH1-15-059-C-	KD-PH1-16-060-C-	KD-PH1-17-061-C-	KD-PH1-17A-062-	KD-PH1-18-063-C-
		Lab ID	D-01	D-01	D-01	D-01	D-01	C-D-02	D-01
		Date	T4340-16	T4340-17	T4340-18	T4340-19	T4340-20	T4342-01	T4342-02
			08/15/05	08/15/05	08/16/05	08/16/05	08/16/05	08/16/05	08/16/05
gamma-BHC (Lindane)	400		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endrin	20		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	10000		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	500		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlordane	30		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Pesticides (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-19-064-C-	KD-PH1-20-065-C-	KD-PH1-21-066-C-	KD-PH1-22-067-C-	KD-PH1-23-068-C-	KD-PH1-24-069-C-	KD-PH1-25-070-C-
		Lab ID	D-01	D-01	D-01	D-01	D-01	D-01	D-01
		Date	T4342-03	T4342-04	T4342-05	T4342-06	T4342-07	T4342-08	T4342-09
			08/16/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05
gamma-BHC (Lindane)	400		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Endrin	20		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	10000		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	500		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlordane	30		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Pesticides (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-26-071-C	KD-PH1-27-072-C	KD-PH1-28-073-C	KD-PH1-29-074-C	KD-PH1-30-075-C	KD-PH1-31-076-C	KD-PH1-32-077-C	
		Lab ID	D-01	D-01	D-01	D-01	D-01	D-01	D-01	D-01
		Date	T4342-10	T4342-11	T4342-12	T4342-13	T4342-14	T4342-15	T4342-16	T4342-16
			08/17/05	08/16/05	08/18/05	08/18/05	08/17/05	08/17/05	08/17/05	
gamma-BHC (Lindane)	400		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Heptachlor	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Heptachlor epoxide	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Endrin	20		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Methoxychlor	10000		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Toxaphene	500		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Chlordane	30		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	

Pesticides (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-33-078-C	KD-PH1-34-079-C	KD-PH1-35-080-C	KD-PH1-36-081-C	KD-PH1-37-082-C	KD-PH1-38-083-C	KD-PH1-39-084-C	
		Lab ID	D-01	D-01	D-01	D-01	D-01	D-01	D-01	D-01
		Date	T4342-17	T4342-18	T4342-19	T4342-20	T4342-21	T4342-22	T4342-23	T4342-23
			08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	
gamma-BHC (Lindane)	400		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Heptachlor	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Heptachlor epoxide	8		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Endrin	20		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Methoxychlor	10000		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	
Toxaphene	500		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	
Chlordane	30		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	

Pesticides (ug/L)	Toxicity Regulatory Level	Sample ID	KD-PH1-40-085-C	KD-PH1-40A-086-C	KD-PH1-41-087-C	KD-PH1-ROOF-EXTERIOR-088-C
		Lab ID	D-01	C-D-01	D-01	D-01
		Date	T4342-24	T4342-25	T4342-26	T4342-27
			08/17/05	08/17/05	08/17/05	08/17/05
gamma-BHC (Lindane)	400		0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor	8		0.05 U	0.05 U	0.05 U	0.05 U
Heptachlor epoxide	8		0.05 U	0.05 U	0.05 U	0.05 U
Endrin	20		0.05 U	0.05 U	0.05 U	0.05 U
Methoxychlor	10000		0.05 U	0.05 U	0.05 U	0.05 U
Toxaphene	500		0.5 U	0.5 U	0.5 U	0.5 U
Chlordane	30		0.5 U	0.5 U	0.5 U	0.5 U

ug/L - Micrograms per liter

U - The compound was not detected at the indicated concentration.

Sample Designation: For example, for sample ID: KD-PH1-41-001(001A)-C-D-01, "KD" is the sampler's initials, "PH1" indicates Phase 1 of the sampling, "41" indicates the floor the sample was collected, "001(001A)" indicates sample number, "C" indicates composite, "D" indicates dust, and "01" indicates that it is a regular sample; "02" would indicate it is a duplicate.

Table 5  
Waste Characterization Sampling - Settled Dust  
Herbicides, Toxicity Characteristic Leaching Protocol (SW 846 Method 8151A)

LMDC  
130 Liberty Street  
November 2005

	Sample ID Lab ID Date	KD-PH1-41-001(001A)-C-D-	KD-PH1-41-002(002A)-C-D-	KD-PH1-39-003(003A)-C-D-	DH-PH1-3-(004)(004A)-C-D-	DH-PH1-3-005(005A)-C-D-	DH-PH1-4-006(006A)-C-D-	DH-PH1-7-007(007A)-C-D-	
		Herbicides (ug/L)	001(001A)-C-D-	002(002A)-C-D-	003(003A)-C-D-	(004)(004A)-C-D-	005(005A)-C-D-	006(006A)-C-D-	007(007A)-C-D-
		2,4-D	T4088-01	T4088-02	T4088-03	T4088-04	T4088-05	T4088-06	T4088-07
	08/01/05	08/01/05	08/02/05	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05	
	Herbicides (ug/L)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
	2,4-D	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
	2,4,5-TP (Silvex)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	

	Sample ID Lab ID Date	DH-PH1-8-008(008A)-C-D-01	KD-PH1-9-009(009A)-C-D-01	KD-PH1-10-010(010A)-C-D-01	KD-PH1-11-011(011A)-C-D-01	KD-PH1-12-012(012A)-C-D-01	KD-PH1-12-013(013A)-C-D-01	KP-PH1-14-014(014A)-C-D-01	
		Herbicides (ug/L)	DH-PH1-8-008(008A)-C-D-01	KD-PH1-9-009(009A)-C-D-01	KD-PH1-10-010(010A)-C-D-01	KD-PH1-11-011(011A)-C-D-01	KD-PH1-12-012(012A)-C-D-01	KD-PH1-12-013(013A)-C-D-01	KP-PH1-14-014(014A)-C-D-01
		2,4-D	T4088-08	T4088-09	T4088-10	T4088-11	T4088-12	T4088-13	T4088-14
	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05	
	Herbicides (ug/L)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
	2,4-D	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
	2,4,5-TP (Silvex)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	

	Sample ID Lab ID Date	KD-PH1-16-015(015A)-C-D-01	KD-PH1-17-016(016A)-C-D-01	KD-PH1-18-017(017A)-C-D-01	KD-PH1-21-018(018A)-C-D-01	KD-PH1-22-019(019A)-C-D-01	KD-PH1-29-030(030A)-C-D-01	DH-PH1-30-031(031A)-C-D-01	
		Herbicides (ug/L)	KD-PH1-16-015(015A)-C-D-01	KD-PH1-17-016(016A)-C-D-01	KD-PH1-18-017(017A)-C-D-01	KD-PH1-21-018(018A)-C-D-01	KD-PH1-22-019(019A)-C-D-01	KD-PH1-29-030(030A)-C-D-01	DH-PH1-30-031(031A)-C-D-01
		2,4-D	T4088-15	T4088-16	T4088-17	T4088-18	T4088-19	T4145-01	T4145-02
	08/03/05	08/04/05	08/04/05	08/05/05	08/05/05	08/05/05	08/06/05		
	Herbicides (ug/L)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
	2,4-D	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
	2,4,5-TP (Silvex)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	

	Sample ID Lab ID Date	DH-PH1-31-032(032A)-C-D-01	DH-PH1-32-033(033A)-C-D-01	DH-PH1-33-034(034A)-C-D-01	DK-PH1-34-035(035A)-C-D-01	DK-PH1-35-036(036A)-C-D-01	DK-PH1-36-037(037A)-C-D-01	DK-PH1-37-038(038A)-C-D-01	
		Herbicides (ug/L)	DH-PH1-31-032(032A)-C-D-01	DH-PH1-32-033(033A)-C-D-01	DH-PH1-33-034(034A)-C-D-01	DK-PH1-34-035(035A)-C-D-01	DK-PH1-35-036(036A)-C-D-01	DK-PH1-36-037(037A)-C-D-01	DK-PH1-37-038(038A)-C-D-01
		2,4-D	T4145-03	T4145-04	T4145-05	T4145-06	T4145-07	T4145-08	T4145-09
	08/06/05	08/06/05	08/06/05	08/07/05	08/07/05	08/07/05	08/07/05		
	Herbicides (ug/L)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
	2,4-D	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
	2,4,5-TP (Silvex)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	



	Sample ID	DK-PH1-38-039(039A)-C-D-01	KD-PH1-15(020,020A)-C-D-01	KD-PH1-19(021,021A)-C-D-01	KD-PH1-20(022,022A)-C-D-01	KD-PH1-23(023,023A)-C-D-01	KD-PH1-24(024,024A)-C-D-01	KD-PH1-25(025,025A)-C-D-01
	Lab ID	T4145-10	T4145-11	T4145-12	T4145-13	T4145-14	T4145-15	T4145-16
	Date	08/07/05	08/05/05	08/05/05	08/05/05	08/05/05	08/05/05	08/05/05
Herbicides (ug/L)	Toxicity Regulatory Level							
2,4-D	10000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2,4,5-TP (Silvex)	1000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

	Sample ID	KD-PH1-26(026,026A)-C-D-01	KD-PH1-26(027,027A)-C-D-01	KD-PH1-27(028,028A)-C-D-01	KD-PH1-28(029,029A)-C-D-01	40ROOF-040(040A)-C-D-01	DK-PH1-R-EXT-041(041A)-C-D-01	KD-PH1-A-042-C-D-01
	Lab ID	T4145-17	T4145-18	T4145-19	T4145-20	T4145-21	T4145-22	T4340-01
	Date	08/05/05	08/05/05	08/05/05	08/05/05	08/07/05	08/07/05	08/18/05
Herbicides (ug/L)	Toxicity Regulatory Level							
2,4-D	10000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2,4,5-TP (Silvex)	1000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

	Sample ID	KD-PH1-1-043-C-D-01	KD-PH1-1-044-C-D-02	KD-PH1-MEZ-045-C-D-01	KD-PH1-2-046-C-D-01	KD-PH1-3-047-C-D-01	KD-PH1-4-048-C-D-01	KD-PH1-4-049-C-D-02
	Lab ID	T4340-02	T4340-03	T4340-04	T4340-05	T4340-06	T4340-07	T4340-08
	Date	08/15/05	08/15/05	08/18/05	08/18/05	08/18/05	08/18/05	08/18/05
Herbicides (ug/L)	Toxicity Regulatory Level							
2,4-D	10000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2,4,5-TP (Silvex)	1000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

	Sample ID	KD-PH1-5-6-050-C-D-01	KD-PH1-7-051-C-D-01	KD-PH1-7-052-C-D-02	KD-PH1-8-053-C-D-01	KD-PH1-9-054-C-D-01	KD-PH1-10-055-C-D-01	KD-PH1-11-056-C-D-01
	Lab ID	T4340-09	T4340-10	T4340-11	T4340-12	T4340-13	T4340-14	T4340-15
	Date	08/17/05	08/18/05	08/15/05	08/15/05	08/15/05	08/15/05	08/15/05
Herbicides (ug/L)	Toxicity Regulatory Level							
2,4-D	10000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2,4,5-TP (Silvex)	1000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

	Sample ID	KD-PH1-12-057-C-D-01	KD-PH1-14-058-C-D-01	KD-PH1-15-059-C-D-01	KD-PH1-16-060-C-D-01	KD-PH1-17-061-C-D-01	KD-PH1-17A-062-C-D-02	KD-PH1-18-063-C-D-01
	Lab ID	T4340-16	T4340-17	T4340-18	T4340-19	T4340-20	T4342-01	T4342-02
	Date	08/15/05	08/15/05	08/16/05	08/16/05	08/16/05	08/16/05	08/16/05
Herbicides (ug/L)	Toxicity Regulatory Level							
2,4-D	10000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
2,4,5-TP (Silvex)	1000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

		KD-PH1-19-064-	KD-PH1-20-065-	KD-PH1-21-066-	KD-PH1-22-067-	KD-PH1-23-068-	KD-PH1-24-069-	KD-PH1-25-070-	
		Sample ID	C-D-01	C-D-01	C-D-01	C-D-01	C-D-01	C-D-01	C-D-01
		Lab ID	T4342-03	T4342-04	T4342-05	T4342-06	T4342-07	T4342-08	T4342-09
	Date	08/16/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	
Herbicides (ug/L)	Toxicity Regulatory Level								
2,4-D	10000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
2,4,5-TP (Silvex)	1000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	

		KD-PH1-26-071-	KD-PH1-27-072-	KD-PH1-28-073-	KD-PH1-29-074-	KD-PH1-30-075-	KD-PH1-31-076-	KD-PH1-32-077-	
		Sample ID	C-D-01	C-D-01	C-D-01	C-D-01	C-D-01	C-D-01	C-D-01
		Lab ID	T4342-10	T4342-11	T4342-12	T4342-13	T4342-14	T4342-15	T4342-16
	Date	08/17/05	08/16/05	08/18/05	08/18/05	08/17/05	08/17/05	08/17/05	
Herbicides (ug/L)	Toxicity Regulatory Level								
2,4-D	10000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
2,4,5-TP (Silvex)	1000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	

		KD-PH1-33-078-	KD-PH1-34-079-	KD-PH1-35-080-	KD-PH1-36-081-	KD-PH1-37-082-	KD-PH1-38-083-	KD-PH1-39-084-	
		Sample ID	C-D-01	C-D-01	C-D-01	C-D-01	C-D-01	C-D-01	C-D-01
		Lab ID	T4342-17	T4342-18	T4342-19	T4342-20	T4342-21	T4342-22	T4342-23
	Date	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	
Herbicides (ug/L)	Toxicity Regulatory Level								
2,4-D	10000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	
2,4,5-TP (Silvex)	1000	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	

		KD-PH1-40-085-	KD-PH1-40A-	KD-PH1-41-087-	EXTERIOR-088-	
		Sample ID	C-D-01	086-C-D-01	C-D-01	C-D-01
		Lab ID	T4342-24	T4342-25	T4342-26	T4342-27
	Date	08/17/05	08/17/05	08/17/05	08/17/05	
Herbicides (ug/L)	Toxicity Regulatory Level					
2,4-D	10000	0.1 U	0.1 U	0.1 U	0.1 U	
2,4,5-TP (Silvex)	1000	0.1 U	0.1 U	0.1 U	0.1 U	

ug/L - Micrograms per liter

U - The compound was not detected at the indicated concentration.

Sample Designation: For example, for sample ID: KD-PH1-41-001(001A)-C-D-01, "KD" is the sampler's initials, "PH1" indicates Phase 1 of the sampling, "41" indicates the floor the sample was collected, "001(001A)" indicates sample number, "C" indicates composite, "D" indicates dust, and "01" indicates that it is a regular sample; "02" would indicate it is a duplicate.

Table 6  
Waste Characterization Sampling - Settled Dust  
Resource Conservation and Recovery Act Characteristics (SW 846 Methods 1010, 9045C, 904a5C, and Chapter 7)

LMDC  
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RCRA	Toxicity Regulatory Level	Sample ID	KD-PH1-41-001(001A)-C-D-01	KD-PH1-41-002(002A)-C-D-01	KD-PH1-39-003(003A)-C-D-01	DH-PH1-3-(004)(004A)-C-D-01	DH-PH1-3-005(005A)-C-D-01	DH-PH1-4-006(006A)-C-D-01	DH-PH1-7-007(007A)-C-D-01
		Lab ID	T4088-01	T4088-02	T4088-03	T4088-04	T4088-05	T4088-06	T4088-07
		Date	08/01/05	08/01/05	08/02/05	08/03/05	08/03/05	08/03/05	08/03/05
Ignitability/Flashpoint (Deg. F)	<140	NO	NO	NO	NO	NO	NO	NO	NO
Cyanide Reactivity (mg/kg)	250	10.00 U J	10.00 U J	10.00 U J	10.00 U J	10.00 U J	10.00 U J	10.00 U J	10.00 U J
Sulfide Reactivity (mg/kg)	500	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J
Corrosivity as pH	2-12.5	7.1 J	7.4 J	5.9 J	8.9 J	8.8 J	8.1 J	7.9 J	

  

RCRA	Toxicity Regulatory Level	Sample ID	DH-PH1-8-008(008A)-C-D-01	KD-PH1-9-009(009A)-C-D-01	KD-PH1-10-010(010A)-C-D-01	KD-PH1-11-011(011A)-C-D-01	KD-PH1-12-012(012A)-C-D-01	KD-PH1-12-013(013A)-C-D-01	KP-PH1-14-014(014A)-C-D-01
		Lab ID	T4088-08	T4088-09	T4088-10	T4088-11	T4088-12	T4088-13	T4088-14
		Date	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05	08/03/05
Ignitability/Flashpoint (Deg. F)	<140	NO	NO	NO	NO	NO	NO	NO	NO
Cyanide Reactivity (mg/kg)	250	10.00 U J	10.00 U J	10.00 U J	10.00 U J	10.00 U J	10.00 U J	10.00 U J	
Sulfide Reactivity (mg/kg)	500	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	
Corrosivity as pH	2-12.5	7.6 J	8.0 J	8.0 J	8.0 J	8.0 J	8.0 J	8.0 J	

  

RCRA	Toxicity Regulatory Level	Sample ID	KD-PH1-16-015(015A)-C-D-01	KD-PH1-17-016(016A)-C-D-01	KD-PH1-18-017(017A)-C-D-01	KD-PH1-21-018(018A)-C-D-01	KD-PH1-22-019(019A)-C-D-01	KD-PH1-29-030(030A)-C-D-01	DH-PH1-30-031(031A)-C-D-01
		Lab ID	T4088-15	T4088-16	T4088-17	T4088-18	T4088-19	T4145-01	T4145-02
		Date	08/03/05	08/04/05	08/04/05	08/05/05	08/05/05	08/05/05	08/06/05
Ignitability/Flashpoint (Deg. F)	<140	NO	NO	NO	NO	NO	NO	NO	
Cyanide Reactivity (mg/kg)	250	10.00 U J	10.00 U J	10.00 U J	10.00 U J	10.00 U J	10.0 U J	10.0 U J	
Sulfide Reactivity (mg/kg)	500	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	
Corrosivity as pH	2-12.5	8.0 J	7.2 J	7.2 J	7.2	7.2	6.7 J	5.4 J	

		DH-PH1-31-032(032A)-C-D-01	DH-PH1-32-033(033A)-C-D-01	DH-PH1-33-034(034A)-C-D-01	DK-PH1-34-035(035A)-C-D-01	DK-PH1-35-036(036A)-C-D-01	DK-PH1-36-037(037A)-C-D-01	DK-PH1-37-038(038A)-C-D-01
	Sample ID							
	Lab ID	T4145-03	T4145-04	T4145-05	T4145-06	T4145-07	T4145-08	T4145-09
	Date	08/06/05	08/06/05	08/06/05	08/07/05	08/07/05	08/07/05	08/07/05
RCRA	Toxicity Regulatory Level							
Ignitability/Flashpoint (Deg. F)	<140	NO	NO	NO	NO	NO	NO	NO
Cyanide Reactivity (mg/kg)	250	10.0 U J	10.0 U J	10.0 U J	10.0 U J	10.0 U J	10.0 U J	10.0 U J
Sulfide Reactivity (mg/kg)	500	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J
Corrosivity as pH	2-12.5	5.7 J	11 J	5.7 J	6.1 J	8.2 J	7.2 J	6.5 J

		DK-PH1-38-039(039A)-C-D-01	KD-PH1-15(020,020A)-C-D-01	KD-PH1-19(021,021A)-C-D-01	KD-PH1-20(022,022A)-C-D-01	KD-PH1-23(023,023A)-C-D-01	KD-PH1-24(024,024A)-C-D-01	KD-PH1-25(025,025A)-C-D-01
	Sample ID							
	Lab ID	T4145-10	T4145-11	T4145-12	T4145-13	T4145-14	T4145-15	T4145-16
	Date	08/07/05	08/05/05	08/05/05	08/05/05	08/05/05	08/05/05	08/05/05
RCRA	Toxicity Regulatory Level							
Ignitability/Flashpoint (Deg. F)	<140	NO	NO	NO	NO	NO	NO	NO
Cyanide Reactivity (mg/kg)	250	10.0 U J	10.0 U J	10.0 U J	10.0 U J	10.0 U J	10.0 U J	10.0 U J
Sulfide Reactivity (mg/kg)	500	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J
Corrosivity as pH	2-12.5	5.9 J	6.8 J	5.5 J	6.4 J	5.3 J	6.8 J	5 J

		KD-PH1-26(026,026A)-C-D-01	KD-PH1-26(027,027A)-C-D-01	KD-PH1-27(028,028A)-C-D-01	KD-PH1-28(029,029A)-C-D-01	DK-PH1-40ROOF-040(040A)-C-D-01	DK-PH1-R-EXT-041(041A)-C-D-01	KD-PH1-A-042-C-D-01
	Sample ID							
	Lab ID	T4145-17	T4145-18	T4145-19	T4145-20	T4145-21	T4145-22	T4340-01
	Date	08/05/05	08/05/05	08/05/05	08/05/05	08/07/05	08/07/05	08/18/05
RCRA	Toxicity Regulatory Level							
Ignitability/Flashpoint (Deg. F)	<140	NO	NO	NO	NO	NO	NO	NO
Cyanide Reactivity (mg/kg)	250	10.0 U J	10.0 U J	10.0 U J	10.0 U J	10.0 U J	10.00 U J	10 U J
Sulfide Reactivity (mg/kg)	500	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J
Corrosivity as pH	2-12.5	5.9 J	6 J	7.2 J	6.3 J	6.5 J	8.3 J	7.7 J

		KD-PH1-1-043-C-D-01	KD-PH1-1-044-C-D-02	KD-PH1-MEZ-045-C-D-01	KD-PH1-2-046-C-D-01	KD-PH1-3-047-C-D-01	KD-PH1-4-048-C-D-01	KD-PH1-4-049-C-D-02
	Sample ID							
	Lab ID	T4340-02	T4340-03	T4340-04	T4340-05	T4340-06	T4340-07	T4340-08
	Date	08/15/05	08/15/05	08/18/05	08/18/05	08/18/05	08/18/05	08/18/05
RCRA	Toxicity Regulatory Level							
Ignitability/Flashpoint (Deg. F)	<140	NO	NO	NO	NO	NO	NO	NO
Cyanide Reactivity (mg/kg)	250	10 U J	10 U J	10 U J	10 U J	10 U J	10 U J	10 U J
Sulfide Reactivity (mg/kg)	500	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J
Corrosivity as pH	2-12.5	7.4 J	7.4 J	9.8 J	7.3 J	10.0 J	8.3 J	8.7 J

RCRA	Sample ID Lab ID Date	KD-PH1-5-6-050-	KD-PH1-7-051-C-	KD-PH1-7-052-C-	KD-PH1-8-053-C-	KD-PH1-9-054-C-	KD-PH1-10-055-C	KD-PH1-11-056-C	
		C-D-01	D-01	D-02	D-01	D-01	D-01	D-01	D-01
		T4340-09	T4340-10	T4340-11	T4340-12	T4340-13	T4340-14	T4340-15	
		08/17/05	08/18/05	08/15/05	08/15/05	08/15/05	08/15/05	08/15/05	
	Toxicity Regulatory Level								
Ignitability/Flashpoint (Deg. F)	<140	NO	NO	NO	NO	NO	NO	NO	
Cyanide Reactivity (mg/kg)	250	10 U J	10 U J	10 U J	10 U J	10 U J	10 U J	10 U J	
Sulfide Reactivity (mg/kg)	500	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	
Corrosivity as pH	2-12.5	8.2 J	6.9 J	6.9 J	6.9 J	6.9 J	6.9 J	6.9 J	

RCRA	Sample ID Lab ID Date	KD-PH1-12-057-C	KD-PH1-14-058-C	KD-PH1-15-059-C	KD-PH1-16-060-C	KD-PH1-17-061-C	KD-PH1-17A-062-	KD-PH1-18-063-C
		D-01	D-01	D-01	D-01	D-01	C-D-02	D-01
		T4340-16	T4340-17	T4340-18	T4340-19	T4340-20	T4342-01	T4342-02
		08/15/05	08/15/05	08/16/05	08/16/05	08/16/05	08/16/05	08/16/05
	Toxicity Regulatory Level							
Ignitability/Flashpoint (Deg. F)	<140	NO	NO	NO	NO	NO	NO	NO
Cyanide Reactivity (mg/kg)	250	10 U J	10 U J	10 U J	10 U J	10 U J	10 U J	10 U J
Sulfide Reactivity (mg/kg)	500	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J
Corrosivity as pH	2-12.5	7.0 J	7.0 J	7.0 J	7.0 J	7.0 J	6.2 J	5.1 J

RCRA	Sample ID Lab ID Date	KD-PH1-19-064-C	KD-PH1-20-065-C	KD-PH1-21-066-C	KD-PH1-22-067-C	KD-PH1-23-068-C	KD-PH1-24-069-C	KD-PH1-25-070-C
		D-01	D-01	D-01	D-01	D-01	D-01	D-01
		T4342-03	T4342-04	T4342-05	T4342-06	T4342-07	T4342-08	T4342-09
		08/16/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05
	Toxicity Regulatory Level							
Ignitability/Flashpoint (Deg. F)	<140	NO	NO	NO	NO	NO	NO	NO
Cyanide Reactivity (mg/kg)	250	10 U J	10 U J	10 U J	10 U J	10 U J	10 U J	10 U J
Sulfide Reactivity (mg/kg)	500	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J
Corrosivity as pH	2-12.5	6.1 J	6.6 J	6.8 J	5.3 J	5.2 J	6.4 J	5.4 J

RCRA	Sample ID Lab ID Date	KD-PH1-26-071-C	KD-PH1-27-072-C	KD-PH1-28-073-C	KD-PH1-29-074-C	KD-PH1-30-075-C	KD-PH1-31-076-C	KD-PH1-32-077-C
		D-01	D-01	D-01	D-01	D-01	D-01	D-01
		T4342-10	T4342-11	T4342-12	T4342-13	T4342-14	T4342-15	T4342-16
		08/17/05	08/16/05	08/18/05	08/18/05	08/17/05	08/17/05	08/17/05
	Toxicity Regulatory Level							
Ignitability/Flashpoint (Deg. F)	<140	NO	NO	NO	NO	NO	NO	NO
Cyanide Reactivity (mg/kg)	250	10 U J	10 U J	10 U J	10 U J	10 U J	10 U J	10 U J
Sulfide Reactivity (mg/kg)	500	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J
Corrosivity as pH	2-12.5	6.5 J	6.5 J	6.5 J	6.5 J	6.5 J	6.5 J	5.8 J

		KD-PH1-33-078-C	KD-PH1-34-079-C	KD-PH1-35-080-C	KD-PH1-36-081-C	KD-PH1-37-082-C	KD-PH1-38-083-C	KD-PH1-39-084-C	
		Sample ID	D-01	D-01	D-01	D-01	D-01	D-01	D-01
		Lab ID	T4342-17	T4342-18	T4342-19	T4342-20	T4342-21	T4342-22	T4342-23
		Date	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	08/17/05	
RCRA	Toxicity Regulatory Level								
Ignitability/Flashpoint (Deg. F)	<140	NO	NO	NO	NO	NO	NO	NO	
Cyanide Reactivity (mg/kg)	250	10 U J	10 U J	10 U J	10 U J	10 U J	10 U J	10 U J	
Sulfide Reactivity (mg/kg)	500	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	40 U J	
Corrosivity as pH	2-12.5	5.8 J	5.8 J	5.8 J	5.8 J	5.8 J	8.6 J	8.6 J	

		KD-PH1-40-085-C	KD-PH1-40A-086-C	KD-PH1-41-087-C	KD-PH1-ROOF-EXTERIOR-088-C	
		Sample ID	D-01	C-D-01	D-01	D-01
		Lab ID	T4342-24	T4342-25	T4342-26	T4342-27
		Date	08/17/05	08/17/05	08/17/05	
RCRA	Toxicity Regulatory Level					
Ignitability/Flashpoint (Deg. F)	<140	NO	NO	NO	NO	
Cyanide Reactivity (mg/kg)	250	10 U J	10 U J	10 U J	10 U J	
Sulfide Reactivity (mg/kg)	500	40 U J	40 U J	40 U J	40 U J	
Corrosivity as pH	2-12.5	8.6 J	8.6 J	8.6 J	8.6 J	

mg/kg - Milligrams per kilogram

J - Value is an estimate.

U - The compound was not detected at the indicated concentration.

Sample Designation: For example, for sample ID: KD-PH1-41-001(001A)-C-D-01, "KD" is the sampler's initials, "PH1" indicates Phase 1 of the sampling, "41" indicates the floor the sample was collected, "001(001A)" indicates sample number, "C" indicates composite, "D" indicates dust, and "01" indicates that it is a regular sample; "02" would indicate it is a duplicate.

Table 7  
Waste Characterization Sampling - Paint Chips  
Total Cadmium and Total Chromium (SW 846 Method 6010B)

LMDC  
130 Liberty Street  
November 2005

Sample ID	DH-PH1-41-001-G-P-01	DH-PH1-41-002-G-P-01	DH-PH1-41-003-G-P-01	DH-PH1-41-004-G-P-01	DH-PH1-41-005-G-P-01	DH-PH1-41-006-G-P-01	DH-PH1-41-007-G-P-01	DH-PH1-41-008-G-P-01
Lab ID	010503576-0001	010503576-0002	010503576-0003	010503576-0004	010503576-0005	010503576-0006	010503576-0007	010503576-0008
Date	09/14/05	09/14/05	09/14/05	09/14/05	09/14/05	09/14/05	09/14/05	09/14/05
Total Cadmium (mg/kg)	5.1 J	17 J	9.8 U	8.5 J	9.9 U	9.3 U	2.8 J	5.5 J
Total Chromium (mg/kg)	230 J	80 J	68 J	17 J	500 J	70 J	25 J	13 J

Sample ID	DH-PH1-41-009-G-P-01	DH-PH1-41-010-G-P-01	DH-PH1-41-010A-G-P-02	DH-PH1-41-011-G-P-01	DH-PH1-41-012-G-P-01	DH-PH1-41-013-G-P-01	DH-PH1-41-014-G-P-01	DH-PH1-41-015-G-P-01
Lab ID	010503576-0009	010503576-0010	010503576-0011	010503576-0012	010503576-0013	010503576-0014	010503576-0015	010503576-0016
Date	09/14/05	09/14/05	09/14/05	09/14/05	09/14/05	09/14/05	09/14/05	09/14/05
RCRA								
Total Cadmium (mg/kg)	3.2 J	0.97 U	0.88 U	1 U	0.96 U	23 J	9.7 U	9.5 U
Total Chromium (mg/kg)	12 J	30 J	15 J	120 J	6.4 J	120 J	21000 J	110 J

Sample ID	DH-PH1-40-016-G-P-01	DH-PH1-40-017-G-P-01	DH-PH1-40-018-G-P-01	DH-PH1-40-019-G-P-01	DH-PH1-40-020-G-P-01	DH-PH1-40-021-G-P-01
Lab ID	010503576-0017	010503576-0018	010503576-0019	010503576-0020	010503576-0021	010503576-0022
Date	09/14/05	09/14/05	09/14/05	09/14/05	09/14/05	09/14/05
Total Cadmium (mg/kg)	9.3 U	0.99 U	0.98 U	0.99 U	5.1 J	2.3 J
Total Chromium (mg/kg)	54 J	9400 J	16 J	5.1 J	30 J	18 J

mg/kg - Milligrams per kilogram

U - The compound was not detected at the indicated concentration.

Sample Designation: For example, for sample ID: DH-PH1-40-001-G-P-01, "DH" is the sampler's initials, "PH1" indicates Phase 1 of the sampling, "40" indicates the floor the sample was collected, "001" indicates sample number, "G" indicates grab sample, "P" indicates paint chip, and "01" indicates that it is a regular sample; "02" would indicate it is a duplicate. See table in section 2.2 of the Waste Characterization Sampling Summary Report for more sample details.

Table 8  
Waste Characterization Sampling - Caulking  
Polychlorinated Biphenyls (SW 846 Method 8082)

LMDC  
130 Liberty Street  
November 2005

Sample ID	KD-PH1-ROOF-001- G-CK-01	KD-PH1-ROOF-002- G-CK-01	KD-PH1-ROOF-003- G-CK-01	KD-PH1-ROOF-004- G-CK-01	KD-PH1-40-41-005- G-CK-01	KD-PH1-29-006- G-CK-01	
Lab ID	T4154-01	T4154-02	T4154-03	T4154-04	T4154-05	T4154-06	
Date	08/09/05	08/09/05	08/09/05	08/09/05	08/09/05	08/09/05	
Regulatory Level							
Polychlorinated Biphenyls (PCB) (ug/kg)							
Aroclor-1016	17 U	17 UJ	17 U	17 U	17 U	17 U	
Aroclor-1221	17 U	17 UJ	17 U	17 U	17 U	17 U	
Aroclor-1232	17 U	17 UJ	17 U	17 U	17 U	17 U	
Aroclor-1242	17 U	17 UJ	17 U	17 U	17 U	17 U	
Aroclor-1248	17 U	17 UJ	17 U	17 U	17 U	17 U	
Aroclor-1254	17 U	17 UJ	17 U	17 U	17 U	17 U	
Aroclor-1260	17 U	17 UJ	17 U	140	17 U	320	
Total	50000	119 U	119 UJ	119 U	140	119 U	320

Sample ID	KD-PH1-23-007- G-CK-01	KD-PH1-23-008- CK-01	G-KD-PH1-1-009- CK-01	G-KD-PH1-1-010- CK-01	G-KD-PH1-1-011- G-CK-01	KD-PH1-1-012- G-CK-02	
Lab ID	T4154-07	T4154-08	T4154-09	T4154-10	T4154-11	T4154-12	
Date	08/09/05	08/09/05	08/09/05	08/09/05	08/09/05	08/09/05	
Regulatory Level							
Polychlorinated Biphenyls (PCB) (ug/kg)							
Aroclor-1016	74 U	25 U	17 U	17 U	17 U	17 U	
Aroclor-1221	74 U	25 U	17 U	17 U	17 U	17 U	
Aroclor-1232	74 U	25 U	17 U	17 U	17 U	17 U	
Aroclor-1242	74 U	25 U	17 U	17 U	17 U	17 U	
Aroclor-1248	74 U	25 U	17 U	17 U	17 U	17 U	
Aroclor-1254	74 U	25 U	17 U	17 U	17 U	17 U	
Aroclor-1260	74 U	25 U	180 J	180	17 U	17 U	
Total	50000	518 U	175 U	180 J	180	119 U	119 U

Sample ID	KD-PH1-A-013- CK-01	G-KD-PH1-A-014- CK-02	G-KD-PH1-A-015- G-CK-01
Lab ID	T4154-13	T4154-14	T5393-01
Date	08/09/05	08/09/05	10/20/2005
Regulatory Level			
Polychlorinated Biphenyls (PCB) (ug/kg)			
Aroclor-1016	85 U	85 U	17 U
Aroclor-1221	85 U	85 U	17 U
Aroclor-1232	85 U	85 U	17 U
Aroclor-1242	85 U	85 U	17 U
Aroclor-1248	85 U	85 U	17 U
Aroclor-1254	220000 J	220000 J	17 U
Aroclor-1260	85 U	85 U	17 U
Total	50000	220000 J	180 U

ug/kg - Microgram per kilogram

U - The compound was not detected at the indicated concentration.

J - Value is an estimate.

Sample Designation: For example, for sample ID: KD-PH1-A-013-G-CK-01, "KD" is the sampler's initials, "PH1" indicates Phase 1 of the sampling, "A" indicates the floor the sample was collected, "013" indicates sample number, "G" indicates grab sample, "CK" indicates caulking, and "01" indicates that it is a regular sample; "02" would indicate it is a duplicate.

See table in section 2.3 of the Waste Characterization Sampling Summary Report for more sample details.



**ATTACHMENT 2**  
**DATA VALIDATION REPORTS**

## DATA VALIDATION SUMMARY – SETTLED DUST

**Site:** Lower Manhattan Development Corporation: 130 Liberty Street  
**Laboratory:** Chemtech Laboratory, Mountainside, NJ  
**Lab Report No.:** T4340  
**Reviewer:** Elizabeth Denly/TRC Environmental Corporation  
**Date:** September 20, 2005

### Samples Reviewed and Evaluation Summary

Full TCLP and RCRA characteristics:

20/Dust Samples/

KD-PH1-A-042-C-D-01	KD-PH1-8-053-C-D-01
KD-PH1-1-043-C-D-01	KD-PH1-9-054-C-D-01
KD-PH1-1-044-C-D-02	KD-PH1-10-055-C-D-01
KD-PH1-MEZ-045-C-D-01	KD-PH1-11-056-C-D-01
KD-PH1-2-046-C-D-01	KD-PH1-12-057-C-D-01
KD-PH1-3-047-C-D-01	KD-PH1-14-058-C-D-01
KD-PH1-4-048-C-D-01	KD-PH1-15-059-C-D-01
KD-PH1-4-049-C-D-02	KD-PH1-16-060-C-D-01
KD-PH1-5-6-050-C-D-01	KD-PH1-17-061-C-D-01
KD-PH1-7-051-C-D-01	KD-PH1-7-052-C-D-02

The above-listed samples were collected on August 15 through 18, 2005 and were analyzed for toxicity characteristic leaching procedure (TCLP) volatile organic compounds (VOCs) by SW-846 methods 1311/8260B, TCLP semivolatile organic compounds (SVOCs) by SW-846 methods 1311/8270C, TCLP pesticides by SW-846 methods 1311/8081A, TCLP herbicides by SW-846 methods 1311/8151A, TCLP metals by SW-846 methods 1311/6010B/7470A, ignitability by SW-846 method 1010, corrosivity by SW-846 method 9045C, reactive cyanide by SW-846 Chapter 7, Section 7.3.3, and reactive sulfide by SW-846 Chapter 7, Section 7.3.4. A limited validation was performed on these data in accordance with the following guidelines:

- *Evaluation of Metals Data for the CLP Program*, January 1992, SOP HW-2, Revision 11
- *TCLP Data Validation*, March 1993, SOP HW-7, Revision 3
- *Validating Chlorinated Herbicides by Gas Chromatography*, November 1994, SOP HW-17, Revision 1.3
- *Validating Semivolatile Organic Compounds by SW-846 Method 8270*, June 2001, SOP HW-22, Revision 2
- *Validating Pesticide/PCB Compounds by SW-846 Method 8080A*, May 1995, SOP HW-23, Revision 0
- *Validating PCB Compounds by SW-846 Method 8082*, May 2002, SOP HW-23B, Revision 1.0
- *Validating Volatile Organic Compounds by SW-846 Method 8260B*, June 1999, SOP HW-24, Revision 1

Where Region 2 guidelines do not exist, the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (EPA-540/R-99-008), October 1999 and the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (EPA 540-R-04-004), October 2004 were used. All guidelines were modified as necessary to include method-specific criteria, as detailed throughout the approved Quality Assurance Project Plan, dated September 7, 2005.

In general, the data are valid based upon the parameters listed below and may be used for decision-making

purposes. Potential high bias exists for the cadmium, chromium, and lead results in all samples due to high recoveries in the matrix spike analysis. This qualification has no adverse impact on the data usability since the affected results were below the project action level. The results of the validation are summarized below.

**Holding Times:** All criteria were met for TCLP VOCs, TCLP SVOCs, TCLP pesticides, TCLP herbicides, TCLP metals, and ignitability analyses.

The SW-846 methods for corrosivity, reactive cyanide, and reactive sulfide specify that samples should be analyzed as soon as possible. Therefore, for these analyses a holding time of three days after collection was used for this evaluation. The corrosivity, reactive cyanide, and reactive sulfide analyses of all samples were performed two to seven days outside of the holding time. The positive and nondetect results for these parameters in all samples were qualified as estimated (J/UJ).

**Condition of Samples Upon Receipt at the Laboratory:** All criteria were met.

**Laboratory Method Blanks:** Target compounds were not detected in the TCLP VOC, TCLP SVOC, TCLP pesticide, TCLP herbicide, reactive cyanide, and reactive sulfide analyses of method blanks and/or TCLP extraction blanks. Select metals were detected in the calibration blanks or TCLP extraction blanks. The presence of blank contamination indicates that false positives may exist for these metals in the associated samples. Action Levels (ALs) were established for these metals at 5x the maximum concentration detected (it should be noted that calibration blanks were also increased by a factor of 10 to allow comparison to the samples which were analyzed at 10-fold dilutions.) The following table summarizes the ALs.

Metal	Source of Contamination	Concentration Detected (µg/L)	Action Level (µg/L)
Mercury	Calibration blank	0.071	3.55
Chromium	TCLP extraction blank	18.9	94.5
Selenium	Calibration blank	6.9	345
Lead	Calibration blank	5.9	295
Barium	Calibration blank	6.7	335
Cadmium	Calibration blank	3.3	165
Silver	TCLP extraction blank	76.6	383
Arsenic	Calibration blank	9.7	485

Sample results were qualified as follows:

- Sample results > the quantitation limit (QL) but ≤ AL were qualified as nondetect (U) at the reported concentration.
- Sample results ≤ QL and ≤ AL were qualified as nondetect (U) at the QL.
- Sample results > AL were not qualified.

**Surrogate Recoveries:** All criteria were met in the TCLP VOC and SVOC analyses. Surrogate recoveries in the TCLP pesticide and herbicide analyses were outside of the acceptance criteria in select samples as summarized in the tables below. Qualification of the TCLP pesticide and herbicide data was not required as only positive results were affected by the high recoveries and no positive results were reported for TCLP pesticides and herbicides in the affected samples.

TCLP Pesticides				
Sample ID	TCMX %R (column 1)	TCMX %R (column 2)	DCB %R (column 1)	DCB %R (column 2)
KD-PH1-A-042-C-D-01	-	-	-	136
KD-PH1-1-044-C-D-02	-	-	-	139
KD-PH1-3-047-C-D-01	211	-	-	140
KD-PH1-4-048-C-D-01	-	140	-	-
KD-PH1-4-049-C-D-02	-	229	163	-
KD-PH1-7-051-C-D-01	462	-	-	-
KD-PH1-7-052-C-D-02	136	-	-	-
KD-PH1-11-056-C-D-01	233	-	-	-
KD-PH1-15-059-C-D-01	173	-	-	-
KD-PH1-16-060-C-D-01	632	-	-	-
KD-PH1-17-061-C-D-01	627	-	148	-

TCMX – tetrachloro-m-xylene

DCB - decachlorobiphenyl

-within acceptance criteria

TCLP Herbicides		
Sample ID	DCAA %R (column 1)	DCAA %R (column 2)
KD-PH1-A-042-C-D-01	254	-
KD-PH1-1-043-C-D-01	447	-
KD-PH1-1-044-C-D-02	212	-
KD-PH1-MEZ-045-C-D-01	357	427
KD-PH1-2-046-C-D-01	276	-
KD-PH1-3-047-C-D-01	238	382
KD-PH1-4-048-C-D-01	498	206
KD-PH1-4-049-C-D-02	280	-
KD-PH1-5-6-050-C-D-01	655	-
KD-PH1-7-051-C-D-01	322	-
KD-PH1-7-052-C-D-02	418	-
KD-PH1-8-053-C-D-01	532	171
KD-PH1-9-054-C-D-01	177	-
KD-PH1-10-055-C-D-01	226	-
KD-PH1-11-056-C-D-01	347	-
KD-PH1-15-059-C-D-01	183	-

DCAA – dichlorophenyl acetic acid

-within acceptance criteria

**Matrix Spike/Matrix Spike Duplicates (MS/MSDs):** The laboratory performed MS/MSD analyses for TCLP VOCs, TCLP SVOCs, TCLP pesticides, TCLP herbicides, and TCLP metals on sample KD-PH1-MEZ-045-C-D-01. All criteria were met in the TCLP VOC and TCLP SVOC analyses. The following table summarizes the recoveries and relative percent differences (RPDs) which were outside of the acceptance criteria for the other parameters.

Compound	MS %Recovery	MSD %Recovery	RPD (%)
Heptachlor epoxide	-	-	67
2,4-D	940	220	-
2,4,5-TP	280	340	-
Silver	129.6	131.4	-

Compound	MS %Recovery	MSD %Recovery	RPD (%)
Arsenic	-	126.1	-
Barium	-	128.7	-
Cadmium	-	135.7	-
Chromium	-	132.9	-
Lead	-	135.4	-

-within acceptance criteria

Qualification of the TCLP pesticide, TCLP herbicide, silver, arsenic, and barium data due to the exceedances was not required as these analytes were not detected in the associated samples. The positive results for cadmium, chromium, and lead in all samples were qualified as estimated (J) due to the high recoveries.

**Laboratory Duplicates:** Duplicate analyses were performed on sample KD-PH1-MEZ-045-C-D-01 for TCLP metals, sample KD-PH1-17-061-C-D-01 for ignitability, corrosivity, reactive cyanide, and reactive sulfide, and sample KD-PH1-A-042-C-D-01 for corrosivity. The RPDs of the detected compounds were within the acceptance limits in all duplicate analyses.

**Laboratory Control Samples:** All criteria were met for all analyses.

**Field Duplicates:** Samples KD-PH1-1-043-C-D-01/KD-PH1-1-044-C-D-02, KD-PH1-4-048-C-D-01/KD-PH1-4-049-C-D-02, and KD-PH1-7-051-C-D-01/KD-PH1-7-052-C-D-02 were submitted as the field duplicate pairs with this sample set. The following tables summarize the RPDs of the detected analytes, all of which were within the acceptance criteria.

Analyte	KD-PH1-1-043-C-D-01 (ug/L)	KD-PH1-1-044-C-D-02 (ug/L)	RPD (%)
chromium	107	124	14.7
corrosivity	7.4	7.4	0

Analyte	KD-PH1-4-048-C-D-01 (ug/L)	KD-PH1-4-049-C-D-02 (ug/L)	RPD (%)
chromium	125	110	12.8
corrosivity	8.3	8.7	4.7

Analyte	KD-PH1-7-051-C-D-01 (ug/L)	KD-PH1-7-052-C-D-02 (ug/L)	RPD (%)
cadmium	50 U	337	NC
corrosivity	6.9	7.0	1.4

NC – Not calculable

**Serial Dilutions:** Serial dilution analyses were performed on sample KD-PH1-MEZ-045-C-D-01 for TCLP metals. All criteria were met.

**Quantitation Limits:** The quantitation limits of all nondetect results were below the project action levels for all analyses. For organic analyses, it should be noted that the laboratory reported the nondetect results at the method detection limit (MDL) and quantitation limits in all samples. Only the quantitation limits should be used for decision-making purposes. For metals analyses, the laboratory reported the nondetect results at the MDL only; these were manually changed during validation to reflect the quantitation limits.

## DATA VALIDATION SUMMARY – SETTLED DUST

**Site:** Lower Manhattan Development Corporation: 130 Liberty Street  
**Laboratory:** Chemtech Laboratory, Mountainside, NJ  
**Lab Report No.:** T4088  
**Reviewer:** Elizabeth Denly/TRC Environmental Corporation  
**Date:** September 20, 2005

### Samples Reviewed and Evaluation Summary

Full TCLP and RCRA characteristics:

19/Dust Samples/

KD-PH1-41-001(001A)-C-D-01	KD-PH1-11-011(011A)-C-D-01
KD-PH1-41-002(002A)-C-D-01	KD-PH1-12-012(012A)-C-D-01
KD-PH1-39-003(003A)-C-D-01	KD-PH1-12-013(013A)-C-D-01
DH-PH1-3-(004)(004A)-C-D-01	KD-PH1-14-014(014A)-C-D-01
DH-PH1-3-005(005A)-C-D-01	KD-PH1-16-015(015A)-C-D-01
DH-PH1-4-006(006A)-C-D-01	KD-PH1-17-016(016A)-C-D-01
DH-PH1-7-007(007A)-C-D-01	KD-PH1-18-017(017A)-C-D-01
DH-PH1-8-008(008A)-C-D-01	KD-PH1-21-018(018A)-C-D-01
KD-PH1-9-009(009A)-C-D-01	KD-PH1-22-019(019A)-C-D-01
KD-PH1-10-010(010A)-C-D-01	

The above-listed samples were collected on August 1 through 5, 2005 and were analyzed for toxicity characteristic leaching procedure (TCLP) volatile organic compounds (VOCs) by SW-846 methods 1311/8260B, TCLP semivolatile organic compounds (SVOCs) by SW-846 methods 1311/8270C, TCLP pesticides by SW-846 methods 1311/8081A, TCLP herbicides by SW-846 methods 1311/8151A, TCLP metals by SW-846 methods 1311/6010B/7470A, ignitability by SW-846 method 1010, corrosivity by SW-846 method 9045C, reactive cyanide by SW-846 Chapter 7, Section 7.3.3, and reactive sulfide by SW-846 Chapter 7, Section 7.3.4. A limited validation was performed on these data in accordance with the following guidelines:

- *Evaluation of Metals Data for the CLP Program*, January 1992, SOP HW-2, Revision 11
- *TCLP Data Validation*, March 1993, SOP HW-7, Revision 3
- *Validating Chlorinated Herbicides by Gas Chromatography*, November 1994, SOP HW-17, Revision 1.3
- *Validating Semivolatile Organic Compounds by SW-846 Method 8270*, June 2001, SOP HW-22, Revision 2
- *Validating Pesticide/PCB Compounds by SW-846 Method 8080A*, May 1995, SOP HW-23, Revision 0
- *Validating PCB Compounds by SW-846 Method 8082*, May 2002, SOP HW-23B, Revision 1.0
- *Validating Volatile Organic Compounds by SW-846 Method 8260B*, June 1999, SOP HW-24, Revision 1

Where Region 2 guidelines do not exist, the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (EPA-540/R-99-008), October 1999 and the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (EPA 540-R-04-004), October 2004 were used. All guidelines were modified as necessary to include method-specific criteria, as detailed throughout the approved Quality Assurance Project Plan, dated September 7, 2005.

In general, the data are valid based upon the parameters listed below and may be used for decision-making

purposes. Potential low bias exists for the silver results in all samples due to low recovery in the matrix spike analysis. Potential uncertainty exists for the cadmium and lead results in select samples due to field duplicate and serial dilution nonconformances. These qualifications have a minor impact on the data usability since the affected results were significantly below the project action levels. The results of the validation are summarized below.

**Holding Times:** All criteria were met for TCLP VOCs, TCLP SVOCs, TCLP pesticides, TCLP herbicides, TCLP metals, and ignitability analyses.

The SW-846 methods for corrosivity, reactive cyanide, and reactive sulfide specify that samples should be analyzed as soon as possible. Therefore, for these analyses a holding time of three days after collection was used for this evaluation. With the exception of corrosivity for samples KD-PH1-21-018(018A)-C-D-01 and KD-PH1-22-019(019A)-C-D-01, the corrosivity, reactive cyanide, and reactive sulfide analyses of all samples were performed one to seven days outside of the holding time. The positive and nondetect results for these parameters in all samples were qualified as estimated (J/UJ).

**Condition of Samples Upon Receipt at the Laboratory:** All criteria were met.

**Laboratory Method Blanks:** Target compounds were not detected in the TCLP VOC, TCLP SVOC, TCLP pesticide, TCLP herbicide, reactive cyanide, and reactive sulfide analyses of method blanks and/or TCLP extraction blanks. Select metals were detected in the calibration blanks or TCLP extraction blanks. The presence of blank contamination indicates that false positives may exist for these metals in the associated samples. Action Levels (ALs) were established for these metals at 5x the maximum concentration detected (it should be noted that calibration blanks were also increased by a factor of 10 to allow comparison to the samples which were analyzed at 10-fold dilutions.) The following table summarizes the ALs.

Metal	Source of Contamination	Concentration Detected (µg/L)	Action Level (µg/L)
Mercury	Calibration blank	0.117	5.85
Chromium	Calibration blank	2.6	130
Selenium	Calibration blank	9.4	470
Arsenic	Calibration blank	9.0	450
Cadmium	Calibration blank	2.1	105
Silver	Calibration blank	8.3	415
Lead	Calibration blank	3.9	195

Sample results were qualified as follows:

- Sample results > the quantitation limit (QL) but ≤ AL were qualified as nondetect (U) at the reported concentration.
- Sample results ≤ QL and ≤ AL were qualified as nondetect (U) at the QL.
- Sample results > AL were not qualified.

**Surrogate Recoveries:** All criteria were met in the TCLP VOC and TCLP SVOC analyses. Surrogate recoveries in the TCLP pesticide and herbicide analyses were outside of the acceptance criteria in select samples as summarized in the tables below. Qualification of the data was not required as only positive results were affected by the high recoveries and no positive results were reported for TCLP pesticides and herbicides in the affected samples.

TCLP Pesticides		
Sample ID	TCMX %R (column 1)	TCMX %R (column 2)
KD-PH1-39-003(003A)-C-D-01	218	-
KD-PH1-10-010(010A)-C-D-01	208	223
KD-PH1-14-014(014A)-C-D-01	186	-
KD-PH1-16-015(015A)-C-D-01	754	173
KD-PH1-17-016(016A)-C-D-01	251	-
KD-PH1-18-017(017A)-C-D-01	511	-

TCMX – tetrachloro-m-xylene  
 -within acceptance criteria

TCLP Herbicides		
Sample ID	DCAA %R (column 1)	DCAA %R (column 2)
KD-PH1-41-001(001A)-C-D-01	-	180
KD-PH1-41-002(002A)-C-D-01	-	184
DH-PH1-3-(004)(004A)-C-D-01	-	278
DH-PH1-3-005(005A)-C-D-01	-	279
DH-PH1-4-006(006A)-C-D-01	-	226
DH-PH1-7-007(007A)-C-D-01	-	241
DH-PH1-8-008(008A)-C-D-01	188	-
KD-PH1-9-009(009A)-C-D-01	144	141
KD-PH1-10-010(010A)-C-D-01	-	171
KD-PH1-12-012(012A)-C-D-01	314	-
KD-PH1-12-013(013A)-C-D-01	458	-
KD-PH1-14-014(014A)-C-D-01	455	-
KD-PH1-16-015(015A)-C-D-01	260	-
KD-PH1-17-016(016A)-C-D-01	287	-
KD-PH1-18-017(017A)-C-D-01	382	-
KD-PH1-22-019(019A)-C-D-01	377	-

DCAA – dichlorophenyl acetic acid  
 -within acceptance criteria

**Matrix Spike/Matrix Spike Duplicates (MS/MSDs):** The laboratory performed MS/MSD analyses for TCLP SVOCs, TCLP pesticides, and TCLP herbicides and an MS analysis for TCLP metals (except mercury) on sample KD-PH1-41-002(002A)-C-D-01. The laboratory also performed an MS analysis for TCLP mercury on sample KD-PH1-9-009(009A)-C-D-01. All criteria were met in the TCLP pesticide MS/MSD analyses. The following table summarizes the recoveries which were outside of the acceptance criteria for the other parameters.

Compound	MS %Recovery	MSD %Recovery
Pentachlorophenol	150	150
2,4,5-TP	178	200
2,4-D	-	144
Silver	71.9	72.9
Mercury	129.8	-

-within acceptance criteria

Qualification of the data due to the high recoveries was not required as these analytes were not detected in the associated samples. The nondetect results for silver were qualified as estimated (UJ) in all samples due to the



low recoveries.

It should be noted that MS/MSD analyses were not performed on a sample from 130 Liberty Street for TCLP VOCs.

**Laboratory Duplicates:** Duplicate analyses were performed on samples KD-PH1-41-002(002A)-C-D-01 and KD-PH1-9-009(009A)-C-D-01 for TCLP metals, sample KD-PH1-41-001(001A)-C-D-01 for corrosivity, reactive cyanide, and reactive sulfide, and sample KD-PH1-22-019(019A)-C-D-01 for ignitability. The relative percent differences (RPDs) of the detected compounds were within the acceptance limits in all duplicate analyses.

**Laboratory Control Samples:** All criteria were met for all analyses.

**Field Duplicates:** Samples KD-PH1-41-001(001A)-C-D-01/KD-PH1-41-002(002A)-C-D-01, DH-PH1-3-(004)(004A)-C-D-01/DH-PH1-3-005(005A)-C-D-01, and KD-PH1-12-012(012A)-C-D-01/KD-PH1-12-013(013A)-C-D-01 were submitted as the field duplicate pairs with this sample set. The following tables summarize the RPDs of the detected analytes.

Analyte	KD-PH1-41-001(001A)-C-D-01 (ug/L)	KD-PH1-41-002(002A)-C-D-01 (ug/L)	RPD (%)
cadmium	447	822	59.1
barium	204	251	20.6
lead	102 U	196	NC
corrosivity	7.1	7.4	4.1

NC – Not Calculable

Due to the high RPD, positive results for cadmium were qualified as estimated (J) in all samples except DH-PH1-3-(004)(004A)-C-D-01, DH-PH1-3-005(005A)-C-D-01, KD-PH1-12-012(012A)-C-D-01, and KD-PH1-12-013(013A)-C-D-01 as the RPD for cadmium was within the acceptance criteria in these field duplicate pairs.

Analyte	DH-PH1-3-(004)(004A)-C-D-01 (ug/L)	DH-PH1-3-005(005A)-C-D-01 (ug/L)	RPD (%)
barium	222	151	38.1
chromium	161	100 U	NC
lead	2860	50 U	NC
selenium	486	100 U	NC
corrosivity	8.9	8.8	1.1

Due to one result greater than 5x the quantitation limit and the other result nondetect, the positive and nondetect results for lead were qualified as estimated (J/UJ) in all samples except KD-PH1-41-001(001A)-C-D-01, KD-PH1-41-002(002A)-C-D-01, KD-PH1-12-012(012A)-C-D-01, and KD-PH1-12-013(013A)-C-D-01 as the RPD for lead was within the acceptance criteria in these field duplicate pairs.

Analyte	KD-PH1-12-012(012A)-C-D-01 (ug/L)	KD-PH1-12-013(013A)-C-D-01 (ug/L)	RPD (%)
2-methylphenol	10 U	76	NC
barium	153	168	9.3
cadmium	112	135	18.6

Analyte	KD-PH1-12-012(012A)-C-D-01 (ug/L)	KD-PH1-12-013(013A)-C-D-01 (ug/L)	RPD (%)
corrosivity	8.1	8.2	1.2

Due to one result greater than 5x the quantitation limit and the other result nondetect, the positive and nondetect results for 2-methylphenol were qualified as estimated (J/UJ) in samples KD-PH1-12-012(012A)-C-D-01 and KD-PH1-12-013(013A)-C-D-01.

**Serial Dilutions:** Serial dilution analyses were performed for TCLP metals analyses on samples KD-PH1-41-002(002A)-C-D-01 (all metals except mercury) and KD-PH1-9-009(009A)-C-D-01 (mercury only). The percent differences of cadmium (12.3) and lead (59.3) exceeded the acceptance criteria. Positive results for cadmium and lead which exceeded 10x the method detection limit (MDL) in all samples were qualified as estimated (J).

**Quantitation Limits:** The quantitation limits of all nondetect results were below the project action levels for all analyses. For organic analyses, it should be noted that the laboratory reported the nondetect results at the MDL and quantitation limits in all samples. Only the quantitation limits should be used for decision-making purposes. For metals analyses, the laboratory reported the nondetect results at the MDL only; these were manually changed during validation to reflect the quantitation limits.

## DATA VALIDATION SUMMARY – SETTLED DUST

**Site:** Lower Manhattan Development Corporation: 130 Liberty Street  
**Laboratory:** Chemtech Laboratory, Mountainside, NJ  
**Lab Report No.:** T4145  
**Reviewer:** Elizabeth Denly/TRC Environmental Corporation  
**Date:** September 20, 2005

### Samples Reviewed and Evaluation Summary

Full TCLP and RCRA characteristics:

22/Dust Samples/

KD-PH1-29-030(030A)-C-D-01	KD-PH1-19(021,021A)-C-D-01
DH-PH1-30-031(031A)-C-D-01	KD-PH1-20(022,022A)-C-D-01
DH-PH1-31-032(032A)-C-D-01	KD-PH1-23(023,023A)-C-D-01
DH-PH1-32-033(033A)-C-D-01	KD-PH1-24(024,024A)-C-D-01
DH-PH1-33-034(034A)-C-D-01	KD-PH1-25(025,025A)-C-D-01
DK-PH1-34-035(035A)-C-D-01	KD-PH1-26(026,026A)-C-D-01
DK-PH1-35-036(036A)-C-D-01	KD-PH1-26(027,027A)-C-D-01
DK-PH1-36-037(037A)-C-D-01	KD-PH1-27(028,028A)-C-D-01
DK-PH1-37-038(038A)-C-D-01	KD-PH1-28(029,029A)-C-D-01
DK-PH1-38-039(039A)-C-D-01	DK-PH1-40ROOF-040(040A)-C-D-01
KD-PH1-15(020,020A)-C-D-01	DK-PH1-R-EXT-041(041A)-C-D-01

The above-listed samples were collected on August 5 through 7, 2005 and were analyzed for toxicity characteristic leaching procedure (TCLP) volatile organic compounds (VOCs) by SW-846 methods 1311/8260B, TCLP semivolatile organic compounds (SVOCs) by SW-846 methods 1311/8270C, TCLP pesticides by SW-846 methods 1311/8081A, TCLP herbicides by SW-846 methods 1311/8151A, TCLP metals by SW-846 methods 1311/6010B/7470A, ignitability by SW-846 method 1010, corrosivity by SW-846 method 9045C, reactive cyanide by SW-846 Chapter 7, Section 7.3.3, and reactive sulfide by SW-846 Chapter 7, Section 7.3.4. A limited validation was performed on these data in accordance with the following guidelines:

- *Evaluation of Metals Data for the CLP Program*, January 1992, SOP HW-2, Revision 11
- *TCLP Data Validation*, March 1993, SOP HW-7, Revision 3
- *Validating Chlorinated Herbicides by Gas Chromatography*, November 1994, SOP HW-17, Revision 1.3
- *Validating Semivolatile Organic Compounds by SW-846 Method 8270*, June 2001, SOP HW-22, Revision 2
- *Validating Pesticide/PCB Compounds by SW-846 Method 8080A*, May 1995, SOP HW-23, Revision 0
- *Validating PCB Compounds by SW-846 Method 8082*, May 2002, SOP HW-23B, Revision 1.0
- *Validating Volatile Organic Compounds by SW-846 Method 8260B*, June 1999, SOP HW-24, Revision 1

Where Region 2 guidelines do not exist, the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (EPA-540/R-99-008), October 1999 and the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (EPA 540-R-04-004), October 2004 were used. All guidelines were modified as necessary to include method-specific criteria, as detailed throughout the approved Quality Assurance Project Plan, dated September 7, 2005.

In general, the data are valid based upon the parameters listed below and may be used for decision-making purposes. Potential low bias exists for the pyridine results in select samples due to low recovery in the laboratory control sample analysis. Potential uncertainty exists for the barium and lead results in select samples due to serial dilution nonconformances. These qualifications have a minor impact on the data usability since the affected results were significantly below the project action levels. The results of the validation are summarized below.

**Holding Times:** All criteria were met for TCLP VOCs, TCLP SVOCs, TCLP pesticides, TCLP herbicides, TCLP metals, and ignitability analyses.

The SW-846 methods for corrosivity, reactive cyanide, and reactive sulfide specify that samples should be analyzed as soon as possible. Therefore, for these analyses a holding time of three days after collection was used for this evaluation. The corrosivity, reactive cyanide, and reactive sulfide analyses of all samples were performed one to ten days outside of the holding time. The positive and nondetect results for these parameters in all samples were qualified as estimated (J/UJ).

**Condition of Samples Upon Receipt at the Laboratory:** All criteria were met.

**Laboratory Method Blanks:** Target compounds were not detected in the TCLP VOC, TCLP SVOC, TCLP pesticide, TCLP herbicide, reactive cyanide, and reactive sulfide analyses of method blanks and/or TCLP extraction blanks. Select metals were detected in the calibration blanks or TCLP extraction blanks. The presence of blank contamination indicates that false positives may exist for these metals in the associated samples. Action Levels (ALs) were established for these metals at 5x the maximum concentration detected (it should be noted that calibration blanks were also increased by a factor of 10 to allow comparison to the samples which were analyzed at 10-fold dilutions.) The following table summarizes the ALs.

Metal	Source of Contamination	Concentration Detected (µg/L)	Action Level (µg/L)
Arsenic	Calibration blank	4.6	230
Silver	TCLP extraction blank	81.7	408.5
Selenium	Calibration blank	7.2	360
Cadmium	Calibration blank	4.9	245
Lead	Calibration blank	3.1	155
Silver	Calibration blank	8.3	415
Lead	Calibration blank	3.9	195

Sample results were qualified as follows:

- Sample results > the quantitation limit (QL) but ≤ AL were qualified as nondetect (U) at the reported concentration.
- Sample results ≤ QL and ≤ AL were qualified as nondetect (U) at the QL.
- Sample results > AL were not qualified.

**Surrogate Recoveries:** All criteria were met in the TCLP VOC analyses. Surrogate recoveries in the TCLP SVOC, pesticide and herbicide analyses were outside of the acceptance criteria in select samples as summarized in the tables below. Qualification of the TCLP SVOC data was not required as only surrogate in one or more fractions was outside of the acceptance criteria. Qualification of the TCLP pesticide and herbicide data was not required as only positive results were affected by the high recoveries and no positive

results were reported for TCLP pesticides and herbicides in the affected samples.

TCLP SVOCs		
Sample ID	2,4,6-Tribromophenol %R	2-Fluorobiphenyl %R
KD-PH1-29-030(030A)-C-D-01	129	-
DK-PH1-34-035(035A)-C-D-01	136	-
DK-PH1-36-037(037A)-C-D-01	169	134
DK-PH1-37-038(038A)-C-D-01	125	-
KD-PH1-15(020,020A)-C-D-01	125	-
KD-PH1-20(022,022A)-C-D-01	128	-
KD-PH1-23(023,023A)-C-D-01	133	-
KD-PH1-26(026,026A)-C-D-01	140	-
KD-PH1-26(027,027A)-C-D-01	143	-
KD-PH1-27(028,028A)-C-D-01	151	126
KD-PH1-28(029,029A)-C-D-01	-	30
DK-PH1-40ROOF-040(040A)-C-D-01	138	-
DK-PH1-R-EXT-041(041A)-C-D-01	150	-

-within acceptance criteria

TCLP Pesticides		
Sample ID	TCMX %R (column 1)	TCMX %R (column 2)
DH-PH1-30-031(031A)-C-D-01	315	-
KD-PH1-15(020,020A)-C-D-01	405	-
KD-PH1-19(021,021A)-C-D-01	922	-
KD-PH1-23(023,023A)-C-D-01	411	165
KD-PH1-24(024,024A)-C-D-01	186	-
KD-PH1-25(025,025A)-C-D-01	380	-
KD-PH1-26(026,026A)-C-D-01	271	-
KD-PH1-26(027,027A)-C-D-01	246	-
KD-PH1-27(028,028A)-C-D-01	248	-
KD-PH1-28(029,029A)-C-D-01	460	-

TCMX – tetrachloro-m-xylene

-within acceptance criteria

TCLP Herbicides		
Sample ID	DCAA %R (column 1)	DCAA %R (column 2)
DH-PH1-30-031(031A)-C-D-01	311	-
DH-PH1-31-032(032A)-C-D-01	166	-
DH-PH1-32-033(033A)-C-D-01	292	-
DH-PH1-33-034(034A)-C-D-01	156	-
DK-PH1-34-035(035A)-C-D-01	288	-
DK-PH1-35-036(036A)-C-D-01	-	165
DK-PH1-36-037(037A)-C-D-01	-	174
DK-PH1-37-038(038A)-C-D-01	-	282
DK-PH1-38-039(039A)-C-D-01	391	267
KD-PH1-15(020,020A)-C-D-01	350	194
KD-PH1-19(021,021A)-C-D-01	705	190
KD-PH1-20(022,022A)-C-D-01	426	188
KD-PH1-23(023,023A)-C-D-01	780	-
KD-PH1-24(024,024A)-C-D-01	-	237

TCLP Herbicides		
Sample ID	DCAA %R (column 1)	DCAA %R (column 2)
KD-PH1-25(025,025A)-C-D-01	1041	-
KD-PH1-26(026,026A)-C-D-01	-	288
KD-PH1-26(027,027A)-C-D-01	231	284
KD-PH1-27(028,028A)-C-D-01	226	205
KD-PH1-28(029,029A)-C-D-01	234	-

DCAA – dichlorophenyl acetic acid  
 -within acceptance criteria

**Matrix Spike/Matrix Spike Duplicates (MS/MSDs):** The laboratory performed MS/MSD analyses for TCLP SVOCs and TCLP pesticides on sample DK-PH1-36-037(037A)-C-D-01. The laboratory performed MS/MSD analyses for TCLP herbicides on sample DH-PH1-32-033(033A)-C-D-01. The laboratory performed MS analyses for TCLP metals (except mercury) on samples KD-PH1-29-030(030A)-C-D-01 and DK-PH1-40ROOF-040(040A)-C-D-01. The laboratory performed an MS analysis for TCLP mercury on sample DH-PH1-30-031(031A)-C-D-01. All criteria were met in the TCLP metals (including mercury) MS analyses. The following table summarizes the recoveries and relative percent differences (RPDs) which were outside of the acceptance criteria for the other parameters.

Compound	MS %Recovery	MSD %Recovery	RPD (%)
2,4,5-Trichlorophenol	140	140	-
2,4,6-Trichlorophenol	-	-	111
2,4-Dinitrotoluene	140	140	-
Gamma-BHC	186	-	53
Methoxychlor	154	154	-
2,4-D	1700	1380	-
2,4,5-TP	142	240	51

-within acceptance criteria

Qualification of the data due to the high recoveries was not required as these analytes were not detected in the associated samples.

It should be noted that MS/MSD analyses were not performed on a sample from 130 Liberty Street for TCLP VOCs.

**Laboratory Duplicates:** Duplicate analyses were performed on samples KD-PH1-29-030(030A)-C-D-01 and DK-PH1-40ROOF-040(040A)-C-D-01 for TCLP metals (except mercury), sample DH-PH1-30-031(031A)-C-D-01 for TCLP mercury, samples KD-PH1-28(029,029A)-C-D-01 and KD-PH1-29-030(030A)-C-D-01 for corrosivity, reactive cyanide, and reactive sulfide, and sample KD-PH1-25(025, 025A)-C-D-01 for ignitability. The RPDs of the detected compounds were within the acceptance limits in all duplicate analyses.

**Laboratory Control Samples (LCSs):** All criteria were met for all analyses with the exception of TCLP SVOCs. The percent recovery of pyridine (23) fell below the acceptance criteria in the LCS associated with samples DK-PH1-40ROOF-040(040A)-C-D-01 and DK-PH1-R-EXT-041(041A)-C-D-01. The nondetect results for pyridine in these samples were qualified as estimated (UJ).

**Field Duplicates:** Samples KD-PH1-26(026,026A)-C-D-01 and KD-PH1-26(027,027A)-C-D-01 were submitted as the field duplicate pair with this sample set. The following table summarizes the RPDs of the

detected analytes, all of which were within the acceptance criteria.

Analyte	KD-PH1-26(026,026A)-C-D-01 (ug/L)	KD-PH1-26(027,027A)-C-D-01 (ug/L)	RPD (%)
barium	124	138	10.7
chromium	101	111	9.4
lead	262	285	8.4
corrosivity	5.9	6.0	1.7

**Serial Dilutions:** Serial dilution analyses were performed on samples KD-PH1-29-030(030A)-C-D-01 and DK-PH1-40ROOF-040(040A)-C-D-01 for TCLP metals (except mercury) and sample DH-PH1-30-031(031A)-C-D-01 for TCLP mercury. The percent differences of lead (26.5) in sample KD-PH1-29-030(030A)-C-D-01 and barium (41.3) in sample DK-PH1-40ROOF-040(040A)-C-D-01 exceeded the acceptance criteria. Positive results for barium and lead which exceeded 10x the method detection limit (MDL) in all samples were qualified as estimated (J).

**Quantitation Limits:** The quantitation limits of all nondetect results were below the project action levels for all analyses. For organic analyses, it should be noted that the laboratory reported the nondetect results at the MDL and quantitation limits in all samples. Only the quantitation limits should be used for decision-making purposes. For metals analyses, the laboratory reported the nondetect results at the MDL only; these were manually changed during validation to reflect the quantitation limits.

## DATA VALIDATION SUMMARY – SETTLED DUST

**Site:** Lower Manhattan Development Corporation: 130 Liberty Street  
**Laboratory:** Chemtech Laboratory, Mountainside, NJ  
**Lab Report No.:** T4342  
**Reviewer:** Elizabeth Denly/TRC Environmental Corporation  
**Date:** September 20, 2005

### Samples Reviewed and Evaluation Summary

Full TCLP and RCRA characteristics:

27/Dust Samples/

KD-PH1-17A-062-C-D-01	KD-PH1-32-077-C-D-01
KD-PH1-18-063-C-D-01	KD-PH1-33-078-C-D-01
KD-PH1-19-064-C-D-01	KD-PH1-34-079-C-D-01
KD-PH1-20-065-C-D-01	KD-PH1-35-080-C-D-01
KD-PH1-21-066-C-D-01	KD-PH1-36-081-C-D-01
KD-PH1-22-067-C-D-01	KD-PH1-37-082-C-D-01
KD-PH1-23-068-C-D-01	KD-PH1-38-083-C-D-01
KD-PH1-24-069-C-D-01	KD-PH1-39-084-C-D-01
KD-PH1-25-070-C-D-01	KD-PH1-40-085-C-D-01
KD-PH1-26-071-C-D-01	KD-PH1-40A-086-C-D-01
KD-PH1-27-072-C-D-01	KD-PH1-41-087-C-D-01
KD-PH1-28-073-C-D-01	KD-PH1-ROOF-EXTERIOR-088-C-D-01
KD-PH1-29-074-C-D-01	
KD-PH1-30-075-C-D-01	
KD-PH1-31-076-C-D-01	

The above-listed samples were collected on August 16 through 18, 2005 and were analyzed for toxicity characteristic leaching procedure (TCLP) volatile organic compounds (VOCs) by SW-846 methods 1311/8260B, TCLP semivolatile organic compounds (SVOCs) by SW-846 methods 1311/8270C, TCLP pesticides by SW-846 methods 1311/8081A, TCLP herbicides by SW-846 methods 1311/8151A, TCLP metals by SW-846 methods 1311/6010B/7470A, ignitability by SW-846 method 1010, corrosivity by SW-846 method 9045C, reactive cyanide by SW-846 Chapter 7, Section 7.3.3, and reactive sulfide by SW-846 Chapter 7, Section 7.3.4. A limited validation was performed on these data in accordance with the following guidelines:

- *Evaluation of Metals Data for the CLP Program*, January 1992, SOP HW-2, Revision 11
- *TCLP Data Validation*, March 1993, SOP HW-7, Revision 3
- *Validating Chlorinated Herbicides by Gas Chromatography*, November 1994, SOP HW-17, Revision 1.3
- *Validating Semivolatile Organic Compounds by SW-846 Method 8270*, June 2001, SOP HW-22, Revision 2
- *Validating Pesticide/PCB Compounds by SW-846 Method 8080A*, May 1995, SOP HW-23, Revision 0
- *Validating PCB Compounds by SW-846 Method 8082*, May 2002, SOP HW-23B, Revision 1.0
- *Validating Volatile Organic Compounds by SW-846 Method 8260B*, June 1999, SOP HW-24, Revision 1

Where Region 2 guidelines do not exist, the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (EPA-540/R-99-008), October 1999 and the *USEPA Contract*



Laboratory Program National Functional Guidelines for Inorganic Data Review (EPA 540-R-04-004), October 2004 were used. All guidelines were modified as necessary to include method-specific criteria, as detailed throughout the approved Quality Assurance Project Plan, dated September 7, 2005.

In general, the data are valid based upon the parameters listed below and may be used for decision-making purposes. Potential high bias exists for the barium, cadmium, chromium, lead, and selenium results in all samples due to high recoveries in the matrix spike analysis. This qualification has no adverse impact on the data usability for barium, chromium, lead, and selenium since the affected results were below the project action level. The cadmium project action level exceedances in samples KD-PH1-32-077-C-D-01 and KD-PH1-41-087-C-D-01 may be a result of matrix interference; since the matrix interference results in a conservative estimate of cadmium due to the potential high bias, there was no adverse impact to the data usability. The results of the validation are summarized below.

**Holding Times:** All criteria were met for TCLP VOCs, TCLP SVOCs, TCLP pesticides, TCLP herbicides, TCLP metals, and ignitability analyses.

The SW-846 methods for corrosivity, reactive cyanide, and reactive sulfide specify that samples should be analyzed as soon as possible. Therefore, for these analyses a holding time of three days after collection was used for this evaluation. The corrosivity, reactive cyanide, and reactive sulfide analyses of all samples were performed two to seven days outside of the holding time. The positive and nondetect results for these parameters in all samples were qualified as estimated (J/UJ).

**Condition of Samples Upon Receipt at the Laboratory:** All criteria were met.

**Laboratory Method Blanks:** Target compounds were not detected in the TCLP VOC, TCLP SVOC, TCLP pesticide, TCLP herbicide, reactive cyanide, and reactive sulfide analyses of method blanks and/or TCLP extraction blanks. Select metals were detected in the calibration blanks or TCLP extraction blanks. The presence of blank contamination indicates that false positives may exist for these metals in the associated samples. Action Levels (ALs) were established for these metals at 5x the maximum concentration detected (it should be noted that calibration blanks were also increased by a factor of 10 to allow comparison to the samples which were analyzed at 10-fold dilutions.) The following table summarizes the ALs.

Metal	Source of Contamination	Concentration Detected (µg/L)	Action Level (µg/L)
Silver	Calibration blank	6.0	300
Chromium	TCLP extraction blank	15.6	78
Mercury	TCLP extraction blank	0.850	4.25
Arsenic	Calibration blank	6.4	320
Cadmium	Calibration blank	2.8	140

Sample results were qualified as follows:

- Sample results > the quantitation limit (QL) but ≤ AL were qualified as nondetect (U) at the reported concentration.
- Sample results ≤ QL and ≤ AL were qualified as nondetect (U) at the QL.
- Sample results > AL were not qualified.

**Surrogate Recoveries:** All criteria were met in the TCLP VOC analyses. The recovery of 2-fluorobiphenyl

(42%) was outside of the acceptance criteria in the TCLP SVOC analysis of sample KD-PH1-38-083-C-D-01. Qualification of the TCLP SVOC data was not required as only surrogate in the base-neutral fraction was outside of the acceptance criteria. Surrogate recoveries in the TCLP pesticide and herbicide analyses were outside of the acceptance criteria in select samples as summarized in the tables below. Qualification of the TCLP pesticide and herbicide data was not required as only positive results were affected by the high recoveries and no positive results were reported for TCLP pesticides and herbicides in the affected samples.

<b>TCLP Pesticides</b>				
<b>Sample ID</b>	<b>TCMX %R (column 1)</b>	<b>TCMX %R (column 2)</b>	<b>DCB %R (column 1)</b>	<b>DCB %R (column 2)</b>
KD-PH1-17A-062-C-D-01	335	140	-	-
KD-PH1-18-063-C-D-01	141	-	-	-
KD-PH1-19-064-C-D-01	862	-	-	-
KD-PH1-20-065-C-D-01	166	-	-	-
KD-PH1-22-067-C-D-01	238	-	-	-
KD-PH1-23-068-C-D-01	577	138	-	-
KD-PH1-25-070-C-D-01	750	-	-	-
KD-PH1-26-071-C-D-01	1281	-	-	-
KD-PH1-27-072-C-D-01	623	-	-	-
KD-PH1-28-073-C-D-01	264	265	-	-
KD-PH1-30-075-C-D-01	199	184	-	-
KD-PH1-31-076-C-D-01	975	384	-	-
KD-PH1-32-077-C-D-01	228	204	-	-
KD-PH1-33-078-C-D-01	680	-	-	-
KD-PH1-34-079-C-D-01	-	-	-	237
KD-PH1-35-080-C-D-01	380	-	-	-
KD-PH1-36-081-C-D-01	214	-	-	-
KD-PH1-38-083-C-D-01	491	299	-	-
KD-PH1-39-084-C-D-01	151	-	-	-
KD-PH1-40-085-C-D-01	242	183	-	-
KD-PH1-41-087-C-D-01	-	136	-	-

TCMX – tetrachloro-m-xylene

DCB - decachlorobiphenyl

-within acceptance criteria

<b>TCLP Herbicides</b>		
<b>Sample ID</b>	<b>DCAA %R (column 1)</b>	<b>DCAA %R (column 2)</b>
KD-PH1-18-063-C-D-01	-	152
KD-PH1-19-064-C-D-01	358	36
KD-PH1-23-068-C-D-01	339	-
KD-PH1-24-069-C-D-01	345	-
KD-PH1-26-071-C-D-01	141	-
KD-PH1-27-072-C-D-01	-	217
KD-PH1-29-074-C-D-01	-	387
KD-PH1-30-075-C-D-01	271	193
KD-PH1-32-077-C-D-01	259	-
KD-PH1-34-079-C-D-01	-	194
KD-PH1-37-082-C-D-01	141	-
KD-PH1-38-083-C-D-01	-	535
KD-PH1-39-084-C-D-01	193	-

TCLP Herbicides		
Sample ID	DCAA %R (column 1)	DCAA %R (column 2)
KD-PH1-40-085-C-D-01	-	438
KD-PH1-40A-086-C-D-01	173	-
KD-PH1-41-087-C-D-01	522	323
KD-PH1-ROOF-EXTERIOR-088-C-D-01	265	-

DCAA – dichlorophenyl acetic acid  
-within acceptance criteria

**Matrix Spike/Matrix Spike Duplicates (MS/MSDs):** The laboratory performed MS/MSD analyses for TCLP VOCs, TCLP SVOCs, TCLP pesticides, TCLP herbicides, and TCLP metals on sample KD-PH1-38-083-C-D-01. The laboratory performed MS/MSD analyses for TCLP VOCs, TCLP pesticides, TCLP herbicides, and TCLP metals on sample KD-PH1-ROOF-EXTERIOR-088-C-D-01. All criteria were met in all TCLP VOC, TCLP SVOC, and TCLP pesticide analyses and all criteria were met in the TCLP metals MS/MSD analyses of sample KD-PH1-38-083-C-D-01. The following table summarizes the recoveries and relative percent differences (RPDs) which were outside of the acceptance criteria for the other parameters.

Compound	MS %Recovery	MSD %Recovery	RPD (%)
KD-PH1-38-083-C-D-01			
2,4-D	480	168	96
2,4,5-TP	166	-	-
KD-PH1-ROOF-EXTERIOR-088-C-D-01			
2,4-D	640	280	78
Arsenic	148.3	-	-
Barium	142.0	-	-
Cadmium	162.7	-	-
Chromium	154.6	-	-
Lead	172.0	-	-
Selenium	147.7	-	-
Silver	132.2	-	-

-within acceptance criteria

Qualification of the TCLP herbicide, arsenic, and silver data due to the exceedances was not required as these analytes were not detected in the associated samples. The positive results for barium, cadmium, chromium, lead, and selenium in all samples (except sample KD-PH1-38-083-C-D-01, which exhibited acceptable recoveries) were qualified as estimated (J) due to the high recoveries.

**Laboratory Duplicates:** Duplicate analyses were performed on samples KD-PH1-38-083-C-D-01 and KD-PH1-ROOF-EXTERIOR-088-C-D-01 for TCLP metals, corrosivity, reactive cyanide, reactive sulfide, and ignitability. With the exception of lead (27.0) in the duplicate analysis performed on sample KD-PH1-ROOF-EXTERIOR-088-C-D-01, the RPDs of the detected compounds were within the acceptance limits. The positive results for lead in all samples were qualified as estimated (J).

**Laboratory Control Samples:** All criteria were met for all analyses.

**Field Duplicates:** There were no field duplicate pairs submitted with this sample set. No validation action was required on this basis.

**Serial Dilutions:** Serial dilution analyses were performed on samples KD-PH1-38-083-C-D-01 and KD-PH1-ROOF-EXTERIOR-088-C-D-01 for TCLP metals. All criteria were met.

**Quantitation Limits:** The quantitation limits of all nondetect results were below the project action levels for all analyses. For organic analyses, it should be noted that the laboratory reported the nondetect results at the method detection limit (MDL) and quantitation limits in all samples. Only the quantitation limits should be used for decision-making purposes. For metals analyses, the laboratory reported the nondetect results at the MDL only; these were manually changed during validation to reflect the quantitation limits.

## DATA VALIDATION SUMMARY – PAINT CHIPS

**Site:** Lower Manhattan Development Corporation: 130 Liberty Street  
**Laboratory:** EMSL Analytical, Inc., Westmont, NJ  
**Lab Report No.:** 010503576  
**Reviewer:** Elizabeth Denly/TRC Environmental Corporation  
**Date:** October 31, 2005

### Samples Reviewed and Evaluation Summary

Cadmium and Chromium:

22/Paint Chip Samples/

DH-ph1-41-001-G-P-01	DH-ph1-41-011-G-P-01
DH-ph1-41-002-G-P-01	DH-ph1-41-012-G-P-01
DH-ph1-41-003-G-P-01	DH-ph1-41-013-G-P-01
DH-ph1-41-004-G-P-01	DH-ph1-41-014-G-P-01
DH-ph1-41-005-G-P-01	DH-ph1-41-015-G-P-01
DH-ph1-41-006-G-P-01	DH-ph1-40-016-G-P-01
DH-ph1-41-007-G-P-01	DH-ph1-40-017-G-P-01
DH-ph1-41-008-G-P-01	DH-ph1-40-018-G-P-01
DH-ph1-41-009-G-P-01	DH-ph1-40-019-G-P-01
DH-ph1-41-010-G-P-01	DH-ph1-40-020-G-P-01
DH-ph1-41-010A-G-P-02	DH-ph1-40-021-G-P-01

The above-listed samples were collected on September 14, 2005 and were analyzed for cadmium and chromium by SW-846 method 6010B. A limited validation was performed on these data in accordance with the following guidelines:

- *Evaluation of Metals Data for the CLP Program*, January 1992, SOP HW-2, Revision 11

Where Region 2 guidelines do not exist, the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (EPA 540-R-04-004), October 2004 were used. All guidelines were modified as necessary to include method-specific criteria, as detailed throughout the approved Quality Assurance Project Plan, dated September 7, 2005.

In general, the data are valid based upon the parameters listed below and may be used for decision-making purposes. Potential uncertainty exists for the chromium results based on the field duplicate variability. Since these data were collected for informational purposes only and not for comparison to project action levels, the overall data usability was not significantly affected. The results of the validation are summarized below.

**Holding Times:** All criteria were met.

**Condition of Samples Upon Receipt at the Laboratory:** All criteria were met.

**Laboratory Method Blanks:** Cadmium and chromium were not detected in the laboratory method blanks.

**Matrix Spike/Matrix Spike Duplicates (MS/MSDs):** MS/MSD analyses were performed on samples DH-ph1-41-012-G-P-01 and DH-ph1-40-019-G-P-01. All criteria were met in the MS/MSD analyses performed on sample DH-ph1-40-019-G-P-01. The recovery of cadmium (127%) was slightly above the acceptance limits in the MSD analysis performed on sample DH-ph1-41-012-G-P-01. The positive results for cadmium were qualified as estimated (J) in all samples and may be slightly biased high. However, since the recovery of cadmium was just slightly outside of the acceptance limits (75-125%) and since the recovery was within the acceptance limits in the MS analysis, this nonconformance did not significantly affect the overall usability of the data.

**Laboratory Duplicates:** Laboratory duplicate analyses were performed on samples DH-ph1-41-012-G-P-01 and DH-ph1-40-019-G-P-01. All criteria were met in these analyses.

**Laboratory Control Samples (LCSs):** All criteria were met.

**Field Duplicates:** Samples DH-ph1-41-010-G-P-01 and DH-ph1-41-010A-G-P-02 were submitted as the field duplicate pair with this sample set. The following table summarizes the relative percent differences (RPDs) of the detected analytes.

Analyte	DH-ph1-41-010-G-P-01 (mg/kg)	DH-ph1-41-010A-G-P-02 (mg/kg)	RPD (%)
chromium	30	15	100

The positive results for chromium were qualified as estimated (J) in all samples in this data set due to the high RPD.

**Serial Dilutions:** Serial dilution analyses were not performed on paint chip samples from this data set. No validation action was taken on this basis.

**Quantitation Limits:** All samples were analyzed at a 10-fold dilution. Quantitation limits for each sample were elevated accordingly.

## DATA VALIDATION SUMMARY - CAULKING

**Site:** Lower Manhattan Development Corporation: 130 Liberty Street  
**Laboratory:** Chemtech Laboratory, Mountainside, NJ  
**Lab Report No.:** T4154  
**Reviewer:** Elizabeth Denly/TRC Environmental Corporation  
**Date:** October 21, 2005

### Samples Reviewed and Evaluation Summary

Polychlorinated Biphenyl (PCB) Aroclors:

13/Caulking Samples/

KD-PH1-ROOF-001-G-CK-01	KD-PH1-1-009-G-CK-01
KD-PH1-ROOF-002-G-CK-01	KD-PH1-1-010-G-CK-01
KD-PH1-ROOF-003-G-CK-01	KD-PH1-1-011-G-CK-01
KD-PH1-ROOF-004-G-CK-01	KD-PH1-1-012-G-CK-02
KD-PH1-40/41-005-G-CK-01	KD-PH1-A-013-G-CK-01
KD-PH1-29-006-G-CK-01	KD-PH1-A-014-G-CK-02
KD-PH1-23-008-G-CK-01	

1/Sealant Sample/

KD-PH1-23-007-G-CK-01

The above-listed samples were collected on August 9, 2005 and were analyzed for polychlorinated biphenyl (PCB) Aroclors by SW-846 method 8082. A limited validation was performed on these data in accordance with the following guidelines:

- *Validating PCB Compounds by SW-846 Method 8082*, May 2002, SOP HW-23B, Revision 1.0

Where Region 2 guidelines do not exist, the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (EPA-540/R-99-008), October 1999 were used. All guidelines were modified as necessary to include method-specific criteria, as detailed throughout the approved Quality Assurance Project Plan, dated September 7, 2005.

In general, the data are valid based upon the parameters listed below and may be used for decision-making purposes. Potential low bias exists for the PCB Aroclor results in sample KD-PH1-ROOF-002-G-CK-01 due to low surrogate recoveries and potential high bias exists for the PCB Aroclor results in samples KD-PH1-29-006-G-CK-01 and KD-PH1-1-009-G-CK-01 due to high surrogate recoveries; in all cases, the overall data usability was not adversely affected as the results were significantly below the project action level. Potential high bias exists for the PCB Aroclor results in samples KD-PH1-A-013-G-CK-01 and KD-PH1-A-014-G-CK-02 due to high surrogate recoveries; since the results were significantly greater than the project action level, the overall data usability was not adversely affected. The results of the validation are summarized below.

**Holding Times:** All criteria were met.

**Condition of Samples Upon Receipt at the Laboratory:** All criteria were met.

**Laboratory Method Blanks:** PCB Aroclors were not detected in the method blanks.

**Surrogate Recoveries:** Surrogate recoveries in the PCB Aroclor analyses were outside of the acceptance criteria in select samples as summarized in the table below.

Sample ID	TCMX %R (column 1)	TCMX %R (column 2)	DCB %R (column 1)	DCB %R (column 2)	Validation Action
KD-PH1-ROOF-001-G-CK-01	-	173	128	-	None required; each surrogate outside limits on different columns.
KD-PH1-ROOF-002-G-CK-01	60	52	51	31	Estimate (UJ) the nondetect results.
KD-PH1-ROOF-003-G-CK-01	31	12848	-	-	None required due to high and low recoveries observed.
KD-PH1-ROOF-004-G-CK-01	-	338	-	-	None required; only one surrogate on one column outside limits.
KD-PH1-40/41-005-G-CK-01	4227	65	36	-	None required due to high and low recoveries observed for 1 surrogate and the other surrogate outside limits on only one column.
KD-PH1-29-006-G-CK-01	131	831	-	-	Estimate (J) the positive result for Aroclor 1260.
KD-PH1-23-007-G-CK-01	270	617	-	166	None required; only positive results affected and none reported in this sample.
KD-PH1-23-008-G-CK-01	-	127	-	-	None required; only one surrogate on one column outside limits.
KD-PH1-1-009-G-CK-01	136	174	-	-	Estimate (J) the positive result for Aroclor 1260.
KD-PH1-1-010-G-CK-01	63	672	-	-	None required due to high and low recoveries observed.
KD-PH1-1-011-G-CK-01	216	62	28	-	None required due to high and low recoveries observed for 1 surrogate and the other surrogate outside limits on only one column.
KD-PH1-1-012-G-CK-01	-	-	21	-	None required; only one surrogate on one column outside limits.
KD-PH1-A-013-G-CK-01	65	185	2288	3614	Estimate (J) the positive result for Aroclor 1254.



Sample ID	TCMX %R (column 1)	TCMX %R (column 2)	DCB %R (column 1)	DCB %R (column 2)	Validation Action
KD-PH1-A-014-G-CK-01	-	187	1507	2776	Estimate (J) the positive result for Aroclor 1254.

TCMX – tetrachloro-m-xylene

DCB - decachlorobiphenyl

-within acceptance criteria

**Matrix Spike/Matrix Spike Duplicates (MS/MSDs):** MS/MSD analyses were not performed on any samples in this data set. MS/MSD analyses for this matrix will be collected with the October sampling effort.

**Laboratory Control Samples:** All criteria were met.

**Field Duplicates:** Samples KD-PH1-1-011-G-CK-01/KD-PH1-1-012-G-CK-02 and KD-PH1-A-013-G-CK-01/KD-PH1-A-014-G-CK-02 were submitted as the field duplicate pairs with this sample set. PCB Aroclors were not detected in the field duplicate pair KD-PH1-1-011-G-CK-01/KD-PH1-1-012-G-CK-02. Aroclor 1254 was detected in the other field duplicate pair, KD-PH1-A-013-G-CK-01/KD-PH1-A-014-G-CK-02, at the same concentration in each sample, thereby meeting the acceptance criteria (relative percent difference <50).

**Quantitation Limits:** The quantitation limits of all nondetect results were below the project action level (50 mg/kg) in all samples. It should be noted that the laboratory reported the nondetect results at the method detection limit (MDL) and quantitation limits in all samples. Only the quantitation limits should be used for decision-making purposes.

Samples KD-PH1-A-013-G-CK-01 and KD-PH1-A-014-G-CK-02 were analyzed at 1000-fold dilutions due to the concentrations of Aroclor 1254 which exceeded the calibration range in the undiluted analyses. The results of the diluted and undiluted analyses were combined during validation in order to report the lowest possible quantitation limits and all results within the calibration range.

**DATA VALIDATION SUMMARY – CAULKING**

**Site:** Lower Manhattan Development Corporation: 130 Liberty Street  
**Laboratory:** Chemtech Laboratory, Mountainside, NJ  
**Lab Report No.:** T5393  
**Reviewer:** Elizabeth Denly/TRC Environmental Corporation  
**Date:** October 31, 2005

**Samples Reviewed and Evaluation Summary**

Polychlorinated Biphenyl (PCB) Aroclors:

1/Caulking Sample/

KD-PH1-A-015-G-CK-01

The above-listed sample was collected on October 20, 2005 and was analyzed for polychlorinated biphenyl (PCB) Aroclors by SW-846 method 8082. A limited validation was performed on these data in accordance with the following guidelines:

- *Validating PCB Compounds by SW-846 Method 8082*, May 2002, SOP HW-23B, Revision 1.0

Where Region 2 guidelines do not exist, the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (EPA-540/R-99-008), October 1999 were used. All guidelines were modified as necessary to include method-specific criteria, as detailed throughout the approved Quality Assurance Project Plan, dated September 7, 2005.

In general, the data are valid based upon the parameters listed below and may be used for decision-making purposes. The results of the validation are summarized below.

**Holding Times:** All criteria were met.

**Condition of Samples Upon Receipt at the Laboratory:** All criteria were met.

**Laboratory Method Blanks:** PCB Aroclors were not detected in the method blank.

**Surrogate Recoveries:** Surrogate recoveries in the PCB Aroclor analyses were outside of the acceptance criteria as summarized in the table below.

Sample ID	TCMX %R (column 1)	TCMX %R (column 2)	DCB %R (column 1)	DCB %R (column 2)	Validation Action
KD-PH1-A-015-G-CK-01	-	67	-	-	None required; only one surrogate on one column outside limits.

TCMX – tetrachloro-m-xylene  
 DCB - decachlorobiphenyl  
 -within acceptance criteria

**Matrix Spike/Matrix Spike Duplicates (MS/MSDs):** MS/MSD analyses were performed on sample KD-PH1-A-015-G-CK-01. The percent recoveries of Aroclor 1016 (302/242) were outside of the acceptance criteria. Qualification of the data on this basis was not required.

**Laboratory Control Samples:** All criteria were met.

**Field Duplicates:** Samples KD-PH1-1-011-G-CK-01/KD-PH1-1-012-G-CK-02 and KD-PH1-A-013-G-CK-01/KD-PH1-A-014-G-CK-02 were submitted as the field duplicate pairs with this data set but reported in laboratory report number T4154. PCB Aroclors were not detected in the field duplicate pair KD-PH1-1-011-G-CK-01/KD-PH1-1-012-G-CK-02. Aroclor 1254 was detected in the other field duplicate pair, KD-PH1-A-013-G-CK-01/KD-PH1-A-014-G-CK-02, at the same concentration in each sample, thereby meeting the acceptance criteria (relative percent difference <50).

**Quantitation Limits:** The quantitation limits of all nondetect results were below the project action level (50 mg/kg). It should be noted that the laboratory reported the nondetect results at the method detection limit (MDL) and quantitation limits in all samples. Only the quantitation limits should be used for decision-making purposes.