CUY-90-14.90

PID 77332/85531

APPENDIX EC-17

ESA Phase I & II Addendum for PPN 004-27-003
(Contract Document)

State of Ohio
Department of Transportation
Jolene M. Molitoris, Director

Innerbelt Bridge
Construction Contract Group 1 (CCG1)

Revision Date: February 16, 2009

2 - Addendum No. 2 - New Appendix

PHASE I & II ADDENDUM

INNERBELT STUDY
COLD STORAGE BUILDING
CLEVELAND, OHIO

CUY-CLEVELAND INNERBELT CORRIDOR
PID NO. 77510

Prepared for

The Ohio Department of Transportation
District 12
5500 Transportation Boulevard
Garfield Heights, Ohio 44125

February 16, 2009

URS

1375 Euclid Avenue
Cleveland, Ohio 44115
216-622-2400
Project No. 15016633

TABLE OF CONTENTS

TABLE OF CONTENTS

List of Tables

List of Appendices

1.1 SCOPE OF WORK

On November 3 and 6, 2008, URS conducted an interior site reconnaissance of the Cold Storage Building, Site #14 (Bojacks Meats/Cold Storage) located at 2000 West 14th Street in Cleveland, Ohio. The purpose of this effort was to identify any regulated materials remaining in the building and this report serves as an addendum to the Phase I Environmental Site Assessment in December 2005 and Phase II Environmental Site Assessment in January 2007. All accessible areas of the building were evaluated, and observations of building contents and regulated materials were documented. These activities are summarized below.

1.2 SITE DESCRIPTION

The main building is concrete and steel construction on the interior with regularly spaced concrete pillars. Building access is through overhead doors at loading docks along the south, east, and north sides, and through various man doors. The roof is a flat, built-up design with a gravel-covered rubber membrane. The building's structure appears sound; however, ancillary equipment including elevator counter weights, refrigeration pipes, and wiring were stripped out. The office areas were vandalized and littered with broken glass, ceiling material, and other debris. The foam insulation that covered the ceiling and walls of many of the floors had fallen onto the floor.

Additionally, two ancillary structures are located on the site. These structures are separate from the storage building and included the Engine Room and Ice House located to the north of the Main Building. The Engine Room houses the electric motors and compressors necessary for the operation of the cold storage facility. The equipment within this structure has been either removed or heavily damaged. There were indications of a fire, although no structural damage was visible.

The Ice House is a tall, heavily insulated structure that adjoins the Engine Room. Much of the insulation has fallen off the walls and is piled on the floor. The roof is deteriorated and has several open areas.

1.3 SITE RECONNAISSANCE

Jeffrey Berk, Andrew Undicelli, and Rudy Geiss of URS, Richard Kennedy representing the property owner, and Mark Carpenter of ODOT conducted a site walk through of the Cold Storage Building on November 3, 2008. Photographs taken to document Site conditions can be found in Appendix A.

The survey included each of the twelve floors and the roof. Due to the lack of electrical power, the survey was conducted using portable flood lights and hand-held flash lights. Limited outside light was present on the first four floors. Above that level, all floors were windowless.

Access to the building was from Crown Avenue on the fourth floor of the building. Because the structure is situated on a slope, floors one to three are below grade on the south side (along Crown Avenue) but are above grade along the railroad siding on the north side of the structure. The walk though was conducted from the fourth floor down, then from the fifth floor up to the roof level. Access was by the eastern stairwell for floors one through seven. Above that level, the eastern stairwell was too heavily damaged to permit safe ascent and the western stairwell was used.

The foam insulation that covered the ceiling and walls of many of the floors had fallen onto the floor. Pipe insulation appeared to be in poor condition. Material including paint, solvents, corrosives, and petroleum were stored both on pallets and scattered in various areas of the buildings lower four floors. Some spillage onto the concrete floor was noted. Material Safety Data Sheets (MSDSs) for observed regulated materials are included as **Appendix B**. A detailed description of each floor of the structure, as well as a material inventory, is presented below.

1.4 DETAILED FLOOR DESCRIPTION & REGULATED MATERIAL INVENTORY

1.4.1 Floor 1

Floor 1 was accessed from the east stairwell. Standing water was present in areas of the floor. Several small, empty rooms (approximately 20 x 30 feet) were located along the walls. A maintenance shop was located in the southwest corner of the floor. Material storage consisted of palletized and non-palletized 55-gallon drums.

1. In the maintenance shop were:
    a. Three 55-gallon drums of lubricants (labels were deteriorated and the specific contents could not be confirmed);
    b. Approximately five cans of paint on the floor;
    c. Spray undercoating;
    d. Two compressed gas cylinders of Kaiser Chemical Refrigerant 12 (This material was identified as dichlorodifluoromethane (CFC-12)); and
    e. Approximately 12 tubes of grease.
2. Three 55-gallon drums of "Peerless woodblock bond" (manufactured by Penn Petroleum). This appears to be dry, granular, water-activated glue.
3. Two 55-gallon palletized drums that appear to be the same material as item 2 above; however, the drums are not labeled.
4. One, unlabeled 55-gallon drum.
5. One 55-gallon drum partially filled and labeled as an isofoam resin component.
6. One 55-gallon drum of Mondur TD-80 (Mobay Corporation, Pittsburgh, PA). This is a roofing membrane adhesive.
7. One 55-gallon drum of Bond Chemicals with a top pump type dispenser

1.4.2 Floor 2

Floor 2 was accessed from the east stairwell. Standing water was present in areas of the floor. Several small rooms (approximately 20 x 30) were located along the west, south, and eastern walls.

Near the eastern stairwell were numerous cans and pails of paint, oil-based stains, solvents, and adhesives were accumulated in quart, gallon and 5-gallon containers. Specifically identified were:

1. Carpet adhesive (478 Henry and Advanced Air Tech—Problem Solver). The containers appeared to have been opened and some of their contents used;
2. Several 5-gallon pails of ceiling texture spray;
3. One gallon cans of Behr and Sherwin Williams paint;
4. Three quart cans of BIX Power off;
5. Two 5-gallon pails of W.R. Meadows, Inc. Sealtight Tiah Concrete Sealer;

6. Two 4-liter pails of Ultra/Bond G 19 Part A and B polyurethane adhesive for rubber floor covering and wood; and
7. Three 5-gallon pails of Promar 200 Sherwin Williams paint.

A pallet in the northwest corner of the building containing:

1. Approximately 80 gallons of material primarily in 5-gallon pails (Most of the pails were unmarked or simply labeled as containing corrosive);
2. Two 30-gallon fiber drums labeled as "GAF Dyes, Chemicals, Pigments"; and
3. An amber 1-liter jar labeled as boric acid.

In the southwest corner of the floor, 15 pallets of one and five-gallon containers of paint, solvent, thinner, and stain were observed. The pallets were wrapped in plastic, and included products from Sherwin Williams, Glidden, and others. Because of the tight arrangements of pallets, it was not possible to perform an inventory of the materials. It was estimated that approximately 1,200 gallons of material were present. Signs of leakage were observed on the concrete floor.

Two pallets of Sheetrock brand drywall texture were present. The bags were in relatively good shape. The pallets contained an estimated 60 bags total.

1.4.3 Floor 3

Floor 3 was accessed from the east stairwell. Standing water was present in areas of the floor. Offices were located on the north side of the floor. No material storage or abandonment was observed on this floor. Fluorescent light fixtures were located in the office area. A locked safe, approximately six feet tall, by three feet wide by four feet deep was observed in a room in the southwest corner of the floor. Its contents were not determined as it was inaccessible.

1.4.4 Floor 4

Floor 4 was accessed from the east stairwell. Offices were located on the north side of the floor. Three 55-gallon drums of refrigeration oil were present.

1.4.5 Floors 5 through 12

The upper floors of the structure contained miscellaneous debris. This included fallen insulation from the ceiling and walls and trash.

1.4.6 Ancillary Structures

The Engine Room contained a 55-gallon drum of 30W Sunoco oil, a 55-gallon drum of refrigeration oil, and 15 empty 55-gallon drums.

Adjacent to the Engine Room was a smaller room containing the remnants of two transformers. Each transformer had been disassembled and partially removed apparently in an attempt to salvage the copper windings. No dielectric fluid was present in the transformers. Wipe samples were collected from the two transformers for Polychlorinated Biphenyls (PCBs)

The Ice House was a tall, heavily insulated structure that adjoined the Engine Room. Much of the insulation had fallen off the walls and was piled on the floor. The roof was deteriorated and had several open areas.

1.5 POLYCHLORINATED BIPHENYLS (PCBS) SAMPLING

The transformers located adjacent to the Engine Room were sampled for PCBs. Wipe samples A and B were collected from the smaller and larger of the two transformers, respectively. These samples were submitted to Test America Laboratories for analysis. **Table 1** summarizes the analytical data results for the wipe samples, which indicate that no PCBs were detected. The full analytical report is included as **Appendix C**.

TABLES

Table 1
Analytical Data Summary - PCBs
ODOT Cleveland Innerbelt Study
Cold Storage Building
11/4/08

Analyte	Units	A-Powerhouse 11/04/08	B-Powerhouse 11/04/08
Aroclor 1016	ug	4.0 U	4.0 U
Aroclor 1221	ug	4.0 U	4.0 U
Aroclor 1232	ug	4.0 U	4.0 U
Aroclor 1242	ug	4.0 U	4.0 U
Aroclor 1248	ug	4.0 U	4.0 U
Aroclor 1254	ug	4.0 U	4.0 U
Aroclor 1260	ug	4.0 U	4.0 U

U = The analyte was analyzed for, but was not detected. Value shown is the sample reporting limit.

APPENDIX A

Site Photographs

URS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
ODOT	Cleveland, OH	15016153

Photo No.	Date:
1	11/3/08

Description:

Site, facing south.

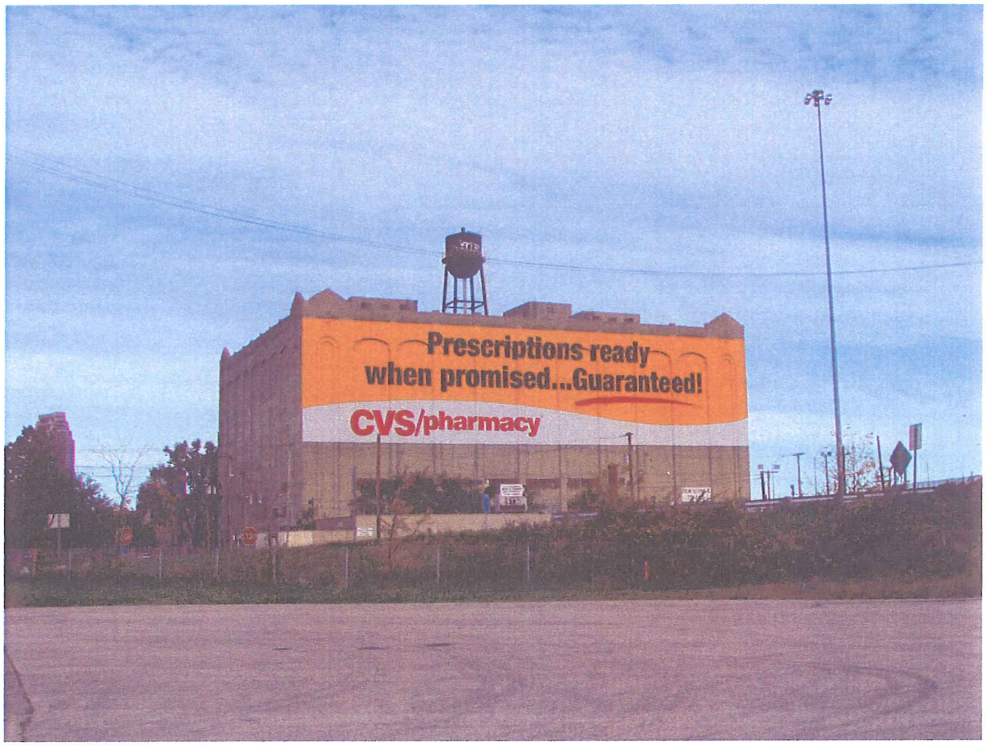
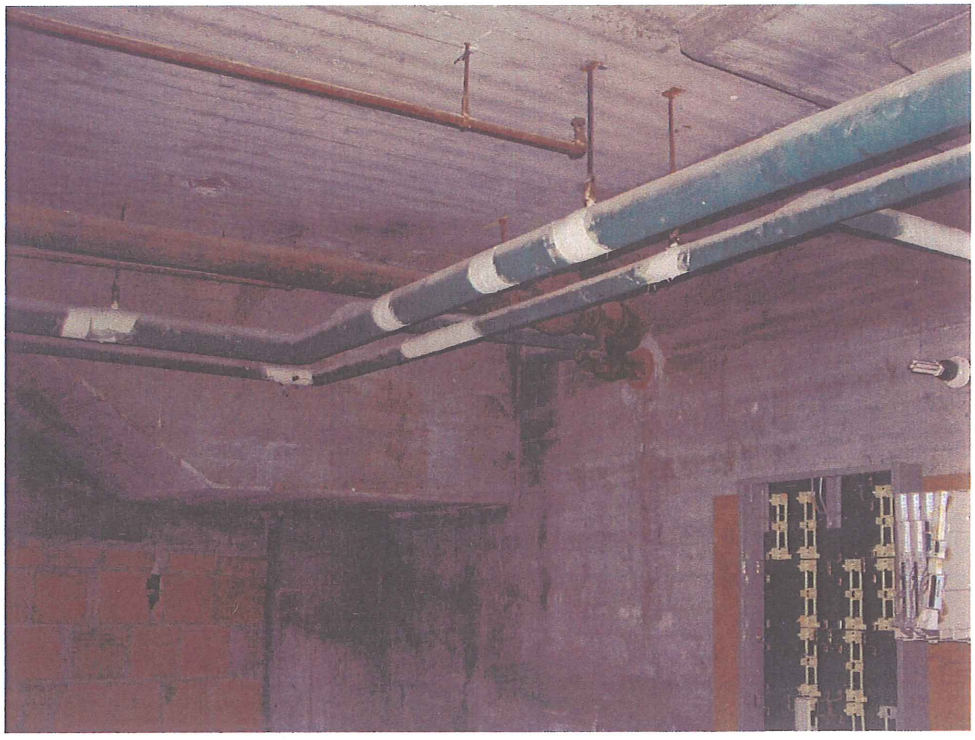


Photo No.	Date:
2	11/3/08

Description:

Piping & ductwork in lower level area.



URS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
ODOT	Cleveland, OH	15016153

Photo No.	Date:
3	11/3/08

Description:

Piping & ductwork in lower level area.

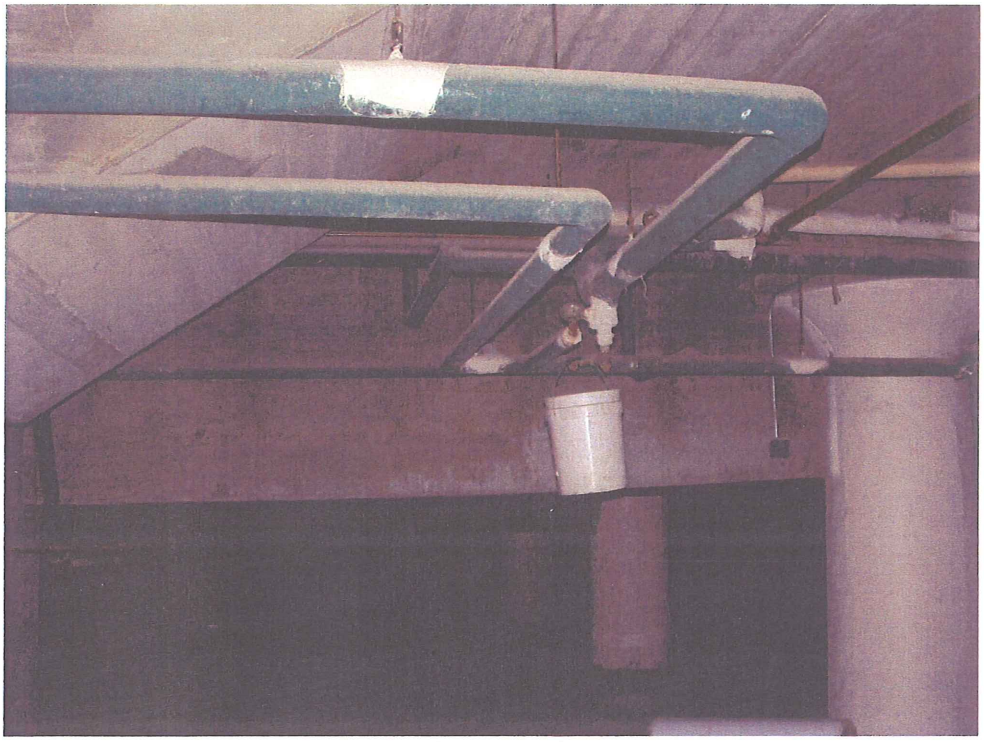


Photo No.	Date:
4	11/3/08

Description:

Scattered debris & paint containers on Floor 2.

URS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
ODOT	Cleveland, OH	15016153

Photo No.	Date:
5	11/3/08

Description:

Scattered debris on Floor 2.

Photo No.	Date:
6	11/3/08

Description:

Scattered debris, paint, and chemical containers on Floor 2.

URS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
ODOT	Cleveland, OH	15016153

Photo No.	Date:
7	11/3/08

Description:

Sheetrock drywall texture on Floor 2.

Photo No.	Date:
8	11/3/08

Description:

Materials stored on Floor 2 including paint.

URS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
ODOT	Cleveland, OH	15016153

Photo No.	Date:
9	11/3/08

Description:

Material storage of Floor 2, northwest corner.

Photo No.	Date:
10	11/3/08

Description:

Storage on Floor 2 in room in southwest corner of the building.

URS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
ODOT	Cleveland, OH	15016153

Photo No.	Date:
11	11/3/08

Description:

Storage on Floor 2 in room in southwest corner of the building.

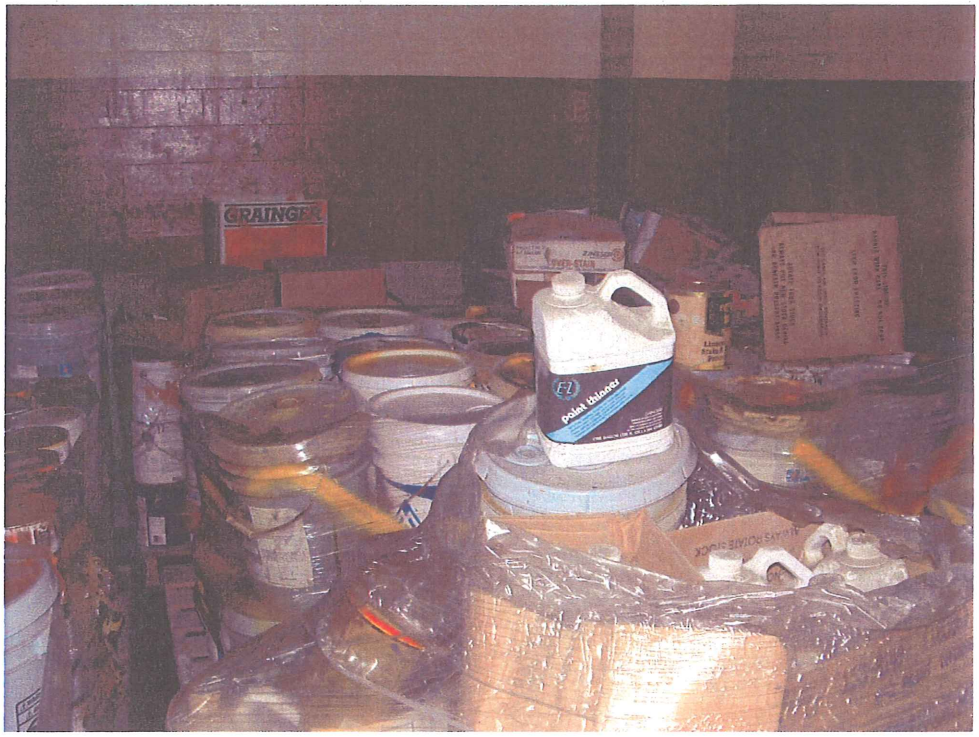


Photo No.	Date:
12	11/3/08

Description:

Storage on Floor 2 in room in southwest corner of the building.

URS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
ODOT	Cleveland, OH	15016153

Photo No.	Date:
13	11/3/08

Description:

Evidence of leaking containers on Floor 2.

Photo No.	Date:
14	11/3/08

Description:

Pole-mounted transformers along southern Site boundary.

URS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
ODOT	Cleveland, OH	15016153

Photo No.	Date:
15	11/3/08

Description:

Scattered debris and rusted drum on Floor 1.

Photo No.	Date:
16	11/3/08

Description:

Rusted drum located on Floor 1.

URS

PHOTOGRAPHIC LOG

Client Name:	Site Location:	Project No.
ODOT	Cleveland, OH	15016153

Photo No.	Date:
17	11/3/08

Description:

Scattered debris and drum storage on Floor 1. Note standing water on floor.

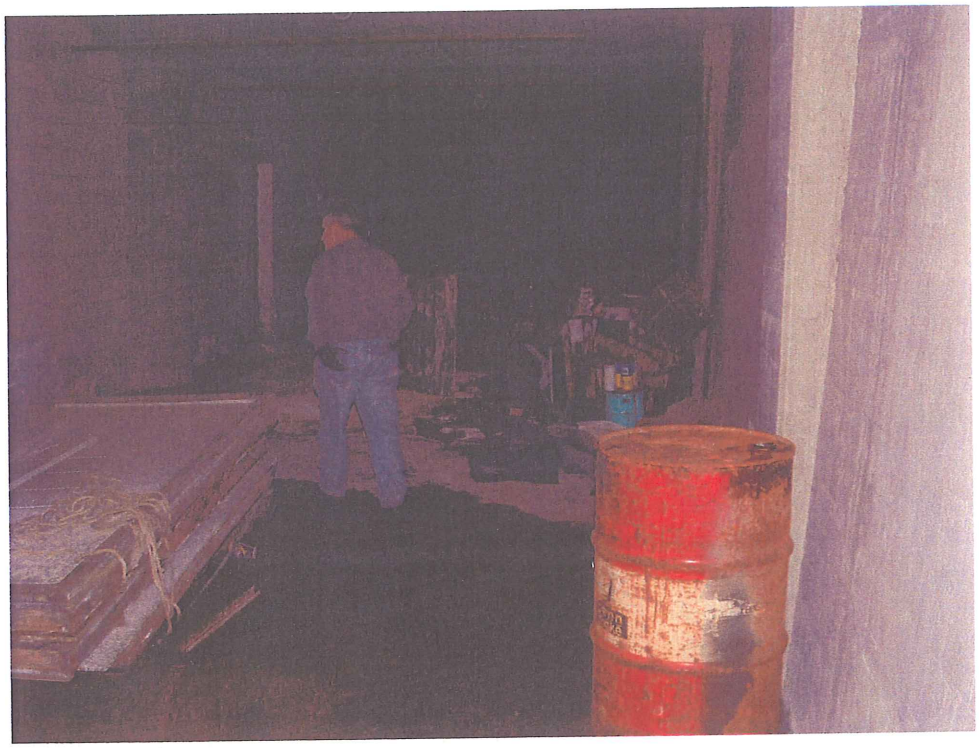
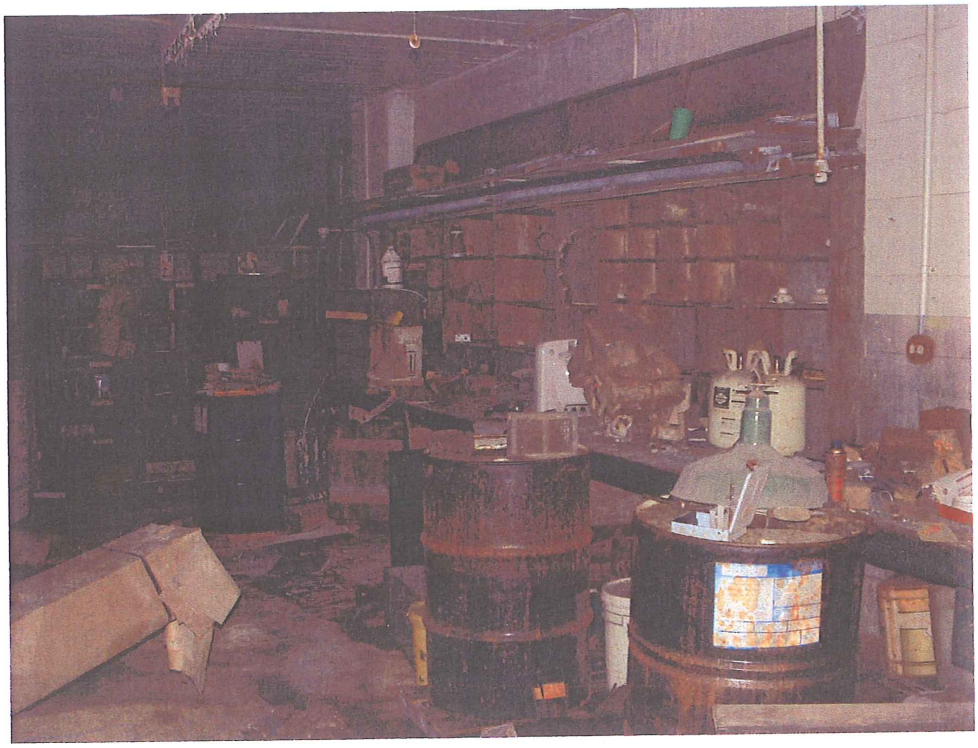


Photo No.	Date:
18	11/3/08

Description:

Maintenance shop and drum storage on Floor 1.



APPENDIX B

Material Safety Data Sheets

Source of information:
http://hazard.com/msds/f2/bcm/bcmnf.html

MOBAY CHEMICAL CORPORATION,POLYURETHANE DIVISION -- MONDUR TD-80 (ALL GRADES) -- 6810-00N006338

========== Product Identification ==========

Product ID:MONDUR TD-80 (ALL GRADES)
MSDS Date:01/01/1985
FSC:6810
NIIN:00N006338
MSDS Number: BCMNF
=== Responsible Party ===
Company Name:MOBAY CHEMICAL CORPORATION,POLYURETHANE DIVISION
Address:MOBAY RD
City:PITTSBURG
State:PA
ZIP:15205
Country:US
CAGE:D0465
=== Contractor Identification ===
Company Name:BAYER CORPORATION
Address:100 BAYER ROAD
Box:City:PITTSBURGH
State:PA
ZIP:15205-9741
Country:US
Phone:800-662-2927; 202-483-7616
CAGE:19511
Company Name:MOBAY CHEMICAL CORPORATION
Address:8400 HAWTHORN RD
Box:City:KANSAS CITY
State:MO
ZIP:64120
Phone:301-321-5200
CAGE:D0465

========== Composition/Information on Ingredients ==========

Ingred Name:TOLUENE-2,4-DIISOCYANATE (TDI) (SARA III)
CAS:584-84-9
RTECS #:CZ6300000
Fraction by Wt: 80%
OSHA PEL:C,0.02 PPM/0.02 STEL
ACGIH TLV:0.005PPM/0.02STEL;93
EPA Rpt Qty:100 LBS
DOT Rpt Qty:100 LBS

Ingred Name:TOLUENE-2,6-DIISOCYANATE (SARA III)
CAS:91-08-7
RTECS #:CZ6310000
Fraction by Wt: 20%
EPA Rpt Qty:100 LBS
DOT Rpt Qty:100 LBS

========== Hazards Identification ==========

Effects of Overexposure:INHAL: IRRIT OF RESP TRACT. SKIN:

IRRIT,DIISCOLOR. EYS: SEV IRRIT. INGEST: IRRIT,CORROSN OF GI TRACT

========== First Aid Measures ==========

First Aid:EYES: FLUSH W/H*2O 15 MIN,GET MED ATTN. SKIN: REMOVE CONTAM CLOTHES,WASH BEFORE REUSE. WASH AFFECTED AREA W/SOAP & H*2O. INHAL: MOVE TO FRESH AIR. GIVE O*2/ARTIFICIAL RESP AS NEED. GET MED ATTN. INGES T: DONT CAUSE VOMIT. GIVE 250ML MILK/H*2O,CALL DOC

========== Fire Fighting Measures ==========

Flash Point:260F,127C (PMCC)
Extinguishing Media:DRY CHEM,CO*2,HIGH EXPANSION CHEM FOAM (SEE OTHR PRECAUTNS)
Fire Fighting Procedures:FULL EMER EQUIP W/SCBA. TDI VAPS,OTHR IRRIT,TOX GAS RELEASED
Unusual Fire/Explosion Hazard:AT TEMPS > 350F (177C),EXPLOSIVE RUPTURE IS POSSIBLE. USE COLD H*2O TO COOL FIRE-EXPOSED CONTAINERS.

========== Accidental Release Measures ==========

Spill Release Procedures:COVER SPILL W/SAWDUST,OTHR ABSORBENT MATL. POUR DECONTAM SOLN OVER SPILL,ALLOW TO REACT AT LEAST 10 MIN. COLLECT MATL IN OPEN TOP CNTNRS,ADD MORE DECONTAM SOLN. REMOVE CNTNRS TO SAFE PLACE,COVER LOOSE LY,STAND 24-48 HRS. WASH SPILL AREA W/DECONTAM SOL

========== Handling and Storage ==========

Handling and Storage Precautions:STORE IN TIGHTLY CLOSED CNTNRS TO PREVENT MOISTURE CONTAM. DONT RESEAL IF CONTAM SUSPECTED. AVOID CONT W/SKIN & EYES. DO NOT BREATHE VAPORS.
Other Precautions:EXTINGUISH MEDIA: H*2O SPRAY FOR LRG FIRES. CAUTION-REACTION BETWEEN H*2O OR FOAM & HOT TDI CAN BE VIGOROUS. INFO IS ABBREVIATED DUE TO LACK OF SPACE. FOR MORE INFO CONTACT NEHC,NORFOLK,VA.

========== Exposure Controls/Personal Protection ==========

Respiratory Protection:NIOSH/MSHA APPRVD POSITIVE PRESS AIR-SUPPLIED RESP @ TDI CONC > TLV
Ventilation:LOCAL EXHAUST TO MAINTAIN LEVELS BELOW TLV.
Protective Gloves:CHEM RESISTANT
Eye Protection:LIQUID CHEMICAL GOGGLES
Other Protective Equipment:FULL FACE SHIELD CAN BE WORN INSTEAD OF GOGGLES.
Supplemental Safety and Health
SYNONYM: BENZENE,1,3-DIISOCYANATO METHYL-. VAP PRESS: 0.025 MMHG @ 25C (77F). SOLUBILITY IN H*2O: REACTS SLOWLY W/H*2O AT NORM ROOM TEMP TO LIBERATE CO*2 GAS. % VOLATILE: NEGLIGIBLE.

========== Physical/Chemical Properties ==========

Boiling Pt:B.P. Text:484F (251C)
Vapor Density:6.0
Spec Gravity:1.22
Solubility in Water:SEE SUP DAT
Appearance and Odor:LIQ,WATER WHITE-PALE YELLOW W/SHARP,PUNGENT ODOR

========== Stability and Reactivity Data ==========

Stability Indicator/Materials to Avoid:YES
H*2O,AMINES,STRONG BASES,ALCOHOLS. CORROSIVE TO CU ALLOYS,AL
Hazardous Decomposition Products:HIGH HEAT,FIRE: CO,OXIDES OF NITROGEN,TRACES OF HCN,TDI
Conditions to Avoid Polymerization:CONT W/MOISTURE,OTHR MATLS REACT W/ISOCYANATES. TEMP > 350F.

========== Disposal Considerations ==========

Waste Disposal Methods:DISPOSE OF IN A PERMITTED INCINERATOR/LANDFILL. INCINERATION PREFERRED. HANDLE EMPTY CNTNRS W/CARE DUE TO PROD RESIDUE. DECONTAM CNTNRS PRIOR TO DISP. DONT HEAT OR CUT EMPTY CNTNR W/ELECTRIC OR GAS TO RCH. WASTE DISP MUST BE IAW FED,ST,LOC REGULATIONS

Source: http://msds.chem.ox.ac.uk/DI/dichlorodifluoromethane.html

Safety data for dichlorodifluoromethane

Glossary of terms on this data sheet

The information on this web page is provided to help you to work safely, but it is intended to be an overview of hazards, not a replacement for a full Material Safety Data Sheet (MSDS). MSDS forms can be downloaded from the web sites of many chemical suppliers.

General

Synonyms: difluorodichloromethane, electro-cf 12, eskimon 12, Freon-12, frigen 12, genetron 12, halocarbon 12, fluorocarbon 12, arcton 6, arcton 12, refrigerant R12, CFC-12, ucon 12
Molecular formula: CCl_2F_2
CAS No: 75-71-8
EINECS No: 200-893-9

Physical data

Appearance: colourless odourless gas
Melting point: -158 C
Boiling point: -29.8 C
Vapour density: 4.2 (air = 1)
Vapour pressure: 5 atm at 16 C
Density (g cm^{-3}): 1.329
Flash point:
Explosion limits:
Autoignition temperature:
Water solubility: insoluble

Stability

Stable. Non-flammable. May react violently with aluminium.

Toxicology

Generally regarded as presenting a negligible risk to health, though acts as an asphyxiant at high concentration. Typical OEL 500-1000 ppm.

Toxicity data
(The meaning of any abbreviations which appear in this section is given here.)
IHL-MUS 100,000 ppm acute
ORL-RAT 380 mg kg^{-1} chronic
IHL-RAT 800,000 ppm acute
IHL-GPG 40,000 ppm acute

Transport information

(The meaning of any UN hazard codes which appear in this section is given here.)
UN No 1028. Hazard class 2.

Personal protection

Adequate ventilation.

[Return to Physical & Theoretical Chemistry Lab. Safety home page.]

Source: http://www.aatglue.com/pdf/the.pdf

MATERIAL SAFETY DATA SHEET

NPCA HMIS
H = 1
F = 0
PH = 1

Prepared By: Tim Brown
Date: August 22, 2008

SECTION I

Manufacturer's Name:	Advanced Adhesive Technologies, Inc.
Street Address:	419 South Glenwood Ave Dalton, GA 30721
Emergency Telephone No.:	Chemtrec 1-800-424-9300
General Information No.:	1-800-228-4583
Product Class:	Floor Covering Adhesive
Manufacturer's Code Identification:	AAT-Problem Solver
Trade Name:	Advanced Air Tech—Problem Solver

SECTION II — HAZARDOUS INGREDIENTS

None

SECTION III — PHYSICAL DATA

Boiling Range:	Greater than 212° F
Vapor Density:	Lighter than Air
Evaporation Rate:	Slower than Ether
Percent Volatile by Volume:	35 % +/- 1%
VOC Emission:	0 g/l (Calculated per Ca. South Coast Rule 1168)

SECTION IV — PHYSICAL DATA

DOT Category:	Nonflammable
Flash Point:	N/A
LEL:	Not Known
Extinguishing Media:	Water mist, dry chemical, CO2, mechanical foam
Unusual Fire and Fighting Hazards:	Liquid adhesive will not ignite. Dried adhesive will ignite if heated over 150°C and or exposed to ignition source, producing CO, CO2, smoke and hydrocarbons.
Special Fire Fighting Procedures:	If dried adhesive ignites, use dry chemical, foam extinguishers, or a fog nozzle. For small fires, CO2 extinguishers can be used. Use air mask when combating dried adhesive fires.

SECTION V — HEALTH HAZARD DATA

Threshold Limit Value:	Non-established
Effects of overexposure:	Wet-possible lightheadedness, nausea, and/or mild dermatitis could develop. Dry-None.
Emergency and First Aid Procedures:	Flush eyes with ample water. Wash skin with soap and water. If ingested, treat symptomatically and contact physician.

SECTION VI — REACTIVITY DATA

Stability:	Stable
Incompatibility:	(Materials to avoid)
Conditions to avoid:	Closed area with open container
Hazardous Decomposition Products:	None
Hazardous Polymerization:	Will not occur
Conditions to avoid:	Strong acids or oxidants, temperatures below 20°F

SECTION VII — SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled: Scoop up excess with shovel, wash remainder with water.
Waste Disposal Method: Landfill or incinerate as per local and state regulations.

SECTION VIII — SPECIAL PROTECTION INFORMATION

Respiratory Protection:	None required with adequate ventilation.
Ventilation:	Open windows, exhaust fan, open air area
Protective Gloves:	May be desirable for people with sensitive skin.
Eye Protection:	Safety glasses or goggles.
Other Protective Equipment:	None required

SECTION IX — SPECIAL PRECAUTIONS

Precautions to be taken in handling and storing:	Store in a cool, dry place. Optimum storage temperature 70°F. Keep sealed when not in use.
Other precautions:	Keep from freezing. If frozen allow to thaw at room temperature. DO NOT agitate or stir until adhesive is completely thawed. Shelf life – one year from the date of manufactured in an unopened container.

Flash Point:107F
Lower Limits:0.1%
Upper Limits:6.0%
Extinguishing Media:FOAM, DRY CHEMICAL, FOG, CO2
Fire Fighting Procedures:DON'T USE STREAM OF WATER.

========== Accidental Release Measures ==========

Spill Release Procedures:ELIMINATE ALL IGNITION SOURCES. ADD ABSORBENT TO SPILL AREA & RECOVER FREE PRODUCT. PREVENT PRODUCT FROM ENTERING SEWER & WATERWAYS.

========== Handling and Storage ==========

Handling and Storage Precautions:HANDLE AS A COMBUSTIBLE LIQUID. EMPTY CONTAINERS OF THIS MATERIAL MAY CONTACT RESIDUAL LIQUIDS & EXPLOSIVE VAPORS.

========== Exposure Controls/Personal Protection ==========

Respiratory Protection:IF >TLV, USE NIOSH/MSHA APPROVED RESPIRATOR.
Ventilation:MECHANICAL/LOCAL EXHAUST: AS REQUIRED
Protective Gloves:CHEMICAL RESISTANT
Eye Protection:CHEMICAL GOGGLES
Supplemental Safety and Health

========== Physical/Chemical Properties ==========

Boiling Pt:B.P. Text:312F
Vapor Pres:1.4
Vapor Density:4.49
Spec Gravity:0.875
Evaporation Rate & Reference:0.1
Solubility in Water:NEGLIGIBLE
Appearance and Odor:WATER WHITE LIQUID
Percent Volatiles by Volume:85%

========== Stability and Reactivity Data ==========

Stability Indicator/Materials to Avoid:YES
STRONG OXIDIZING AGENTS
Stability Condition to Avoid:IGNITION SOURCES
Hazardous Decomposition Products:CO, CO2, INTERMEDIATE COMBUSTION PRODUCTS WHEN BURNED

========== Disposal Considerations ==========

Waste Disposal Methods:PERMITTED WASTE DISPOSAL FACILITY. CONSULT LOCAL ORDINANCES FOR COMPLIANCES.

APPENDIX C

Analytical Data Report

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

ODOT

Lot #: A8K070163

Peggy Schuler

URS Corporation
1375 Euclid Avenue
Cleveland, OH 44115

TESTAMERICA LABORATORIES, INC.

Mark J. Loeb
Project Manager

November 17, 2008

CASE NARRATIVE

A8K070163

The following report contains the analytical results for two wipe samples submitted to TestAmerica North Canton by URS Corporation from the ODOT Site. The samples were received November 06, 2008, according to documented sample acceptance procedures.

TestAmerica utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Peggy Schuler on November 14, 2008. A summary of QC data for these analyses is included at the back of the report.

TestAmerica North Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

Any reference within this document to Severn Trent Laboratories, Inc. or STL, should be understood to refer to TestAmerica Laboratories, Inc. (formerly known as Severn Trent Laboratories, Inc.)

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Please refer to the Quality Control Elements Narrative following this case narrative for additional quality control information.

If you have any questions, please call the Project Manager, Mark J. Loeb, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT." The total number of pages in this report is 16.

SUPPLEMENTAL QC INFORMATION

SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 2.7°C.

POLYCHLORINATED BIPHENYLS-8082

The analytical results met the requirements of the laboratory's QA/QC program.

QUALITY CONTROL ELEMENTS NARRATIVE

TestAmerica North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

QC BATCH

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. TestAmerica North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples.

For SW846/RCRA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLE DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

For 600 series/CWA methods, QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE (MS). An MS is prepared and analyzed at a 10% frequency for GC Methods and at a 5% frequency for GC/MS methods.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. Multi peak responders may not be included in the target spike list due to co-elution. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. Comparison of only the failed parameters from the first batch are evaluated. The only exception to the rework requirement is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

- Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed in the table.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

QUALITY CONTROL ELEMENTS NARRATIVE (continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.

- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

For certain methods (600 series methods/CWA), a Matrix Spike is required in place of a Matrix Spike/Matrix Spike Duplicate (MS/MSD) or Matrix Spike/Sample Duplicate (MS/DU).

The acceptance criteria do not apply to samples that are diluted.

SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepared and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepared and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

The acceptance criteria do not apply to samples that are diluted. All other surrogate recoveries will be reported.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide and PCB methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria. The second surrogate must have a recovery of 10% or greater.

EXECUTIVE SUMMARY - Detection Highlights

A8K070163

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

SAMPLE SUMMARY

A8K070163

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
K2GFP	001	A-POWERHOUSE	11/04/08	12:00
K2GFW	002	B-POWERHOUSE	11/04/08	12:00

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

URS Corporation

Client Sample ID: A-POWERHOUSE

GC Semivolatiles

Lot-Sample #...: A8K070163-001	**Work Order #...:** K2GFP1AA		**Matrix.....:** SW
Date Sampled...: 11/04/08 12:00	**Date Received..:** 11/06/08		
Prep Date.....: 11/10/08	**Analysis Date..:** 11/11/08		
Prep Batch #...: 8315048			
Dilution Factor: 1	**Method.....:** SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	4.0	ug
Aroclor 1221	ND	4.0	ug
Aroclor 1232	ND	4.0	ug
Aroclor 1242	ND	4.0	ug
Aroclor 1248	ND	4.0	ug
Aroclor 1254	ND	4.0	ug
Aroclor 1260	ND	4.0	ug

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	100	(10 - 196)
Decachlorobiphenyl	168	(10 - 199)

URS Corporation

Client Sample ID: B-POWERHOUSE

GC Semivolatiles

Lot-Sample #...:	A8K070163-002	**Work Order #...:**	K2GFW1AA	**Matrix.....:**	SW
Date Sampled...:	11/04/08 12:00	**Date Received..:**	11/06/08		
Prep Date.....:	11/10/08	**Analysis Date..:**	11/11/08		
Prep Batch #...:	8315048				
Dilution Factor:	1	**Method.....:**	SW846 8082		

PARAMETER	RESULT	REPORTING LIMIT	UNITS
Aroclor 1016	ND	4.0	ug
Aroclor 1221	ND	4.0	ug
Aroclor 1232	ND	4.0	ug
Aroclor 1242	ND	4.0	ug
Aroclor 1248	ND	4.0	ug
Aroclor 1254	ND	4.0	ug
Aroclor 1260	ND	4.0	ug

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	96	(10 - 196)
Decachlorobiphenyl	138	(10 - 199)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

QUALITY CONTROL SECTION

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: A8K070163 Work Order #...: K2KQW1AA Matrix.....: WIPE
MB Lot-Sample #: A8K100000-048

Prep Date.....: 11/10/08
Analysis Date..: 11/11/08 Prep Batch #...: 8315048
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aroclor 1016	ND	4.0	ug	SW846 8082
Aroclor 1221	ND	4.0	ug	SW846 8082
Aroclor 1232	ND	4.0	ug	SW846 8082
Aroclor 1242	ND	4.0	ug	SW846 8082
Aroclor 1248	ND	4.0	ug	SW846 8082
Aroclor 1254	ND	4.0	ug	SW846 8082
Aroclor 1260	ND	4.0	ug	SW846 8082

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	102	(10 - 196)
Decachlorobiphenyl	112	(10 - 199)

NOTE(S):

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

LABORATORY CONTROL SAMPLE EVALUATION REPORT

GC Semivolatiles

Client Lot #...: A8K070163 **Work Order #...:** K2KQW1AC-LCS **Matrix.....:** WIPE
LCS Lot-Sample#: A8K100000-048 K2KQW1AD-LCSD
Prep Date.....: 11/10/08 **Analysis Date..:** 11/11/08
Prep Batch #...: 8315048
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
Aroclor 1016	**108**	**(34 - 127)**			**SW846 8082**
	105	**(34 - 127)**	**2.5**	**(0-30)**	**SW846 8082**
Aroclor 1260	**104**	**(32 - 141)**			**SW846 8082**
	101	**(32 - 141)**	**2.3**	**(0-30)**	**SW846 8082**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	108	(10 - 196)
	105	(10 - 196)
Decachlorobiphenyl	116	(10 - 199)
	106	(10 - 199)

NOTE(S):

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

Bold print denotes control parameters

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4142 (0408)

Client	Project Manager	Date	Chain of Custody Number
URS Corp	Seda Ergun	11/5/08	003935
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
1375 Euclid Ave	216-622-2400		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	
Cleveland / OH / 44115			
Project Name and Location (State)	**Carrier/Waybill Number**		
ODOT	Fed X or UPS		
Contract/Purchase Order/Quote No.			
Pending			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Wipe	Containers & Preservatives: Unpres.	H_2SO_4	HNO_3	HCl	NaOH	ZnAc/NaOH	Analysis: PCBs	Special Instructions/ Conditions of Receipt
A - Powerhouse	11/4	12:00					✓							✓	
B - Powerhouse	11/4	12:00					✓							✓	

Possible Hazard Identification
☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
(A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time
1. Relinquished By: Jeffrey Beer	11/5	5:00 PM
2. Relinquished By:		
3. Relinquished By:		

	Date	Time
1. Received By: 6 Nov 2008 [illegible] - TEST AMERICA 0810		
2. Received By:		
3. Received By:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

North Canton

TestAmerica Cooler Receipt Form/Narrative **Lot Number:** 480070163
North Canton Facility

Client URS Corp Project _____ By: _____ (Signature)
Cooler Received on 11-6-08 Opened on 11-6-08
FedEx ☒ UPS ☐ DHL ☐ FAS ☐ Stetson ☐ Client Drop Off ☐ TestAmerica Courier ☐ Other _____
TestAmerica Cooler # _____ Multiple Coolers ☐ Foam Box ☐ Client Cooler ☒ Other _____

1. Were custody seals on the outside of the cooler(s)? Yes ☒ No ☐ Intact? Yes ☒ No ☐ NA ☐
   If YES, Quantity 1 Quantity Unsalvageable _____
   Were custody seals on the outside of cooler(s) signed and dated? Yes ☒ No ☐ NA ☐
   Were custody seals on the bottle(s)? Yes ☐ No ☒
   If YES, are there any exceptions? _____
2. Shippers' packing slip attached to the cooler(s)? Yes ☒ No ☐
3. Did custody papers accompany the sample(s)? Yes ☒ No ☐ Relinquished by client? Yes ☒ No ☐
4. Were the custody papers signed in the appropriate place? Yes ☒ No ☐
5. Packing material used: Bubble Wrap ☒ Foam ☐ None ☐ Other _____
6. Cooler temperature upon receipt 2.7 °C See back of form for multiple coolers/temps ☐
   METHOD: IR ☒ Other ☐ _____
   COOLANT: Wet Ice ☒ Blue Ice ☐ Dry Ice ☐ Water ☐ None ☐
7. Did all bottles arrive in good condition (Unbroken)? Yes ☒ No ☐
8. Could all bottle labels be reconciled with the COC? Yes ☒ No ☐
9. Were sample(s) at the correct pH upon receipt? Yes ☐ No ☐ NA ☒
10. Were correct bottle(s) used for the test(s) indicated? Yes ☒ No ☐
11. Were air bubbles >6 mm in any VOA vials? Yes ☐ No ☐ NA ☒
12. Sufficient quantity received to perform indicated analyses? Yes ☒ No ☐
13. Was a trip blank present in the cooler(s)? Yes ☐ No ☒ Were VOAs on the COC? Yes ☐ No ☒

Contacted PM _____ Date _____ by _____ via Verbal ☐ Voice Mail ☐ Other ☐
Concerning _____

14. CHAIN OF CUSTODY

The following discrepancies occurred:

_____

_____

_____

_____

_____

_____

15. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

16. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in Sample Receiving to meet recommended pH level(s). *Nitric Acid Lot# 100108-HNO_3; Sulfuric Acid Lot# 031808-H_2SO_4; Sodium Hydroxide Lot# 073007 -NaOH; Hydrochloric Acid Lot# 092006-HCl; Sodium Hydroxide and Zinc Acetate Lot# 050205-$(CH_3COO)_2ZN$/NaOH.* What time was preservative added to sample(s)? _____

Client ID	pH	Date	Initials

TestAmerica Cooler Receipt Form/Narrative
North Canton Facility

Client ID	pH	Date	Initials
Cooler #	**Temp. °C**	**Method**	**Coolant**

Discrepancies Cont'd:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

END OF REPORT