# TR4 SHALLOW SOIL SAMPLING SUMMARY REPORT OCTOBER 2012

CARRIER THOMPSON ROAD FACILITY
CARRIER PARKWAY
SYRACUSE, NEW YORK

EnSafe Project Number 0888812801

Revision: 0

Prepared for:

UTC Shared Remediation Services United Technologies Building Hartford, Connecticut 06108

Prepared by:



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#### 1.0 BACKGROUND INFORMATION

The Carrier Corporation Thompson Road Facility in Syracuse, New York (Carrier) currently discharges storm water runoff under its State Pollutant Discharge Elimination System (SPDES) Permit (No. NY 000 1163). As of September 1, 2012, Carrier's SPDES permit covers Outfalls 01A, 001, 002, 003, and 004, as described below:

- Outfall 001 This outfall receives storm water runoff from Drainage Basin 001, as shown on Figure 1 Drainage Basin Map and PMP Sampled Locations (Appendix A). An associated pump station (PS-1) collects and transfers up to 440 gallon per minute of dry weather flow (infiltrating groundwater) and a portion of the storm water to an onsite volatile organic compound (VOC) treatment system (air stripping towers) in the storm water treatment plant (SWTP) building located northeast of Parking Lot R (PL-R). After treatment, the storm water is discharged to Sanders Creek via Outfall 01A. Storm water exceeding the capacity of PS-1 discharges directly to Outfall 001.
- Outfall 002 This outfall receives storm water runoff from Drainage Basin 002, as shown on Figure 1. This basin has three detention ponds that collect dry weather flow (infiltrating groundwater) and storm water that flows to pump station (PS-2), then transfers the water to a polychlorinated biphenyl (PCB) treatment system in the SWTP building. Treated storm water from the PCB treatment system is routed to the VOC treatment system, where it combines with flow pumped from PS-1 and ultimately discharges to Sanders Creek via Outfall 01A. During large storm events that produce flows exceeding the capacity of the three ponds and PS-2, overflows discharge directly to Outfall 002.
- Outfall 01A This outfall receives the discharge from the air stripper treatment system.
   Outfall 01A discharges into the Outfall 001 discharge pipe prior to their combined discharge into Sanders Creek.
- Outfall 003 This outfall receives surface water runoff from Drainage Basin 003, as shown on Figure 1. This drainage basin and outfall were created subsequent to the demolition of buildings TR-1 and TR-2 to collect uncontaminated surface water and convey it directly to Sanders Creek.
- Outfall 004 This outfall receives surface water runoff from Drainage Basin 004, as shown on Figure 1. This drainage basin and outfall were created subsequent to the demolition of



buildings TR-1 and TR-2 to collect uncontaminated surface water and convey it directly to Sanders Creek.

Under its SPDES Permit, Carrier performs monthly monitoring of PCBs at Outfall 01A, and at Outfalls 001 and 002, if discharge occurs. Recent PCB detections have prompted Carrier to evaluate potential sources of PCBs in the 01A discharge. There are four sources of storm water influent to Outfall 01A:

- 1. Treated Basin 002 Storm Water (PS2  $\rightarrow$  SWTP  $\rightarrow$  VOC treatment  $\rightarrow$  01A)
  - Basin 002 Storm Water: Routine sampling of water exiting the PCB treatment system indicates that the system is effectively removing PCBs from Basin 002 runoff and this influent to Outfall 01A has been eliminated as a current source of PCBs in the 01A discharge.
- 2. Basin 001 Storm Water (PS1  $\rightarrow$  VOC treatment  $\rightarrow$  01A)
  - Basin 001: This storm water runoff is not treated for PCBs.
- 3. Treated Parking Lot R (PL-R) Storm Water (PSMH1  $\rightarrow$  SWTP  $\rightarrow$  VOC treatment  $\rightarrow$  01A)
  - Parking Lot R: PL-R was formerly part of Basin 001. Recent findings prompted Carrier to reroute storm water in the portion of the PL-R storm lines tributary to MH5 to the PCB treatment system using a submersible pump installed at manhole MH1 (pump station at MH1 - PSMH1); therefore, the runoff in this piping, which underlies roughly the western two-thirds of PL-R, has been eliminated as a current source of PCBs in the 01A discharge.
- 4. Treated Compressor Avenue Line Storm Water (PSMH2  $\rightarrow$  SWTP  $\rightarrow$  VOC treatment  $\rightarrow$  01A)
  - Compressor Avenue Line: The Compressor Avenue Line was formerly part of Basin 001. Recent findings prompted Carrier to reroute storm water in the portion of the Compressor Avenue line tributary to MH42 to the PCB treatment system using an overflow weir and submersible pump installed at manhole MH2 (PSMH2). The runoff in this piping has been eliminated as a current low-flow source of PCBs in the 01A discharge.

With Basin 002, the PL-R piping, and the Compressor Avenue Line eliminated as sources of PCBs in 01A discharges, Carrier shifted its focus on sources to Basin 001. Carrier identified three areas near TR-4 and TR-5 that were proximate to transformers that may have historically contained PCBs,



and conducted a shallow soil investigation at each of these locations. Notification via e-mail of field activities was transmitted to NYSDEC on September 6, 2012. These locations are identified as TR4 Fan Room 2, TR4 Substation M, and TR5 Substation N. The purpose of the investigation was to determine if a historical release to shallow soils may have occurred, resulting in the continued migration (via erosion of surface soils) of PCBs into the Basin 001 storm lines.

#### 2.0 ASSESSMENT ACTIVITIES

EnSafe conducted a shallow soil investigation on September 11, 2012, at the locations shown on Figure 2 – TR4 Shallow Soil Investigation Locations. A total of 17 soil borings were advanced via hand auger to a depth of approximately 14 inches below ground surface (bgs). All borings were advanced in landscaped areas: six borings along the eastern side of TR-4 near TR4 Substation M, eight borings at the northern portion of Building TR4 near TR4 Fan Room 2, and three borings along the western side of Building TR5 near TR5 Substation N. Groundwater was not encountered at any of the soil boring locations.

Two soil samples were collected for laboratory analysis from each soil boring location — one from approximately 4 to 8 inches bgs and another from approximately 10 to 14 inches bgs. Samples were placed into 4-ounce glass jars, stored on ice, and submitted under chain-of-custody procedures to Accutest Laboratories (Dayton, New Jersey) for Total PCB analysis using USEPA Method 8082. The shallow soil samples (4 to 8 inches bgs) were submitted for immediate PCBs analysis, while the deeper soil samples (10 to 14 inches bgs) were placed on hold by the laboratory to be analyzed depending upon on results from the shallow soil samples. If the 4 to 8-inch interval exhibited PCBs at concentrations consistent with a PCB oil/free-product release or spill, then the lab was instructed to analyze the deep soil interval (10 to 14 inches).

Investigation-derived waste generated during site activities was limited to soil cuttings. These wastes were placed back in the boring from which they were generated. No other wastes requiring characterization and disposal were generated during the September 2012 shallow soil sampling event.

Laboratory analytical results summaries (Table 1) for soil samples obtained during the September 2012 shallow soil sampling event are provided in Appendix B. Laboratory analytical reports and chain of custody documentation are provided in Appendix C.



#### 3.0 CONCLUSION

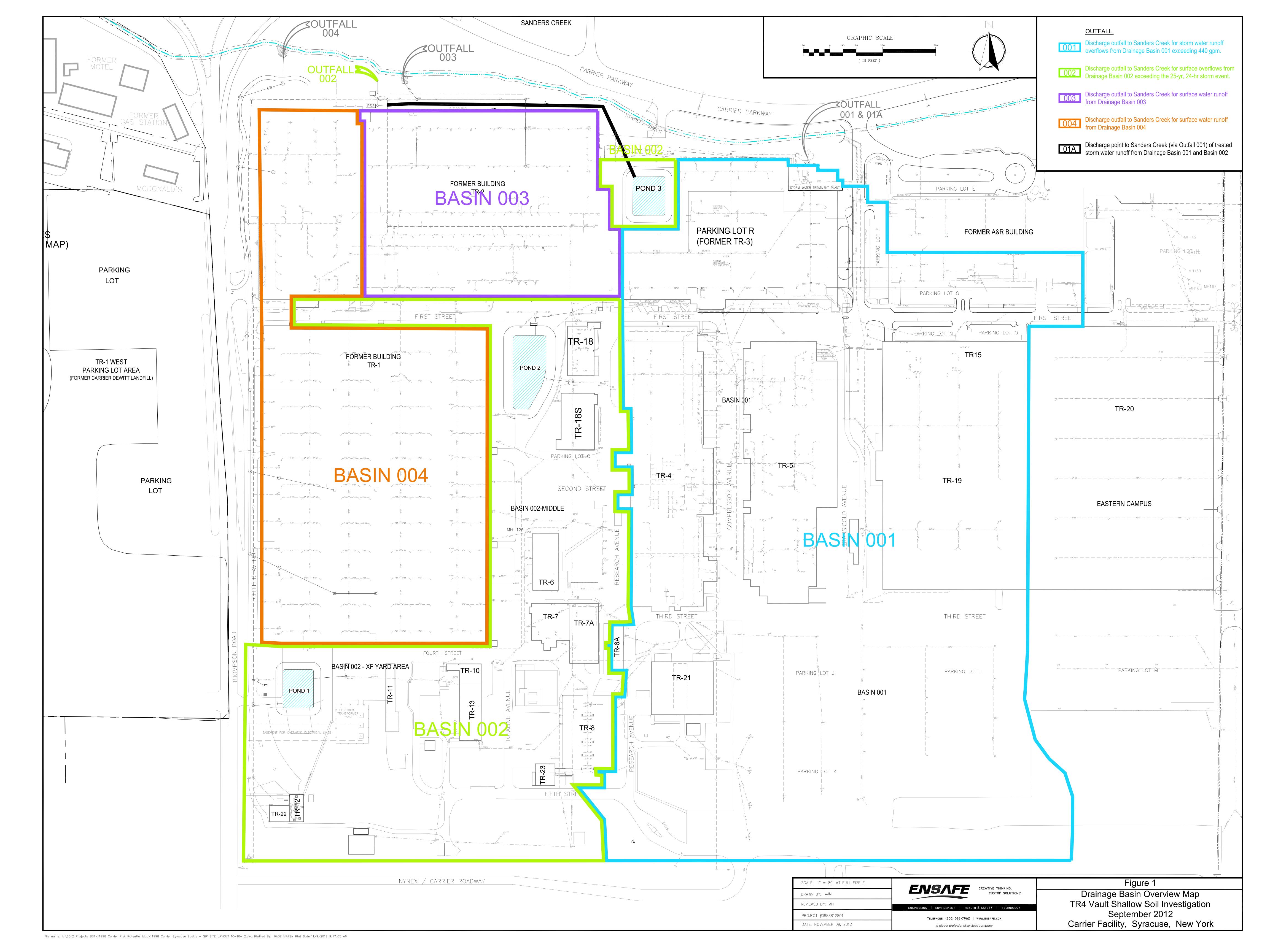
In two of the three investigation areas TR4 Fan Room 2 and TR5 Substation N, PCB concentrations were less than 0.5 milligrams per kilogram (mg/kg) in all samples. The average Aroclor 1260 concentration was 0.421 mg/kg and Aroclor 1254 was not detected above the method detection limit. At TR4 Substation M, PCBs were detected above 1 mg/kg in only one sample and the average concentration in this area was 0.194 mg/kg. Considering these PCB concentrations, shallow surface soil does not appear to be the source of PCBs in Outfall 01A discharges, and no further action with regard to shallow surface soils is planned. Carrier will continue to evaluate the source of PCBs in the01A discharges.

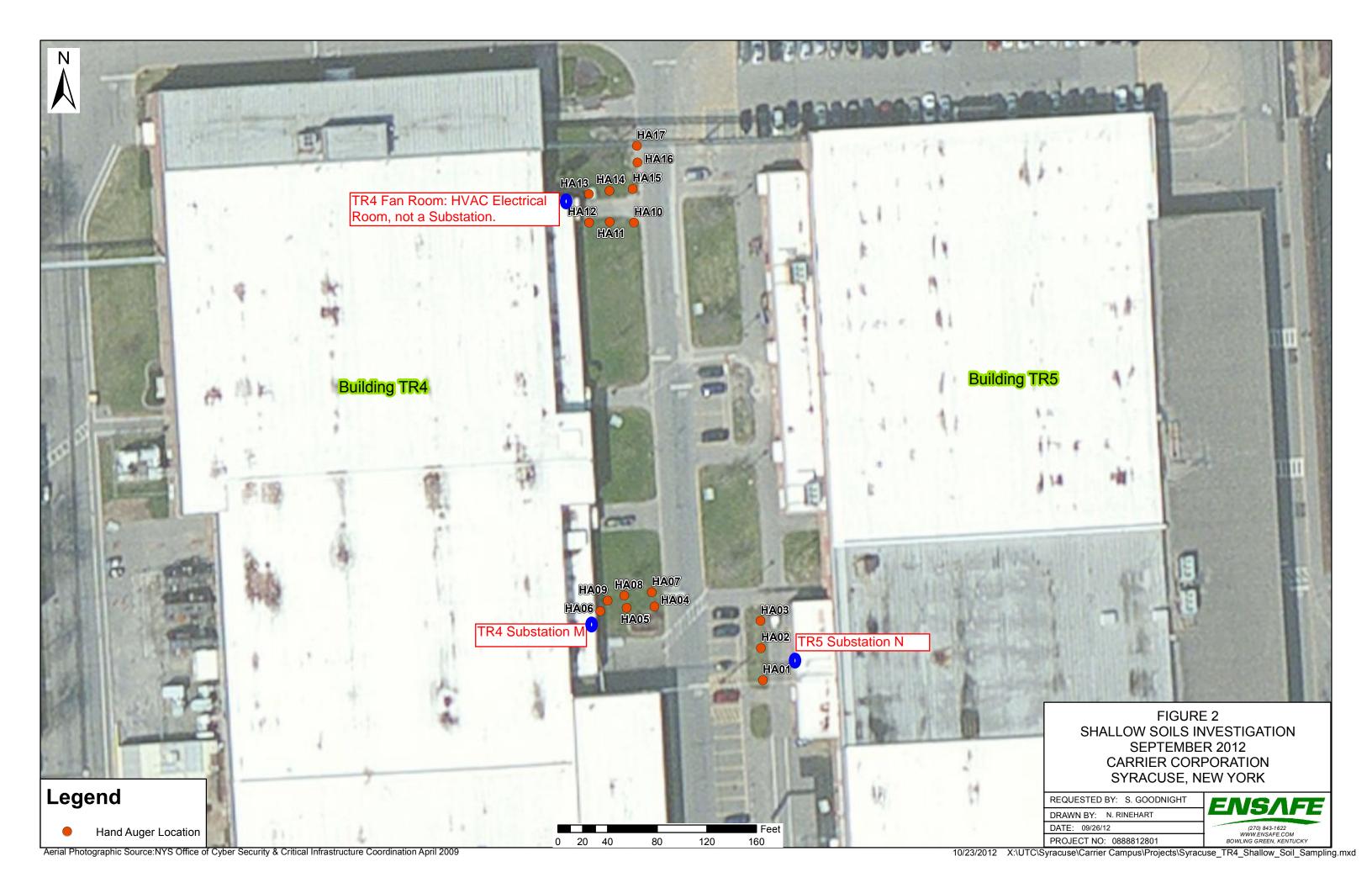
#### 4.0 LIMITATIONS

This limited assessment does not constitute a comprehensive site investigation to identify the presence and/or horizontal and vertical extent of potential contamination on the subject property.

The objective of this limited assessment was to evaluate the potential presence and concentrations of PCBs in soil associated with three areas near TR-4 and TR-5 that were proximate to transformers that may have historically contained PCBs. However, horizontal and vertical extent of PCB impacts have not been defined as a result of this limited assessment.

Appendix A Figures





Appendix B
Analytical Results Summary Table

# Table 1 CARRIER THOMPSON ROAD FACILITY CARRIER PARKWAY SYRACUSE, NEW YORK LABORATORY ANALYTICAL RESULTS SUMMARY - SOIL

#### **SEPTEMBER 2012** Table 1 TR4 Vault Shallow Surface Soil Investigation, September 2012 PCB Data Summary (all results in mg/kg) **Carrier Facility, Syracuse, New York Aroclor Aroclor** Aroclor Aroclor Aroclor Aroclor Aroclor Aroclor Aroclor 1016 1221 1232 1242 1248 1254 1260 1262 1268 **Total PCBs** 1 NYSDEC Limit - Surface Soils CARHA01SSS0912 ND ND ND ND ND ND 0.0799 ND ND 0.0799 CARHA02SSS0912 ND ND ND ND ND ND ND ND ND CARHA03SSS0912 ND ND ND ND ND ND 0.261 ND ND 0.261 CARHA04SSS0912 ND ND ND ND ND ND 0.457 ND ND 0.457 CARHA05SSS0912 ND ND ND ND ND 0.311 ND ND 0.311 ND 0.75 ND 1.118 CARHA06SSS0912 ND ND ND ND ND 0.368 ND 0.236 CARHA07SSS0912 ND 0.236 ND 0.556 CARHA08SSS0912 ND ND ND 0.556 0.216 CARHA09SSS0912 ND ND ND ND ND ND 0.216 ND ND CARHA10SSS0912 ND ND ND ND ND ND 0.396 ND ND 0.396 CARHA11SSS0912 ND ND ND ND ND ND 0.146 ND ND 0.146 CARHA12SSS0912 ND ND ND 0.28 ND ND 0.28 ND ND ND CARHA13SSS0912 ND ND ND ND ND ND 0.0817 ND ND 0.0817 0.0929 CARHA14SSS0912 ND ND ND ND ND ND 0.0929 ND ND 0.304 CARHA15SSS0912 ND ND ND ND ND 0.304 ND ND ND 0.473 CARHA16SSS0912 ND ND ND ND 0.473 ND ND ND ND CARHA17SSS0912 ND ND ND ND ND ND ND ND ND

Notes:

ND - Constituent not detected at laboratory report limit

All concentrations reported in micrograms per kilogram (µg/Kg)

Concentrations exceeding NYSDEC Limit for Surface Soils



<sup>&</sup>lt;sup>1</sup> Screening levels based on NYSDEC Soil Cleanup Guidance (CP-51 dated October 2010)

Appendix C Laboratory Analytical Reports



09/21/12



# **Technical Report for**

# **United Technologies Corporation**

ENSTNN: Carrier, Syracuse, NY

0888812801

Accutest Job Number: JB16302

**Sampling Date: 09/11/12** 

#### Report to:

Ensafe 5724 Summer Trees Drive Memphis, TN 38134

tcantwell@ensafe.com; mheflin@Ensafe.com;

bham@ensafe.com ATTN: May Heflin

Total number of pages in report: 36



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul Ioannidis Lab Director

Client Service contact: Marie Meidhof 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), PA, RI, SC, TN, VA, WV

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories. Test results relate only to samples analyzed.



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# C

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# **Sample Summary**

Job No:

JB16302

United Technologies Corporation

ENSTNN: Carrier, Syracuse, NY Project No: 0888812801

Sample	Collected		 	Matri		Client
Number	Date	Time By	Received	Code	Туре	Sample ID
JB16302-1	09/11/12	10:25 SG	09/12/12	SO	Soil	CARHA01SSS0912
JB16302-2	09/11/12	10:39 SG	09/12/12	SO	Soil	CARHA02SSS0912
JB16302-3	09/11/12	10:48 SG	09/12/12	SO	Soil	CARHA03SSS0912
JB16302-4	09/11/12	12:13 SG	09/12/12	SO	Soil	CARHA04SSS0912
JB16302-5	09/11/12	12:22 SG	09/12/12	SO	Soil	CARHA05SSS0912
JB16302-6	09/11/12	12:29 SG	09/12/12	SO	Soil	CARHA06SSS0912
JB16302-7	09/11/12	12:38 SG	09/12/12	SO	Soil	CARHA07SSS0912
JB16302-8	09/11/12	12:50 SG	09/12/12	SO	Soil	CARHA08SSS0912
JB16302-9	09/11/12	12:59 SG	09/12/12	SO	Soil	CARHA09SSS0912
JB16302-10	09/11/12	13:26 SG	09/12/12	SO	Soil	CARHA10SSS0912
JB16302-11	09/11/12	13:35 SG	09/12/12	SO	Soil	CARHA11SSS0912
JB16302-12	09/11/12	13:45 SG	09/12/12	SO	Soil	CARHA12SSS0912
JB16302-13	09/11/12	13:54 SG	09/12/12	SO	Soil	CARHA13SSS0912

Soil samples reported on a dry weight basis unless otherwise indicated on result page.





# Sample Summary (continued)

Job No:

JB16302

United Technologies Corporation

ENSTNN: Carrier, Syracuse, NY Project No: 0888812801

Sample Number	Collected Date	Time By	Received	Matri Code		Client Sample ID
JB16302-14	09/11/12	14:07 SG	09/12/12	SO	Soil	CARHA14SSS0912
JB16302-15	09/11/12	14:27 SG	09/12/12	SO	Soil	CARHA15SSS0912
JB16302-16	09/11/12	14:36 SG	09/12/12	SO	Soil	CARHA16SSS0912
JB16302-17	09/11/12	14:50 SG	09/12/12	SO	Soil	CARHA17SSS0912

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



Summary of Hits
Job Number: JB16302
Account: United Technologies Corporation
Project: ENSTNN: Carrier, Syracuse, NY

**Collected:** 09/11/12

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB16302-1	CARHA01SSS091	2				
Aroclor 1260		79.9	33	11	ug/kg	SW846 8082A
JB16302-2	CARHA02SSS091	2				
No hits reported	in this sample.					
JB16302-3	CARHA03SSS091	2				
Aroclor 1260		261	36	12	ug/kg	SW846 8082A
JB16302-4	CARHA04SSS091	2				
Aroclor 1260		457	35	11	ug/kg	SW846 8082A
JB16302-5	CARHA05SSS091	2				
Aroclor 1260		311	35	11	ug/kg	SW846 8082A
JB16302-6	CARHA06SSS091	2				
Aroclor 1254 Aroclor 1260		368 750	34 34	16 11	ug/kg ug/kg	SW846 8082A SW846 8082A
JB16302-7	CARHA07SSS091	2				
Aroclor 1260		236	33	11	ug/kg	SW846 8082A
JB16302-8	CARHA08SSS091	2				
Aroclor 1260		556	37	12	ug/kg	SW846 8082A
JB16302-9	CARHA09SSS091	2				
Aroclor 1260		216	35	11	ug/kg	SW846 8082A
JB16302-10	CARHA10SSS091	2				
Aroclor 1260		396	34	11	ug/kg	SW846 8082A
JB16302-11	CARHA11SSS091	2				
Aroclor 1260		146	35	12	ug/kg	SW846 8082A



# **Summary of Hits Job Number:** JB16302

United Technologies Corporation Account: **Project:** ENSTNN: Carrier, Syracuse, NY

**Collected:** 09/11/12

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JB16302-12	CARHA12SSS091	2				
Aroclor 1260		280	35	11	ug/kg	SW846 8082A
JB16302-13	CARHA13SSS091	2				
Aroclor 1260		81.7	36	12	ug/kg	SW846 8082A
JB16302-14	CARHA14SSS091	2				
Aroclor 1260		92.9	35	11	ug/kg	SW846 8082A
JB16302-15	CARHA15SSS091	2				
Aroclor 1260		304	34	11	ug/kg	SW846 8082A
JB16302-16	CARHA16SSS091	2				
Aroclor 1260		473	35	12	ug/kg	SW846 8082A
JB16302-17	CARHA17SSS091	2				

JB16302-17 CARHA17SSS0912

No hits reported in this sample.





Sample Results	
Report of Analysis	



# **Report of Analysis**

Client Sample ID: CARHA01SSS0912

 Lab Sample ID:
 JB16302-1
 Date Sampled:
 09/11/12

 Matrix:
 SO - Soil
 Date Received:
 09/12/12

 Method:
 SW846 8082A
 SW846 3546
 Percent Solids:
 94.2

**Project:** ENSTNN: Carrier, Syracuse, NY

	File ID	DF	Analyzed	$\mathbf{B}\mathbf{y}$	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	5G4990.D	1	09/19/12	HQ	09/19/12	OP59887	G5G123
Run #2							

	Initial Weight	Final Volume
Run #1	16.1 g	10.0 ml
Run #2		

#### **PCB List**

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	8.6	ug/kg	
11104-28-2	Aroclor 1221	ND	33	20	ug/kg	
11141-16-5	Aroclor 1232	ND	33	17	ug/kg	
53469-21-9	Aroclor 1242	ND	33	10	ug/kg	
12672-29-6	Aroclor 1248	ND	33	10	ug/kg	
11097-69-1	Aroclor 1254	ND	33	15	ug/kg	
11096-82-5	Aroclor 1260	79.9	33	11	ug/kg	
11100-14-4	Aroclor 1268	ND	33	9.7	ug/kg	
37324-23-5	Aroclor 1262	ND	33	10	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	ts	
877-09-8	Tetrachloro-m-xylene	48%		22-14	11%	
877-09-8	Tetrachloro-m-xylene	59%		22-14	11%	
2051-24-3	Decachlorobiphenyl	55%		18-16	53%	
2051-24-3	Decachlorobiphenyl	57%		18-16	53%	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



# **Report of Analysis**

Client Sample ID: CARHA02SSS0912

 Lab Sample ID:
 JB16302-2
 Date Sampled:
 09/11/12

 Matrix:
 SO - Soil
 Date Received:
 09/12/12

 Method:
 SW846 8082A
 SW846 3546
 Percent Solids:
 92.9

**Project:** ENSTNN: Carrier, Syracuse, NY

File ID DF **Analytical Batch** Analyzed By **Prep Date Prep Batch** Run #1 5G4991.D 1 09/19/12 HQ 09/19/12 OP59887 G5G123 Run #2

Run #1 15.6 g 10.0 ml
Run #2

#### **PCB List**

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	35	9.0	ug/kg	
11104-28-2	Aroclor 1221	ND	35	21	ug/kg	
11141-16-5	Aroclor 1232	ND	35	17	ug/kg	
53469-21-9	Aroclor 1242	ND	35	11	ug/kg	
12672-29-6	Aroclor 1248	ND	35	10	ug/kg	
11097-69-1	Aroclor 1254	ND	35	16	ug/kg	
11096-82-5	Aroclor 1260	ND	35	11	ug/kg	
11100-14-4	Aroclor 1268	ND	35	10	ug/kg	
37324-23-5	Aroclor 1262	ND	35	11	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	its	
877-09-8	Tetrachloro-m-xylene	41%		22-14	41%	
877-09-8	Tetrachloro-m-xylene	48%		22-14	41%	
2051-24-3	Decachlorobiphenyl	54%	18-163%		63%	
2051-24-3	Decachlorobiphenyl	75%		18-16	63%	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



6.3

# **Report of Analysis**

Client Sample ID: CARHA03SSS0912

 Lab Sample ID:
 JB16302-3
 Date Sampled:
 09/11/12

 Matrix:
 SO - Soil
 Date Received:
 09/12/12

 Method:
 SW846 8082A
 SW846 3546
 Percent Solids:
 93.7

**Project:** ENSTNN: Carrier, Syracuse, NY

	File ID	DF	Analyzed	$\mathbf{B}\mathbf{y}$	<b>Prep Date</b>	<b>Prep Batch</b>	Analytical Batch
Run #1	5G4992.D	1	09/19/12	HQ	09/19/12	OP59887	G5G123
Run #2							

	<b>Initial Weight</b>	Final Volume
Run #1	15.0 g	10.0 ml
Run #2	-	

#### **PCB List**

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	36	9.2	ug/kg	
11104-28-2	Aroclor 1221	ND	36	21	ug/kg	
11141-16-5	Aroclor 1232	ND	36	18	ug/kg	
53469-21-9	Aroclor 1242	ND	36	11	ug/kg	
12672-29-6	Aroclor 1248	ND	36	11	ug/kg	
11097-69-1	Aroclor 1254	ND	36	17	ug/kg	
11096-82-5	Aroclor 1260	261	36	12	ug/kg	
11100-14-4	Aroclor 1268	ND	36	10	ug/kg	
37324-23-5	Aroclor 1262	ND	36	11	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	ts	
877-09-8	Tetrachloro-m-xylene	74%		22-14	41%	
877-09-8	Tetrachloro-m-xylene	92%		22-14	41%	
2051-24-3	Decachlorobiphenyl	78%		18-16	53%	
2051-24-3	Decachlorobiphenyl	81%		18-16	53%	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



Client Sample ID: CARHA04SSS0912

Lab Sample ID: JB16302-4 **Date Sampled:** 09/11/12 Matrix: SO - Soil **Date Received:** 09/12/12 Method: SW846 8082A SW846 3546 **Percent Solids:** 93.5

**Project:** ENSTNN: Carrier, Syracuse, NY

File ID DF **Analytical Batch** Analyzed By **Prep Date Prep Batch** Run #1 5G4993.D 1 09/19/12 HQ 09/19/12 OP59887 G5G123 Run #2

**Final Volume Initial Weight** Run #1 15.3 g 10.0 ml Run #2

#### **PCB List**

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	35	9.1	ug/kg	
11104-28-2	Aroclor 1221	ND	35	21	ug/kg	
11141-16-5	Aroclor 1232	ND	35	18	ug/kg	
53469-21-9	Aroclor 1242	ND	35	11	ug/kg	
12672-29-6	Aroclor 1248	ND	35	11	ug/kg	
11097-69-1	Aroclor 1254	ND	35	16	ug/kg	
11096-82-5	Aroclor 1260	457	35	11	ug/kg	
11100-14-4	Aroclor 1268	ND	35	10	ug/kg	
37324-23-5	Aroclor 1262	ND	35	11	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
877-09-8	Tetrachloro-m-xylene	51%		22-1	41%	
877-09-8	Tetrachloro-m-xylene	59%		22-1	41%	
2051-24-3	Decachlorobiphenyl	59%		18-1	63%	
2051-24-3	Decachlorobiphenyl	68%		18-1	63%	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound





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# **Report of Analysis**

Client Sample ID: CARHA05SSS0912

Lab Sample ID: JB16302-5 **Date Sampled:** 09/11/12 Matrix: SO - Soil **Date Received:** 09/12/12 Method: SW846 8082A SW846 3546 Percent Solids: 92.2

**Project:** ENSTNN: Carrier, Syracuse, NY

File ID DF **Analytical Batch** Analyzed By **Prep Date Prep Batch** Run #1 5G4994.D 1 09/19/12 HQ 09/19/12 OP59887 G5G123 Run #2

**Final Volume Initial Weight** Run #1 10.0 ml 15.6 g Run #2

#### **PCB List**

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	35	9.0	ug/kg	
11104-28-2	Aroclor 1221	ND	35	21	ug/kg	
11141-16-5	Aroclor 1232	ND	35	18	ug/kg	
53469-21-9	Aroclor 1242	ND	35	11	ug/kg	
12672-29-6	Aroclor 1248	ND	35	11	ug/kg	
11097-69-1	Aroclor 1254	ND	35	16	ug/kg	
11096-82-5	Aroclor 1260	311	35	11	ug/kg	
11100-14-4	Aroclor 1268	ND	35	10	ug/kg	
37324-23-5	Aroclor 1262	ND	35	11	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	ts	
877-09-8	Tetrachloro-m-xylene	31%		22-14	41%	
877-09-8	Tetrachloro-m-xylene	38%		22-14	41%	
2051-24-3	Decachlorobiphenyl	36%		18-16	53%	
2051-24-3	Decachlorobiphenyl	42%		18-16	53%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



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Client Sample ID: CARHA06SSS0912

 Lab Sample ID:
 JB16302-6
 Date Sampled:
 09/11/12

 Matrix:
 SO - Soil
 Date Received:
 09/12/12

 Method:
 SW846 8082A
 SW846 3546
 Percent Solids:
 92.5

**Project:** ENSTNN: Carrier, Syracuse, NY

File ID DF **Prep Batch Analytical Batch** Analyzed By **Prep Date** Run #1 5G4995.D 1 09/19/12 HQ 09/19/12 OP59887 G5G123 Run #2

Run #1 15.8 g Final Volume

Run #2

#### **PCB List**

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	34	8.9	ug/kg	
11104-28-2	Aroclor 1221	ND	34	21	ug/kg	
11141-16-5	Aroclor 1232	ND	34	17	ug/kg	
53469-21-9	Aroclor 1242	ND	34	11	ug/kg	
12672-29-6	Aroclor 1248	ND	34	10	ug/kg	
11097-69-1	Aroclor 1254	368	34	16	ug/kg	
11096-82-5	Aroclor 1260	750	34	11	ug/kg	
11100-14-4	Aroclor 1268	ND	34	10	ug/kg	
37324-23-5	Aroclor 1262	ND	34	11	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lin	its	
		<b>7</b> 0				
877-09-8	Tetrachloro-m-xylene	50%		22-1	141%	
877-09-8	Tetrachloro-m-xylene	61%		22-1	141%	
2051-24-3	Decachlorobiphenyl	54%		18-1	163%	
2051-24-3	Decachlorobiphenyl	61%		18-1	163%	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



# Report of Analysis

Client Sample ID: CARHA07SSS0912

 Lab Sample ID:
 JB16302-7
 Date Sampled:
 09/11/12

 Matrix:
 SO - Soil
 Date Received:
 09/12/12

 Method:
 SW846 8082A
 SW846 3546
 Percent Solids:
 94.3

**Project:** ENSTNN: Carrier, Syracuse, NY

File ID DF **Analytical Batch** Analyzed By **Prep Date Prep Batch** Run #1 5G4996.D 1 09/19/12 HQ 09/19/12 OP59887 G5G123 Run #2

Run #1 Initial Weight Final Volume
16.2 g 10.0 ml

Run #2

#### **PCB List**

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2 11104-28-2 11141-16-5 53469-21-9 12672-29-6 11097-69-1 11096-82-5 11100-14-4	Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260 Aroclor 1268	ND ND ND ND ND ND 236 ND	33 33 33 33 33 33 33 33 33	8.5 20 17 10 9.9 15 11 9.6	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	
37324-23-5	Aroclor 1262	ND	33	10	ug/kg	
CAS No.	<b>Surrogate Recoveries</b>	Run# 1	Run# 2	Limi	its	
877-09-8 877-09-8 2051-24-3 2051-24-3	Tetrachloro-m-xylene Tetrachloro-m-xylene Decachlorobiphenyl Decachlorobiphenyl	22% 25% 28% 34%		22-1- 22-1- 18-1- 18-1-	41% 63%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



C

# **Report of Analysis**

Client Sample ID: CARHA08SSS0912

 Lab Sample ID:
 JB16302-8
 Date Sampled:
 09/11/12

 Matrix:
 SO - Soil
 Date Received:
 09/12/12

 Method:
 SW846 8082A
 SW846 3546
 Percent Solids:
 90.4

**Project:** ENSTNN: Carrier, Syracuse, NY

File ID DF **Analytical Batch** Analyzed By **Prep Date Prep Batch** Run #1 5G4997.D 1 09/19/12 HQ 09/19/12 OP59887 G5G123 Run #2

Run #1 15.0 g Final Volume
Run #2

#### **PCB List**

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	37	9.6	ug/kg	
11104-28-2	Aroclor 1221	ND	37	22	ug/kg	
11141-16-5	Aroclor 1232	ND	37	19	ug/kg	
53469-21-9	Aroclor 1242	ND	37	12	ug/kg	
12672-29-6	Aroclor 1248	ND	37	11	ug/kg	
11097-69-1	Aroclor 1254	ND	37	17	ug/kg	
11096-82-5	Aroclor 1260	556	37	12	ug/kg	
11100-14-4	Aroclor 1268	ND	37	11	ug/kg	
37324-23-5	Aroclor 1262	ND	37	12	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	its	
877-09-8	Tetrachloro-m-xylene	52%		22-14	41%	
877-09-8	Tetrachloro-m-xylene	63%		22-1	41%	
2051-24-3	Decachlorobiphenyl	62%		18-1	63%	
2051-24-3	Decachlorobiphenyl	73%		18-1	63%	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



C

# Report of Analysis

Client Sample ID: CARHA09SSS0912

 Lab Sample ID:
 JB16302-9
 Date Sampled:
 09/11/12

 Matrix:
 SO - Soil
 Date Received:
 09/12/12

 Method:
 SW846 8082A
 SW846 3546
 Percent Solids:
 91.2

**Project:** ENSTNN: Carrier, Syracuse, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	<b>Analytical Batch</b>
Run #1	EF112864.D	1	09/19/12	GAD	09/19/12	OP59887	GEF4579
Run #2							

Run #1 15.7 g 10.0 ml
Run #2

#### **PCB List**

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	35	9.1	ug/kg	
11104-28-2	Aroclor 1221	ND	35	21	ug/kg	
11141-16-5	Aroclor 1232	ND	35	18	ug/kg	
53469-21-9	Aroclor 1242	ND	35	11	ug/kg	
12672-29-6	Aroclor 1248	ND	35	11	ug/kg	
11097-69-1	Aroclor 1254	ND	35	16	ug/kg	
11096-82-5	Aroclor 1260	216	35	11	ug/kg	
11100-14-4	Aroclor 1268	ND	35	10	ug/kg	
37324-23-5	Aroclor 1262	ND	35	11	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	its	
877-09-8	Tetrachloro-m-xylene	37%		22-1	41%	
877-09-8	Tetrachloro-m-xylene	41%		22-1	41%	
2051-24-3	Decachlorobiphenyl	54%		18-1	63%	
2051-24-3	Decachlorobiphenyl	50%		18-1	63%	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



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Client Sample ID: CARHA10SSS0912

 Lab Sample ID:
 JB16302-10
 Date Sampled:
 09/11/12

 Matrix:
 SO - Soil
 Date Received:
 09/12/12

 Method:
 SW846 8082A
 SW846 3546
 Percent Solids:
 94.4

**Project:** ENSTNN: Carrier, Syracuse, NY

	File ID	DF	Analyzed	By	<b>Prep Date</b>	Prep Batch	<b>Analytical Batch</b>
Run #1	EF112865.D	1	09/19/12	GAD	09/19/12	OP59887	GEF4579
Run #2							

	Initial Weight	Final Volume
Run #1	15.5 g	10.0 ml
Run #2		

#### **PCB List**

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	34	8.9	ug/kg	
11104-28-2	Aroclor 1221	ND	34	21	ug/kg	
11141-16-5	Aroclor 1232	ND	34	17	ug/kg	
53469-21-9	Aroclor 1242	ND	34	11	ug/kg	
12672-29-6	Aroclor 1248	ND	34	10	ug/kg	
11097-69-1	Aroclor 1254	ND	34	16	ug/kg	
11096-82-5	Aroclor 1260	396	34	11	ug/kg	
11100-14-4	Aroclor 1268	ND	34	10	ug/kg	
37324-23-5	Aroclor 1262	ND	34	11	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	ts	
877-09-8	Tetrachloro-m-xylene	39%		22-14	11%	
877-09-8	Tetrachloro-m-xylene	45%		22-14	11%	
2051-24-3	Decachlorobiphenyl	63%		18-16	53%	
2051-24-3	Decachlorobiphenyl	55%		18-16	53%	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



# **Report of Analysis**

Client Sample ID: CARHA11SSS0912

 Lab Sample ID:
 JB16302-11
 Date Sampled:
 09/11/12

 Matrix:
 SO - Soil
 Date Received:
 09/12/12

 Method:
 SW846 8082A
 SW846 3546
 Percent Solids:
 90.8

**Project:** ENSTNN: Carrier, Syracuse, NY

File ID DF **Analytical Batch** Analyzed By **Prep Date Prep Batch** Run #1 EF112866.D 1 09/19/12 GAD 09/19/12 OP59887 GEF4579 Run #2

Run #1 15.6 g 10.0 ml
Run #2

#### **PCB List**

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	35	9.2	ug/kg	
11104-28-2	Aroclor 1221	ND	35	21	ug/kg	
11141-16-5	Aroclor 1232	ND	35	18	ug/kg	
53469-21-9	Aroclor 1242	ND	35	11	ug/kg	
12672-29-6	Aroclor 1248	ND	35	11	ug/kg	
11097-69-1	Aroclor 1254	ND	35	17	ug/kg	
11096-82-5	Aroclor 1260	146	35	12	ug/kg	
11100-14-4	Aroclor 1268	ND	35	10	ug/kg	
37324-23-5	Aroclor 1262	ND	35	11	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
877-09-8	Tetrachloro-m-xylene	48%		22-1	41%	
877-09-8	Tetrachloro-m-xylene	54%		22-1	41%	
2051-24-3	Decachlorobiphenyl	64%		18-1	63%	
2051-24-3	Decachlorobiphenyl	64%		18-1	63%	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



L

Client Sample ID: CARHA12SSS0912

 Lab Sample ID:
 JB16302-12
 Date Sampled:
 09/11/12

 Matrix:
 SO - Soil
 Date Received:
 09/12/12

 Method:
 SW846 8082A
 SW846 3546
 Percent Solids:
 91.8

**Project:** ENSTNN: Carrier, Syracuse, NY

File ID DF **Analytical Batch** Analyzed By **Prep Date Prep Batch** Run #1 EF112867.D 1 09/19/12 GAD 09/19/12 OP59887 GEF4579 Run #2

ituii #2

Initial Weight Final Volume
Run #1 15.6 g 10.0 ml

Run #2

#### **PCB List**

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	35	9.1	ug/kg	
11104-28-2	Aroclor 1221	ND	35	21	ug/kg	
11141-16-5	Aroclor 1232	ND	35	18	ug/kg	
53469-21-9	Aroclor 1242	ND	35	11	ug/kg	
12672-29-6	Aroclor 1248	ND	35	11	ug/kg	
11097-69-1	Aroclor 1254	ND	35	16	ug/kg	
11096-82-5	Aroclor 1260	280	35	11	ug/kg	
11100-14-4	Aroclor 1268	ND	35	10	ug/kg	
37324-23-5	Aroclor 1262	ND	35	11	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	its	
877-09-8	Tetrachloro-m-xylene	62%		22-14	41%	
877-09-8	Tetrachloro-m-xylene	73%		22-1	41%	
2051-24-3	Decachlorobiphenyl	72%		18-1	63%	
2051-24-3	Decachlorobiphenyl	69%		18-1	63%	

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



C

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Client Sample ID: CARHA13SSS0912

 Lab Sample ID:
 JB16302-13
 Date Sampled:
 09/11/12

 Matrix:
 SO - Soil
 Date Received:
 09/12/12

 Method:
 SW846 8082A
 SW846 3546
 Percent Solids:
 92.0

**Project:** ENSTNN: Carrier, Syracuse, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	<b>Analytical Batch</b>
Run #1	EF112868.D	1	09/19/12	GAD	09/19/12	OP59887	GEF4579
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

#### **PCB List**

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	36	9.4	ug/kg	
11104-28-2	Aroclor 1221	ND	36	22	ug/kg	
11141-16-5	Aroclor 1232	ND	36	18	ug/kg	
53469-21-9	Aroclor 1242	ND	36	11	ug/kg	
12672-29-6	Aroclor 1248	ND	36	11	ug/kg	
11097-69-1	Aroclor 1254	ND	36	17	ug/kg	
11096-82-5	Aroclor 1260	81.7	36	12	ug/kg	
11100-14-4	Aroclor 1268	ND	36	11	ug/kg	
37324-23-5	Aroclor 1262	ND	36	11	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	ts	
877-09-8	Tetrachloro-m-xylene	55%		22-14	11%	
877-09-8	Tetrachloro-m-xylene	62%		22-14	11%	
2051-24-3	Decachlorobiphenyl	70%		18-16	53%	
2051-24-3	Decachlorobiphenyl	74%		18-16	53%	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



C

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Client Sample ID: CARHA14SSS0912

 Lab Sample ID:
 JB16302-14
 Date Sampled:
 09/11/12

 Matrix:
 SO - Soil
 Date Received:
 09/12/12

 Method:
 SW846 8082A
 SW846 3546
 Percent Solids:
 93.5

**Project:** ENSTNN: Carrier, Syracuse, NY

File ID DF **Analytical Batch** Analyzed By **Prep Date Prep Batch** Run #1 EF112869.D 1 09/19/12 GAD 09/19/12 OP59887 GEF4579 Run #2

Run #1 15.5 g Final Volume
Run #2

#### **PCB List**

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	35	9.0	ug/kg	
11104-28-2	Aroclor 1221	ND	35	21	ug/kg	
11141-16-5	Aroclor 1232	ND	35	17	ug/kg	
53469-21-9	Aroclor 1242	ND	35	11	ug/kg	
12672-29-6	Aroclor 1248	ND	35	10	ug/kg	
11097-69-1	Aroclor 1254	ND	35	16	ug/kg	
11096-82-5	Aroclor 1260	92.9	35	11	ug/kg	
11100-14-4	Aroclor 1268	ND	35	10	ug/kg	
37324-23-5	Aroclor 1262	ND	35	11	ug/kg	
CAS No.	<b>Surrogate Recoveries</b>	Run# 1	Run# 2	Limi	its	
877-09-8	Tetrachloro-m-xylene	29%		22-1	41%	
877-09-8	Tetrachloro-m-xylene	32%		22-1	41%	
2051-24-3	Decachlorobiphenyl	40%		18-1	63%	
2051-24-3	Decachlorobiphenyl	39%		18-1	63%	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



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Client Sample ID: CARHA15SSS0912

 Lab Sample ID:
 JB16302-15
 Date Sampled:
 09/11/12

 Matrix:
 SO - Soil
 Date Received:
 09/12/12

 Method:
 SW846 8082A
 SW846 3546
 Percent Solids:
 94.3

**Project:** ENSTNN: Carrier, Syracuse, NY

File ID DF **Analytical Batch** Analyzed By **Prep Date Prep Batch** Run #1 XX124121.D 1 09/19/12 LP 09/19/12 OP59887 GXX4473 Run #2

Run #1 15.4 g 10.0 ml
Run #2

#### **PCB List**

2051-24-3

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	34	9.0	ug/kg	
11104-28-2	Aroclor 1221	ND	34	21	ug/kg	
11141-16-5	Aroclor 1232	ND	34	17	ug/kg	
53469-21-9	Aroclor 1242	ND	34	11	ug/kg	
12672-29-6	Aroclor 1248	ND	34	10	ug/kg	
11097-69-1	Aroclor 1254	ND	34	16	ug/kg	
11096-82-5	Aroclor 1260	304	34	11	ug/kg	
11100-14-4	Aroclor 1268	ND	34	10	ug/kg	
37324-23-5	Aroclor 1262	ND	34	11	ug/kg	
CAS No.	<b>Surrogate Recoveries</b>	Run# 1	Run# 2	Limi	ts	
077 00 0	m . 11	260/		22.1	410/	
877-09-8	Tetrachloro-m-xylene	26%		22-14		
877-09-8	Tetrachloro-m-xylene	24%		22-14	41%	
2051-24-3	Decachlorobiphenyl	36%		18-10	53%	

26%

ND = Not detected MDL - Me

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

Decachlorobiphenyl

J = Indicates an estimated value

18-163%

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



L

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Client Sample ID: CARHA16SSS0912

 Lab Sample ID:
 JB16302-16
 Date Sampled:
 09/11/12

 Matrix:
 SO - Soil
 Date Received:
 09/12/12

 Method:
 SW846 8082A
 SW846 3546
 Percent Solids:
 93.1

**Project:** ENSTNN: Carrier, Syracuse, NY

File ID DF **Analytical Batch** Analyzed By **Prep Date Prep Batch** Run #1 XX124122.D 1 09/19/12 LP 09/19/12 OP59887 GXX4473 Run #2

Run #1 15.2 g 10.0 ml
Run #2

#### **PCB List**

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	35	9.2	ug/kg	
11104-28-2	Aroclor 1221	ND	35	21	ug/kg	
11141-16-5	Aroclor 1232	ND	35	18	ug/kg	
53469-21-9	Aroclor 1242	ND	35	11	ug/kg	
12672-29-6	Aroclor 1248	ND	35	11	ug/kg	
11097-69-1	Aroclor 1254	ND	35	17	ug/kg	
11096-82-5	Aroclor 1260	473	35	12	ug/kg	
11100-14-4	Aroclor 1268	ND	35	10	ug/kg	
37324-23-5	Aroclor 1262	ND	35	11	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lin	uits	
877-09-8	Tetrachloro-m-xylene	53%		22-1	141%	
877-09-8	Tetrachloro-m-xylene	49%		22-1	141%	
2051-24-3	Decachlorobiphenyl	74%		18-1	163%	
2051-24-3	Decachlorobiphenyl	60%		18-1	163%	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



c

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Client Sample ID: CARHA17SSS0912

 Lab Sample ID:
 JB16302-17
 Date Sampled:
 09/11/12

 Matrix:
 SO - Soil
 Date Received:
 09/12/12

 Method:
 SW846 8082A
 SW846 3546
 Percent Solids:
 93.5

**Project:** ENSTNN: Carrier, Syracuse, NY

File ID DF **Analytical Batch** Analyzed By **Prep Date Prep Batch** Run #1 XX124123.D 1 09/19/12 LP 09/19/12 OP59887 GXX4473 Run #2

Run #1 15.3 g Final Volume
Run #2

#### **PCB List**

2051-24-3

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	35	9.1	ug/kg	
11104-28-2	Aroclor 1221	ND	35	21	ug/kg	
11141-16-5	Aroclor 1232	ND	35	18	ug/kg	
53469-21-9	Aroclor 1242	ND	35	11	ug/kg	
12672-29-6	Aroclor 1248	ND	35	11	ug/kg	
11097-69-1	Aroclor 1254	ND	35	16	ug/kg	
11096-82-5	Aroclor 1260	ND	35	11	ug/kg	
11100-14-4	Aroclor 1268	ND	35	10	ug/kg	
37324-23-5	Aroclor 1262	ND	35	11	ug/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
877-09-8	Tetrachloro-m-xylene	44%		22-1	41%	
877-09-8	Tetrachloro-m-xylene	42%		22-1	41%	
2051-24-3	Decachlorobiphenyl	41%		18-1	.63%	

45%

ND = Not detected

MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

Decachlorobiphenyl

J = Indicates an estimated value

18-163%

B = Indicates analyte found in associated method blank N = Indicates presumptive evidence of a compound



C



3.6	
N/I1sc	Forms

Custody Documents and Other Forms

Includes the following where applicable:

· Chain of Custody



- 1886s	
ACCI	ITEST
	BORATORIES 50

#### CHAIN OF CUSTODY

PAGE 1 OF 2

LABORATORIES )		Tel:	732-329-						180		FED-E	X Trackir	g #			Bottle Ord	der Contr	rol#		
			102 02)			test.com		,,,,,,	1		Accute	est Quote	·			Accutest	Job#	1B/6	302	
Client / Reporting Information			Project	Inform	ation							Red	uested A	nalysis (						Matrix Codes
Company Name	Project Name:	_										T								
En Sa fe Street Address	Carrie	:1-Syca	cuse															.		DW - Drinking Wate. GW - Ground Water
Street Address	Street	<u>J</u> -																.	1	WW - Water SW - Surface Water
220 Arhens Way Svite @410		Billing Information ( if different from Report to) State Company Name												1 1		.		SO - Soil		
City State 3	City		NY	Compa	iny Name													.	- 1	SL- Sludge SED-Sediment
Project Contact E-mail	Project #	50	10 9	Street /	Address						-	1								OI - Oil LIQ - Other Liquid
Mr. Hellin a Left recent on	10858	817801									N							.		AIR - Air
Street Address  720 Awhens Way Svite @410 City State  Project Contact  May Hellin whest represented to Frank  G15-755-9300  Sampler(s) Name(s)  Phoof #	Client Purchase	Order#		City			Stat	•		Zip	<b>∀</b> √∞						- 1			SOL - Other Solid WP - Wipe
615-755-9300											900	.]								FB-Field Blank EB-Equipment Blank
Sampler(s) Name(s) Phone # Shane Cosdnight	Project Manager			Attentio	n:						7 1					i 1				RB- Rinse Blank
Shame Goodnight	May He	ellin									1.					1 1			1	TB-Trip Blank
3	3		Collection	т	-		Nu	mber of	preserved	TT	$-\infty$	V					- 1			
Accused Sample # Field ID / Point of Collection	MEOH/DI Vial #	Date	Time	Samples	d Matrix	# of bottles	HCI	HN03	NONE Di Wate	MEOH	2									LAB USE ONLY
-1 CARHADISSSO717		9/11/12	1025	SG	SC	/			X											
-2 CARHA 07 SSS 0912			1039			1			X											
-3 CAR HAD3 SSS 2912			1248		$\bot \bot$	1	Ш		X					ļ		$\perp$	_			1489UZ)
-4 CARHADY SSS STIZ			1213	Ш	$\perp \perp$	1	Ш	$\perp$	X	$\sqcup \sqcup$		<u> </u>				$\vdash \vdash$				
-5 CARHA 05555 0917			1225	Ш	$\perp \perp$	1	$\sqcup \sqcup$	$\perp$	X	$\sqcup \bot$		<u> </u>				<b></b>			-	<u> </u>
-6 CAR HADGSSS 0912			1229		11		Ш	$\perp$	X	$\sqcup \bot$	-	<u> </u>				<del></del>	$\dashv$		-	
-7 CAR HAD 7555 0912		1-1	1238	1	++	1	$\Box$	-	X	$\sqcup \sqcup$	-	↓		-		$\vdash$	$\dashv$		-	-
-8 CAR HAD8 SSS 2912		<b>├</b>	1250	4	++	1	$\sqcup \sqcup$	+	X_	$\sqcup \!\!\! \perp$	-	₩		-					+	
-9 CAR HAO9\$55 0912		<del>                                     </del>	1759	Н-	++	1	$\sqcup$	+	X	$\vdash \vdash \vdash$			<u> </u>			$\vdash$	$\rightarrow$		-	-
-10 CARHAIDSSS 2912		1-1	1326	$\vdash$	++	+!-	+++	+	X	$\vdash \vdash \vdash$	-	┼		-	$\vdash$	$\vdash$	$\dashv$	-+	+	<b>_</b>
-11 CAR HA 11 SSS 0912		<del>  \</del>	1335	1	1	+!-	+++	+	XI-	++		┼		+		$\vdash$	$\dashv$		+	-
12 CARHA 12SSS DG12		L V	1345	I V	TA	Date	Delivera	blo Info	X	Ш		<u> </u>			Comr	mente /	Special	I Instructio	00	
Tumaround Time ( Business days)  Std. 16 Business Days	Approved By (Accu	utaat PMV / Date:			Comme	rciăl "A" (l				ASP Cat	egory A		11	1						
Std. 16 Business Days Std. 10 Business Days (by Contract only) 10 Day RUSH 5 Day RUSH 2 Day EMERGENCY 1 Day EMERGENCY Emergency & Rush T/A data available V/A Lablink	Approved by (Acce	utest i my. i Dute.				rcial "B" ( I				YASP Cat			145	da	119	ame	> 10	5 C1	11:1	contacted
10 Day RUSH				一百	FULLT1	( Level 3+	4)			ate Form			1			-				
5 Day RUSH See ev					NJ Red				_	DD Forma	at		Du	P	$3)\epsilon$	Ct	M	ana	<u>90(</u>	-
3 Day EMERGENCY		<del></del>			Comme		cial "A" = F			ther			-	, .	_			,		
1 Day EMERGENCY				1			cial "B" ≂ f			ımmarv			7							
Emergency & Rush T/A data available VIA Lablink				1		NJ Regu	ced = Res	ults + C	C Sum	nary + Par			<u></u>							
2 3/ /	Sa	ample Custody n	ust be docur	nentéd	below ea	ich time s	amples o			ssion, in	cluding	courie		Time:	1500)	Received	d By:	$\overline{}$		
Relinquished by Sampley  1 Date Time:  9 111		1				7_	2		$\mathcal{L}$		/	$\geq$	- 41	11/10	2	2 /	ed	EX		***************************************
Relinquished by Simpler: Date Time: 9/12/	1 930	Received By:	a			12	Relinquis	hed By		and the same of the same	*		Date	Time:		Received 4	1 By:			
Relinquished by:   Date(Time:	<u> </u>	Received By:	Accessed the second				Custody	Seal #			Intact Not int	art	Preserved w		able			On Ice	Cool	ier Temp.
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1 12													3		Second 5.	-1-3	,		G	-

JB16302: Chain of Custody Page 1 of 4



#### CHAIN OF CUSTODY

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LABORATORIES		Tel	732-329-							Λ		FED-EX	C Trackin	g #			В	ottle Ord	er Contro	.1#		
			732 327			est.com		3477	1540	U		Accute	st Quote	#			-  -	ccutest J	lob#	JB11	6302	
Client / Reporting Information			Project	Inform	ation								Rec	uestec	Anal	ysis ( s	ee TE	ST CC				Matrix Codes
Company Name	Project Name:	,										1					T	T				
En Safe Street Address	Carrie	<u>( - Syra</u>	ruse										1		İ							DW - Drinking Wate GW - Ground Wate
Street Address	Street	211-	<u> </u>																			WW - Water
tzzo Athens Way Suite 4	110			Billing	Informati	on ( if diffe	erent 1	from R	eport t	0)							- 1		- 1	- 1		SW - Surface Water SO - Soil
City State Zip	City		State		ny Name							7					1			- 1		SL- Sludge
Nashville TN 3727	8 Sysacus	<e< td=""><td>NY</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>- 1</td><td></td><td></td><td></td><td></td><td></td><td></td><td>SED-Sediment OI - Oil</td></e<>	NY												- 1							SED-Sediment OI - Oil
Project Contact E-ma	ail Project#			Street A	ddress							٦.					- 1	ı	1			LIQ - Other Liquid
Street Address  ZZO Athens Way Suite  Zip  Mashville TN 37ZZ  Project Contact  May Heflin mheflingersak  Phone By Heflin Faxi  Faxi	e.con 088	8812891		<u> </u>								7 7									- 1	AIR - Air SOL - Other Solid
Phone # J	Client Purchase	Order#		City			,	State		Z	ip.	1/0			- 1		- 1					WP - Wipe FB-Field Blank
6/5-255-9300 Sampler(s) Name(s) Pho	ne # Project Manager			Attention								18			- 1				- 1		- 1	EB-Equipment Blan
Sampler(s) Name(s)  Share and shight	May H			Attention								00			- 1	- 1					- 1	RB- Rinse Blank TB-Trip Blank
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			T	T T			П	Т	1.1	10	12	1 🖺			- [							
Sample # Field ID / Point of Collection	MEOH/DI Vial #	Date	Time	Sampled by	Matrix	# of bottles	g	NO3	H2SO,	DI Wat	ENCO	120									ı	LAB USE ONLY
		1 1	<del> </del>	-	<del> </del>	1	+		1 2	1-1	-   -	1,20	├	-		-+			-			- LAD GOL GILLY
13 CARHAIS SSSOGIZ		9/11/12	1354	SG	50	'-	$\sqcup$		I X	11												
14 CAR HAIY 5SS SGIZ		L	1407			/				11												
15 CARHA 15 SSS 0912			1427			1	П		llχ	d l												
16 CAR HA 16 SSS 0912			1436			1	П	$\top$	1	1	TT	1				$\neg \uparrow$		T				
17 CAR HAITSSSOGIZ		1//	1450	1	17	7	Ħ	+	Hί	+	++	<del> </del>			$\neg \uparrow$	$\neg \uparrow$	-	_	-	$\neg$	_	
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Turnaround Time ( Business days)						Data	Deliv	erable/	Inform	nation							Comm	ents / S	pecial I	Instructio	ons	
Std. 15 Business Days	Approved By (Accu	rtest PM): / Date:				ciải "A" (L				_	SP Cate			1	11	1	11	_	. )	_	1.1	
Std. 10 Business Days ( by Contract only)						cial "B" ( L ( Level 3+		2)		-	SP Cate	gory B		- !	1010	9	11 5	am	PR	050	int.1	(Sxtacted
10 Day RUSH 5 Day RUSH 5 Day RUSH 5 Day EMERGENCY COMMENT					NJ Redu		4)			_	e Forms	,		1	>,,	Ors	. 0	c+	m	40	,,,,,	contacted
3 Day EMERGENCY SYN M					Commer				F	Othe					3	<del>} `</del>	7			7.1.)	<del>-3</del> -1	
2 Day EMERGENCY						Commerc				-												
1 Day EMERGENCY     Emergency & Rush T/A data available VIA Lablink	3					Commerc						al Bau	nto									
21 11	Sa	imple Custody m	ust be docum	iented b	elow ea	NJ Reduce								deliver	y.		8					
Relinguished by Sampler Date	Time:	Received By:			1	7/		quished			1		7			13/80	7) R	eceived	By: (			
Relinquished by Sampler:	1/12 1725	15	//				2	122							Z/V	Dion	_ 2	1-6	201	-		
3 1-41 Per	12/12 80	Received By:	Ala	- '	/	//	Relin 4	quished	By:						Date Tim	ie:	R	eceived	Ву:	/\		
Relinquished by: Date T		Received By:	<i>p:</i>				Cust	ody Sea	ıl#			intact		Preserve	d where	applicab				On Ice	Cool	er Temp.

JB16302: Chain of Custody Page 2 of 4





# 4

### **Accutest Laboratories Sample Receipt Summary**

LABORATOR	163									
Accutest Job Number: JB16	302		Client:				Project:			
Date / Time Received: 9/12/	2012			Delivery N	lethod:		Airbill #'s:			
Cooler Temps (Initial/Adjuste	d): <u>#</u>	1: (5/5);	<u>0</u>							
Cooler Security Y	or N				Y or	N	Sample Integrity - Documentation	<u>Y</u>	or N	
Custody Seals Present:	_	_	COC Pr		<b>✓</b>		Sample labels present on bottles:	<b>✓</b>		
2. Custody Seals Intact:	L	4. Sr	npi Date	s/Time OK	$\checkmark$		2. Container labeling complete:	✓		
Cooler Temperature	Υ	or N					3. Sample container label / COC agree:	✓		
1. Temp criteria achieved:	$\checkmark$						Sample Integrity - Condition	<u>Y</u>	or N	
Cooler temp verification:		ar Therm					Sample recvd within HT:	<b>✓</b>		
3. Cooler media:	ŀ	ce (Bag)					2. All containers accounted for:	<b>✓</b>		
4. No. Coolers:		1					3. Condition of sample:		Intact	
Quality Control Preservation	Υ	or N	N/A				Sample Integrity - Instructions	<u>Y</u>	or N	N/A
Trip Blank present / cooler:		✓					Analysis requested is clear:	<b>✓</b>		
2. Trip Blank listed on COC:		✓					2. Bottles received for unspecified tests		$\checkmark$	
3. Samples preserved properly:	$\checkmark$						3. Sufficient volume recvd for analysis:	<b>✓</b>		
<ol><li>VOCs headspace free:</li></ol>			$\checkmark$				4. Compositing instructions clear:			$\checkmark$
							5. Filtering instructions clear:			✓
Comments										
Accutest Laboratories V:732.329.0200							Highway 130 .329.3499			Dayton, New Jersey www/accutest.com

JB16302: Chain of Custody

Page 3 of 4



Job Change Order:

JB16302\_9/18/2012

9/26/2012 9/12/2012 Received Date: Due Date:

Deliverable:

ENSTNN: Carrier, Syracuse, NY

Project CSR:

Σ

United Technologies 9/18/2012

Requested Date: Account Name: COMMB

TAT (Days):

Please take off hold and login for 1 day TAT P8082PCB11 and %SOL.

Change:

**Sample #:** JB16302-all

May Heflin

Above Changes Per:

**Date:** 9/18/2012

Page 1 of 1

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service

JB16302: Chain of Custody Page 4 of 4





# GC Semi-volatiles

# QC Data Summaries

### Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries



**Method:** SW846 8082A

# **Method Blank Summary**

Job Number: JB16302

Account: UTC United Technologies Corporation ENSTNN: Carrier, Syracuse, NY **Project:** 

Sample OP59887-MB1	<b>File ID</b> 5G4988.D	<b>DF</b> 1	<b>Analyzed</b> 09/19/12	<b>By</b> HQ	<b>Prep Date</b> 09/19/12	<b>Prep Batch</b> OP59887	Analytical Batch G5G123

#### The QC reported here applies to the following samples:

JB16302-1, JB16302-2, JB16302-3, JB16302-4, JB16302-5, JB16302-6, JB16302-7, JB16302-8, JB16302-9, JB16002-9, JB16002-9, JB16002-9, JB16002-9, JB16002-9, JB16002-9, JB16002-9, JB16002-9, JB16002-9, 10, JB16302-11, JB16302-12, JB16302-13, JB16302-14, JB16302-15, JB16302-16, JB16302-17

CAS No.	Compound	Result	RL	MDL	Units Q
10674 11 0	A 1 1016	ND	22	0.7	/1
126/4-11-2	Aroclor 1016	ND	33	8.7	ug/kg
11104-28-2	Aroclor 1221	ND	33	20	ug/kg
11141-16-5	Aroclor 1232	ND	33	17	ug/kg
53469-21-9	Aroclor 1242	ND	33	11	ug/kg
12672-29-6	Aroclor 1248	ND	33	10	ug/kg
11097-69-1	Aroclor 1254	ND	33	16	ug/kg
11096-82-5	Aroclor 1260	ND	33	11	ug/kg
11100-14-4	Aroclor 1268	ND	33	9.8	ug/kg
37324-23-5	Aroclor 1262	ND	33	11	ug/kg

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	78%	22-141%
877-09-8	Tetrachloro-m-xylene	96%	22-141%
2051-24-3	Decachlorobiphenyl	76%	18-163%
2051-24-3	Decachlorobiphenyl	73%	18-163%

**Method:** SW846 8082A

## **Method Blank Summary**

**Job Number:** JB16302

**Account:** UTC United Technologies Corporation **Project:** ENSTNN: Carrier, Syracuse, NY

Sample OP59887-MB1	File ID XX124119.D	<b>OF</b> Analy 09/19/	<b>Prep Date</b> 09/19/12	Prep Batch OP59887	Analytical Batch GXX4473

#### The QC reported here applies to the following samples:

JB16302-1, JB16302-2, JB16302-3, JB16302-4, JB16302-5, JB16302-6, JB16302-7, JB16302-8, JB16302-9, JB16302-10, JB16302-11, JB16302-12, JB16302-13, JB16302-14, JB16302-15, JB16302-16, JB16302-17

CAS No.	Compound	Result	RL	MDL	Units Q
12674-11-2	Aroclor 1016	ND	33	8.7	ug/kg
11104-28-2	Aroclor 1221	ND	33	20	ug/kg
11141-16-5	Aroclor 1232	ND	33	17	ug/kg
53469-21-9	Aroclor 1242	ND	33	11	ug/kg
12672-29-6	Aroclor 1248	ND	33	10	ug/kg
11097-69-1	Aroclor 1254	ND	33	16	ug/kg
11096-82-5	Aroclor 1260	ND	33	11	ug/kg
11100-14-4	Aroclor 1268	ND	33	9.8	ug/kg
37324-23-5	Aroclor 1262	ND	33	11	ug/kg

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	75%	22-141%
877-09-8	Tetrachloro-m-xylene	84%	22-141%
2051-24-3	Decachlorobiphenyl	66%	18-163%
2051-24-3	Decachlorobiphenyl	65%	18-163%

**Method:** SW846 8082A

## **Method Blank Summary**

Job Number: JB16302

**Account:** UTC United Technologies Corporation **Project:** ENSTNN: Carrier, Syracuse, NY

Sample OP59887-MB1	File ID EF112882.D	<b>DF</b> 1	<b>Analyzed</b> 09/19/12	By GAD	<b>Prep Date</b> 09/19/12	Prep Batch OP59887	<b>Analytical Batch</b> GEF4579

#### The QC reported here applies to the following samples:

JB16302-1, JB16302-2, JB16302-3, JB16302-4, JB16302-5, JB16302-6, JB16302-7, JB16302-8, JB16302-9, JB16302-10, JB16302-11, JB16302-12, JB16302-13, JB16302-14, JB16302-15, JB16302-16, JB16302-17

CAS No.	Compound	Result	RL	MDL	Units Q
10674 11 0	A 1 1016	ND	22	0.7	/1
126/4-11-2	Aroclor 1016	ND	33	8.7	ug/kg
11104-28-2	Aroclor 1221	ND	33	20	ug/kg
11141-16-5	Aroclor 1232	ND	33	17	ug/kg
53469-21-9	Aroclor 1242	ND	33	11	ug/kg
12672-29-6	Aroclor 1248	ND	33	10	ug/kg
11097-69-1	Aroclor 1254	ND	33	16	ug/kg
11096-82-5	Aroclor 1260	ND	33	11	ug/kg
11100-14-4	Aroclor 1268	ND	33	9.8	ug/kg
37324-23-5	Aroclor 1262	ND	33	11	ug/kg

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	93%	22-141%
877-09-8	Tetrachloro-m-xylene	106%	22-141%
2051-24-3	Decachlorobiphenyl	109%	18-163%
2051-24-3	Decachlorobiphenyl	101%	18-163%



**Method:** SW846 8082A

## **Blank Spike Summary**

Job Number: JB16302

Account: UTC United Technologies Corporation
Project: ENSTNN: Carrier, Syracuse, NY

Sample OP59887-BS1	<b>File ID</b> 5G4989.D	<b>DF</b> 1	<b>Analyzed</b> 09/19/12	<b>By</b> HQ	<b>Prep Date</b> 09/19/12	Prep Batch OP59887	Analytical Batch G5G123

### The QC reported here applies to the following samples:

JB16302-1, JB16302-2, JB16302-3, JB16302-4, JB16302-5, JB16302-6, JB16302-7, JB16302-8, JB16302-9, JB16302-10, JB16302-11, JB16302-12, JB16302-13, JB16302-14, JB16302-15, JB16302-16, JB16302-17

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	133	140	105	68-152
11104-28-2	Aroclor 1221		ND		70-130
11141-16-5	Aroclor 1232		ND		70-130
53469-21-9	Aroclor 1242		ND		70-130
12672-29-6	Aroclor 1248		ND		70-130
11097-69-1	Aroclor 1254		ND		70-130
11096-82-5	Aroclor 1260	133	136	102	66-150
11100-14-4	Aroclor 1268		ND		50-150 a
37324-23-5	Aroclor 1262		ND		50-150 a

CAS No.	<b>Surrogate Recoveries</b>	BSP	Limits
	Tetrachloro-m-xylene	82%	22-141%
	Tetrachloro-m-xylene	97%	22-141%
	Decachlorobiphenyl	84%	18-163%
	Decachlorobiphenyl	82%	18-163%

(a) Advisory control limits.

<sup>\* =</sup> Outside of Control Limits.

**Method:** SW846 8082A

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JB16302

Account: UTC United Technologies Corporation Project: ENSTNN: Carrier, Syracuse, NY

Sample	File ID	DF	Analyzed	Ву	Prep Date	Prep Batch	Analytical Batch
OP59887-MS	5G5013.D	1	09/19/12	HQ	09/19/12	OP59887	G5G123
OP59887-MSD	5G5014.D	1	09/19/12	HQ	09/19/12	OP59887	G5G123
JB16302-1	5G4990.D	1	09/19/12	HQ	09/19/12	OP59887	G5G123

#### The QC reported here applies to the following samples:

JB16302-1, JB16302-2, JB16302-3, JB16302-4, JB16302-5, JB16302-6, JB16302-7, JB16302-8, JB16302-9, JB16302-10, JB16302-11, JB16302-12, JB16302-13, JB16302-14, JB16302-15, JB16302-16, JB16302-17

CAS No. C	Compound	JB16302-1 ug/kg Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2 A	aroclor 1016	ND	142	147	104	137	97	7	28-185/42
11104-28-2 A	aroclor 1221	ND		ND		ND		nc	70-130/30
11141-16-5 A	aroclor 1232	ND		ND		ND		nc	70-130/30
53469-21-9 A	aroclor 1242	ND		ND		ND		nc	70-130/30
12672-29-6 A	croclor 1248	ND		ND		ND		nc	70-130/13
11097-69-1 A	aroclor 1254	ND		ND		ND		nc	70-130/20
11096-82-5 A	aroclor 1260	79.9	142	141	43	136	40	4	20-190/43
11100-14-4 A	croclor 1268	ND		ND		ND		nc	-/30
37324-23-5 A	aroclor 1262	ND		ND		ND		nc	-/30

CAS No.	<b>Surrogate Recoveries</b>	MS	MSD	JB16302-1	Limits
077 00 0	T . 11	0.10/	750/	400/	00 1410/
877-09-8	Tetrachloro-m-xylene	81%	75%	48%	22-141%
877-09-8	Tetrachloro-m-xylene	96%	90%	59%	22-141%
2051-24-3	Decachlorobiphenyl	80%	77%	55%	18-163%
2051-24-3	Decachlorobiphenyl	77%	74%	57%	18-163%



<sup>\* =</sup> Outside of Control Limits.

## Semivolatile Surrogate Recovery Summary

**Job Number:** JB16302

Account: UTC United Technologies Corporation Project: ENSTNN: Carrier, Syracuse, NY

Method: SW846 8082A Matrix: SO

#### Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	<b>S1</b> a	<b>S1</b> b	S2 a	<b>S2</b> b
-					
JB16302-1	5G4990.D	48.0	59.0	55.0	57.0
JB16302-2	5G4991.D	41.0	48.0	54.0	75.0
JB16302-3	5G4992.D	74.0	92.0	78.0	81.0
JB16302-4	5G4993.D	51.0	59.0	59.0	68.0
JB16302-5	5G4994.D	31.0	38.0	36.0	42.0
JB16302-6	5G4995.D	50.0	61.0	54.0	61.0
JB16302-7	5G4996.D	22.0	25.0	28.0	34.0
JB16302-8	5G4997.D	52.0	63.0	62.0	73.0
JB16302-9	EF112864.D	37.0	41.0	54.0	50.0
JB16302-10	EF112865.D	39.0	45.0	63.0	55.0
JB16302-11	EF112866.D	48.0	54.0	64.0	64.0
JB16302-12	EF112867.D	62.0	73.0	72.0	69.0
JB16302-13	EF112868.D	55.0	62.0	70.0	74.0
JB16302-14	EF112869.D	29.0	32.0	40.0	39.0
JB16302-15	XX124121.D	26.0	24.0	36.0	26.0
JB16302-16	XX124122.D	53.0	49.0	74.0	60.0
JB16302-17	XX124123.D	44.0	42.0	41.0	45.0
OP59887-BS1	5G4989.D	82.0	97.0	84.0	82.0
OP59887-MB1	5G4988.D	78.0	96.0	76.0	73.0
OP59887-MB1	XX124119.D	75.0	84.0	66.0	65.0
OP59887-MB1	EF112882.D	93.0	106.0	109.0	101.0
OP59887-MS	5G5013.D	81.0	96.0	80.0	77.0
OP59887-MSD	5G5014.D	75.0	90.0	77.0	74.0

#### Surrogate Compounds

Recovery Limits

S1 = Tetrachloro-m-xylene 22-141% S2 = Decachlorobiphenyl 18-163%

(a) Recovery from GC signal #1

(b) Recovery from GC signal #2

