PCBs

REGION I VALIDATION CHECKLIST for
OLIN CHEMICAL SUPERFUND SITE
Criteria and Qualifications: Region I Organics (Draft 2/04)

TIER I / [II] / III (circle one)

SITE: Olin Chemical Project #: 6107100016.12 SDG #: 360-24343

LAB #: _TAL _Westfield____

Sample IDs: Attach tracking sheet and/or sample listing.

This checklist is designed to be used with USEPA Region I Validation Guidelines Part III (Draft 2/04). During Level III validation, calculation and transcription checks are completed for instrument tuning, surrogates, target compounds, spike recoveries, calibration data, and internal standards as specified in the guideline. These checks are documented on attached validation notes.

YES NO NA	
Data completeness ☑ ☐ ☐ All data summaries, QC forms and raw data available from hard copy or electronic data package ☑ ☐ ☐ Data summaries match EDD	Contact lab if missing data. Lab to respond with 24 hours. OK
Holding Times and Preservation ☑ ☐ ☐ Hold times met (Waters – Extract within 7 days, analyze within 40 days. Soils – extract within 14 days, analyze within 40 days)	OK
Initial Calibration ☑ ☐ ☐ %RSD less than or equal to 20% ☑ ☐ ☐ RTs within windows	OK
Continuing Calibration ☑ ☐ ☐ %D less than or equal to 25% ☑ ☐ ☐ RTs within windows	OK
Instrument Blank ☐ ☐ ☑ Analyzed at beginning of 12 hour clock and at end of analytical sequence	NA
Blank Contamination ☐ ☑ ☐ Instrument blank contamination ☐ ☑ ☐ Method blank contamination ☐ ☐ ☑ Equipment/Rinseate blank contamination	Evaluate all blanks for contamination. Highest contaminant level used for action level. OK

PCBs

REGION I VALIDATION CHECKLIST for
OLIN CHEMICAL SUPERFUND SITE
Criteria and Qualifications: Region I Organics (Draft 2/04)

TIER I / [II] / III (circle one)

Surrogate Recoveries ☑ ☐ ☐ Surrogates percent recovery criteria met Pest/PCB for soil and water (30%-150%)	OK
Matrix Spikes and Laboratory Control Samples ☐ ☐ ☑ MS/MSD percent recovery criteria met (Pest - water and soil 30-150%) (PCB – water and soil 40-140%) ☐ ☐ ☑ MS/MSD RPD criteria met. PCBs (soil or water < or = 50%). Pest (soil or water < or = 30%). ☑ ☐ ☐ LCS percent recovery criteria met (Pest and PCB = 40%-140%)	NA – MS/MSD OK
Field Duplicates ☐ ☐ ☑ RPD criteria met (Pest/PCB = soil <50% and water <30%)	NA
Target Compounds ☑ ☐ ☐ Reviewed narrative for anomalies	OK – no detections
PEST/PCB Identification ☑ ☐ ☐ Results reported from primary column ☐ ☐ ☑ PCB results < or = to 25% D between primary and confirmation column. ☐ ☐ ☑ Within RT windows	For positive results having %D between 25% and 100%, qualify result J. For positive results greater than reporting limit having %D > 100%, qualify result R or use professional judgment (NJ). For positive results less than reporting limit having %D > 100%, qualify result UJ at the reporting limit. OK – no detections

Validator's Signature: Bradley B. LaForest

Date: 2/9/10

Reference:

MACTEC, Project Operation Plan Volume IIB, Quality Assurance Project Plan for Remedial Investigation/Feasibility Study – Olin Chemical Superfund Site, Wilmington Property, 51 Eames Street, Wilmington, MA", MACTEC Engineering and Consulting. .April 2009.

Client: Olin Corporation

Job Number: 360-24343-1
Sdg Number: OCRI-08

Client Sample ID: **OC-SB-449-0.0/1.0-XXX**

Lab Sample ID: 360-24343-4
Client Matrix: Solid
% Moisture: 7.7

Date Sampled: 08/27/2009 1515
Date Received: 08/28/2009 1710

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-48476		Instrument ID:	Inst. P
Preparation:	3546	Prep Batch: 360-48460		Initial Weight/Volume:	10.60 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	09/01/2009 1759			Injection Volume:	1.0 uL
Date Prepared:	09/01/2009 1444			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		14	100
PCB-1221		ND		15	100
PCB-1232		ND		24	100
PCB-1242		ND		66	100
PCB-1248		ND		23	100
PCB-1254		ND		27	100
PCB-1260		ND		28	100
PCB-1262		ND		14	100
PCB-1268		ND		22	100

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	96		30 - 150
Tetrachloro-m-xylene	109		30 - 150

PCBs

REGION I VALIDATION CHECKLIST for
OLIN CHEMICAL SUPERFUND SITE
Criteria and Qualifications: Region I Organics (Draft 2/04)

TIER I / [II] / III (circle one)

SITE: Olin Chemical Project #: 6107100016.12 SDG #: 360-24365

LAB #: _TAL _Westfield____

Sample IDs: Attach tracking sheet and/or sample listing.

This checklist is designed to be used with USEPA Region I Validation Guidelines Part III (Draft 2/04). During Level III validation, calculation and transcription checks are completed for instrument tuning, surrogates, target compounds, spike recoveries, calibration data, and internal standards as specified in the guideline. These checks are documented on attached validation notes.

YES NO NA	
Data completeness ☑ ☐ ☐ All data summaries, QC forms and raw data available from hard copy or electronic data package ☑ ☐ ☐ Data summaries match EDD	Contact lab if missing data. Lab to respond with 24 hours. OK
Holding Times and Preservation ☑ ☐ ☐ Hold times met (Waters – Extract within 7 days, analyze within 40 days. Soils – extract within 14 days, analyze within 40 days)	OK
Initial Calibration ☑ ☐ ☐ %RSD less than or equal to 20% ☑ ☐ ☐ RTs within windows	OK
Continuing Calibration ☑ ☐ ☐ %D less than or equal to 25% ☑ ☐ ☐ RTs within windows	OK
Instrument Blank ☐ ☐ ☑ Analyzed at beginning of 12 hour clock and at end of analytical sequence	NA
Blank Contamination ☐ ☑ ☐ Instrument blank contamination ☐ ☑ ☐ Method blank contamination ☐ ☑ ☐ Equipment/Rinseate blank contamination	Evaluate all blanks for contamination. Highest contaminant level used for action level. OK

PCBs

REGION I VALIDATION CHECKLIST for
OLIN CHEMICAL SUPERFUND SITE
Criteria and Qualifications: Region I Organics (Draft 2/04)

TIER I / [II] / III (circle one)

Surrogate Recoveries ☑ ☐ ☐ Surrogates percent recovery criteria met Pest/PCB for soil and water (30%-150%)	OK
Matrix Spikes and Laboratory Control Samples ☐ ☐ ☑ MS/MSD percent recovery criteria met (Pest - water and soil 30-150%) (PCB – water and soil 40-140%) ☐ ☐ ☑ MS/MSD RPD criteria met. PCBs (soil or water < or = 50%). Pest (soil or water < or = 30%). ☑ ☐ ☐ LCS percent recovery criteria met (Pest and PCB = 40%-140%)	NA – MS/MSD OK
Field Duplicates ☐ ☐ ☑ RPD criteria met (Pest/PCB = soil <50% and water <30%)	NA
Target Compounds ☑ ☐ ☐ Reviewed narrative for anomalies	OK
PEST/PCB Identification ☑ ☐ ☐ Results reported from primary column ☑ ☐ ☐ PCB results < or = to 25% D between primary and confirmation column. ☑ ☐ ☐ Within RT windows	For positive results having %D between 25% and 100%, qualify result J. For positive results greater than reporting limit having %D > 100%, qualify result R or use professional judgment (NJ). For positive results less than reporting limit having %D > 100%, qualify result UJ at the reporting limit. OK

Validator's Signature: Bradley B. LaForest

Date: 2/10/10

Reference:

MACTEC, Project Operation Plan Volume IIB, Quality Assurance Project Plan for Remedial Investigation/Feasibility Study – Olin Chemical Superfund Site, Wilmington Property, 51 Eames Street, Wilmington, MA", MACTEC Engineering and Consulting. .April 2009.

PES SCORING EVALUATION REPORT

PES TT2488 Rev: 1 EPA Sample No.: OC-PE-TT2488-PCB Report Date: 12/21/2009

Lab Name: Test America
Contract: NA
SDG No.: OCRI-09
Lab File ID: NA
Date Analyzed: 09/04/2009
Decanted: N/A
Injection Vol. (uL): NA
Sulfur Cleanup: N/A

Case No.: NA
Matrix: Soil
Date Received: 09/01/2009
Sample Wt./Vol. (g/mL): NA
Extraction Type: N/A
GPC Cleanup: N/A
Dilution Factor: 1.0

Lab Code: TESTAM
SAS/Client No.: Na
Lab Sample ID: 360-24365-21
Date Extracted: 09/03/2009
% Moisture: NA
Conc. Extract Vol. (uL): NA
pH: NA
Units: ug/Kg

Analysis Method: 8082
Scoring Method: SOM01.1
Comments:

CAS No.	Analyte	Laboratory Results		PES Evaluation	
		Concentration	Q		
11097-69-1	Aroclor-1254	1000		PASS	Within Limits
****	END Main Analytes	**********	****	****	**********
****	END All Analytes	**********	****	****	**********

Client: Olin Corporation

Job Number: 360-24365-1
Sdg Number: OCRI-09

Client Sample ID: **OC-EBK-006**

Lab Sample ID: 360-24365-12EB
Client Matrix: Water

Date Sampled: 08/31/2009 1415
Date Received: 08/31/2009 1745

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-48597		Instrument ID:	Inst. P
Preparation:	3510C	Prep Batch: 360-48573		Initial Weight/Volume:	1060 mL
Dilution:	1.0			Final Weight/Volume:	5 mL
Date Analyzed:	09/04/2009 1254			Injection Volume:	1.0 uL
Date Prepared:	09/03/2009 1440			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
PCB-1016	ND		0.13	0.28
PCB-1221	ND		0.094	0.28
PCB-1232	ND		0.11	0.28
PCB-1242	ND		0.13	0.28
PCB-1248	ND		0.094	0.28
PCB-1254	ND		0.18	0.28
PCB-1260	ND		0.16	0.28
PCB-1262	ND		0.23	0.28
PCB-1268	ND		0.18	0.28

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	38		30 - 150
Tetrachloro-m-xylene	96		30 - 150

Client: Olin Corporation

Job Number: 360-24365-1
Sdg Number: OCRI-09

Client Sample ID: **OC-PE-TT2488-PCB**

Lab Sample ID: 360-24365-21
Client Matrix: Solid
% Moisture: 0.0

Date Sampled: 09/01/2009 1010
Date Received: 09/01/2009 1715

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-48597		Instrument ID:	Inst. P
Preparation:	3546	Prep Batch: 360-48574		Initial Weight/Volume:	10.02 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Date Analyzed:	09/04/2009 1109			Injection Volume:	1.0 uL
Date Prepared:	09/03/2009 1443			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		14	100
PCB-1221		ND		15	100
PCB-1232		ND		23	100
PCB-1242		ND		64	100
PCB-1248		ND		22	100
PCB-1254		1000		26	100
PCB-1260		ND		28	100
PCB-1262		ND		14	100
PCB-1268		ND		21	100

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	105		30 - 150
Tetrachloro-m-xylene	119		30 - 150

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Westfield Job No.: 360-24365-1

SDG No.: OCRI-09

Client Sample ID: OC-PE-TT2488-PCB Lab Sample ID: 360-24365-21

Instrument ID (1): Inst. P Instrument ID (2): Inst. P

Date Analyzed (1): 09/04/2009 11:09 Date Analyzed (2): 09/04/2009 11:09

GC Column (1): RTX-CLPest1 ID: 0.32(mm) GC Column (2): RTX-CLPest2 ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1254	1	1	8.36	8.19	8.59	947		
		2	9.11	8.93	9.33	1190		
		3	9.65	9.47	9.87	983		
		4	9.98	9.80	10.20	1050		
		5	10.50	10.32	10.72	1050	1000	
	2	1	8.05	7.86	8.26	1020		
		2	8.42	8.23	8.63	1050		
		3	9.26	9.08	9.48	1070		
		4	10.02	9.84	10.24	1150		
		5	10.68	10.49	10.89	1180	1100	4.6

$$\frac{1000-1100}{1000} \times 100 = 10\% D$$

FORM X 8082

PCBs

REGION I VALIDATION CHECKLIST for
OLIN CHEMICAL SUPERFUND SITE
Criteria and Qualifications: Region I Organics (Draft 2/04)

TIER I / [II] / III (circle one)

SITE: Olin Chemical Project #: 6107100016.12 SDG #: 360-24444

LAB #: _TAL _Westfield____

Sample IDs: Attach tracking sheet and/or sample listing.

This checklist is designed to be used with USEPA Region I Validation Guidelines Part III (Draft 2/04). During Level III validation, calculation and transcription checks are completed for instrument tuning, surrogates, target compounds, spike recoveries, calibration data, and internal standards as specified in the guideline. These checks are documented on attached validation notes.

YES	NO	NA		
Data completeness				
☑	☐	☐	All data summaries, QC forms and raw data available from hard copy or electronic data package	Contact lab if missing data. Lab to respond with 24 hours.
☑	☐	☐	Data summaries match EDD	OK
Holding Times and Preservation				
☑	☐	☐	Hold times met (Waters – Extract within 7 days, analyze within 40 days. Soils – extract within 14 days, analyze within 40 days)	OK
Initial Calibration				
☑	☐	☐	%RSD less than or equal to 20%	OK
☑	☐	☐	RTs within windows	
Continuing Calibration				
☑	☐	☐	%D less than or equal to 25%	OK
☑	☐	☐	RTs within windows	
Instrument Blank				
☐	☐	☑	Analyzed at beginning of 12 hour clock and at end of analytical sequence	NA
Blank Contamination				
☐	☑	☐	Instrument blank contamination	Evaluate all blanks for contamination. Highest contaminant level used for action level.
☐	☑	☐	Method blank contamination	
☐	☐	☑	Equipment/Rinseate blank contamination	OK

PCBs

REGION I VALIDATION CHECKLIST for
OLIN CHEMICAL SUPERFUND SITE
Criteria and Qualifications: Region I Organics (Draft 2/04)

TIER I / [II] / III (circle one)

Surrogate Recoveries ☑ ☐ ☐ Surrogates percent recovery criteria met Pest/PCB for soil and water (30%-150%)	TMX recovered above upper QC limit of 150 for sampleOC-SB-467-30/32-XXX (169). PCBs all ND in sample – No qualifications necessary.
Matrix Spikes and Laboratory Control Samples ☑ ☐ ☐ MS/MSD percent recovery criteria met (Pest - water and soil 30-150%) (PCB – water and soil 40-140%) ☑ ☐ ☐ MS/MSD RPD criteria met. PCBs (soil or water < or = 50%). Pest (soil or water < or = 30%). ☑ ☐ ☐ LCS percent recovery criteria met (Pest and PCB = 40%-140%)	OK OK
Field Duplicates ☐ ☐ ☑ RPD criteria met (Pest/PCB = soil <50% and water <30%)	NA
Target Compounds ☑ ☐ ☐ Reviewed narrative for anomalies	OK – no detections
PEST/PCB Identification ☑ ☐ ☐ Results reported from primary column ☐ ☐ ☑ PCB results < or = to 25% D between primary and confirmation column. ☐ ☐ ☑ Within RT windows	For positive results having %D between 25% and 100%, qualify result J. For positive results greater than reporting limit having %D > 100%, qualify result R or use professional judgment (NJ). For positive results less than reporting limit having %D > 100%, qualify result UJ at the reporting limit. OK – no detections

Validator's Signature:___Bradley B. LaForest_____

Date: ____2/10/10_____

Reference:

MACTEC, Project Operation Plan Volume IIB, Quality Assurance Project Plan for Remedial Investigation/Feasibility Study – Olin Chemical Superfund Site, Wilmington Property, 51 Eames Street, Wilmington, MA", MACTEC Engineering and Consulting. .April 2009.

Client: Olin Corporation

Job Number: 360-24444-1
Sdg Number: OCRI-11

Client Sample ID: **OC-SB-467-0.0/1.0-XXX**

Lab Sample ID: 360-24444-6
Client Matrix: Solid
% Moisture: 6.7

Date Sampled: 09/02/2009 1605
Date Received: 09/03/2009 1650

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-48641		Instrument ID:	Inst. P
Preparation:	3546	Prep Batch: 360-48611		Initial Weight/Volume:	10.39 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Date Analyzed:	09/04/2009 1915			Injection Volume:	1.0 uL
Date Prepared:	09/04/2009 1121			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		14	100
PCB-1221		ND		16	100
PCB-1232		ND		24	100
PCB-1242		ND		66	100
PCB-1248		ND		23	100
PCB-1254		ND		27	100
PCB-1260		ND		29	100
PCB-1262		ND		14	100
PCB-1268		ND		22	100

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	106		30 - 150
Tetrachloro-m-xylene	119		30 - 150

Client: Olin Corporation

Job Number: 360-24444-3
Sdg Number: OCRI-11B

Client Sample ID: **OC-SB-467-30/32-XXX**

Lab Sample ID: 360-24444-7
Client Matrix: Solid
% Moisture: 10.8

Date Sampled: 09/02/2009 1730
Date Received: 09/03/2009 1650

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-48641		Instrument ID:	Inst. P
Preparation:	3546	Prep Batch: 360-48611		Initial Weight/Volume:	10.53 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Date Analyzed:	09/04/2009 1936			Injection Volume:	
Date Prepared:	09/04/2009 1121			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		14	110
PCB-1221		ND		16	110
PCB-1232		ND		25	110
PCB-1242		ND		68	110
PCB-1248		ND		24	110
PCB-1254		ND		28	110
PCB-1260		ND		30	110
PCB-1262		ND		15	110
PCB-1268		ND		23	110

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	139		30 - 150
Tetrachloro-m-xylene	169	X	30 - 150

Client: Olin Corporation

Job Number: 360-24444-1
Sdg Number: OCRI-11

Client Sample ID: **OC-SB-467-6.0/8.0-DUP**

Lab Sample ID: 360-24444-8
Client Matrix: Solid
% Moisture: 16.0

Date Sampled: 09/02/2009 1625
Date Received: 09/03/2009 1650

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-48641		Instrument ID:	Inst. P
Preparation:	3546	Prep Batch: 360-48611		Initial Weight/Volume:	10.18 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Date Analyzed:	09/04/2009 1957			injection Volume:	1.0 uL
Date Prepared:	09/04/2009 1121			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		16	120
PCB-1221		ND		18	120
PCB-1232		ND		27	120
PCB-1242		ND		75	120
PCB-1248		ND		26	120
PCB-1254		ND		31	120
PCB-1260		ND		32	120
PCB-1262		ND		16	120
PCB-1268		ND		25	120

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	111		30 - 150
Tetrachloro-m-xylene	119		30 - 150

Client: Olin Corporation

Job Number: 360-24444-1
Sdg Number: OCRI-11

Client Sample ID: **OC-SB-467-6.0/8.0-XXX**

Lab Sample ID: 360-24444-9
Client Matrix: Solid
% Moisture: 17.1

Date Sampled: 09/02/2009 1625
Date Received: 09/03/2009 1650

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-48641		Instrument ID:	Inst. P
Preparation:	3546	Prep Batch: 360-48611		Initial Weight/Volume:	10.39 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Date Analyzed:	09/04/2009 2018			Injection Volume:	1.0 uL
Date Prepared:	09/04/2009 1121			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		16	120
PCB-1221		ND		18	120
PCB-1232		ND		27	120
PCB-1242		ND		75	120
PCB-1248		ND		26	120
PCB-1254		ND		30	120
PCB-1260		ND		32	120
PCB-1262		ND		16	120
PCB-1268		ND		25	120

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	110		30 - 150
Tetrachloro-m-xylene	121		30 - 150

Client: Olin Corporation

Job Number: 360-24444-1
Sdg Number: OCRI-11

Client Sample ID: **OC-SB-459-0.0/1.0-XXX**

Lab Sample ID: 360-24444-12
Client Matrix: Solid
% Moisture: 6.1

Date Sampled: 09/03/2009 1110
Date Received: 09/03/2009 1650

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-48641		Instrument ID:	Inst. P
Preparation:	3546	Prep Batch: 360-48611		Initial Weight/Volume:	10.19 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Date Analyzed:	09/04/2009 2122			Injection Volume:	1.0 uL
Date Prepared:	09/04/2009 1121			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		14	100
PCB-1221		ND		16	100
PCB-1232		ND		25	100
PCB-1242		ND		67	100
PCB-1248		ND		23	100
PCB-1254		ND		27	100
PCB-1260		ND		29	100
PCB-1262		ND		14	100
PCB-1268		ND		22	100

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	111		30 - 150
Tetrachloro-m-xylene	128		30 - 150

PCBs

REGION I VALIDATION CHECKLIST for
OLIN CHEMICAL SUPERFUND SITE
Criteria and Qualifications: Region I Organics (Draft 2/04)

TIER I / [II] / III (circle one)

SITE: Olin Chemical Project #: 6107100016.12 SDG #: 360-24454

LAB #: _TAL _Westfield____

Sample IDs: Attach tracking sheet and/or sample listing.

This checklist is designed to be used with USEPA Region I Validation Guidelines Part III (Draft 2/04). During Level III validation, calculation and transcription checks are completed for instrument tuning, surrogates, target compounds, spike recoveries, calibration data, and internal standards as specified in the guideline. These checks are documented on attached validation notes.

YES NO NA	
Data completeness ☑ ☐ ☐ All data summaries, QC forms and raw data available from hard copy or electronic data package ☑ ☐ ☐ Data summaries match EDD	Contact lab if missing data. Lab to respond with 24 hours. OK
Holding Times and Preservation ☑ ☐ ☐ Hold times met (Waters – Extract within 7 days, analyze within 40 days. Soils – extract within 14 days, analyze within 40 days)	OK
Initial Calibration ☑ ☐ ☐ %RSD less than or equal to 20% ☑ ☐ ☐ RTs within windows	OK
Continuing Calibration ☑ ☐ ☐ %D less than or equal to 25% ☑ ☐ ☐ RTs within windows	OK
Instrument Blank ☐ ☐ ☑ Analyzed at beginning of 12 hour clock and at end of analytical sequence	NA
Blank Contamination ☐ ☑ ☐ Instrument blank contamination ☐ ☑ ☐ Method blank contamination ☐ ☑ ☐ Equipment/Rinseate blank contamination	Evaluate all blanks for contamination. Highest contaminant level used for action level. OK

PCBs

REGION I VALIDATION CHECKLIST for
OLIN CHEMICAL SUPERFUND SITE
Criteria and Qualifications: Region I Organics (Draft 2/04)

TIER I / [II] / III (circle one)

Surrogate Recoveries ☑ ☐ ☐ Surrogates percent recovery criteria met Pest/PCB for soil and water (30%-150%)	DCB recovered low (11) in equipment blank – no qualifications necessary.
Matrix Spikes and Laboratory Control Samples ☐ ☐ ☑ MS/MSD percent recovery criteria met (Pest - water and soil 30-150%) (PCB – water and soil 40-140%) ☐ ☐ ☑ MS/MSD RPD criteria met. PCBs (soil or water < or = 50%). Pest (soil or water < or = 30%). ☑ ☐ ☐ LCS percent recovery criteria met (Pest and PCB = 40%-140%)	NA – MS/MSD OK
Field Duplicates ☐ ☐ ☑ RPD criteria met (Pest/PCB = soil <50% and water <30%)	NA
Target Compounds ☑ ☐ ☐ Reviewed narrative for anomalies	OK – no detections
PEST/PCB Identification ☑ ☐ ☐ Results reported from primary column ☐ ☐ ☑ PCB results < or = to 25% D between primary and confirmation column. ☐ ☐ ☑ Within RT windows	For positive results having %D between 25% and 100%, qualify result J. For positive results greater than reporting limit having %D > 100%, qualify result R or use professional judgment (NJ). For positive results less than reporting limit having %D > 100%, qualify result UJ at the reporting limit. OK – no detections

Validator's Signature: Bradley B. LaForest

Date: 2/10/10

Reference:

MACTEC, Project Operation Plan Volume IIB, Quality Assurance Project Plan for Remedial Investigation/Feasibility Study – Olin Chemical Superfund Site, Wilmington Property, 51 Eames Street, Wilmington, MA", MACTEC Engineering and Consulting. .April 2009.

Client: Olin Corporation

Job Number: 360-24454-1
Sdg Number: OCRI-12

Client Sample ID: **OC-SB-461-0.0/1.0-XXX**

Lab Sample ID: 360-24454-1
Client Matrix: Solid
% Moisture: 4.5

Date Sampled: 09/03/2009 1420
Date Received: 09/04/2009 1605

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-48859		Instrument ID:	Inst. P
Preparation:	3546	Prep Batch: 360-48840		Initial Weight/Volume:	10.46 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Date Analyzed:	09/11/2009 1643			Injection Volume:	1.0 uL
Date Prepared:	09/11/2009 1013			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		14	100
PCB-1221		ND		15	100
PCB-1232		ND		24	100
PCB-1242		ND		64	100
PCB-1248		ND		22	100
PCB-1254		ND		26	100
PCB-1260		ND		28	100
PCB-1262		ND		14	100
PCB-1268		ND		21	100

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	93		30 - 150
Tetrachloro-m-xylene	106		30 - 150

Client: Olin Corporation

Job Number: 360-24454-1
Sdg Number: OCRI-12

Client Sample ID: **OC-SB-472-0.0/1.0-XXX**

Lab Sample ID: 360-24454-7
Client Matrix: Solid
% Moisture: 7.0

Date Sampled: 09/04/2009 0745
Date Received: 09/04/2009 1605

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-48859		Instrument ID:	Inst. P
Preparation:	3546	Prep Batch: 360-48840		Initial Weight/Volume:	10.24 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Date Analyzed:	09/11/2009 1704			Injection Volume:	1.0 uL
Date Prepared:	09/11/2009 1013			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		14	110
PCB-1221		ND		16	110
PCB-1232		ND		25	110
PCB-1242		ND		68	110
PCB-1248		ND		23	110
PCB-1254		ND		28	110
PCB-1260		ND		29	110
PCB-1262		ND		14	110
PCB-1268		ND		22	110

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	89		30 - 150
Tetrachloro-m-xylene	105		30 - 150

Client: Olin Corporation

Job Number: 360-24454-1
Sdg Number: OCRI-12

Client Sample ID: **OC-SB-472-30/32-XXX**

Lab Sample ID: 360-24454-8
Client Matrix: Solid
% Moisture: 8.9

Date Sampled: 09/04/2009 0850
Date Received: 09/04/2009 1605

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-48859		Instrument ID:	Inst. P
Preparation:	3546	Prep Batch: 360-48840		Initial Weight/Volume:	10.21 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Date Analyzed:	09/11/2009 1725			Injection Volume:	1.0 uL
Date Prepared:	09/11/2009 1013			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		15	110
PCB-1221		ND		16	110
PCB-1232		ND		25	110
PCB-1242		ND		69	110
PCB-1248		ND		24	110
PCB-1254		ND		28	110
PCB-1260		ND		30	110
PCB-1262		ND		15	110
PCB-1268		ND		23	110

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	90		30 - 150
Tetrachloro-m-xylene	105		30 - 150

Client: Olin Corporation

Job Number: 360-24454-1
Sdg Number: OCRI-12

Client Sample ID: **OC-SB-472-8.0/10-XXX**

Lab Sample ID: 360-24454-9
Client Matrix: Solid
% Moisture: 15.3

Date Sampled: 09/04/2009 0755
Date Received: 09/04/2009 1605

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-48859		Instrument ID:	Inst. P
Preparation:	3546	Prep Batch: 360-48840		Initial Weight/Volume:	10.23 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Date Analyzed:	09/11/2009 1746			Injection Volume:	1.0 uL
Date Prepared:	09/11/2009 1013			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		16	120
PCB-1221		ND		17	120
PCB-1232		ND		27	120
PCB-1242		ND		74	120
PCB-1248		ND		26	120
PCB-1254		ND		30	120
PCB-1260		ND		32	120
PCB-1262		ND		16	120
PCB-1268		ND		25	120

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	88		30 - 150
Tetrachloro-m-xylene	100		30 - 150

Client: Olin Corporation

Job Number: 360-24454-1
Sdg Number: OCRI-12

Client Sample ID: **OC-EBK-008**

Lab Sample ID: 360-24454-18EB
Client Matrix: Water

Date Sampled: 09/08/2009 1100
Date Received: 09/08/2009 1630

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-48973		Instrument ID:	Inst. M
Preparation:	3510C	Prep Batch: 360-48911		Initial Weight/Volume:	1000 mL
Dilution:	1.0			Final Weight/Volume:	5.0 mL
Date Analyzed:	09/15/2009 1630			Injection Volume:	1.0 uL
Date Prepared:	09/14/2009 1004			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
PCB-1016	ND		0.14	0.30
PCB-1221	ND		0.10	0.30
PCB-1232	ND		0.12	0.30
PCB-1242	ND		0.14	0.30
PCB-1248	ND		0.10	0.30
PCB-1254	ND		0.19	0.30
PCB-1260	ND		0.17	0.30
PCB-1262	ND		0.24	0.30
PCB-1268	ND		0.19	0.30

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	11	X	30 - 150
Tetrachloro-m-xylene	78		30 - 150

Client: Olin Corporation

Job Number: 360-24454-1
Sdg Number: OCRI-12

Surrogate Recovery Report

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Water

Lab Sample ID	Client Sample ID	TCX1 %Rec	DCB1 %Rec
360-24454-18	OC-EBK-008	78	11X
MB 360-48911/1-A		86	77
LCS 360-48911/2-A		85	69
LCSD 360-48911/3-A		92	75

EQUIPMENT BLANK

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-150
DCB = DCB Decachlorobiphenyl	30-150

PCBs

REGION I VALIDATION CHECKLIST for
OLIN CHEMICAL SUPERFUND SITE
Criteria and Qualifications: Region I Organics (Draft 2/04)

TIER I / II / III (circle one)

SITE: Olin Chemical Project #: 6107100016.12 SDG #: 360-24582

LAB #: TAL Westfield

Sample IDs: Attach tracking sheet and/or sample listing.

This checklist is designed to be used with USEPA Region I Validation Guidelines Part III (Draft 2/04). During Level III validation, calculation and transcription checks are completed for instrument tuning, surrogates, target compounds, spike recoveries, calibration data, and internal standards as specified in the guideline. These checks are documented on attached validation notes.

YES NO NA	
Data completeness ☑ ☐ ☐ All data summaries, QC forms and raw data available from hard copy or electronic data package ☑ ☐ ☐Data summaries match EDD	Contact lab if missing data. Lab to respond with 24 hours. OK – All samples analyzed and reported.
Holding Times and Preservation ☑ ☐ ☐Hold times met (Waters – Extract within 7 days, analyze within 40 days. Soils – extract within 14 days, analyze within 40 days)	OK – COCs checked; samples within temperature range. Raw data, extraction logs, and instrument logs checked - verified extraction and analysis dates.
Initial Calibration ☑ ☐ ☐ %RSD less than or equal to 20% ☑ ☐ ☐ RTs within windows	OK – Raw data reviewed; analysis time verified for initial and continuing calibrations and samples on form VIII. Initial calibration analysis times verified on PCB run log. Low, mid, and high concentration standards reported accurately on appropriate forms. Required PCBs analyzed and reported accurately. RRF and RSD calculation check performed on raw data.
Continuing Calibration ☑ ☐ ☐ %D less than or equal to 25% ☑ ☐ ☐ RTs within windows	OK – Raw data reviewed; analysis time verified for samples and continuing calibrations. Continuing calibration analysis times verified on PCB run log. Continuing calibration concentration standard reported accurately on appropriate forms. Required PCBs analyzed and reported accurately. %D calculation check performed on raw data.

PCBs

REGION I VALIDATION CHECKLIST for
OLIN CHEMICAL SUPERFUND SITE
Criteria and Qualifications: Region I Organics (Draft 2/04)

TIER I / II / III (circle one)

Instrument Blank ☐ ☐ ☑ Analyzed at beginning of 12 hour clock and at end of analytical sequence	NA - Instrument blanks not required.
Blank Contamination ☐ ☐ ☑ Instrument blank contamination ☐ ☑ ☐ Method blank contamination ☐ ☐ ☑ Equipment/Rinseate blank contamination	Evaluate all blanks for contamination. Highest contaminant level used for action level. NA – Equipment and instrument blanks. Method blanks raw data reviewed. Analysis dates and times verified, IDs accurate, retention times OK, surrogate recoveries calculated and accurate.
Surrogate Recoveries ☑ ☐ ☐ Surrogates percent recovery criteria met Pest/PCB for soil and water (30%-150%)	OK – Correct surrogates used. Raw data reviewed; within RT windows, calculation checks performed, all samples, blanks, and standards spiked with surrogates. Recoveries reported accurately.
Matrix Spikes and Laboratory Control Samples ☑ ☐ ☐ MS/MSD percent recovery criteria met (Pest - water and soil 30-150%) (PCB – water and soil 40-140%) ☑ ☐ ☐ MS/MSD RPD criteria met. PCBs (soil or water < or = 50%). Pest (soil or water < or = 30%). ☑ ☐ ☐ LCS percent recovery criteria met (Pest and PCB = 40%-140%)	OK – Raw data checked; percent recoveries and RPD calculated and accurate. OK – Spiking vendor or lot information not available in data package. Raw data checked; percent recoveries calculated and accurate.
Field Duplicates ☑ ☐ ☐ RPD criteria met (Pest/PCB = soil <50% and water <30%)	OK – All PCBs non-detect.
Sensitivity Check ☐ ☐ ☑ MDL Study Check	NA – MDL study not provided in data package. MDL study available upon request from laboratory.
Target Compounds ☑ ☐ ☐ Reviewed narrative for anomalies	OK – Raw data reviewed; sample calculations accurate, RT within windows, Form X and I match raw data, dilutions accounted for, correct CFs. Chromatograms OK. Sample OC-SS-403-0.0/1.0-XXX analyzed at 10X and sample OC-SS-404-0.0/1.0-XXX analyzed at 5X due to high concentrations of PCB-1260. Reporting limits for all other PCBs in these samples are elevated.

PCBs

REGION I VALIDATION CHECKLIST for
OLIN CHEMICAL SUPERFUND SITE
Criteria and Qualifications: Region I Organics (Draft 2/04)

TIER I / II / III (circle one)

PEST/PCB Identification				
☑	☐	☐	Results reported from primary column	For positive results having %D between 25% and 100%, qualify result J.
☑	☐	☐	PCB results < or = to 25% D between primary and confirmation column.	For positive results greater than reporting limit having %D > 100%, qualify result R or use professional judgment (NJ).
☑	☐	☐	Within RT windows	For positive results less than reporting limit having %D > 100%, qualify result UJ at the reporting limit.
				OK

Validator's Signature: Bradley B. LaForest

Date: 2/10/10

Reference:

MACTEC, Project Operation Plan Volume IIB, Quality Assurance Project Plan for Remedial Investigation/Feasibility Study – Olin Chemical Superfund Site, Wilmington Property, 51 Eames Street, Wilmington, MA", MACTEC Engineering and Consulting. .April 2009.

Client: Olin Corporation

Job Number: 360-24582-1
Sdg Number: OCRI-15

Client Sample ID: **OC-SS-403-0.0/1.0-XXX**

Lab Sample ID: 360-24582-8
Client Matrix: Solid
% Moisture: 6.4

Date Sampled: 09/14/2009 1550
Date Received: 09/15/2009 1640

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-49100		Instrument ID:	Inst. M
Preparation:	3546	Prep Batch: 360-49010		Initial Weight/Volume:	10.52 g
Dilution:	10			Final Weight/Volume:	10 mL
Date Analyzed:	09/17/2009 1341			Injection Volume:	1.0 uL
Date Prepared:	09/16/2009 1157			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		140	1000
PCB-1221		ND		150	1000
PCB-1232		ND		240	1000
PCB-1242		ND		650	1000
PCB-1248		ND		230	1000
PCB-1254		ND		270	1000
PCB-1260		13000		280	1000
PCB-1262		ND		140	1000
PCB-1268		ND		220	1000

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	99		30 - 150
Tetrachloro-m-xylene	117		30 - 150

Client: Olin Corporation

Job Number: 360-24582-1
Sdg Number: OCRI-15

Client Sample ID: **OC-SS-404-0.0/1.0-XXX**

Lab Sample ID: 360-24582-9
Client Matrix: Solid
% Moisture: 8.2

Date Sampled: 09/14/2009 1610
Date Received: 09/15/2009 1640

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-49100		Instrument ID:	Inst. M
Preparation:	3546	Prep Batch: 360-49010		Initial Weight/Volume:	10.78 g
Dilution:	5.0			Final Weight/Volume:	10 mL
Date Analyzed:	09/17/2009 1403			Injection Volume:	1.0 uL
Date Prepared:	09/16/2009 1157			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		69	510
PCB-1221		ND		77	510
PCB-1232		ND		120	510
PCB-1242		ND		320	510
PCB-1248		ND		110	510
PCB-1254		ND		130	510
PCB-1260		4800		140	510
PCB-1262		ND		69	510
PCB-1268		ND		110	510

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	125		30 - 150
Tetrachloro-m-xylene	36		30 - 150

Client: Olin Corporation

Job Number: 360-24582-1
Sdg Number: OCRI-15

Client Sample ID: **OC-SS-409-0.0/1.0-XXX**

Lab Sample ID: 360-24582-14
Client Matrix: Solid
% Moisture: 3.7

Date Sampled: 09/15/2009 1000
Date Received: 09/15/2009 1640

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-49051		Instrument ID:	Inst. M
Preparation:	3546	Prep Batch: 360-49010		Initial Weight/Volume:	10.59 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	09/16/2009 1836			Injection Volume:	1.0 uL
Date Prepared:	09/16/2009 1157			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		13	98
PCB-1221		ND		15	98
PCB-1232		ND		23	98
PCB-1242		ND		63	98
PCB-1248		ND		22	98
PCB-1254		ND		26	98
PCB-1260		140		27	98
PCB-1262		ND		13	98
PCB-1268		ND		21	98

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	80		30 - 150
Tetrachloro-m-xylene	96		30 - 150

Client: Olin Corporation

Job Number: 360-24582-1
Sdg Number: OCRI-15

Client Sample ID: **OC-SS-410-0.0/1.0-XXX**

Lab Sample ID: 360-24582-15
Client Matrix: Solid
% Moisture: 5.1

Date Sampled: 09/15/2009 1015
Date Received: 09/15/2009 1640

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-49051		Instrument ID:	Inst. M
Preparation:	3546	Prep Batch: 360-49010		Initial Weight/Volume:	10.41 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	09/16/2009 1857			Injection Volume:	1.0 uL
Date Prepared:	09/16/2009 1157			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		14	100
PCB-1221		ND		15	100
PCB-1232		ND		24	100
PCB-1242		ND		65	100
PCB-1248		ND		23	100
PCB-1254		ND		27	100
PCB-1260		ND		28	100
PCB-1262		ND		14	100
PCB-1268		ND		22	100

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	86		30 - 150
Tetrachloro-m-xylene	102		30 - 150

Client: Olin Corporation

Job Number: 360-24582-1
Sdg Number: OCRI-15

Client Sample ID: **OC-SS-412-0.0/1.0-XXX**

Lab Sample ID: 360-24582-17
Client Matrix: Solid
% Moisture: 8.2

Date Sampled: 09/15/2009 1120
Date Received: 09/15/2009 1640

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-49051		Instrument ID:	Inst. M
Preparation:	3546	Prep Batch: 360-49010		Initial Weight/Volume:	10.29 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	09/16/2009 1919			Injection Volume:	1.0 uL
Date Prepared:	09/16/2009 1157			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		14	110
PCB-1221		ND		16	110
PCB-1232		ND		25	110
PCB-1242		ND		68	110
PCB-1248		ND		24	110
PCB-1254		ND		28	110
PCB-1260		ND		29	110
PCB-1262		ND		15	110
PCB-1268		ND		23	110

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	85		30 - 150
Tetrachloro-m-xylene	98		30 - 150

Client: Olin Corporation

Job Number: 360-24582-1
Sdg Number: OCRI-15

Client Sample ID: **OC-SS-413-0.0/1.0-XXX**

Lab Sample ID: 360-24582-18
Client Matrix: Solid
% Moisture: 8.3

Date Sampled: 09/15/2009 1130
Date Received: 09/15/2009 1640

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-49051		Instrument ID:	Inst. M
Preparation:	3546	Prep Batch: 360-49010		Initial Weight/Volume:	10.26 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	09/16/2009 1941			Injection Volume:	1.0 uL
Date Prepared:	09/16/2009 1157			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		14	110
PCB-1221		ND		16	110
PCB-1232		ND		25	110
PCB-1242		ND		68	110
PCB-1248		ND		24	110
PCB-1254		ND		28	110
PCB-1260		ND		29	110
PCB-1262		ND		15	110
PCB-1268		ND		23	110

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	114		30 - 150
Tetrachloro-m-xylene	87		30 - 150

Client: Olin Corporation

Job Number: 360-24582-1
Sdg Number: OCRI-15

Client Sample ID: **OC-SS-416-0.0/1.0-DUP**

Lab Sample ID: 360-24582-21
Client Matrix: Solid
% Moisture: 8.5

Date Sampled: 09/15/2009 1240
Date Received: 09/15/2009 1640

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-49051		Instrument ID:	Inst. M
Preparation:	3546	Prep Batch: 360-49010		Initial Weight/Volume:	10.28 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	09/16/2009 2002			Injection Volume:	1.0 uL
Date Prepared:	09/16/2009 1157			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		14	110
PCB-1221		ND		16	110
PCB-1232		ND		25	110
PCB-1242		ND		68	110
PCB-1248		ND		24	110
PCB-1254		ND		28	110
PCB-1260		ND		29	110
PCB-1262		ND		15	110
PCB-1268		ND		23	110

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	87		30 - 150
Tetrachloro-m-xylene	94		30 - 150

Client: Olin Corporation

Job Number: 360-24582-1
Sdg Number: OCRI-15

Client Sample ID: **OC-SS-416-0.0/1.0-XXX**

Lab Sample ID: 360-24582-22
Client Matrix: Solid
% Moisture: 8.8

Date Sampled: 09/15/2009 1240
Date Received: 09/15/2009 1640

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-49051		Instrument ID:	Inst. M
Preparation:	3546	Prep Batch: 360-49010		Initial Weight/Volume:	10.31 g
Dilution:	1.0			Final Weight/Volume:	10 mL
Date Analyzed:	09/16/2009 2024			Injection Volume:	1.0 uL
Date Prepared:	09/16/2009 1157			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		14	110
PCB-1221		ND		16	110
PCB-1232		ND		25	110
PCB-1242		ND		68	110
PCB-1248		ND		24	110
PCB-1254		ND		28	110
PCB-1260		ND		29	110
PCB-1262		ND		15	110
PCB-1268		ND		23	110

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	83		30 - 150
Tetrachloro-m-xylene	94		30 - 150

Client: Olin Corporation

Job Number: 360-24582-1
Sdg Number: OCRI-15

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-49010

Method: 8082
Preparation: 3546

LCS Lab Sample ID:	LCS 360-49010/2-A	Analysis Batch:	360-49013	Instrument ID:	6890 GC w/ dual
Client Matrix:	Solid	Prep Batch:	360-49010	Lab File ID:	M17603.D
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	10.00 g
Date Analyzed:	09/16/2009 1113			Final Weight/Volume:	10 mL
Date Prepared:	09/16/2009 0918			Injection Volume:	1.0 uL
				Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 360-49010/3-A	Analysis Batch:	360-49013	Instrument ID:	6890 GC w/ dual
Client Matrix:	Solid	Prep Batch:	360-49010	Lab File ID:	M17604.D
Dilution:	1.0	Units:	ug/Kg	Initial Weight/Volume:	10.00 g
Date Analyzed:	09/16/2009 1135			Final Weight/Volume:	10 mL
Date Prepared:	09/16/2009 0918			Injection Volume:	1.0 uL
				Column ID:	PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
PCB-1016	83	85	40 - 140	3	30		
PCB-1260	92	94	40 - 140	2	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
DCB Decachlorobiphenyl	92	94	30 - 150
Tetrachloro-m-xylene	87	89	30 - 150

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 360-49010

Method: 8082
Preparation: 3546

2/10/10

LCS Lab Sample ID:	LCS 360-49010/2-A	Units:	ug/Kg	LCSD Lab Sample ID:	LCSD 360-49010/3-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Date Analyzed:	09/16/2009 1113			Date Analyzed:	09/16/2009 1135
Date Prepared:	09/16/2009 0918			Date Prepared:	09/16/2009 0918

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
PCB-1016	500	500	414	427
PCB-1260	500	500	459	469

$\frac{414}{500} \times 100 = 83\%R$ $\frac{427}{500} \times 100 = 85\%R$

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

$\frac{414-427}{(414+427)/2} \times 100 = 3.1\%RPD$

Client: Olin Corporation

Job Number: 360-24582-1
Sdg Number: OCRI-15

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 360-49010

Method: 8082
Preparation: 3546

MS Lab Sample ID:	360-24582-22	Analysis Batch: 360-49051	Instrument ID: 6890 GC w/ dual micro-ECDs
Client Matrix:	Solid	Prep Batch: 360-49010	Lab File ID: M17629.D
Dilution:	1.0		Initial Weight/Volume: 10.16 g
Date Analyzed:	09/16/2009 2045		Final Weight/Volume: 10 mL
Date Prepared:	09/16/2009 1157		Injection Volume: 1.0 uL
			Column ID: PRIMARY

MSD Lab Sample ID:	360-24582-22	Analysis Batch: 360-49051	Instrument ID: 6890 GC w/ dual micro-ECDs
Client Matrix:	Solid	Prep Batch: 360-49010	Lab File ID: M17630.D
Dilution:	1.0		Initial Weight/Volume: 10.39 g
Date Analyzed:	09/16/2009 2107		Final Weight/Volume: 10 mL
Date Prepared:	09/16/2009 1157		Injection Volume: 1.0 uL
			Column ID: PRIMARY

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
PCB-1016	84 ✓	86 ✓	30 - 150	0 ✓	50		
PCB-1260	96	98	40 - 140	0	50		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
DCB Decachlorobiphenyl	81	81	30 - 150
Tetrachloro-m-xylene	95	92	30 - 150

Matrix Spike/
Matrix Spike Duplicate Data Report - Batch: 360-49010

Method: 8082
Preparation: 3546

10/10/10

MS Lab Sample ID:	360-24582-22	Units: ug/Kg	MSD Lab Sample ID:	360-24582-22
Client Matrix:	Solid		Client Matrix:	Solid
Dilution:	1.0		Dilution:	1.0
Date Analyzed:	09/16/2009 2045		Date Analyzed:	09/16/2009 2107
Date Prepared:	09/16/2009 1157		Date Prepared:	09/16/2009 1157

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
PCB-1016	ND	540	528	451	451
PCB-1260	ND	540	528	516	516

$\frac{451}{540} \times 100 = 84\%$

$\frac{451 - 451}{451 + 451/2} \times 100 = 0$ RPD

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

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Westfield Job No.: 360-24582-1

SDG No.: OCRI-15

Client Sample ID: OC-SS-403-0.0/1.0-XXX Lab Sample ID: 360-24582-8

Instrument ID (1): Inst. M Instrument ID (2): Inst. M

Date Analyzed (1): 09/17/2009 13:41 Date Analyzed (2): 09/17/2009 13:41

GC Column (1): RTX-CLPest1 ID: 0.32(mm) GC Column (2): RTX-CLPest2 ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	8.46	8.26	8.66	10100		
		2	9.04	8.84	9.24	13500		
		3	9.60	9.40	9.80	13900		
		5	12.87	12.67	13.07	14600	13000	
	2	1	8.69	8.49	8.89	9380		
		2	9.15	8.95	9.35	12000		
		3	10.05	9.85	10.25	11000		
		4	10.64	10.43	10.83	11100		
		5	11.92	11.71	12.11	13900	11000	12.7

$$\frac{13000-11000}{11000} \times 100 = 18.1\%D$$

2/10/10 BSH

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Westfield Job No.: 360-24582-1

SDG No.: OCRI-15

Client Sample ID: OC-SS-404-0.0/1.0-XXX Lab Sample ID: 360-24582-9

Instrument ID (1): Inst. M Instrument ID (2): Inst. M

Date Analyzed (1): 09/17/2009 14:03 Date Analyzed (2): 09/17/2009 14:03

GC Column (1): RTX-CLPest1 ID: 0.32(mm) GC Column (2): RTX-CLPest2 ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	8.45	8.26	8.66	3830		
		2	9.02	8.84	9.24	4440		
		3	9.59	9.40	9.80	4470		
		4	11.56	11.36	11.76	6430		
		5	12.86	12.67	13.07	5000	4800	
	2	1	8.69	8.49	8.89	4350		
		2	9.15	8.95	9.35	4170		
		3	10.05	9.85	10.25	4040		
		4	10.63	10.43	10.83	4090		
		5	11.91	11.71	12.11	5160	4400	10.2

$$\frac{4400-4800}{4400} \times 100 = 9.1\%D$$

FORM X 8082

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Westfield Job No.: 360-24582-1

SDG No.: OCRI-15

Client Sample ID: OC-SS-409-0.0/1.0-XXX Lab Sample ID: 360-24582-14

Instrument ID (1): Inst. M Instrument ID (2): Inst. M

Date Analyzed (1): 09/16/2009 18:36 Date Analyzed (2): 09/16/2009 18:36

GC Column (1): RTX-CLPest1 ID: 0.32(mm) GC Column (2): RTX-CLPest2 ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1260	1	1	8.45	8.25	8.65	100		
		2	9.02	8.82	9.22	115		
		3	9.59	9.39	9.79	139		
		4	11.56	11.36	11.76	188		
		5	12.86	12.66	13.06	167	140	
	2	1	8.69	8.49	8.89	115		
		2	9.15	8.95	9.35	102		
		3	10.05	9.85	10.25	122		
		4	10.63	10.43	10.83	121		
		5	11.91	11.71	12.11	161	120	13.6

$\frac{120-140}{120} \times 100 = 17\%D$

FORM X 8082

Report Date: 17-Sep-2009 15:45:33 Chrom Revision: 1.0.2009.910

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\wessvr06\chromdata\INSTM.i\20090917-1.b\M17632.D		
Lims ID:	360-24582-A-8-A	Client ID:	OC-SS-403-0.0/1.0-XXX
Inject. Date:	17-Sep-2009 13:41:36	Dil. Factor:	10.0000
Sample Type:	Client Sample		
Sample ID:	360-24582-A-8-A 10X		
Operator:	MZ	Instrument ID:	Inst. M
Vol. Injected:	2.0000 SAit	ALS Bottle#:	2
Lims Batch ID:	49100	Lims Sample ID:	2
Detector 1 :	GC ECD1A		
Detector 2 :	GC ECD2B		
Method:	\\wessvr06\chromdata\INSTM.i\20090917-1.b\8082M.m		
Last Update:	17-Sep-2009 15:45:32	Calib Date:	08-Sep-2009 15:22:19
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17536.D		
Limit Group:	GC - 8082 PCB		
Integrator:	Genie		
Process Host:	WESSEMIDTRDR		

Reviewed By: zuccalam Date: 17-Sep-2009 15:45:32

2/10/10 BBL

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
$ 11 Tetrachloro-m-xylene						
1	2.902	2.904	-0.002	268655120	3.52	x10 = 35.2/30 x 100 = 117 %
2	2.696	2.695	0.001	88078784	6.80	
8 PCB-1260						
1	8.461	8.459	0.002	3454931840	998.4	
1	9.036	9.035	0.001	4846130624	1332.1	
1	9.600	9.598	0.002	7407396416	1366.9	
1	0.0	11.563	-11.563	0		
1	12.871	12.869	0.002	1679974966	1434.1	
		Average of Peak Amounts =			1282.9	
2	8.693	8.692	0.001	1174445920	924.1	
2	9.150	9.149	0.001	1980208704	1183.6	
2	10.054	10.052	0.002	1086486944	1084.4	
2	10.635	10.633	0.002	1229916560	1091.2	
2	11.915	11.912	0.003	2045671776	1364.6	
		Average of Peak Amounts =			1129.6	

3454931840/3460633 = 998.4
4846130624/3637905 = 1332.1
7407396416/5419060 — 1366.9
1679974966/1171481 — 1434.1
5131.5/4
= 1282.9

$$\frac{(\text{Amt})(\text{DF})(\text{correction factor})(\text{Final vol})}{(\text{Inj vol})(\text{wt in gm})(\%\text{ solids})}$$

$$\frac{(1282.9)(10)(1)(2)}{(1)(10.52)(.936)} = \frac{128290}{9.85} = 13024$$

= 13000 µg/kg

Report Date: 17-Sep-2009 15:45:33 Chrom Revision: 1.0.2009.910
Data File: \\wessvr06\chromdata\INSTM.i\20090917-1.b\M17632.D

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
$ 1 DCB Decachlorobiphenyl						
1	13.847	13.847	0.000	180934779	2.97	×10 = 29.7/30 ×100 = 99
2	14.312	14.312	0.000	62600272	2.55	

Report Date: 17-Sep-2009 15:45:33 Chrom Revision: 1.0.2009.910

Data File: \\wessvr06\chromdata\INSTM.i\20090917-1.b\M17632.D

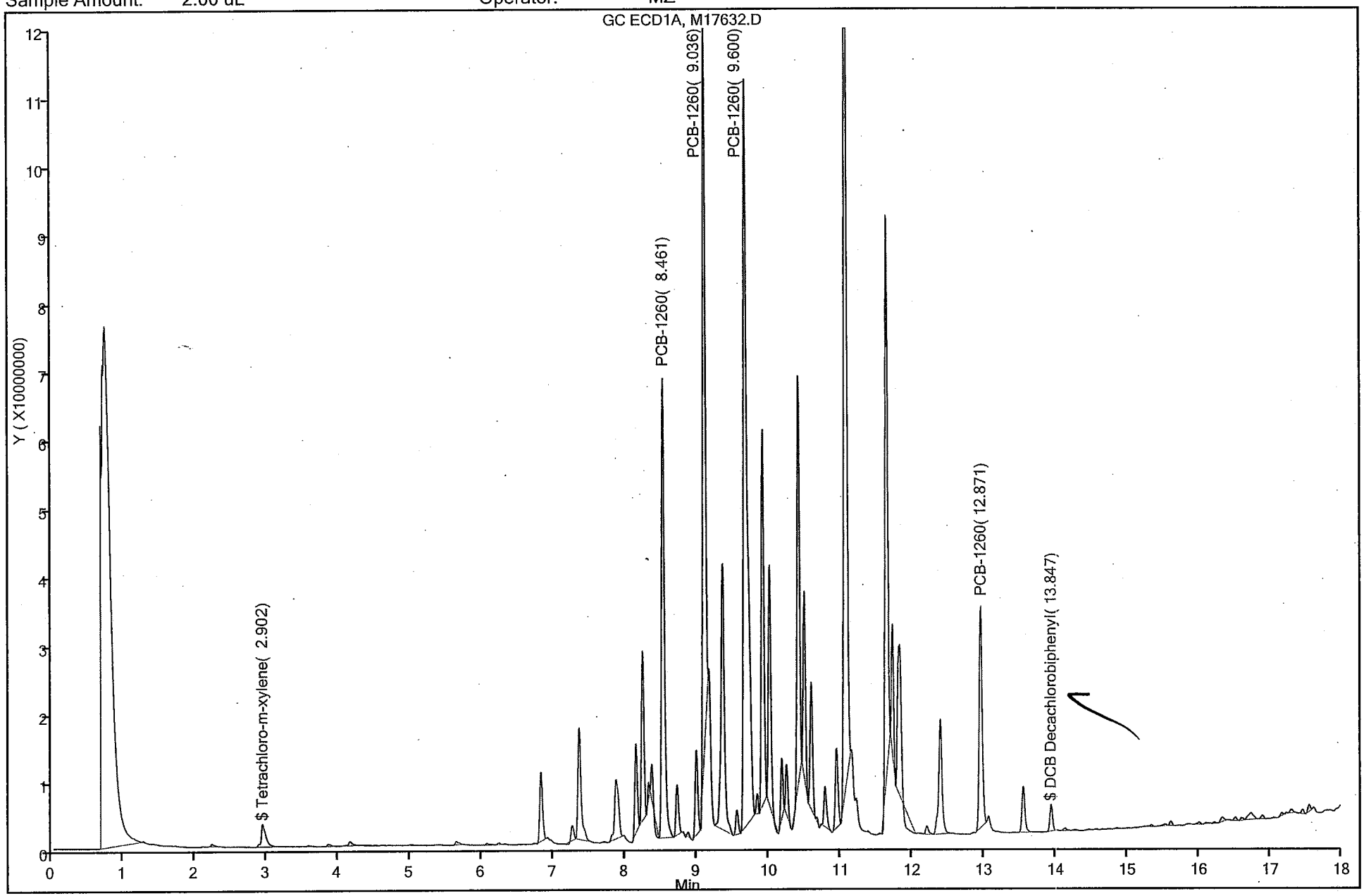
Inj Date: 17-Sep-2009 13:41:36 Limit Group: GC - 8082 PCB

Lims Batch ID: 49100 Lims Sample ID: 2

Client ID: OC-SS-403-0.0/1.0-XXX Instrument: Inst. M

Sample Info: 360-24582-A-8-A 10X

Sample Amount: 2.00 uL Operator: MZ



Report Date: 17-Sep-2009 15:45:35 Chrom Revision: 1.0.2009.910

Data File: \\wessvr06\chromdata\INSTM.i\20090917-1.b\M17632.D

Inj Date: 17-Sep-2009 13:41:36 Limit Group: GC - 8082 PCB

Lims Batch ID: 49100 Lims Sample ID: 2

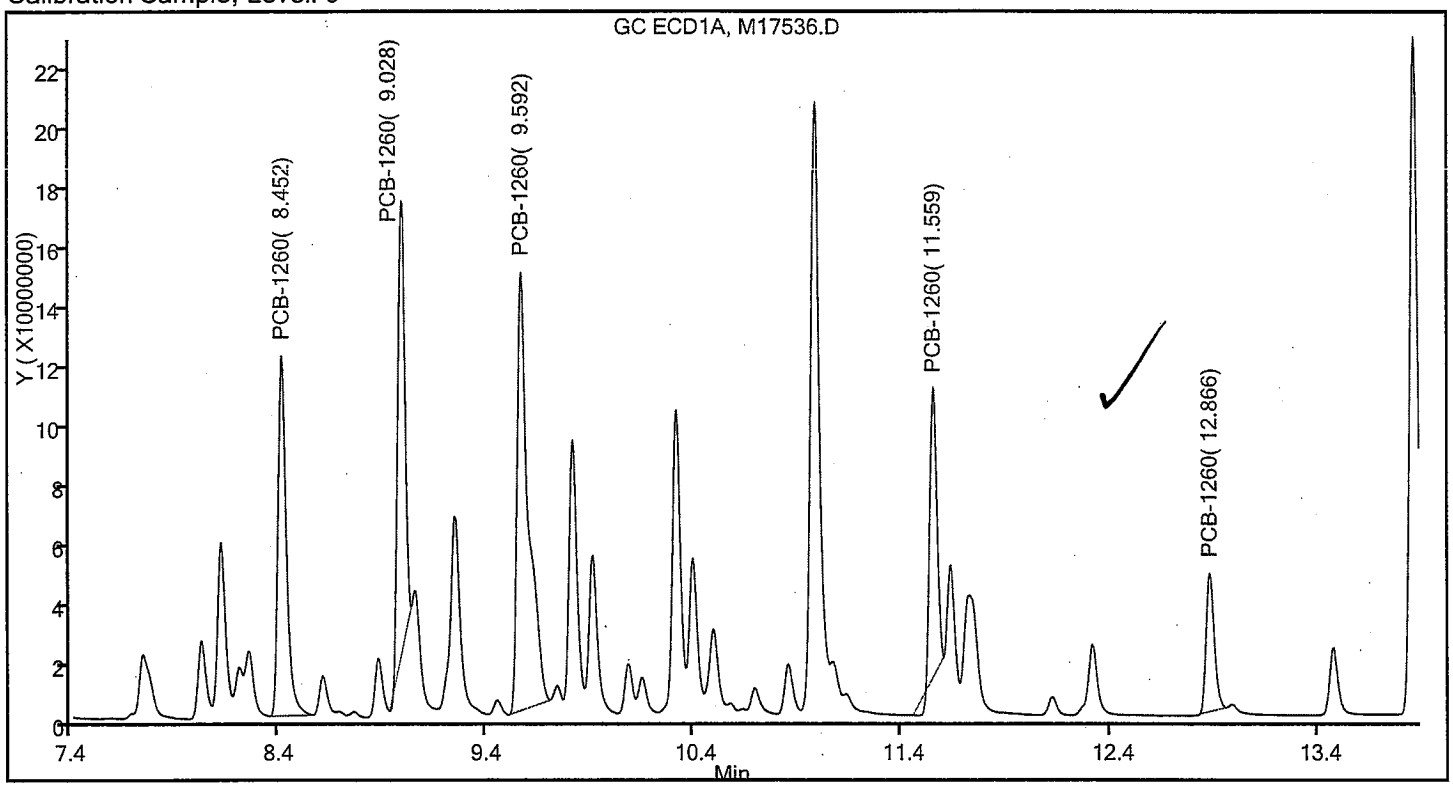
Client ID: OC-SS-403-0.0/1.0-XXX Instrument: Inst. M

Sample Info: 360-24582-A-8-A 10X

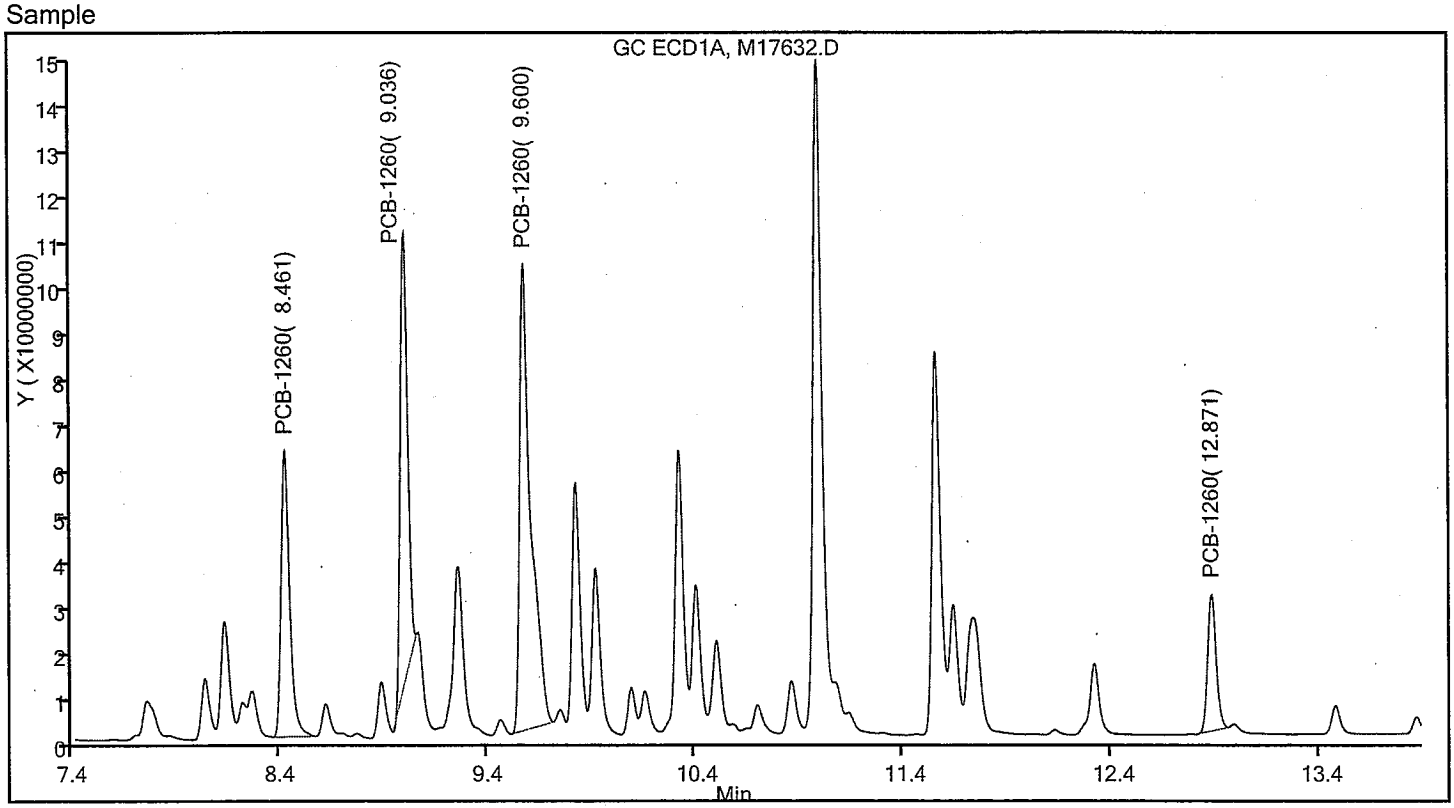
Sample Amount: 2.00 uL Operator: MZ

8 PCB-1260, Detector: 1, GC ECD1A

Calibration Sample, Level: 6



Sample



Report Date: 17-Sep-2009 15:47:17 Chrom Revision: 1.0.2009.910

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\wessvr06\chromdata\INSTM.i\20090917-1.b\M17633.D		
Lims ID:	360-24582-A-9-A	Client ID:	OC-SS-404-0.0/1.0-XXX
Inject. Date:	17-Sep-2009 14:03:04	Dil. Factor:	5.0000
Sample Type:	Client Sample		
Sample ID:	360-24582-A-9-A 5X		
Operator:	MZ	Instrument ID:	Inst. M
Vol. Injected:	2.0000	ALS Bottle#:	3
Lims Batch ID:	49100	Lims Sample ID:	3
Detector 1 :	GC ECD1A		
Detector 2 :	GC ECD2B		
Method:	\\wessvr06\chromdata\INSTM.i\20090917-1.b\8082M.m		
Last Update:	17-Sep-2009 15:46:15	Calib Date:	08-Sep-2009 15:22:19
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17536.D		
Limit Group:	GC - 8082 PCB		
Integrator:	Genie		
Process Host:	WESSEMIDTRDR		
Reviewed By:	zuccalam	Date:	17-Sep-2009 15:46:15
Reviewed By:	zuccalam	Date:	17-Sep-2009 15:47:16

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
$ 11 Tetrachloro-m-xylene						
1	2.845	2.904	-0.059	166879333	2.19	x 5/30 x 100 = 36%
2	2.692	2.695	-0.003	173107104	9.60	
8 PCB-1260						
1	8.447	8.459	-0.012	2623821984	758.2	
1	9.023	9.035	-0.012	3199987776	879.6	
1	9.589	9.598	-0.009	4795134272	884.9	
1	11.555	11.563	-0.008	2635490356	1272.8	
1	12.862	12.869	-0.007	1158650112	989.0	
		Average of Peak Amounts =			956.9	
2	8.688	8.692	-0.004	1095401312	861.9	
2	9.147	9.149	-0.002	1382752864	826.5	
2	10.050	10.052	-0.002	801240128	799.7	
2	10.632	10.633	-0.001	912062672	809.2	
2	11.912	11.912	0.000	1530616896	1021.0	
		Average of Peak Amounts =			863.7	

758.2
879.6
884.9
1272.8
989
4784.5 / 5 = 956.9

$$\frac{(956.9)(5)(1)(10)}{(1)(10.78)(.918)} = \frac{47845}{9.896} = 4835$$

= 4800 µg/kg

Report Date: 17-Sep-2009 15:47:17 Chrom Revision: 1.0.2009.910

Data File: \\wessvr06\chromdata\INSTM.i\20090917-1.b\M17633.D

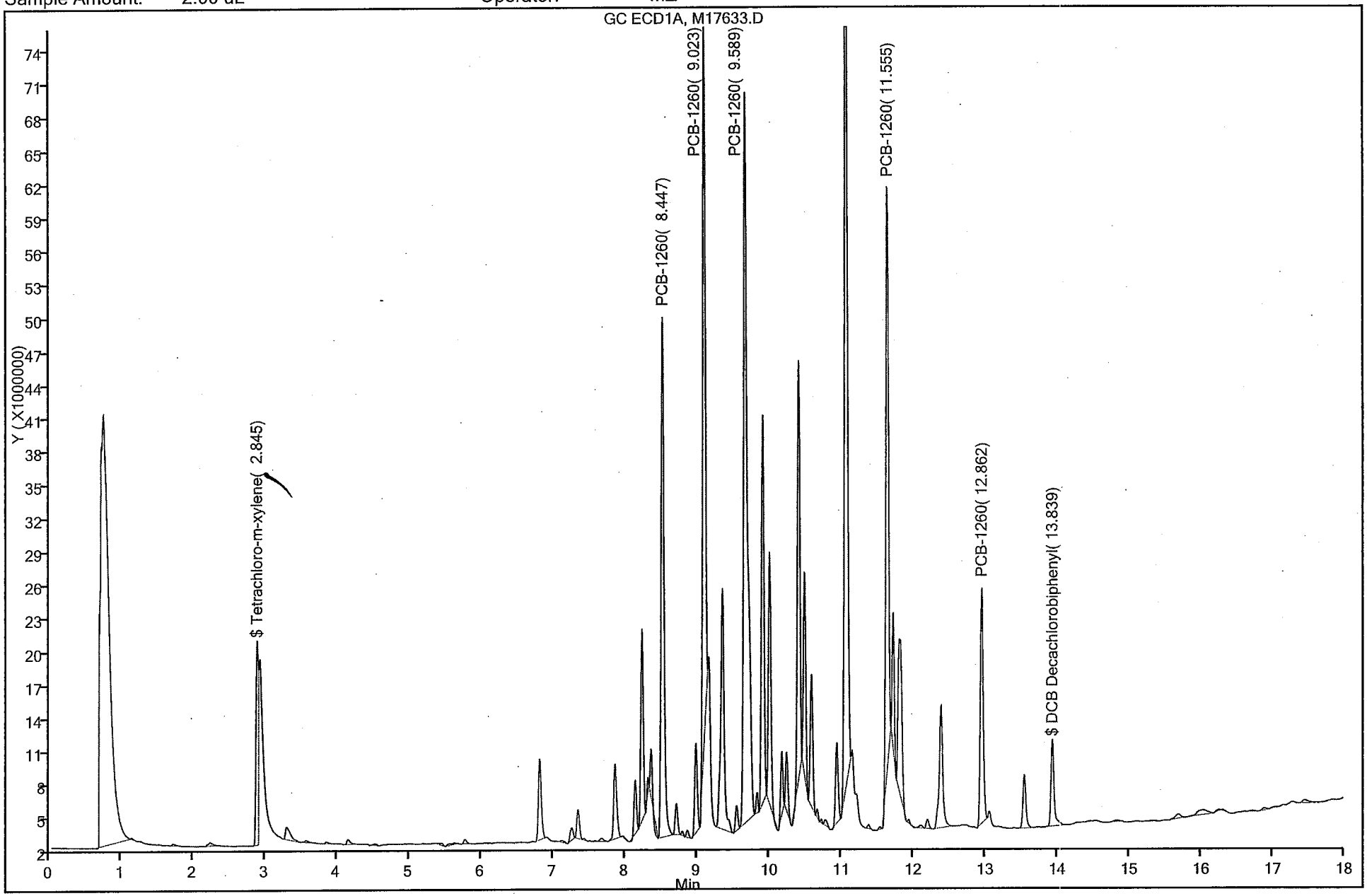
Inj Date: 17-Sep-2009 14:03:04 Limit Group: GC - 8082 PCB

Lims Batch ID: 49100 Lims Sample ID: 3

Client ID: OC-SS-404-0.0/1.0-XXX Instrument: Inst. M

Sample Info: 360-24582-A-9-A 5X

Sample Amount: 2.00 uL Operator: MZ



Report Date: 17-Sep-2009 15:47:18 Chrom Revision: 1.0.2009.910

Data File: \\wessvr06\chromdata\INSTM.i\20090917-1.b\M17633.D

Inj Date: 17-Sep-2009 14:03:04 Limit Group: GC - 8082 PCB

Lims Batch ID: 49100 Lims Sample ID: 3

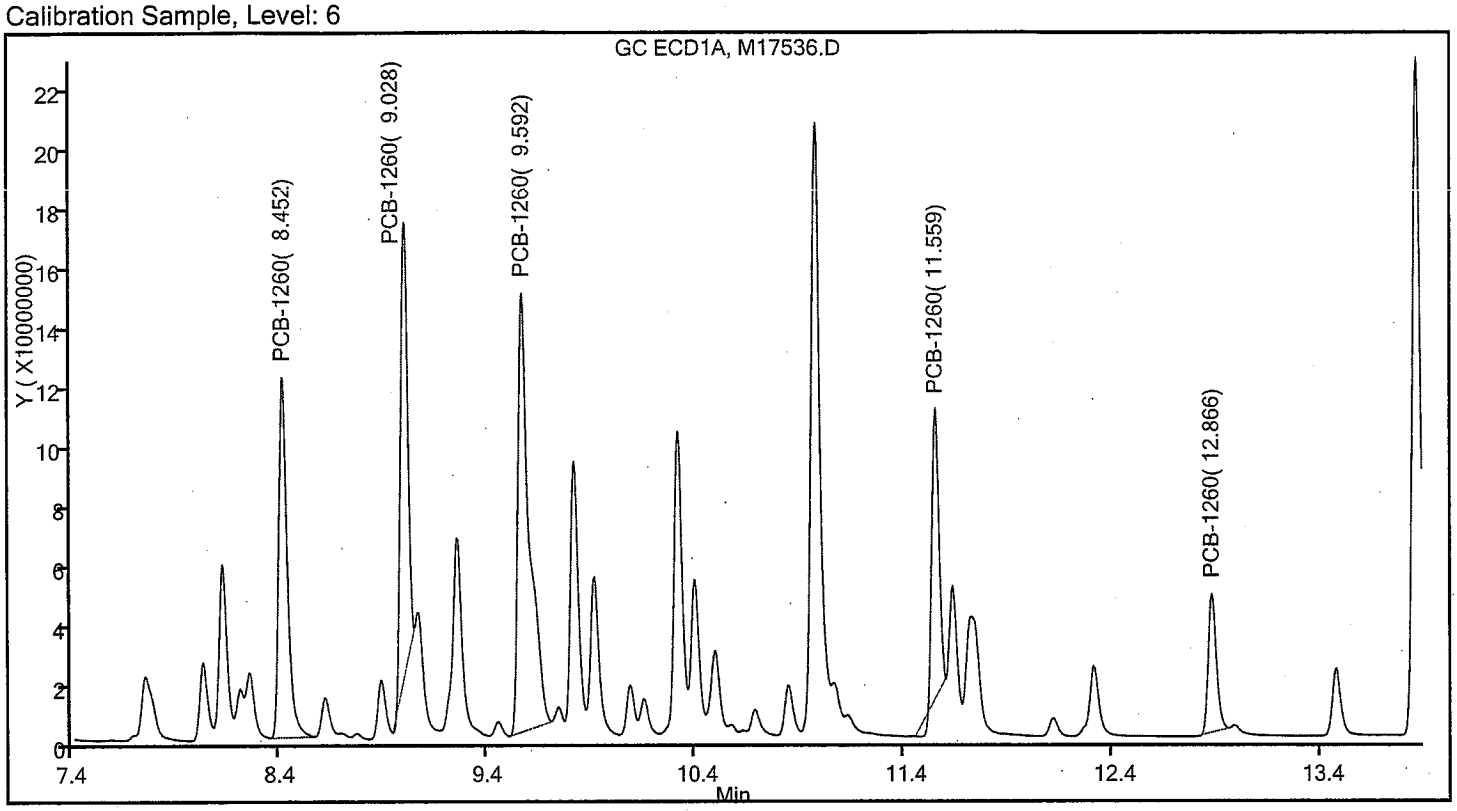
Client ID: OC-SS-404-0.0/1.0-XXX Instrument: Inst. M

Sample Info: 360-24582-A-9-A 5X

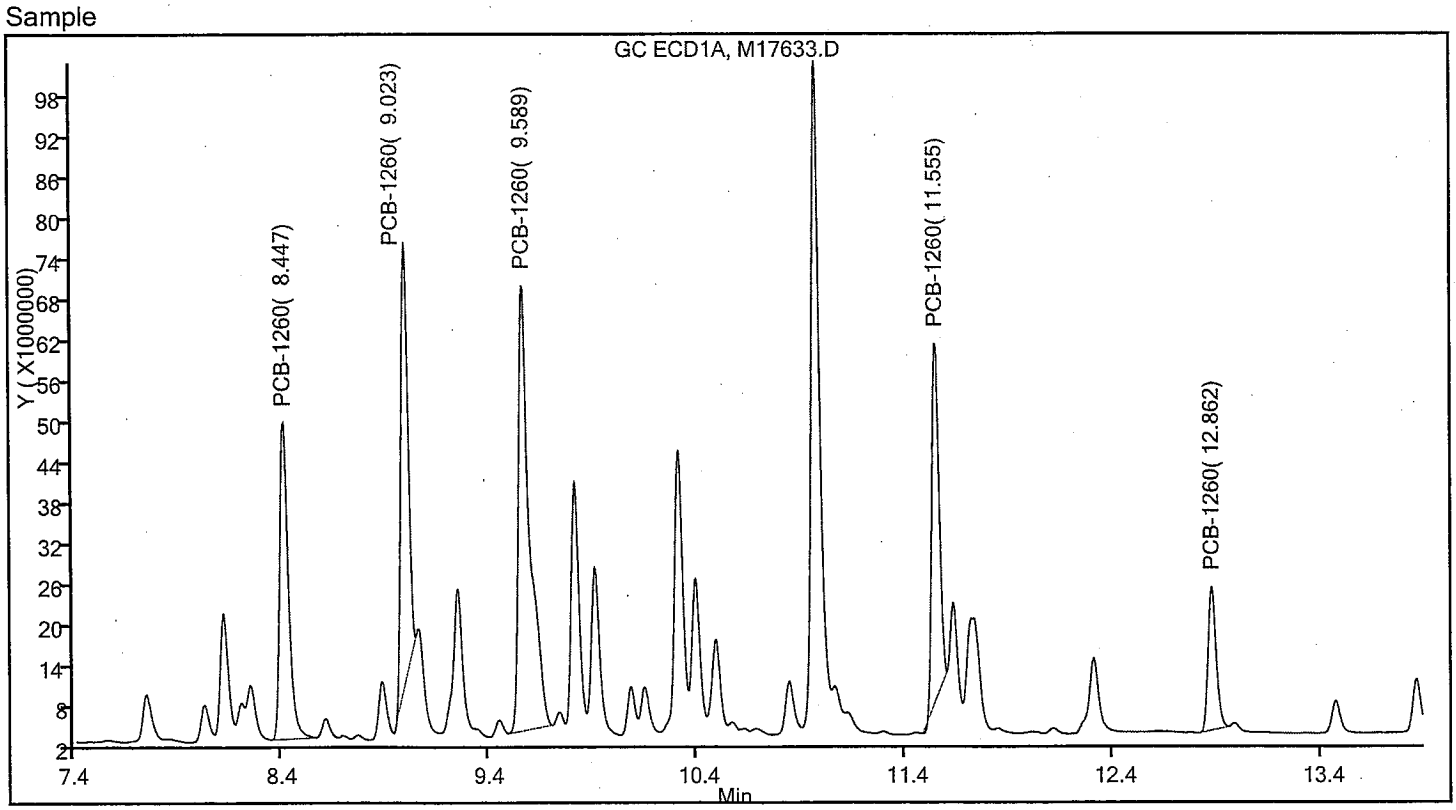
Sample Amount: 2.00 uL Operator: MZ

8 PCB-1260, Detector: 1, GC ECD1A

Calibration Sample, Level: 6



Sample



FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Westfield Job No.: 360-24582-1 Analy Batch No.: 48689

SDG No.: OCRI-15

Instrument ID: Inst. M GC Column: RTX-CLPest1 ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/08/2009 13:34 Calibration End Date: 09/08/2009 15:22 Calibration ID: 4271

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD50 360-48689/8	M17532.D
Level 2	STD100 360-48689/9	M17533.D
Level 3	STD200 360-48689/10	M17534.D
Level 4	STD500 360-48689/11	M17535.D
Level 5	STD1000 360-48689/7	M17531.D
Level 6	STD2000 360-48689/12	M17536.D

ANALYTE	RRF LVL 1 LVL 5	RRF LVL 2 LVL 6	RRF LVL 3	RRF LVL 4	CURVE TYPE	COEFFICIENT B	COEFFICIENT M1	COEFFICIENT M2	#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
PCB-1016 Peak 1	1370808 1012823	1225815 976854	1134532	1057432	Ave		1129711				13.0		20.0			
PCB-1016 Peak 2	3385467 2576847	3060628 2365156	2818338	2595473	Ave		2800318				13.0		20.0			
PCB-1016 Peak 3	4158804 4107353	4235354 4094544	4095260	4040861	Ave		4122029				1.6		20.0			
PCB-1016 Peak 4	1633437 1586583	1694757 1582401	1492830	1572362	Ave		1593728				4.2		20.0			
PCB-1016 Peak 5	1101755 938306	1051341 924022	1008373	947983	Ave		995297				7.1		20.0			
PCB-1260 Peak 1	3730033 3306411	3633151 3242445	3513232	3338528	Ave		3460633				5.7		20.0			
PCB-1260 Peak 2	3734221 3570936	3769838 3574883	3644652	3532899	Ave		3637905				2.6		20.0			
PCB-1260 Peak 3	5541981 5325641	5568904 5367053	5423940	5286843	Ave		5419060				2.1		20.0			
PCB-1260 Peak 4	2169321 2129786	2195377 2174943	1609823	2144083	Ave		2070556				11.0		20.0			
PCB-1260 Peak 5	1159626 1142967	1205555 1235047	1163830	1121863	Ave		1171481				3.6		20.0			
Tetrachloro-m-xylene	74176851 74865690	79764957 73981485	79966387	75042027	Ave		76299566				3.7		20.0			
DCB Decachlorobiphenyl	63073245 59682441	61422755 60095767	61975889	59619014	Ave		60978185				2.3		20.0			

3730033 — $3460633)^2 = 7.257636^{10}$
3633151 " $= 2.976246032^{10}$
3513232 " $= 2766654801$
3338528 " $= 1.490963103^{10}$
3306411 " $= 2.378442528^{10}$
3242445 " $= 4.761600334^{10}$

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

$\sqrt{3.828110696^{10}} = \frac{195655.6}{3460633} \times 100 = 5.7\%$

FORM VI 8082 20763800/6 = 3460633 1.914055348 N/5

10/13/2009

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17531.D		
Lims ID:	STD1000	Client ID:	
Inject. Date:	08-Sep-2009 13:34:44	Dil. Factor:	1.0000
Sample Type:	ICRTAV, ICal & Average RT's	Calib Level:	5
Sample ID:	STD1000		
Operator:	MZ	Instrument ID:	Inst. M
Vol. Injected:	2.0000	ALS Bottle#:	7
Lims Batch ID:	48689	Lims Sample ID:	7
Sublist:	chrom-8082M*sub7		
Detector 1 :	GC ECD1A		
Detector 2 :	GC ECD2B		

Method:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\8082M.m		
Last Update:	21-Sep-2009 14:39:28	Calib Date:	08-Sep-2009 15:22:19
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17536.D		
Limit Group:	GC - 8082 PCB		
Integrator:	Genie		
Process Host:	WESSEMIDTRDR		

Reviewed By:	zuccalam	Date:	09-Sep-2009 08:48:15
Reviewed By:	zuccalam	Date:	09-Sep-2009 10:33:48
Reviewed By:	weigelb	Date:	09-Sep-2009 10:54:36
Reviewed By:	zuccalam	Date:	10-Sep-2009 11:44:02
Reviewed By:	zuccalam	Date:	10-Sep-2009 15:03:01
Reviewed By:	zuccalam	Date:	10-Sep-2009 15:05:24
Reviewed By:	waltersg	Date:	14-Sep-2009 12:46:42
Reviewed By:	zuccalam	Date:	17-Sep-2009 14:10:45
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:32:37
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:35:22
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:39:27

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
$ 11 Tetrachloro-m-xylene						A
1	2.896	2.896	0.000	7486569024	98.1	A
2	2.698	2.698	0.000	2992791036	102.3	A
2 PCB-1016						
1	3.495	3.495	0.000	1012822848	896.5	
1	4.120	4.120	0.000	2576847200	920.2	
1	4.970	4.970	0.000	4107352768	996.4	
1	5.219	5.219	0.000	1586582688	995.5	
1	6.755	6.755	0.000	938305952	942.7	
		Average of Peak Amounts =			950.3	
2	3.474	3.474	0.000	447941024	939.6	
2	4.187	4.187	0.000	969745964	943.8	
2	5.012	5.012	0.000	2090088992	981.6	
2	5.259	5.259	0.000	805453184	953.3	
2	6.392	6.392	0.000	768967136	979.2	
		Average of Peak Amounts =			959.5	

Report Date: 21-Sep-2009 14:39:29 Chrom Revision: 1.1 20-Sep-2009 21:03:36
Data File: \\wessvr06\chromdata\INSTM.i\20090908-1.b\M17531.D

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
8 PCB-1260						
1	8.453	8.453	0.000	3306410912	955.4	
1	9.028	9.028	0.000	3570936464	981.6	
1	9.593	9.593	0.000	5325641232	982.8	
1	11.559	11.559	0.000	2129786272	1028.6	
1	12.867	12.867	0.000	1142967392	975.7	
		Average of Peak Amounts =			984.8	
2	8.696	8.696	0.000	1236100208	972.6	
2	9.153	9.153	0.000	1619409920	968.0	
2	10.057	10.057	0.000	979258048	977.3	
2	10.639	10.639	0.000	1107249872	982.4	
2	11.917	11.917	0.000	1518948960	1013.2	
		Average of Peak Amounts =			982.7	
$ 1 DCB Decachlorobiphenyl						
1	13.843	13.843	0.000	5968244128	97.9	
2	14.316	14.316	0.000	2483019008	101.1	

3306410912/1000 = 3306411

QC Flag Legend

Review Flags
A - User Assigned ID

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17532.D		
Lims ID:	STD50	Client ID:	
Inject. Date:	08-Sep-2009 13:56:12	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	1
Sample ID:	STD50		
Operator:	MZ	Instrument ID:	Inst. M
Vol. Injected:	2.0000	ALS Bottle#:	8
Lims Batch ID:	48689	Lims Sample ID:	8
Sublist:	chrom-8082M*sub7		
Detector 1 :	GC ECD1A		
Detector 2 :	GC ECD2B		

Method:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\8082M.m		
Last Update:	21-Sep-2009 14:39:48	Calib Date:	08-Sep-2009 15:22:19
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17536.D		
Limit Group:	GC - 8082 PCB		
Integrator:	Genie		
Process Host:	WESSEMIDTRDR		

Reviewed By:	zuccalam	Date:	09-Sep-2009 08:48:59
Reviewed By:	zuccalam	Date:	10-Sep-2009 15:03:05
Reviewed By:	zuccalam	Date:	10-Sep-2009 15:05:38
Reviewed By:	waltersg	Date:	14-Sep-2009 12:47:06
Reviewed By:	zuccalam	Date:	17-Sep-2009 14:11:05
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:32:48
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:35:41
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:39:48

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
$ 11 Tetrachloro-m-xylene						M
1	2.898	2.896	0.002	370884256	4.84	
2	2.696	2.698	-0.002	46908580	5.43	M
2 PCB-1016						
1	3.498	3.498	0.000	68540419	60.7	
1	4.120	4.120	0.000	169273360	60.4	
1	4.972	4.972	0.000	207940176	50.4	
1	5.221	5.221	0.000	81671872	51.2	
1	6.757	6.757	0.000	55087754	55.3	
		Average of Peak Amounts =			55.6	
2	3.475	3.475	0.000	27491990	57.7	
2	4.188	4.188	0.000	53139430	51.7	
2	5.014	5.014	0.000	116127424	54.5	
2	5.259	5.259	0.000	47921536	56.7	
2	6.393	6.393	0.000	40047616	51.0	
		Average of Peak Amounts =			54.3	

Report Date: 21-Sep-2009 14:39:49 Chrom Revision: 1.1 20-Sep-2009 21:03:36
Data File: \\wessvr06\chromdata\INSTM.i\20090908-1.b\M17532.D

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
8 PCB-1260						
1	8.452	8.452	0.000	186501632/50	53.9	= 3730033
1	9.029	9.029	0.000	186711072	51.3	
1	9.593	9.593	0.000	277099056	51.1	
1	11.560	11.560	0.000	108466069	52.4	
1	12.868	12.868	0.000	57981280	49.5	
		Average of Peak Amounts =			51.6	
2	8.695	8.695	0.000	68217017	53.7	
2	9.153	9.153	0.000	90825872	54.3	
2	10.057	10.057	0.000	54447072	54.3	
2	10.639	10.639	0.000	60830541	54.0	
2	11.918	11.918	0.000	77608870	51.8	
		Average of Peak Amounts =			53.6	
$ 1 DCB Decachlorobiphenyl						
1	13.844	13.844	0.000	315366223	5.17	
2	14.315	14.315	0.000	120463296	4.91	

QC Flag Legend

Review Flags
M - Manually Integrated

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17533.D		
Lims ID:	STD100	Client ID:	
Inject. Date:	08-Sep-2009 14:17:41	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	2
Sample ID:	STD100		
Operator:	MZ	Instrument ID:	Inst. M
Vol. Injected:	2.0000	ALS Bottle#:	9
Lims Batch ID:	48689	Lims Sample ID:	9
Sublist:	chrom-8082M*sub7		
Detector 1 :	GC ECD1A		
Detector 2 :	GC ECD2B		

Method:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\8082M.m		
Last Update:	21-Sep-2009 14:39:55	Calib Date:	08-Sep-2009 15:22:19
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17536.D		
Limit Group:	GC - 8082 PCB		
Integrator:	Genie		
Process Host:	WESSEMIDTRDR		

Reviewed By:	zuccalam	Date:	09-Sep-2009 08:49:57
Reviewed By:	zuccalam	Date:	10-Sep-2009 15:03:11
Reviewed By:	zuccalam	Date:	10-Sep-2009 15:05:50
Reviewed By:	waltersg	Date:	14-Sep-2009 12:47:25
Reviewed By:	zuccalam	Date:	17-Sep-2009 14:11:26
Reviewed By:	zuccalam	Date:	17-Sep-2009 14:21:19
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:33:03
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:35:54
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:39:55

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
$ 11 Tetrachloro-m-xylene						
1	2.896	2.896	0.000	797649568	10.4	
2	2.697	2.698	-0.001	138720928	8.48	
2 PCB-1016						
1	3.496	3.502	-0.006	122581536	108.5	
1	4.118	4.126	-0.008	306062843	109.3	
1	4.971	4.978	-0.007	423535424	102.7	
1	5.218	5.225	-0.007	169475680	106.3	
1	6.755	6.763	-0.008	105134096	105.6	
		Average of Peak Amounts =			106.5	
2	3.475	3.471	0.004	49115525	103.0	
2	4.186	4.182	0.004	113359787	110.3	
2	5.013	5.006	0.007	222775424	104.6	
2	5.258	5.252	0.006	90062704	106.6	
2	6.392	6.388	0.004	85032320	108.3	
		Average of Peak Amounts =			106.6	

Report Date: 21-Sep-2009 14:39:56 Chrom Revision: 1.1 20-Sep-2009 21:03:36
Data File: \\wessvr06\chromdata\INSTM.i\20090908-1.b\M17533.D

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
8 PCB-1260						
1	8.451	8.459	-0.008	363315088/100	105.0	= 3633151
1	9.028	9.035	-0.007	376983760	103.6	
1	9.594	9.599	-0.005	556890400	102.8	
1	11.560	11.565	-0.005	219537744	106.0	
1	12.868	12.869	-0.001	120555488	102.9	
		Average of Peak Amounts =			104.1	
2	8.695	8.689	0.006	134843840	106.1	
2	9.153	9.148	0.005	177720608	106.2	
2	10.056	10.051	0.005	104870544	104.7	
2	10.638	10.633	0.005	117005239	103.8	
2	11.919	11.913	0.006	152168569	101.5	
		Average of Peak Amounts =			104.5	
$ 1 DCB Decachlorobiphenyl						
1	13.844	13.847	-0.003	614227551	10.1	
2	14.316	14.310	0.006	251675306	10.2	

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17534.D		
Lims ID:	STD200	Client ID:	
Inject. Date:	08-Sep-2009 14:39:19 ✓	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	3
Sample ID:	STD200 ✓		
Operator:	MZ	Instrument ID:	Inst. M
Vol. Injected:	2.0000	ALS Bottle#:	10
Lims Batch ID:	48689	Lims Sample ID:	10
Sublist:	chrom-8082M*sub7		
Detector 1 :	GC ECD1A		
Detector 2 :	GC ECD2B		

Method:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\8082M.m		
Last Update:	21-Sep-2009 14:40:07	Calib Date:	08-Sep-2009 15:22:19
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17536.D		
Limit Group:	GC - 8082 PCB		
Integrator:	Genie		
Process Host:	WESSEMIDTRDR		

Reviewed By:	zuccalam	Date:	09-Sep-2009 08:50:20
Reviewed By:	zuccalam	Date:	10-Sep-2009 15:03:17
Reviewed By:	zuccalam	Date:	10-Sep-2009 15:06:05
Reviewed By:	waltersg	Date:	14-Sep-2009 12:47:44
Reviewed By:	zuccalam	Date:	17-Sep-2009 14:11:42
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:33:12
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:40:07

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
$ 11 Tetrachloro-m-xylene						
1	2.895	2.896	-0.001	1599327744	20.9	
2	2.697	2.698	-0.001	504522037	20.6	
2 PCB-1016						
1	3.494	3.502	-0.008	226906432	200.9	
1	4.120	4.126	-0.006	563667614	201.3	
1	4.971	4.978	-0.007	819052032	198.7	
1	5.219	5.225	-0.006	298566038	187.3	
1	6.756	6.763	-0.007	201674656	202.6	
		Average of Peak Amounts =			198.2	
2	3.475	3.471	0.004	99189250	208.1	
2	4.186	4.182	0.004	217343968	211.5	
2	5.013	5.006	0.007	420502720	197.5	
2	5.259	5.252	0.007	168668368	199.6	
2	6.394	6.388	0.006	160555744	204.4	
		Average of Peak Amounts =			204.2	

Report Date: 21-Sep-2009 14:40:08 Chrom Revision: 1.1 20-Sep-2009 21:03:36
Data File: \\wessvr06\chromdata\INSTM.i\20090908-1.b\M17534.D

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
8 PCB-1260						
1	8.453	8.459	-0.006	702646432/200 =	203.0	3513232
1	9.029	9.035	-0.006	728930400	200.4	
1	9.593	9.599	-0.006	1084788064	200.2	
1	11.561	11.565	-0.004	321964544	155.5	
1	12.867	12.869	-0.002	232765936	198.7	
		Average of Peak Amounts =			191.6	
2	8.696	8.689	0.007	256345600	201.7	
2	9.153	9.148	0.005	336382496	201.1	
2	10.057	10.051	0.006	199642560	199.3	
2	10.639	10.633	0.006	224650016	199.3	
2	11.918	11.913	0.005	293148812	195.5	
		Average of Peak Amounts =			199.4	
$ 1 DCB Decachlorobiphenyl						
1	13.844	13.847	-0.003	1239517788	20.3	
2	14.315	14.310	0.005	495031664	20.2	

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17535.D		
Lims ID:	STD500	Client ID:	
Inject. Date:	08-Sep-2009 15:00:48	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	4
Sample ID:	STD500		
Operator:	MZ	Instrument ID:	Inst. M
Vol. Injected:	2.0000	ALS Bottle#:	11
Lims Batch ID:	48689	Lims Sample ID:	11
Sublist:	chrom-8082M*sub7		
Detector 1 :	GC ECD1A		
Detector 2 :	GC ECD2B		

Method:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\8082M.m		
Last Update:	21-Sep-2009 14:40:20	Calib Date:	08-Sep-2009 15:22:19
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17536.D		
Limit Group:	GC - 8082 PCB		
Integrator:	Genie		
Process Host:	WESSEMIDTRDR		

Reviewed By:	zuccalam	Date:	09-Sep-2009 08:50:47
Reviewed By:	zuccalam	Date:	10-Sep-2009 15:03:22
Reviewed By:	zuccalam	Date:	10-Sep-2009 15:06:16
Reviewed By:	waltersg	Date:	14-Sep-2009 12:48:07
Reviewed By:	zuccalam	Date:	17-Sep-2009 14:12:03
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:33:23
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:40:45

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
$ 11 Tetrachloro-m-xylene						
1	2.895	2.896	-0.001	3752101372	49.0	
2	2.697	2.698	-0.001	1451266720	52.1	
2 PCB-1016						
1	3.493	3.502	-0.009	528716192	468.0	
1	4.119	4.126	-0.007	1297736411	463.4	
1	4.969	4.978	-0.009	2020430400	490.2	
1	5.218	5.225	-0.007	786180800	493.3	
1	6.755	6.763	-0.008	473991552	476.2	
		Average of Peak Amounts =			478.2	
2	3.474	3.471	0.003	228486848	479.3	
2	4.186	4.182	0.004	492943945	479.8	
2	5.011	5.006	0.005	1008722976	473.7	
2	5.257	5.252	0.005	393247072	465.5	
2	6.393	6.388	0.005	375007104	477.5	
		Average of Peak Amounts =			475.2	

Report Date: 21-Sep-2009 14:40:46 Chrom Revision: 1.1 20-Sep-2009 21:03:36
Data File: \\wessvr06\chromdata\INSTM.i\20090908-1.b\M17535.D

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
8 PCB-1260						
1	8.451	8.459	-0.008	1669263872/500	482.4	= 3338528
1	9.028	9.035	-0.007	1766449440	485.6	
1	9.593	9.599	-0.006	2643421296	487.8	
1	11.560	11.565	-0.005	1072041728	517.8	
1	12.866	12.869	-0.003	560931328	478.8	
		Average of Peak Amounts =			490.5	
2	8.695	8.689	0.006	604181776	475.4	
2	9.153	9.148	0.005	793159520	474.1	
2	10.055	10.051	0.004	475191488	474.3	
2	10.638	10.633	0.005	537388256	476.8	
2	11.918	11.913	0.005	722311242	481.8	
		Average of Peak Amounts =			476.5	
$ 1 DCB Decachlorobiphenyl						
1	13.843	13.847	-0.004	2980950700	48.9	
2	14.315	14.310	0.005	1207033530	49.1	

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17536.D		
Lims ID:	STD2000	Client ID:	
Inject. Date:	08-Sep-2009 15:22:19✓	Dil. Factor:	1.0000
Sample Type:	IC, ICal Standard	Calib Level:	6
Sample ID:	STD2000✓		
Operator:	MZ	Instrument ID:	Inst. M
Vol. Injected:	2.0000	ALS Bottle#:	12
Lims Batch ID:	48689	Lims Sample ID:	12
Sublist:	chrom-8082M*sub7		
Detector 1 :	GC ECD1A		
Detector 2 :	GC ECD2B		

Method:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\8082M.m		
Last Update:	21-Sep-2009 14:43:04	Calib Date:	08-Sep-2009 15:00:48
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17535.D		
Limit Group:	GC - 8082 PCB		
Integrator:	Genie		
Process Host:	WESSEMIDTRDR		

Reviewed By:	zuccalam	Date:	09-Sep-2009 08:51:37
Reviewed By:	zuccalam	Date:	10-Sep-2009 15:03:28
Reviewed By:	zuccalam	Date:	10-Sep-2009 15:06:37
Reviewed By:	waltersg	Date:	14-Sep-2009 12:48:31
Reviewed By:	zuccalam	Date:	17-Sep-2009 14:13:09
Reviewed By:	zuccalam	Date:	17-Sep-2009 14:20:54
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:31:36
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:43:18
Reviewed By:	zuccalam	Date:	21-Sep-2009 14:45:40

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
$ 11 Tetrachloro-m-xylene						A
1	2.895	2.903	-0.008	14796297024	193.9	A
2	2.698	2.696	0.002	5857946272	196.6	A
2 PCB-1016						
1	3.493	3.502	-0.009	1953707296	1729.4	
1	4.119	4.126	-0.007	4730312416	1689.2	
1	4.968	4.978	-0.010	8189087104	1986.7	
1	5.216	5.225	-0.009	3164802656	1985.8	
1	6.755	6.763	-0.008	1848044544	1856.8	
		Average of Peak Amounts =			1849.6	
2	3.475	3.471	0.004	837023712	1755.8	
2	4.185	4.182	0.003	1852113568	1802.6	
2	5.011	5.006	0.005	4030901680	1893.1	
2	5.257	5.252	0.005	1549728992	1834.3	
2	6.392	6.388	0.004	1477717376	1881.7	
		Average of Peak Amounts =			1833.5	

Report Date: 21-Sep-2009 14:45:42 Chrom Revision: 1.1 20-Sep-2009 21:03:36
Data File: \\wessvr06\chromdata\INSTM.i\20090908-1.b\M17536.D

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
8 PCB-1260						5
1	8.452	8.459	-0.007	6484890352/2000	1873.9	5 3242445
1	9.028	9.035	-0.007	7149765920	1965.4	
1	9.592	9.599	-0.007	10734105664	1980.8	
1	11.559	11.565	-0.006	4349886288	2100.8	
1	12.866	12.869	-0.003	2470093024	2108.5	
		Average of Peak Amounts =			2005.9	
2	8.694	8.689	0.005	2373375232	1867.4	5
2	9.152	9.148	0.004	3113332592	1860.9	
2	10.056	10.051	0.005	1892443104	1888.8	
2	10.637	10.633	0.004	2141657824	1900.1	
2	11.918	11.913	0.005	2982840704	1989.8	
		Average of Peak Amounts =			1901.4	
$ 1 DCB Decachlorobiphenyl						
1	13.843	13.847	-0.004	12019153497	197.1	
2	14.315	14.310	0.005	4874435776	198.5	

QC Flag Legend

Processing Flags
5 - Exceeded Maximum Amount

Review Flags
A - User Assigned ID

FORM VII
PCBS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Westfield Job No.: 360-24582-1

SDG No.: OCRI-15

Lab Sample ID: CCVRT 360-49100/1 Calibration Date: 09/17/2009 12:23

Instrument ID: Inst. M Calib Start Date: 09/08/2009 13:34

GC Column: RTX-CLPest1 ID: 0.32(mm) Calib End Date: 09/08/2009 15:22

Lab File ID: M17631.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	1129711	1055513		934	1000	-6.6	15.0
PCB-1016 Peak 2	Ave	2800318	2683618		958	1000	-4.2	15.0
PCB-1016 Peak 3	Ave	4122029	4466432		1080	1000	8.4	15.0
PCB-1016 Peak 4	Ave	1593728	1554256		975	1000	-2.5	15.0
PCB-1016 Peak 5	Ave	995297	939822		944	1000	-5.6	15.0
PCB-1260 Peak 1	Ave	3460633	3303793		955	1000	-4.5	15.0
PCB-1260 Peak 2	Ave	3637905	3706885		1020	1000	1.9	15.0
PCB-1260 Peak 3	Ave	5419060	5461333		1010	1000	0.8	15.0
PCB-1260 Peak 4	Ave	2070556	2179826		1050	1000	5.3	15.0
PCB-1260 Peak 5	Ave	1171481	1131113		966	1000	-3.4	15.0
Tetrachloro-m-xylene	Ave	76299566	912855		102	100	1.9	15.0
DCB Decachlorobiphenyl	Ave	60978185	53552020		87.8	100	-12.2	15.0

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\wessvr06\chromdata\INSTM.i\20090917-1.b\M17631.D		
Lims ID:	CCVRT	Client ID:	
Inject. Date:	17-Sep-2009 12:23:26	Dil. Factor:	1.0000
Sample Type:	CCVRT, Cal Verification & RT Calib		
Sample ID:	CCVRT		
Operator:	MZ	Instrument ID:	Inst. M
Vol. Injected:	2.0000	ALS Bottle#:	1
Lims Batch ID:	49100	Lims Sample ID:	1
Sublist:	chrom-8082M*sub7		
Detector 1 :	GC ECD1A		
Detector 2 :	GC ECD2B		

Method:	\\wessvr06\chromdata\INSTM.i\20090917-1.b\8082M.m		
Last Update:	17-Sep-2009 15:01:32	Calib Date:	08-Sep-2009 15:22:19
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17536.D		
Limit Group:	GC - 8082 PCB		
Integrator:	Genie		
Process Host:	WESSEMIDTRDR		

Reviewed By:	zuccalam	Date:	17-Sep-2009 14:07:35
Reviewed By:	zuccalam	Date:	17-Sep-2009 15:01:32

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
$ 11 Tetrachloro-m-xylene						
1	2.904	2.904	0.000	7772273632	101.9	
2	2.695	2.695	0.000	2921842907	100.0	
2 PCB-1016						
1	3.502	3.502	0.000	1055513472	934.3	
1	4.128	4.128	0.000	2683617855	958.3	
1	4.978	4.978	0.000	4466432032	1083.6	
1	5.227	5.227	0.000	1554256300	975.2	
1	6.763	6.763	0.000	939821664	944.3	
		Average of Peak Amounts =			979.1	
2	3.471	3.471	0.000	439682336	922.3	
2	4.183	4.183	0.000	962322160	936.6	
2	5.007	5.007	0.000	2110685408	991.3	
2	5.253	5.253	0.000	813618080	963.0	
2	6.389	6.389	0.000	760000880	967.8	
		Average of Peak Amounts =			956.2	

Report Date: 17-Sep-2009 15:01:32 Chrom Revision: 1.0.2009.910
Data File: \\wessvr06\chromdata\INSTM.i\20090917-1.b\M17631.D

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
8 PCB-1260						
1	8.459	8.459	0.000	3303793216	954.7	
1	9.035	9.035	0.000	3706885376	1019.0	
1	9.598	9.598	0.000	5461332800	1007.8	
1	11.563	11.563	0.000	2179825951	1052.8	
1	12.869	12.869	0.000	1131112832	965.5	
		Average of Peak Amounts =			1000.0	
2	8.692	8.692	0.000	1175272544	924.7	
2	9.149	9.149	0.000	1556851040	930.6	
2	10.052	10.052	0.000	919571584	917.8	
2	10.633	10.633	0.000	1036443744	919.5	
2	11.912	11.912	0.000	1469891984	980.5	
		Average of Peak Amounts =			934.6	
$ 1 DCB Decachlorobiphenyl						
1	13.847	13.847	0.000	5355202132	87.8	
2	14.312	14.312	0.000	2147012586	87.4	

$\frac{3303793216}{1000} = 3303793$

$\frac{3460633 - 3303793}{3460633} \times 100 = 4.5\%$

FORM VIII
PCBS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Westfield Job No.: 360-24582-1

SDG No.: OCRI-15

Instrument ID: Inst. M Calibration Start Date:

GC Column: RTX-CLPest1 ID: 0.32(mm) Calibration End Date:

Calibration ID: 4269

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
MEAN SURROGATE RT FROM INITIAL CALIBRATION				2.90	13.84	
UPPER LIMIT						
LOWER LIMIT						
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD1000 360-48689/7 ICRTAV		09/08/2009 13:34	M17531.D	2.90	13.84	

Column used to flag values outside QC limits

FORM VIII 8082

FORM VIII
PCBS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Westfield Job No.: 360-24582-1

SDG No.: OCRI-15

Instrument ID: Inst. M Calibration Start Date:

GC Column: RTX-CLPest2 ID: 0.32(mm) Calibration End Date:

Calibration ID: 4270

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
MEAN SURROGATE RT FROM INITIAL CALIBRATION				2.70	14.32	
UPPER LIMIT						
LOWER LIMIT						
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD1000 360-48689/7 ICRTAV		09/08/2009 13:34	M17531.D	2.70	14.32	

Column used to flag values outside QC limits

FORM VIII 8082

FORM VIII
PCBS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Westfield Job No.: 360-24582-1

SDG No.: OCRI-15

Instrument ID: Inst. M Calibration Start Date: 09/08/2009 13:34

GC Column: RTX-CLPest1 ID: 0.32(mm) Calibration End Date: 09/08/2009 15:22

Calibration ID: 4271

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
SURROGATE RT FROM CONTINUING CALIBRATION				2.90	13.85	
UPPER LIMIT				3.00	13.95	
LOWER LIMIT				2.80	13.75	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 360-49013/1		09/16/2009 10:17	M17601.D	2.90	13.85	
MB 360-49010/1-A		09/16/2009 10:52	M17602.D	2.90	13.85	
LCS 360-49010/2-A		09/16/2009 11:13	M17603.D	2.89	13.84	
LCSD 360-49010/3-A		09/16/2009 11:35	M17604.D	2.89	13.84	
CCV 360-49013/19		09/16/2009 17:10	M17619.D	2.89	13.84	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

TCX RT Limit = ± 0.1 minutes of surrogate RT
DCB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082

FORM VIII
PCBS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Westfield Job No.: 360-24582-1

SDG No.: OCRI-15

Instrument ID: Inst. M Calibration Start Date: 09/08/2009 13:34

GC Column: RTX-CLPest1 ID: 0.32(mm) Calibration End Date: 09/08/2009 15:22

Calibration ID: 4271

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
SURROGATE RT FROM CONTINUING CALIBRATION				2.89	13.84	
UPPER LIMIT				2.99	13.94	
LOWER LIMIT				2.79	13.74	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 360-49051/1		09/16/2009 17:31	M17620.D	2.89	13.84	
360-24582-14	OC-SS-409-0.0/1.0-XXX	09/16/2009 18:36	M17623.D	2.89	13.84	
360-24582-15	OC-SS-410-0.0/1.0-XXX	09/16/2009 18:57	M17624.D	2.89	13.84	
360-24582-17	OC-SS-412-0.0/1.0-XXX	09/16/2009 19:19	M17625.D	2.89	13.84	
360-24582-18	OC-SS-413-0.0/1.0-XXX	09/16/2009 19:41	M17626.D	2.90	13.84	
360-24582-21	OC-SS-416-0.0/1.0-DUP	09/16/2009 20:02	M17627.D	2.89	13.84	
360-24582-22	OC-SS-416-0.0/1.0-XXX	09/16/2009 20:24	M17628.D	2.89	13.84	
360-24582-22 MS	OC-SS-416-0.0/1.0-XXX MS	09/16/2009 20:45	M17629.D	2.90	13.84	
360-24582-22 MSD	OC-SS-416-0.0/1.0-XXX MSD	09/16/2009 21:07	M17630.D	2.90	13.84	
CCV 360-49051/12		09/16/2009 21:28	M17631.D	2.90	13.84	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

TCX RT Limit = ± 0.1 minutes of surrogate RT
DCB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082

FORM VIII
PCBS ANALYTICAL SEQUENCE

Lab Name: TestAmerica Westfield Job No.: 360-24582-1

SDG No.: OCRI-15

Instrument ID: Inst. M Calibration Start Date: 09/08/2009 13:34

GC Column: RTX-CLPest1 ID: 0.32(mm) Calibration End Date: 09/08/2009 15:22

Calibration ID: 4271

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
SURROGATE RT FROM CONTINUING CALIBRATION				2.90	13.85	
UPPER LIMIT				3.00	13.95	
LOWER LIMIT				2.80	13.75	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 360-49100/1		09/17/2009 12:23	M17631.D	2.90	13.85	
360-24582-8	OC-SS-403-0.0/1.0-XXX	09/17/2009 13:41	M17632.D	2.90	13.85	
360-24582-9	OC-SS-404-0.0/1.0-XXX	09/17/2009 14:03	M17633.D	2.85	13.84	
CCV 360-49100/11		09/17/2009 16:55	M17641.D	2.90	13.84	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

TCX RT Limit = ± 0.1 minutes of surrogate RT
DCB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Westfield Job No.: 360-24582-1

SDG No.: OCRI-15

Instrument ID: Inst. M Start Date: 09/08/2009 11:25

Analysis Batch Number: 48689 End Date: 09/08/2009 15:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD12211254 360-48689/1 IC		09/08/2009 11:25	1	M17525.D	RTX-CLPest1 0.32(mm)
STD12211254 360-48689/1 IC		09/08/2009 11:25	1	M17525.D	RTX-CLPest2 0.32(mm)
STD1232 360-48689/2 IC		09/08/2009 11:47	1	M17526.D	RTX-CLPest1 0.32(mm)
STD1232 360-48689/2 IC		09/08/2009 11:47	1	M17526.D	RTX-CLPest2 0.32(mm)
STD1242 360-48689/3 IC		09/08/2009 12:08	1	M17527.D	RTX-CLPest1 0.32(mm)
STD1242 360-48689/3 IC		09/08/2009 12:08	1	M17527.D	RTX-CLPest2 0.32(mm)
STD1248 360-48689/4 IC		09/08/2009 12:30	1	M17528.D	RTX-CLPest1 0.32(mm)
STD1248 360-48689/4 IC		09/08/2009 12:30	1	M17528.D	RTX-CLPest2 0.32(mm)
STD1262 360-48689/5 IC		09/08/2009 12:51	1	M17529.D	RTX-CLPest1 0.32(mm)
STD1262 360-48689/5 IC		09/08/2009 12:51	1	M17529.D	RTX-CLPest2 0.32(mm)
STD1268 360-48689/6 IC		09/08/2009 13:13	1	M17530.D	RTX-CLPest1 0.32(mm)
STD1268 360-48689/6 IC		09/08/2009 13:13	1	M17530.D	RTX-CLPest2 0.32(mm)
STD1000 360-48689/7 ICRTAV		09/08/2009 13:34	1	M17531.D	RTX-CLPest1 0.32(mm)
STD1000 360-48689/7 ICRTAV		09/08/2009 13:34	1	M17531.D	RTX-CLPest2 0.32(mm)
STD50 360-48689/8 IC		09/08/2009 13:56	1	M17532.D	RTX-CLPest1 0.32(mm)
STD50 360-48689/8 IC		09/08/2009 13:56	1	M17532.D	RTX-CLPest2 0.32(mm)
STD100 360-48689/9 IC		09/08/2009 14:17	1	M17533.D	RTX-CLPest1 0.32(mm)
STD100 360-48689/9 IC		09/08/2009 14:17	1	M17533.D	RTX-CLPest2 0.32(mm)
STD200 360-48689/10 IC		09/08/2009 14:39	1	M17534.D	RTX-CLPest1 0.32(mm)
STD200 360-48689/10 IC		09/08/2009 14:39	1	M17534.D	RTX-CLPest2 0.32(mm)
STD500 360-48689/11 IC		09/08/2009 15:00	1	M17535.D	RTX-CLPest1 0.32(mm)
STD500 360-48689/11 IC		09/08/2009 15:00	1	M17535.D	RTX-CLPest2 0.32(mm)
STD2000 360-48689/12 IC		09/08/2009 15:22	1	M17536.D	RTX-CLPest1 0.32(mm)
STD2000 360-48689/12 IC		09/08/2009 15:22	1	M17536.D	RTX-CLPest2 0.32(mm)
ICV 360-48689/13		09/08/2009 15:43	1		RTX-CLPest1 0.32(mm)
ICV 360-48689/13		09/08/2009 15:43	1		RTX-CLPest2 0.32(mm)

8082

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Westfield Job No.: 360-24582-1

SDG No.: OCRI-15

Instrument ID: Inst. M Start Date: 09/16/2009 10:17

Analysis Batch Number: 49013 End Date: 09/16/2009 17:10

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 360-49013/1		09/16/2009 10:17	1	M17601.D	RTX-CLPest1 0.32(mm)
CCVRT 360-49013/1		09/16/2009 10:17	1		RTX-CLPest2 0.32(mm)
MB 360-49010/1-A		09/16/2009 10:52	1	M17602.D	RTX-CLPest1 0.32(mm)
MB 360-49010/1-A		09/16/2009 10:52	1	M17602.D	RTX-CLPest2 0.32(mm)
LCS 360-49010/2-A		09/16/2009 11:13	1	M17603.D	RTX-CLPest1 0.32(mm)
LCS 360-49010/2-A		09/16/2009 11:13	1	M17603.D	RTX-CLPest2 0.32(mm)
LCSD 360-49010/3-A		09/16/2009 11:35	1	M17604.D	RTX-CLPest1 0.32(mm)
LCSD 360-49010/3-A		09/16/2009 11:35	1	M17604.D	RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 11:56	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 11:56	1		RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 12:18	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 12:18	1		RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 12:39	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 12:39	1		RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 13:01	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 13:01	1		RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 13:22	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 13:22	1		RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 13:44	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 13:44	1		RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 14:05	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 14:05	1		RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 14:39	10		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 14:39	10		RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 15:01	5		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 15:01	5		RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 15:22	5		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 15:22	5		RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 15:44	10		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 15:44	10		RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 16:05	5		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 16:05	5		RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 16:27	10		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 16:27	10		RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 16:48	5		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 16:48	5		RTX-CLPest2 0.32(mm)
CCV 360-49013/19		09/16/2009 17:10	1	M17619.D	RTX-CLPest1 0.32(mm)
CCV 360-49013/19		09/16/2009 17:10	1		RTX-CLPest2 0.32(mm)

8082

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Westfield Job No.: 360-24582-1

SDG No.: OCRI-15

Instrument ID: Inst. M Start Date: 09/16/2009 17:31

Analysis Batch Number: 49051 End Date: 09/16/2009 21:28

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 360-49051/1		09/16/2009 17:31	1	M17620.D	RTX-CLPest1 0.32(mm)
CCVRT 360-49051/1		09/16/2009 17:31	1		RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 17:53	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 17:53	1		RTX-CLPest2 0.32(mm)
ZZZZZ		09/16/2009 18:15	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/16/2009 18:15	1		RTX-CLPest2 0.32(mm)
360-24582-14 ✓	OC-SS-409-0.0/1.0-XXX	09/16/2009 18:36 ✓	1	M17623.D	RTX-CLPest1 0.32(mm)
360-24582-14 ✓	OC-SS-409-0.0/1.0-XXX	09/16/2009 18:36 ✓	1	M17623.D	RTX-CLPest2 0.32(mm)
360-24582-15 ✓	OC-SS-410-0.0/1.0-XXX	09/16/2009 18:57 ✓	1	M17624.D	RTX-CLPest1 0.32(mm)
360-24582-15 ✓	OC-SS-410-0.0/1.0-XXX	09/16/2009 18:57 ✓	1	M17624.D	RTX-CLPest2 0.32(mm)
360-24582-17 ✓	OC-SS-412-0.0/1.0-XXX	09/16/2009 19:19 ✓	1	M17625.D	RTX-CLPest1 0.32(mm)
360-24582-17 ✓	OC-SS-412-0.0/1.0-XXX	09/16/2009 19:19 ✓	1	M17625.D	RTX-CLPest2 0.32(mm)
360-24582-18 ✓	OC-SS-413-0.0/1.0-XXX	09/16/2009 19:41 ✓	1	M17626.D	RTX-CLPest1 0.32(mm)
360-24582-18 ✓	OC-SS-413-0.0/1.0-XXX	09/16/2009 19:41 ✓	1	M17626.D	RTX-CLPest2 0.32(mm)
360-24582-21 ✓	OC-SS-416-0.0/1.0-DUP	09/16/2009 20:02 ✓	1	M17627.D	RTX-CLPest1 0.32(mm)
360-24582-21 ✓	OC-SS-416-0.0/1.0-DUP	09/16/2009 20:02 ✓	1	M17627.D	RTX-CLPest2 0.32(mm)
360-24582-22 ✓	OC-SS-416-0.0/1.0-XXX	09/16/2009 20:24 ✓	1	M17628.D	RTX-CLPest1 0.32(mm)
360-24582-22 ✓	OC-SS-416-0.0/1.0-XXX	09/16/2009 20:24 ✓	1	M17628.D	RTX-CLPest2 0.32(mm)
360-24582-22 MS	OC-SS-416-0.0/1.0-XXX MS	09/16/2009 20:45	1	M17629.D	RTX-CLPest1 0.32(mm)
360-24582-22 MS	OC-SS-416-0.0/1.0-XXX MS	09/16/2009 20:45	1	M17629.D	RTX-CLPest2 0.32(mm)
360-24582-22 MSD	OC-SS-416-0.0/1.0-XXX MSD	09/16/2009 21:07	1	M17630.D	RTX-CLPest1 0.32(mm)
360-24582-22 MSD	OC-SS-416-0.0/1.0-XXX MSD	09/16/2009 21:07	1	M17630.D	RTX-CLPest2 0.32(mm)
CCV 360-49051/12		09/16/2009 21:28	1	M17631.D	RTX-CLPest1 0.32(mm)
CCV 360-49051/12		09/16/2009 21:28	1		RTX-CLPest2 0.32(mm)

OK [illegible] 3/1/10

8082

PCBS ANALYSIS RUN LOG

Lab Name: TestAmerica Westfield Job No.: 360-24582-1

SDG No.: OCRI-15

Instrument ID: Inst. M Start Date: 09/17/2009 12:23

Analysis Batch Number: 49100 End Date: 09/17/2009 16:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 360-49100/1		09/17/2009 12:23	1	M17631.D	RTX-CLPest1 0.32(mm)
CCVRT 360-49100/1		09/17/2009 12:23	1		RTX-CLPest2 0.32(mm)
360-24582-8	OC-SS-403-0.0/1.0-XXX	09/17/2009 13:41	10	M17632.D	RTX-CLPest1 0.32(mm)
360-24582-8	OC-SS-403-0.0/1.0-XXX	09/17/2009 13:41	10	M17632.D	RTX-CLPest2 0.32(mm)
360-24582-9	OC-SS-404-0.0/1.0-XXX	09/17/2009 14:03	5	M17633.D	RTX-CLPest1 0.32(mm)
360-24582-9	OC-SS-404-0.0/1.0-XXX	09/17/2009 14:03	5	M17633.D	RTX-CLPest2 0.32(mm)
ZZZZZ		09/17/2009 14:24	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/17/2009 14:24	1		RTX-CLPest2 0.32(mm)
ZZZZZ		09/17/2009 14:46	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/17/2009 14:46	1		RTX-CLPest2 0.32(mm)
ZZZZZ		09/17/2009 15:07	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/17/2009 15:07	1		RTX-CLPest2 0.32(mm)
ZZZZZ		09/17/2009 15:29	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/17/2009 15:29	1		RTX-CLPest2 0.32(mm)
ZZZZZ		09/17/2009 15:50	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/17/2009 15:50	1		RTX-CLPest2 0.32(mm)
ZZZZZ		09/17/2009 16:12	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/17/2009 16:12	1		RTX-CLPest2 0.32(mm)
ZZZZZ		09/17/2009 16:33	1		RTX-CLPest1 0.32(mm)
ZZZZZ		09/17/2009 16:33	1		RTX-CLPest2 0.32(mm)
CCV 360-49100/11		09/17/2009 16:55	1	M17641.D	RTX-CLPest1 0.32(mm)
CCV 360-49100/11		09/17/2009 16:55	1		RTX-CLPest2 0.32(mm)

OK BLA 3/8/10

8082

Organic Prep Worksheet

Batch Number: 360-49010
Method: 3546
Analyst: Zuccala, Marissa

Date Open: Sep 16 2009 9:18AM
Batch End:

Lab ID	Client ID	Method Chain	Basis	Initial weight/volume of sample	Final weight/volume of sample	OP-pcbspk_00060	OP-pest/pc_00128
MB~360-49010/1		3546, 8082		10.00 g	10 mL		1.0 mL
LCS~360-49010/2		3546, 8082		10.00 g	10 mL	1.0 mL	1.0 mL
LCSD~360-49010/3		3546, 8082		10.00 g	10 mL	1.0 mL	1.0 mL
360-24606-A-1	R01090507BE-0428 FX-050		T	10.98 g	10 mL		1.0 mL
360-24606-A-2	R01090507BE-0429 FX-051		T	10.58 g	10 mL		1.0 mL
360-24606-A-3	R01090507BE-0430 FX-052		T	10.76 g	10 mL		1.0 mL
360-24606-A-4	R01090507BE-0431 FX-053		T	10.59 g	10 mL		1.0 mL
360-24606-A-5	R01090507BE-0432 FX-054		T	10.65 g	10 mL		1.0 mL
360-24606-A-6	R01090507BE-0433 FX-055		T	10.46 g	10 mL		1.0 mL
360-24606-A-7	R01090507BE-0434 FX-056		T	10.02 g	10 mL		1.0 mL
360-24582-A-8 ✓	OC-SS-403-0.0/1.0-XXX	3546, 8082	T	10.52 g	10 mL		1.0 mL
360-24582-A-9 ✓	OC-SS-404-0.0/1.0-XXX	3546, 8082	T	10.78 g	10 mL		1.0 mL
360-24582-A-14 ✓	OC-SS-409-0.0/1.0-XXX	3546, 8082	T	10.59 g	10 mL		1.0 mL
360-24582-A-15 ✓	OC-SS-410-0.0/1.0-XXX	3546, 8082	T	10.41 g	10 mL		1.0 mL
360-24582-A-17 ✓	OC-SS-412-0.0/1.0-XXX	3546, 8082	T	10.29 g	10 mL		1.0 mL
360-24582-A-18 ✓	OC-SS-413-0.0/1.0-XXX	3546, 8082	T	10.26 g	10 mL		1.0 mL
360-24582-A-21 ✓	OC-SS-416-0.0/1.0-DUP	3546, 8082	T	10.28 g	10 mL		1.0 mL
360-24582-A-22 ✓	OC-SS-416-0.0/1.0-XXX	3546, 8082	T	10.31 g	10 mL		1.0 mL
360-24582-A-22~MS	OC-SS-416-0.0/1.0-XMS	3546, 8082	T	10.16 g	10 mL	1.0 mL	1.0 mL
360-24582-A-22~MSD	OC-SS-416-0.0/1.0-MSD	3546, 8082	T	10.39 g	10 mL	1.0 mL	1.0 mL
360-24606-A-2	R01090507BE-0429 FX-051		T	10.40 g	10 mL		1.0 mL
360-24606-A-3	R01090507BE-0430 FX-052		T	10.40 g	10 mL		1.0 mL

for [illegible] 3/8/10

Organic Prep Worksheet

Batch Number: 360-49010
Method: 3546
Analyst: Zuccala, Marissa

Date Open: Sep 16 2009 9:18AM
Batch End:

Lab ID	Client ID	Method Chain	Basis	Analysis comment	Comments
MB~360-49010/1		3546, 8082			
LCS~360-49010/2		3546, 8082			
LCSD~360-49010/3		3546, 8082			
360-24606-A-1	R01090507BE-0428 FX-050		T		
360-24606-A-2	R01090507BE-0429 FX-051		T		
360-24606-A-3	R01090507BE-0430 FX-052		T		
360-24606-A-4	R01090507BE-0431 FX-053		T		
360-24606-A-5	R01090507BE-0432 FX-054		T		
360-24606-A-6	R01090507BE-0433 FX-055		T		
360-24606-A-7	R01090507BE-0434 FX-056		T		
360-24582-A-8	OC-SS-403-0.0/1.0-XXX	3546, 8082	T		
360-24582-A-9	OC-SS-404-0.0/1.0-XXX	3546, 8082	T		
360-24582-A-14	OC-SS-409-0.0/1.0-XXX	3546, 8082	T		
360-24582-A-15	OC-SS-410-0.0/1.0-XXX	3546, 8082	T		
360-24582-A-17	OC-SS-412-0.0/1.0-XXX	3546, 8082	T		
360-24582-A-18	OC-SS-413-0.0/1.0-XXX	3546, 8082	T		
360-24582-A-21	OC-SS-416-0.0/1.0-DUP	3546, 8082	T		
360-24582-A-22	OC-SS-416-0.0/1.0-XXX	3546, 8082	T		
360-24582-A-22~MS	OC-SS-416-0.0/1.0-XMS	3546, 8082	T		
360-24582-A-22~MSD	OC-SS-416-0.0/1.0-MSD	3546, 8082	T		
360-24606-A-2	R01090507BE-0429 FX-051		T	RX in hold	
360-24606-A-3	R01090507BE-0430 FX-052		T	RX in hold	

OK
3/8/10

FORM I
PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Westfield
Job No.: 360-24582-1
SDG No.: OCRI-15
Client Sample ID: OC-SS-416-0.0/1.0-XXX MS
Lab Sample ID: 360-24582-22 MS
Matrix: Solid
Lab File ID: M17629.D
Analysis Method: 8082
Date Collected: 09/15/2009 12:40
Extraction Method: 3546
Date Extracted: 09/16/2009 11:57
Sample wt/vol: 10.16(g)
Date Analyzed: 09/16/2009 20:45
Con. Extract Vol.: 10(mL)
Dilution Factor: 1
Injection Volume: 1.0(uL)
GC Column: RTX-CLPest1 ID: 0.32(mm)
% Moisture: 8.8
GPC Cleanup:(Y/N) N
Analysis Batch No.: 49051
Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
12674-11-2	PCB-1016	451		110	15
11104-28-2	PCB-1221	ND		110	16
11141-16-5	PCB-1232	ND		110	25
53469-21-9	PCB-1242	ND		110	69
12672-29-6	PCB-1248	ND		110	24
11097-69-1	PCB-1254	ND		110	28
11096-82-5	PCB-1260	516		110	30
37324-23-5	PCB-1262	ND		110	15
11100-14-4	PCB-1268	ND		110	23

CAS NO.	SURROGATE	%REC	LIMITS	Q
2051-24-3	DCB Decachlorobiphenyl	81	30-150	
877-09-8	Tetrachloro-m-xylene	95	30-150	

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\wessvr06\chromdata\INSTM.i\20090916-1.b\M17603.D		
Lims ID:	LCS 360-49010/2-A	Client ID:	
Inject. Date:	16-Sep-2009 11:13:43	Dil. Factor:	1.0000
Sample Type:	LCS, Lab Control Sample		
Sample ID:	LCS 360-49010/2-A		
Operator:	MZ	Instrument ID:	Inst. M
Vol. Injected:	2.0000	ALS Bottle#:	3
Lims Batch ID:	49013	Lims Sample ID:	3
Detector 1 :	GC ECD1A		
Detector 2 :	GC ECD2B		

Method:	\\wessvr06\chromdata\INSTM.i\20090916-1.b\8082M.m		
Last Update:	17-Sep-2009 14:36:39	Calib Date:	08-Sep-2009 15:22:19
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17536.D		
Limit Group:	GC - 8082 PCB		
Integrator:	Genie		
Process Host:	WESSEMIDTRDR		

Reviewed By:	zuccalam	Date:	16-Sep-2009 11:34:10
Reviewed By:	zuccalam	Date:	17-Sep-2009 14:40:31

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
$ 11 Tetrachloro-m-xylene						
1	2.892	2.904	-0.012	2002794976	26.2	
2	2.693	2.697	-0.004	739466400	28.2	
2 PCB-1016						
1	3.491	3.504	-0.013	468771776	414.9	
1	4.115	4.129	-0.014	1152469272	411.5	
1	4.965	4.980	-0.015	1809604656	439.0	
1	5.214	5.227	-0.013	701570880	440.2	
1	6.751	6.765	-0.015	361708640	363.4	
		Average of Peak Amounts =			413.8	
2	3.469	3.475	-0.006	197865408	415.0	
2	4.180	4.185	-0.005	436806432	425.1	
2	5.007	5.009	-0.002	913842400	429.2	
2	5.252	5.255	-0.003	355907776	421.3	
2	6.387	6.389	-0.002	331616512	422.3	
		Average of Peak Amounts =			422.6	

$\frac{2069}{5} = 413.8$

$\frac{(413.8)(10)}{(10)(1)} - 413.8 = \frac{414}{500} \times 100 = 83\%$

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\wessvr06\chromdata\INSTM.i\20090916-2.b\M17629.D		
Lims ID:	360-24582-A-22-B MS	Client ID:	OC-SS-416-0.0/1.0-XMS
Inject. Date:	16-Sep-2009 20:45:49	Dil. Factor:	1.0000
Sample Type:	MS, Matrix Spike		
Sample ID:	360-24582-A-22-B MS		
Operator:	MZ	Instrument ID:	Inst. M
Vol. Injected:	2.0000	ALS Bottle#:	28
Lims Batch ID:	49051	Lims Sample ID:	10
Detector 1 :	GC ECD1A		
Detector 2 :	GC ECD2B		
Method:	\\wessvr06\chromdata\INSTM.i\20090916-2.b\8082M.m		
Last Update:	17-Sep-2009 14:49:07	Calib Date:	08-Sep-2009 15:22:19
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17536.D		
Limit Group:	GC - 8082 PCB		
Integrator:	Genie		
Process Host:	WESSEMIDTRDR		
Reviewed By:	zuccalam	Date:	17-Sep-2009 08:00:24
Reviewed By:	zuccalam	Date:	17-Sep-2009 14:47:00
Reviewed By:	zuccalam	Date:	17-Sep-2009 14:52:33

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
$ 11 Tetrachloro-m-xylene						
1	2.897	2.894	0.003	2178599888	28.6	
2	2.698	2.696	0.002	753619488	28.7	
2 PCB-1016						
1	3.496	3.493	0.003	464374624	411.1	
1	4.121	4.117	0.004	1156814368	413.1	
1	4.970	4.968	0.002	1856373280	450.4	
1	5.218	5.216	0.002	711198016	446.2	
1	6.755	6.751	0.004	367534336	369.3	
		Average of Peak Amounts =			418.0	
2	3.475	3.473	0.002	177244928	371.8	
2	4.186	4.183	0.003	417052208	405.9	
2	5.012	5.009	0.003	940864176	441.9	
2	5.257	5.255	0.002	365787776	433.0	
2	6.392	6.389	0.003	343482528	437.4	
		Average of Peak Amounts =			418.0	

464374624 / 1129711 = 411.1
1156814368 / 2800318 = 413.1
1856373280 / 4122029 = 450.4
711198016 / 1593728 = 446.2
367534336 / 995297 = 369.3

2090.1 / 5 = 418.0

$$\frac{(418.0)(1)(1)(10)}{(1)(10.16)(.912)} = \frac{4180}{9.26592} = 451 \quad \frac{451}{540} \times 100 = 84\%$$

Report Date: 17-Sep-2009 14:52:33 Chrom Revision: 1.0.2009.910

Data File: \\wessvr06\chromdata\INSTM.i\20090916-2.b\M17629.D

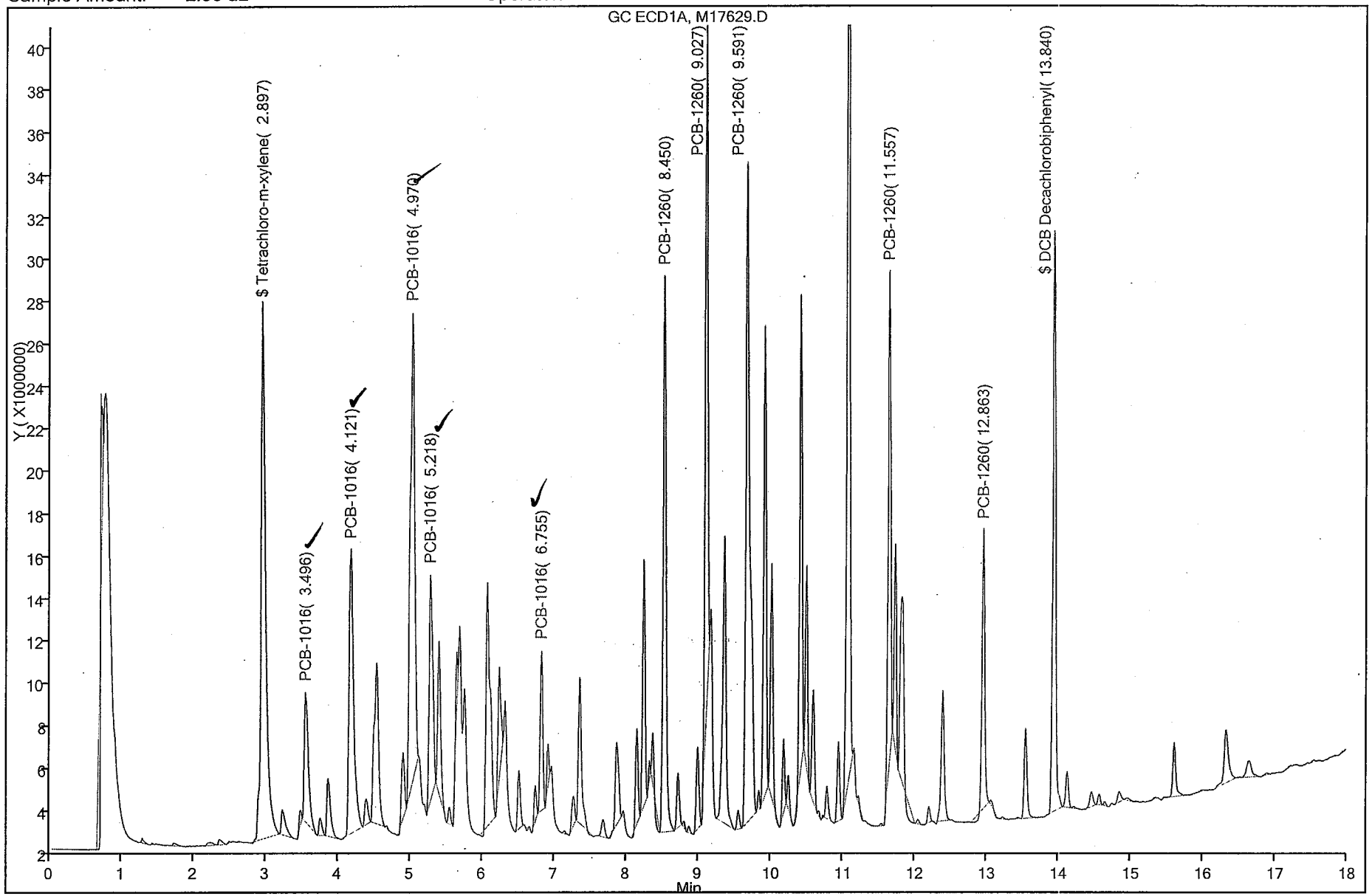
Inj Date: 16-Sep-2009 20:45:49 Limit Group: GC - 8082 PCB

Lims Batch ID: 49051 Lims Sample ID: 10

Client ID: OC-SS-416-0.0/1.0-XMS Instrument: Inst. M

Sample Info: 360-24582-A-22-B MS

Sample Amount: 2.00 uL Operator: MZ



Report Date: 17-Sep-2009 14:37:16 Chrom Revision: 1.0.2009.910

Data File: \\wessvr06\chromdata\INSTM.i\20090916-1.b\M17602.D

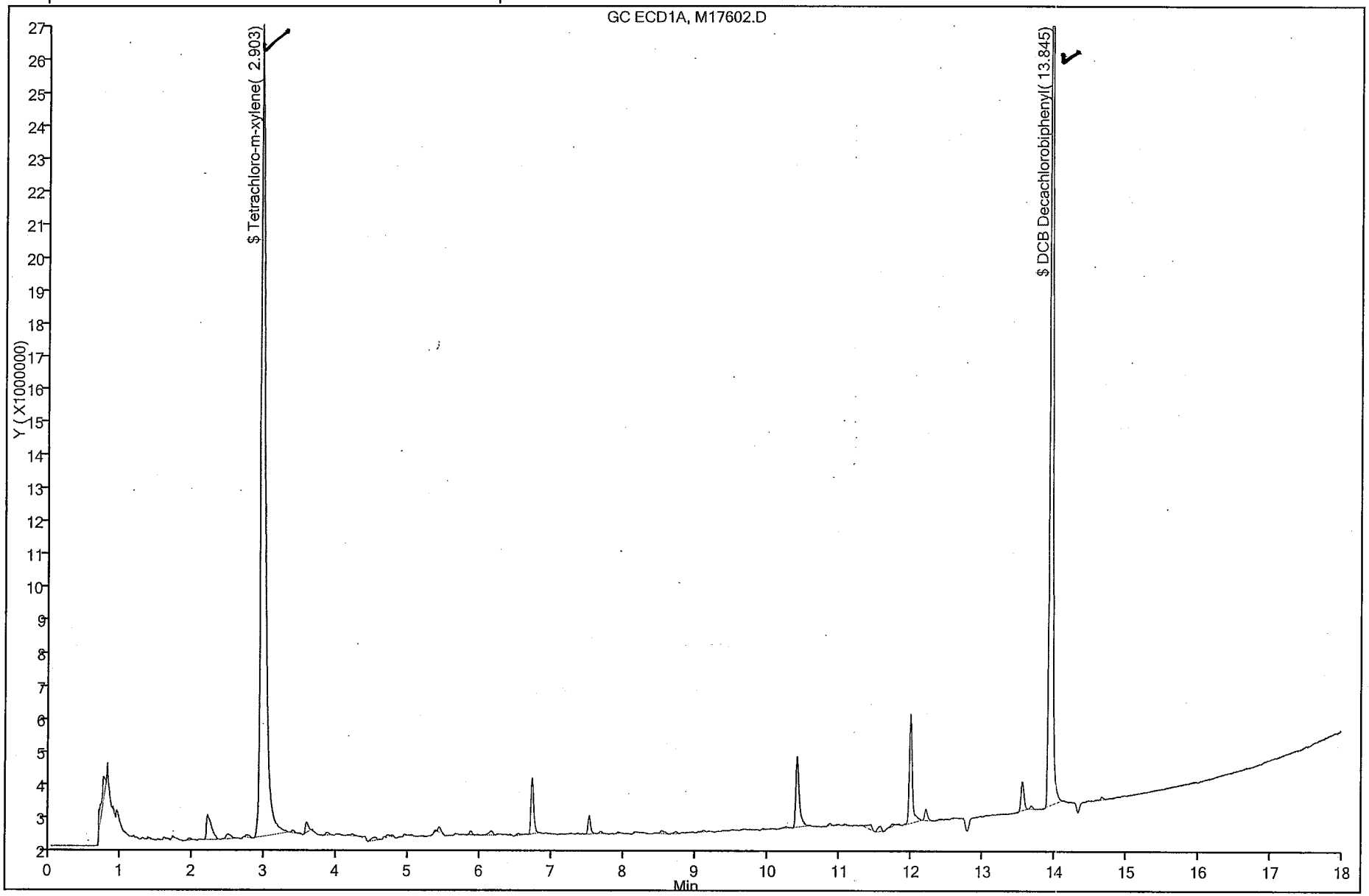
Inj Date: 16-Sep-2009 10:52:18 Limit Group: GC - 8082 PCB

Lims Batch ID: 49013 Lims Sample ID: 2

Client ID: Instrument: Inst. M

Sample Info: MB 360-49010/1-A

Sample Amount: 2.00 uL Operator: MZ



TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\wessvr06\chromdata\INSTM.i\20090916-1.b\M17602.D		
Lims ID:	MB 360-49010/1-A	Client ID:	
Inject. Date:	16-Sep-2009 10:52:18	Dil. Factor:	1.0000
Sample Type:	MB, Method Blank		
Sample ID:	MB 360-49010/1-A		
Operator:	MZ	Instrument ID:	Inst. M
Vol. Injected:	2.0000	ALS Bottle#:	2
Lims Batch ID:	49013	Lims Sample ID:	2
Detector 1 :	GC ECD1A		
Detector 2 :	GC ECD2B		

Method:	\\wessvr06\chromdata\INSTM.i\20090916-1.b\8082M.m		
Last Update:	17-Sep-2009 14:36:39	Calib Date:	08-Sep-2009 15:22:19
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\wessvr06\chromdata\INSTM.i\20090908-1.b\M17536.D		
Limit Group:	GC - 8082 PCB		
Integrator:	Genie		
Process Host:	WESSEMIDTRDR		

Reviewed By:	zuccalam	Date:	16-Sep-2009 11:19:51
Reviewed By:	zuccalam	Date:	17-Sep-2009 14:37:16

Det	RT	EXP RT	DLT RT	Response	Amount ug/L	Flags
$ 11 Tetrachloro-m-xylene						
1	2.903	2.904	-0.001	2075609904	27.2 /30 x100 = 91%	
2	2.697	2.697	0.000	778397581	29.5	
$ 1 DCB Decachlorobiphenyl						
1	13.845	13.846	-0.001	1694818299	27.8 /30 x100 = 93%	
2	14.311	14.311	0.000	647253151	26.4	

3/160

PCBs

REGION I VALIDATION CHECKLIST for
OLIN CHEMICAL SUPERFUND SITE
Criteria and Qualifications: Region I Organics (Draft 2/04)

TIER I / [II] / III (circle one)

SITE: Olin Chemical Project #: 6107100016.12 SDG #: 360-24634

LAB #: TAL Westfield

Sample IDs: Attach tracking sheet and/or sample listing.

This checklist is designed to be used with USEPA Region I Validation Guidelines Part III (Draft 2/04). During Level III validation, calculation and transcription checks are completed for instrument tuning, surrogates, target compounds, spike recoveries, calibration data, and internal standards as specified in the guideline. These checks are documented on attached validation notes.

YES	NO	NA		
Data completeness				
☑	☐	☐	All data summaries, QC forms and raw data available from hard copy or electronic data package	Contact lab if missing data. Lab to respond with 24 hours.
☑	☐	☐	Data summaries match EDD	OK
Holding Times and Preservation				
☑	☐	☐	Hold times met (Waters – Extract within 7 days, analyze within 40 days. Soils – extract within 14 days, analyze within 40 days)	OK
Initial Calibration				
☑	☐	☐	%RSD less than or equal to 20%	OK
☑	☐	☐	RTs within windows	
Continuing Calibration				
☑	☐	☐	%D less than or equal to 25%	OK
☑	☐	☐	RTs within windows	
Instrument Blank				
☐	☐	☑	Analyzed at beginning of 12 hour clock and at end of analytical sequence	NA
Blank Contamination				
☐	☑	☐	Instrument blank contamination	Evaluate all blanks for contamination. Highest contaminant level used for action level.
☐	☑	☐	Method blank contamination	
☐	☐	☑	Equipment/Rinseate blank contamination	OK

PCBs

REGION I VALIDATION CHECKLIST for
OLIN CHEMICAL SUPERFUND SITE
Criteria and Qualifications: Region I Organics (Draft 2/04)

TIER I / [II] / III (circle one)

Surrogate Recoveries ☑ ☐ ☐ Surrogates percent recovery criteria met Pest/PCB for soil and water (30%-150%)	OK
Matrix Spikes and Laboratory Control Samples ☑ ☐ ☐ MS/MSD percent recovery criteria met (Pest - water and soil 30-150%) (PCB – water and soil 40-140%) ☑ ☐ ☐ MS/MSD RPD criteria met. PCBs (soil or water < or = 50%). Pest (soil or water < or = 30%). ☑ ☐ ☐ LCS percent recovery criteria met (Pest and PCB = 40%-140%)	OK OK
Field Duplicates ☐ ☐ ☑ RPD criteria met (Pest/PCB = soil <50% and water <30%)	NA
Target Compounds ☑ ☐ ☐ Reviewed narrative for anomalies	OK – no detections
PEST/PCB Identification ☑ ☐ ☐ Results reported from primary column ☐ ☐ ☑ PCB results < or = to 25% D between primary and confirmation column. ☐ ☐ ☑ Within RT windows	For positive results having %D between 25% and 100%, qualify result J. For positive results greater than reporting limit having %D > 100%, qualify result R or use professional judgment (NJ). For positive results less than reporting limit having %D > 100%, qualify result UJ at the reporting limit. OK – no detections

Validator's Signature: Bradley B. LaForest Bradley B. LaF

Date: 2/10/10

Reference:

MACTEC, Project Operation Plan Volume IIB, Quality Assurance Project Plan for Remedial Investigation/Feasibility Study – Olin Chemical Superfund Site, Wilmington Property, 51 Eames Street, Wilmington, MA", MACTEC Engineering and Consulting. .April 2009.

Client: Olin Corporation

Job Number: 360-24634-1
Sdg Number: OCRI-16

Client Sample ID: **OC-SS-417-0.0/1.0-XXX**

Lab Sample ID: 360-24634-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 09/15/2009 1420
Date Received: 09/16/2009 1620

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch: 360-49100		Instrument ID:	Inst. M
Preparation:	3546	Prep Batch: 360-49090		Initial Weight/Volume:	10.43 g
Dilution:	1.0			Final Weight/Volume:	10.00 mL
Date Analyzed:	09/17/2009 1529			Injection Volume:	1.0 uL
Date Prepared:	09/17/2009 1020			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
PCB-1016		ND		14	100
PCB-1221		ND		15	100
PCB-1232		ND		23	100
PCB-1242		ND		64	100
PCB-1248		ND		22	100
PCB-1254		ND		26	100
PCB-1260		ND		28	100
PCB-1262		ND		14	100
PCB-1268		ND		21	100

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	75		30 - 150
Tetrachloro-m-xylene	81		30 - 150

REVIEWED By:
BRADLEY B. LAFORGE 5/7/10
Bradley B. LaForge
PAGES 1-11

				SS-411		SS-412		SS-413		SS-414	
				OC-SS-411-0.0/1.0-XXX		OC-SS-412-0.0/1.0-XXX		OC-SS-413-0.0/1.0-XXX		OC-SS-414-0.0/1.0-XXX	
				9/15/2009		9/15/2009		9/15/2009		9/15/2009	
				FS		FS		FS		FS	
				OCRI-15		OCRI-15		OCRI-15		OCRI-15	
				Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8082	Aroclor-1016	ug/kg			110	U	110	U		
N	SW8082	Aroclor-1221	ug/kg			110	U	110	U		
N	SW8082	Aroclor-1232	ug/kg			110	U	110	U		
N	SW8082	Aroclor-1242	ug/kg			110	U	110	U		
N	SW8082	Aroclor-1248	ug/kg			110	U	110	U		
N	SW8082	Aroclor-1254	ug/kg			110	U	110	U		
N	SW8082	Aroclor-1260	ug/kg			110	U	110	U		
N	SW8082	Aroclor-1262	ug/kg			110	U	110	U		
N	SW8082	Aroclor-1268	ug/kg			110	U	110	U		
N	SW7199	Chromium, Hexavalent	mg/kg								
N	E300	Chloride	mg/kg	48	U	22	U			21	U
N	LACH_107_06_1_	Nitrogen, as Ammonia	mg/kg	810		64				50	
N	E300	Sulfate	mg/kg	97	U	43	U			43	U
N	E160.3	Percent Moisture	percent	59		8.2		8.3		6.9	
N	E160.3	Percent Solids	percent	41		92		92		93	
N	MAVPH	C5-C8 Aliphatics	mg/kg								
N	MAVPH	C5-C8 Aliphatics (unadj.)	mg/kg								
N	MAVPH	C9-C10 Aromatics	mg/kg								
N	MAVPH	C9-C12 Aliphatics	mg/kg								
N	MAVPH	C9-C12 Aliphatics (unadj.)	mg/kg								
N	MAVPH	Volatile Petroleum Hydrocarbons, Total	mg/kg								
N	MAEPH	C11-C22 Aromatics	mg/kg								
N	MAEPH	C11-C22 Aromatics (unadj.)	mg/kg								
N	MAEPH	C19-C36 Aliphatics	mg/kg								
N	MAEPH	C9-C18 Aliphatics	mg/kg								
N	MAEPH	Extractable Petroleum Hydrocarbons, Total	mg/kg								

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5/7/10
Bradley B
PAGES 1-31

				OC-PE-PCB		OC-PE-SVOC		OC-PE-VOC		SB-400	
				OC-PE-TT2488-PCB		OC-PE-SS1039-SVOC		OC-SB-PE-VS0355-VOC		OC-SB-400-0.0/1.0-XXX	
				9/1/2009		9/1/2009		9/1/2009		8/26/2009	
				PE		PE		PE		FS	
				OCRI-09		OCRI-09		OCRI-09		OCRI-06	
				Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8082	Aroclor-1016	ug/kg	100	U						
N	SW8082	Aroclor-1221	ug/kg	100	U						
N	SW8082	Aroclor-1232	ug/kg	100	U						
N	SW8082	Aroclor-1242	ug/kg	100	U						
N	SW8082	Aroclor-1248	ug/kg	100	U						
N	SW8082	Aroclor-1254	ug/kg	1000							
N	SW8082	Aroclor-1260	ug/kg	100	U						
N	SW8082	Aroclor-1262	ug/kg	100	U						
N	SW8082	Aroclor-1268	ug/kg	100	U						
N	SW7199	Chromium, Hexavalent	mg/kg								
N	E300	Chloride	mg/kg							21	U
N	LACH_107_06_1_	Nitrogen, as Ammonia	mg/kg							5.7	U
N	E300	Sulfate	mg/kg							41	U
N	E160.3	Percent Moisture	percent	1	U	1	U	1	U	3.1	
N	E160.3	Percent Solids	percent	100		100		100		97	
N	MAVPH	C5-C8 Aliphatics	mg/kg							2.7	U
N	MAVPH	C5-C8 Aliphatics (unadj.)	mg/kg							2.7	U
N	MAVPH	C9-C10 Aromatics	mg/kg							2.7	U
N	MAVPH	C9-C12 Aliphatics	mg/kg							2.7	U
N	MAVPH	C9-C12 Aliphatics (unadj.)	mg/kg							2.7	U
N	MAVPH	Volatile Petroleum Hydrocarbons, Total	mg/kg							2.7	U
N	MAEPH	C11-C22 Aromatics	mg/kg							4.5	
N	MAEPH	C11-C22 Aromatics (unadj.)	mg/kg							4.5	
N	MAEPH	C19-C36 Aliphatics	mg/kg							3.6	
N	MAEPH	C9-C18 Aliphatics	mg/kg							3.3	U
N	MAEPH	Extractable Petroleum Hydrocarbons, Total	mg/kg							8.1	

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BRADLEY B. LAFOREST
5/7/10
PAGES 1-31

				SB-440		SB-440		SB-440		SB-441	
				OC-SB-440-0.0/1.0-XXX		OC-SB-440-23/25-XXX		OC-SB-440-6.0/8.0-XXX		OC-SB-441-0.0/1.0-XXX	
				8/24/2009		8/24/2009		8/24/2009		8/24/2009	
				FS		FS		FS		FS	
				OCRI-05		OCRI-05		OCRI-05		OCRI-05	
				Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8082	Aroclor-1016	ug/kg								
N	SW8082	Aroclor-1221	ug/kg								
N	SW8082	Aroclor-1232	ug/kg								
N	SW8082	Aroclor-1242	ug/kg								
N	SW8082	Aroclor-1248	ug/kg								
N	SW8082	Aroclor-1254	ug/kg								
N	SW8082	Aroclor-1260	ug/kg								
N	SW8082	Aroclor-1262	ug/kg								
N	SW8082	Aroclor-1268	ug/kg								
N	SW7199	Chromium, Hexavalent	mg/kg								
N	E300	Chloride	mg/kg	21	U	22	U	22	U	21	U
N	LACH_107_06_1_	Nitrogen, as Ammonia	mg/kg	11		170		19		20	
N	E300	Sulfate	mg/kg	41	U	45	EB	44	U	41	U
N	E160.3	Percent Moisture	percent	2.6		8.7		9.6		3.5	
N	E160.3	Percent Solids	percent	97		91		90		96	
N	MAVPH	C5-C8 Aliphatics	mg/kg	2.4	UJ	2.4	UJ	3.1	UJ	2.6	U
N	MAVPH	C5-C8 Aliphatics (unadj.)	mg/kg	2.4	UJ	2.4	UJ	3.1	UJ	2.6	U
N	MAVPH	C9-C10 Aromatics	mg/kg	2.4	UJ	2.4	UJ	3.1	UJ	2.6	U
N	MAVPH	C9-C12 Aliphatics	mg/kg	2.4	UJ	2.4	UJ	3.1	UJ	2.6	U
N	MAVPH	C9-C12 Aliphatics (unadj.)	mg/kg	2.4	UJ	2.4	UJ	3.1	UJ	2.6	U
N	MAVPH	Volatile Petroleum Hydrocarbons, Total	mg/kg	2.4	UJ	2.4	UJ	3.1	UJ	2.6	U
N	MAEPH	C11-C22 Aromatics	mg/kg	8.1		3.6	U	84		18	
N	MAEPH	C11-C22 Aromatics (unadj.)	mg/kg	8.9		3.6	U	84		190	
N	MAEPH	C19-C36 Aliphatics	mg/kg	3.8		3.6	U	130		33	
N	MAEPH	C9-C18 Aliphatics	mg/kg	3.4	U	3.6	U	34		3.6	
N	MAEPH	Extractable Petroleum Hydrocarbons, Total	mg/kg	12		3.6	U	250		55	

REVIEWED BY
BRADLEY B. LAFORGE 5/7/10
PAGES 1-3

				RINSE BLANK OC-EBK-001 8/18/2009 EB OCRI-01		RINSE BLANK OC-EBK-002 8/19/2009 EB OCRI-02		RINSE BLANK OC-EBK-003 8/21/2009 EB OCRI-04		RINSE BLANK OC-EBK-004 8/24/2009 EB OCRI-05	
				Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8082	Aroclor-1016	ug/l								
N	SW8082	Aroclor-1221	ug/l								
N	SW8082	Aroclor-1232	ug/l								
N	SW8082	Aroclor-1242	ug/l								
N	SW8082	Aroclor-1248	ug/l								
N	SW8082	Aroclor-1254	ug/l								
N	SW8082	Aroclor-1260	ug/l								
N	SW8082	Aroclor-1262	ug/l								
N	SW8082	Aroclor-1268	ug/l								
N	SW7199	Chromium, Hexavalent	ug/l								
N	E300	Chloride	mg/l	1	U	1	U	1	U	1	U
N	LACH_107_06_1_	Nitrogen, as Ammonia	mg/l	0.1	U	0.1	U	0.9		0.1	U
N	E300	Sulfate	mg/l	2	U	2	U	2	U	21	
N	MAVPH	C5-C8 Aliphatics	ug/l			50	U			50	U
N	MAVPH	C5-C8 Aliphatics (unadj.)	ug/l			50	U			50	U
N	MAVPH	C9-C10 Aromatics	ug/l			50	U			50	U
N	MAVPH	C9-C12 Aliphatics	ug/l			50	U			50	U
N	MAVPH	C9-C12 Aliphatics (unadj.)	ug/l			50	U			50	U
N	MAVPH	Volatile Petroleum Hydrocarbons, Total	ug/l			50	U			50	U
N	MAEPH	C11-C22 Aromatics	ug/l			100	U			100	U
N	MAEPH	C11-C22 Aromatics (unadj.)	ug/l			100	U			100	U
N	MAEPH	C19-C36 Aliphatics	ug/l			100	U			100	U
N	MAEPH	C9-C18 Aliphatics	ug/l			100	U			100	U
N	MAEPH	Extractable Petroleum Hydrocarbons, Total	ug/l			100	U			100	U

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5/1/10
Bradley B. L

PAGES 1-3

				TRIP BLANK OC-TBK-003 8/19/2009 TB OCRI-02		TRIP BLANK OC-TBK-005 8/21/2009 TB OCRI-04		TRIP BLANK OC-TBK-006 8/24/2009 TB OCRI-05		TRIP BLANK OC-TBK-007 8/25/2009 TB OCRI-05	
				Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	MAVPH	C5-C8 Aliphatics	mg/kg	2.5	U	2.5	U	2.5	U	2.5	U
N	MAVPH	C5-C8 Aliphatics (unadj.)	mg/kg	2.5	U	2.5	U	2.5	U	2.5	U
N	MAVPH	C9-C10 Aromatics	mg/kg	2.5	U	2.5	U	2.5	U	2.5	U
N	MAVPH	C9-C12 Aliphatics	mg/kg	2.5	U	2.5	U	2.5	U	2.5	U
N	MAVPH	C9-C12 Aliphatics (unadj.)	mg/kg	2.5	U	2.5	U	2.5	U	2.5	U
N	MAVPH	Volatile Petroleum Hydrocarbons, Total	mg/kg	2.5	U	2.5	U	2.5	U	2.5	U