TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-57862-1
Client Project/Site: MadisonKipp WI001283.0008.00006

For:
ARCADIS U.S., Inc.
126 North Jefferson Street
Suite 400
Milwaukee, Wisconsin 53202

Attn: Rebecca Robbennolt

Sandie Fredrick

Authorized for release by:
6/12/2013 1:41:21 PM

Sandie Fredrick, Project Manager I
sandie.fredrick@testamericainc.com

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Job ID: 500-57862-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-57862-1

Comments
No additional comments.

Receipt
The samples were received on 6/11/2013 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.2º C.

GC Semi VOA
Method(s) 8082: The laboratory control sample duplicate (LCSD) for batch 189413 recovered outside control limits for the following analytes: AR1260. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.Equipment Blank #01 (500-57862-2)

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001283.0008.00006

TestAmerica Job ID: 500-57862-1

Client Sample ID: MKC-39DD-Base — Lab Sample ID: 500-57862-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1248	50		19	7.6	ug/Kg	1	☼	8082	Total/NA

Client Sample ID: Equipment Blank #01 — Lab Sample ID: 500-57862-2

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001283.0008.00006

TestAmerica Job ID: 500-57862-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001283.0008.00006

TestAmerica Job ID: 500-57862-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-57862-1	MKC-39DD-Base	Solid	06/10/13 13:35	06/11/13 10:30
500-57862-2	Equipment Blank #01	Water	06/10/13 15:23	06/11/13 10:30

Client Sample ID: MKC-39DD-Base

Lab Sample ID: 500-57862-1

Date Collected: 06/10/13 13:35

Matrix: Solid

Date Received: 06/11/13 10:30

Percent Solids: 81.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<6.8		19	6.8	ug/Kg	☼	06/11/13 18:15	06/12/13 10:47	1
PCB-1221	<8.5		19	8.5	ug/Kg	☼	06/11/13 18:15	06/12/13 10:47	1
PCB-1232	<8.4		19	8.4	ug/Kg	☼	06/11/13 18:15	06/12/13 10:47	1
PCB-1242	<6.3		19	6.3	ug/Kg	☼	06/11/13 18:15	06/12/13 10:47	1
PCB-1248	**50**		19	7.6	ug/Kg	☼	06/11/13 18:15	06/12/13 10:47	1
PCB-1254	<4.2		19	4.2	ug/Kg	☼	06/11/13 18:15	06/12/13 10:47	1
PCB-1260	<9.5		19	9.5	ug/Kg	☼	06/11/13 18:15	06/12/13 10:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*53*		*50 - 116*	*06/11/13 18:15*	*06/12/13 10:47*	*1*
DCB Decachlorobiphenyl	*92*		*48 - 142*	*06/11/13 18:15*	*06/12/13 10:47*	*1*

Client Sample ID: Equipment Blank #01

Lab Sample ID: 500-57862-2

Date Collected: 06/10/13 15:23

Matrix: Water

Date Received: 06/11/13 10:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.064		0.38	0.064	ug/L		06/11/13 20:12	06/12/13 09:36	1
PCB-1221	<0.19		0.38	0.19	ug/L		06/11/13 20:12	06/12/13 09:36	1
PCB-1232	<0.19		0.38	0.19	ug/L		06/11/13 20:12	06/12/13 09:36	1
PCB-1242	<0.19		0.38	0.19	ug/L		06/11/13 20:12	06/12/13 09:36	1
PCB-1248	<0.19		0.38	0.19	ug/L		06/11/13 20:12	06/12/13 09:36	1
PCB-1254	<0.19		0.38	0.19	ug/L		06/11/13 20:12	06/12/13 09:36	1
PCB-1260	<0.067	*	0.38	0.067	ug/L		06/11/13 20:12	06/12/13 09:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*50 - 120*	*06/11/13 20:12*	*06/12/13 09:36*	*1*
DCB Decachlorobiphenyl	*89*		*29 - 126*	*06/11/13 20:12*	*06/12/13 09:36*	*1*

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001283.0008.00006

TestAmerica Job ID: 500-57862-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001283.0008.00006

TestAmerica Job ID: 500-57862-1

GC Semi VOA

Prep Batch: 189406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-57862-1	MKC-39DD-Base	Total/NA	Solid	3541	
LCS 500-189406/3-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-189406/1-A	Method Blank	Total/NA	Solid	3541	

Prep Batch: 189413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-57862-2	Equipment Blank #01	Total/NA	Water	3510C	
LCS 500-189413/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-189413/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 500-189413/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 189465

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-57862-1	MKC-39DD-Base	Total/NA	Solid	8082	189406
LCS 500-189406/3-A	Lab Control Sample	Total/NA	Solid	8082	189406
MB 500-189406/1-A	Method Blank	Total/NA	Solid	8082	189406

Analysis Batch: 189467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-57862-2	Equipment Blank #01	Total/NA	Water	8082	189413
LCS 500-189413/2-A	Lab Control Sample	Total/NA	Water	8082	189413
LCSD 500-189413/3-A	Lab Control Sample Dup	Total/NA	Water	8082	189413
MB 500-189413/1-A	Method Blank	Total/NA	Water	8082	189413

General Chemistry

Analysis Batch: 189442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-57862-1	MKC-39DD-Base	Total/NA	Solid	Moisture	
500-57862-1 DU	MKC-39DD-Base	Total/NA	Solid	Moisture	

Surrogate Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001283.0008.00006

TestAmerica Job ID: 500-57862-1

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

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		TCX1	DCB1								
Lab Sample ID	Client Sample ID	(50-116)	(48-142)								
500-57862-1	MKC-39DD-Base	53	92								
LCS 500-189406/3-A	Lab Control Sample	72	96								
MB 500-189406/1-A	Method Blank	76	89								

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

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

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		TCX2	DCB2								
Lab Sample ID	Client Sample ID	(50-120)	(29-126)								
500-57862-2	Equipment Blank #01	86	89								
LCS 500-189413/2-A	Lab Control Sample	87	89								
LCSD 500-189413/3-A	Lab Control Sample Dup	83	87								
MB 500-189413/1-A	Method Blank	87	87								

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

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

Lab Sample ID: MB 500-189406/1-A
Matrix: Solid
Analysis Batch: 189465

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 189406

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<5.9		17	5.9	ug/Kg		06/11/13 18:15	06/12/13 08:57	1
PCB-1221	<7.3		17	7.3	ug/Kg		06/11/13 18:15	06/12/13 08:57	1
PCB-1232	<7.3		17	7.3	ug/Kg		06/11/13 18:15	06/12/13 08:57	1
PCB-1242	<5.5		17	5.5	ug/Kg		06/11/13 18:15	06/12/13 08:57	1
PCB-1248	<6.6		17	6.6	ug/Kg		06/11/13 18:15	06/12/13 08:57	1
PCB-1254	<3.6		17	3.6	ug/Kg		06/11/13 18:15	06/12/13 08:57	1
PCB-1260	<8.2		17	8.2	ug/Kg		06/11/13 18:15	06/12/13 08:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*50 - 116*	*06/11/13 18:15*	*06/12/13 08:57*	*1*
DCB Decachlorobiphenyl	*89*		*48 - 142*	*06/11/13 18:15*	*06/12/13 08:57*	*1*

Lab Sample ID: LCS 500-189406/3-A
Matrix: Solid
Analysis Batch: 189465

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 189406

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			167	158		ug/Kg		95	59 - 110		
PCB-1260			167	166		ug/Kg		99	69 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*72*		*50 - 116*
DCB Decachlorobiphenyl	*96*		*48 - 142*

Lab Sample ID: MB 500-189413/1-A
Matrix: Water
Analysis Batch: 189467

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 189413

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.067		0.40	0.067	ug/L		06/11/13 20:12	06/12/13 08:53	1
PCB-1221	<0.20		0.40	0.20	ug/L		06/11/13 20:12	06/12/13 08:53	1
PCB-1232	<0.20		0.40	0.20	ug/L		06/11/13 20:12	06/12/13 08:53	1
PCB-1242	<0.20		0.40	0.20	ug/L		06/11/13 20:12	06/12/13 08:53	1
PCB-1248	<0.20		0.40	0.20	ug/L		06/11/13 20:12	06/12/13 08:53	1
PCB-1254	<0.20		0.40	0.20	ug/L		06/11/13 20:12	06/12/13 08:53	1
PCB-1260	<0.070		0.40	0.070	ug/L		06/11/13 20:12	06/12/13 08:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*87*		*50 - 120*	*06/11/13 20:12*	*06/12/13 08:53*	*1*
DCB Decachlorobiphenyl	*87*		*29 - 126*	*06/11/13 20:12*	*06/12/13 08:53*	*1*

Lab Sample ID: LCS 500-189413/2-A
Matrix: Water
Analysis Batch: 189467

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 189413

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			4.02	4.41		ug/L		110	64 - 110		

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

Lab Sample ID: LCS 500-189413/2-A
Matrix: Water
Analysis Batch: 189467

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 189413

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1260			4.02	4.40		ug/L		110	51 - 110		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*87*		*50 - 120*
DCB Decachlorobiphenyl	*89*		*29 - 126*

Lab Sample ID: LCSD 500-189413/3-A
Matrix: Water
Analysis Batch: 189467

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 189413

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			4.02	4.41		ug/L		110	64 - 110	0	20
PCB-1260			4.02	4.47	*	ug/L		111	51 - 110	2	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*83*		*50 - 120*
DCB Decachlorobiphenyl	*87*		*29 - 126*

Lab Chronicle

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001283.0008.00006

TestAmerica Job ID: 500-57862-1

Client Sample ID: MKC-39DD-Base

Lab Sample ID: 500-57862-1

Date Collected: 06/10/13 13:35
Matrix: Solid
Date Received: 06/11/13 10:30
Percent Solids: 81.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			189406	06/11/13 18:15	DEA	TAL CHI
Total/NA	Analysis	8082		1	189465	06/12/13 10:47	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	189442	06/12/13 07:10	CMV	TAL CHI

Client Sample ID: Equipment Blank #01

Lab Sample ID: 500-57862-2

Date Collected: 06/10/13 15:23
Matrix: Water
Date Received: 06/11/13 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			189413	06/11/13 20:12	JP	TAL CHI
Total/NA	Analysis	8082		1	189467	06/12/13 09:36	GMO	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Certification Summary

Client: ARCADIS U.S., Inc.
Project/Site: MadisonKipp WI001283.0008.00006

TestAmerica Job ID: 500-57862-1

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	06-30-13 *
California	NELAP	9	01132CA	04-30-14
Georgia	State Program	4	N/A	04-30-14
Georgia	State Program	4	939	04-30-14
Hawaii	State Program	9	N/A	04-30-14
Illinois	NELAP	5	100201	04-30-14
Indiana	State Program	5	C-IL-02	04-30-14
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-13
Kentucky (UST)	State Program	4	66	04-30-14
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-14
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-14
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	06-30-13 *
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	07-15-13

* Expired certification is currently pending renewal and is considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60
Phone: 708.534.5200 Fax: 708.534

500-57862 COC

Chain of Custody Record

Lab Job #: 500-57862

Chain of Custody Number:

Page 1 of 1

Temperature °C of Cooler: 5.2

Report To (optional)	Bill To (optional)
Contact: Rebecca Robbennolt	Contact:
Company: ARCADIS	Company:
Address: 126 N Jefferson St #400	Address:
Address: Milwaukee WI 53202	Address:
Phone: 414-276-7742	Phone:
Fax:	Fax:
E-Mail: rebecca.robbennolt@arcadis-us.com	PO#/Reference#

Client: ARCADIS	Client Project #: WI001283.0008.00006
Project Name: Madison Kipp	
Project Location/State: Madison, WI	Lab Project #:
Sampler: VYates	Lab PM:

Preservative: 8

Parameter: PCB

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	Preservative	Comments
1		MKC-3900-BASE	6/10/13	1335	1	S	1	
2		Equipment Blank *01	6/10/13	1523	1	W	1	

Turnaround Time Required (Business Days)
___ 1 Day X 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
[ ] Return to Client [X] Disposal by Lab [ ] Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
VYates	ARCADIS	6/10/13	1730	Allen Scott	TA-CHI	6/11/13	1030
Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Lab Courier:
Shipped: Fed-Ex
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments: Please contact Rebecca Robbennolt w questions 414-276-7742

Lab Comments:

6/12/2013

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc.

Job Number: 500-57862-1

Login Number: 57862

List Source: TestAmerica Chicago

List Number: 1

Creator: Scott, Sherri L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	