

708 Heartland Trail
Suite 3000
Madison, WI 53717

608-826-3600 PHONE
608-826-3941 FAX

www.TRCSolutions.com

December 4, 2018

Mr. Michael Schmoller
Wisconsin Department of Natural Resources
South Central Region
3911 Fish Hatchery Road
Fitchburg, WI 53711

Subject: Rain Garden – 2018 Sediment Monitoring (BRRTS #02-13-562649)
Madison Kipp Corporation, Madison, Wisconsin

Dear Mr. Schmoller:

As recommended in the July 2018 Remedial Action Documentation Report – Rain Garden Excavation and Restoration for the Madison-Kipp Corporation (MKC) Rain Garden site (BRRTS #02-13-562649), TRC has monitored sediment accumulation within manhole MH-1A on MKC property and the Outfall pipe discharging into the City of Madison’s rain garden. Figure 1 includes a site location map and each sample point can be seen on Figure 2.

Manhole MH-1A was monitored monthly and sediment accumulation within the manhole was cleaned out to reduce the quantity of material discharging to the Outfall point. Based on rainfall, two quarterly samples were collected on 08/23/18 and 10/8/18, and Table 1 summarizes the most recent data along with historical data collected from these sample points. Attachment 1 includes the laboratory analytical reports from each sampling event.

Since July 2018, TRC monitored rain events and completed site inspections based on rainfall accumulation. Rainfall data for the week prior to each sampling event indicated that over 7 inches of rainfall occurred in the Madison area prior to the August sampling event and over 3.5 inches accumulated prior to the October event.

- Based on the quarterly sediment sample results, the material within MH-1A contains low concentrations of PCBs, below the NR 720 industrial direct contact residual contaminant levels (RCLs). The sediment observed within MH-1A was primarily coarse grain material with some fines and organics.
- Sediment accumulation within the Outfall pipe was minimal and generally consisted of only fine grain material with some organics. Results from the quarterly monitoring show that sediment containing PCBs continues to discharge from the Outfall, but at concentrations below the NR 720 industrial direct contact RCLs.

Mr. Michael Schmoller
Wisconsin Department of Natural Resources
December 4, 2018
Page 2

Based on the quarterly results and heavy rain events that occurred over the past two quarters, TRC, on behalf of MKC, recommends that semi-annual samples be collected during the 2019 calendar year, the two events will be completed following heavy rain events in the spring/early summer and in the late summer/fall. TRC will prepare a similar letter report summarizing the results and proposing the next monitoring plan, which will be dependent on the results of the 2019 sediment samples.

If you have any questions or comments at this time please do not hesitate to contact Andrew Stehn at 608-826-3665 or at astehn@trcsolutions.com or Katherine Vater at 608-826-3663 or at kvater@trcsolutions.com, particularly regarding the recent sample results or proposed 2019 sampling.

Sincerely,

TRC Environmental Corporation



Andrew Stehn, P.E.
Senior Project Engineer



Katherine Vater, P.E.
Project Manger

Table:

Table 1: Storm Sewer System Sediment Sampling Analytical Results Summary

Figures:

Figure 1: Site Location Map

Figure 2: Site Map and Storm Sewer Infrastructure

Attachment:

1. Laboratory Analytical Reports

cc: Tony Koblinski – MKC (electronic)
Matt Sill – MKC (electronic)

Table 1
 Storm Sewer System Sediment Sampling Analytical Results Summary
 Madison-Kipp Corporation
 201 Waubesa Street, Madison, Wisconsin

PARAMETER	UNIT	NR 720 RCL	MH-1A									OUTFALL SAMPLE					
		INDUSTRIAL DIRECT CONTACT ⁽¹⁾	STORM SEWER	MH-1A(3)-BASIN	MH-1A 9/22/17	MH-1A (10/6/17)	MH-1A (10/17/17)	MH-1A-022118	MH-1A-051018	MH-1A-082318	MH-1A 100818	PIPE	OUTFALL (6/30)	OUTFALL 9/22/17	OUTFALL PIPE-051018	OUTFALL-082318	OUTFALL 100818
Sample Date	--	--	12/28/2016	6/30/2017	9/22/2017	10/6/2017	10/17/2017	2/21/2018	5/10/2018	8/23/2018	10/8/2018	12/19/2016	6/30/2017	9/22/2017	5/10/2018	8/23/2018	10/8/2018
Matrix	--	--	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
PCB-1016	mg/kg	28	<0.011	<0.0092	<0.0089	<0.0097	<0.010	<0.0094	<0.0083	<0.0053	<0.0058	<0.0095	<0.0086	<0.011	<0.0099	<0.0061	<0.0067
PCB-1221	mg/kg	0.883	<0.0059	<0.0051	<0.0049	<0.0054	<0.0057	<0.0052	<0.0046	<0.0076	<0.0084	<0.0053	<0.0048	<0.0061	<0.0055	<0.0088	<0.0096
PCB-1232	mg/kg	0.792	<0.0040	<0.0035	<0.0034	<0.0037	<0.0039	<0.0036	<0.0031	<0.0050	<0.0056	<0.0036	<0.0032	<0.0042	<0.0038	<0.0059	<0.0064
PCB-1242	mg/kg	0.972	<0.0063	<0.0055	<0.0053	<0.0058	<0.0061	<0.0056	<0.0049	<0.010	<0.011	<0.0057	<0.0051	<0.0066	<0.0059	<0.012	<0.013
PCB-1248	mg/kg	0.975	3.6	2.2	0.11	0.23	0.71	0.33	0.15	0.14	0.16	9.2	5.0	4.0	1.9	0.32	0.57
PCB-1254	mg/kg	0.988	<0.0063	<0.0055	<0.0053	<0.0058	<0.0061	<0.0056	<0.0049	<0.0084	<0.0093	<0.0057	<0.0051	<0.0066	<0.0059	<0.0097	<0.011
PCB-1260	mg/kg	1	<0.0034	<0.003	<0.0029	<0.0031	<0.0033	<0.0031	<0.0027	<0.0081	<0.0090	0.37	<0.0028	<0.0036	<0.0032	<0.0095	<0.010
Total PCBs	mg/kg	0.967	3.6	2.2	0.11	0.23	0.71	0.33	0.15	0.14	0.16	9.6	5.0	4.0	1.9	0.32	0.57

Notes:

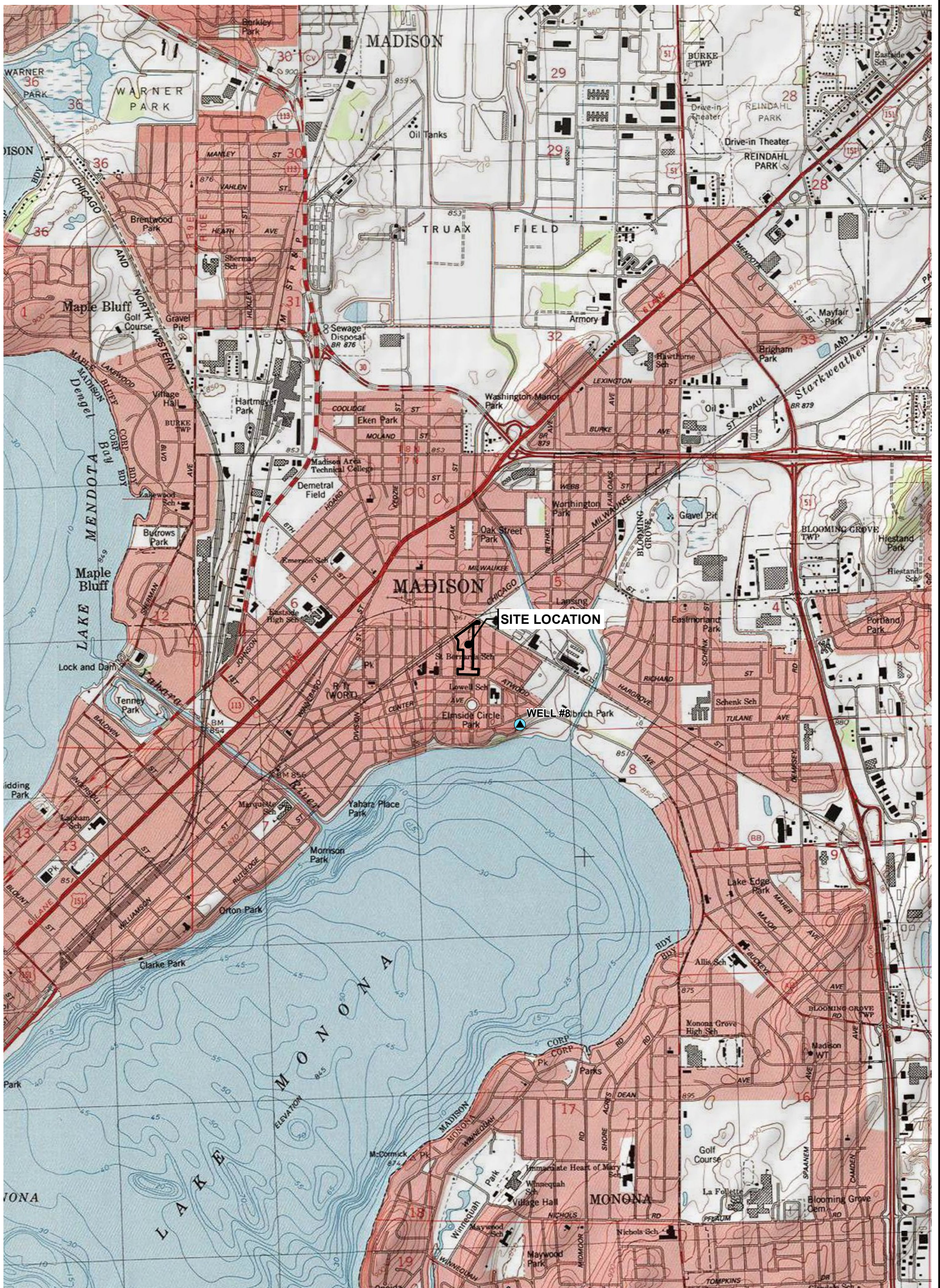
< = Less than
 mg/kg = Milligrams per kilogram
 RCL = residual contaminant level
 PCBs = Polychlorinated Biphenyls
 Bold and Italics = WDNR Industrial Direct Contact Limit Exceedance

Updated by: B. Wachholz 10/30/2018



Checked by: C. Olson 10/31/2018

Footnotes:

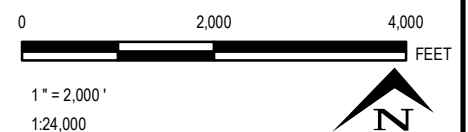
⁽¹⁾ The total PCBs and specific aroclors are compared to the WDNR industrial direct contact residual contaminant levels (June 2018).



LEGEND

-  SITE PROPERTY BOUNDARY
-  MUNICIPAL SUPPLY WELL

BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES, "USA TOPO MAPS" WEB BASEMAP SERVICE LAYER.



708 Heartland Trail
 Suite 3000
 Madison, WI 53717
 Phone: 608.826.3600

PROJECT:

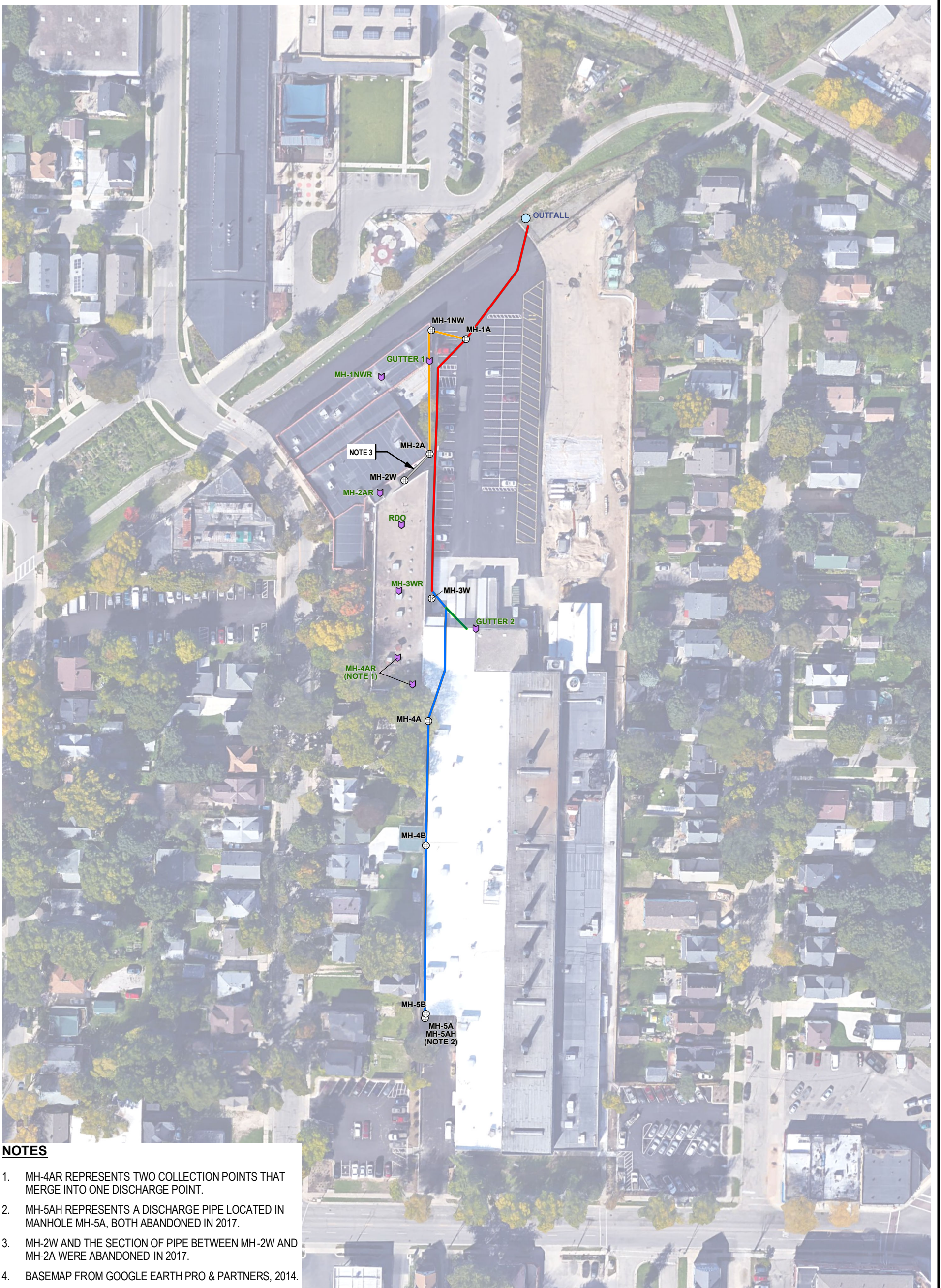
MADISON-KIPP CORPORATION
 201 WAUBESA STREET
 MADISON, WISCONSIN

TITLE:

SITE LOCATION MAP

DRAWN BY:	A. ADAIR
CHECKED BY:	A. STEHN
APPROVED BY:	K. VATER
DATE:	JULY 2018
PROJ. NO.:	268304
FILE:	268304-001slm.mxd

FIGURE 1

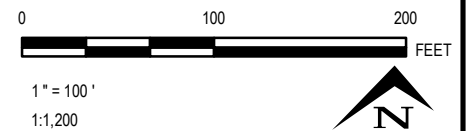


NOTES

1. MH-4AR REPRESENTS TWO COLLECTION POINTS THAT MERGE INTO ONE DISCHARGE POINT.
2. MH-5AH REPRESENTS A DISCHARGE PIPE LOCATED IN MANHOLE MH-5A, BOTH ABANDONED IN 2017.
3. MH-2W AND THE SECTION OF PIPE BETWEEN MH-2W AND MH-2A WERE ABANDONED IN 2017.
4. BASEMAP FROM GOOGLE EARTH PRO & PARTNERS, 2014.

LEGEND

- | | | | | | |
|--|------------------------|--|------------------|--|------------------------|
| | SITE PROPERTY BOUNDARY | | S-1 PIPE SECTION | | S-3-ABANDONED (NOTE 3) |
| | ROOF DRAIN INLET | | S-2 PIPE SECTION | | S-4 PIPE SECTION |
| | MANHOLE/CATCH BASIN | | S-3 PIPE SECTION | | |
| | OUTFALL | | | | |



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PROJECT:

MADISON-KIPP CORPORATION
 201 WAUBESA STREET
 MADISON, WISCONSIN

TITLE:

**SITE MAP AND
 STORM SEWER INFRASTRUCTURE**

DRAWN BY:	J. PAPEZ
CHECKED BY:	A. STEHN
APPROVED BY:	K. VATER
DATE:	JULY 2018
PROJ. NO.:	268304
FILE:	268304-015.mxd

FIGURE 2

Attachment 1
Laboratory Analytical Reports



2525 Advance Road
Madison, WI 53718
608.221.8700 Phone
608.221.4889 Fax

September 04, 2018

Andrew Stehn
TRC Environmental Corporation, Inc.
708 Heartland Trail, Ste 3000
Madison, WI 53717
RE: MKC Storm Sewer/Raingarden - Madison, WI

Enclosed are the analytical results for the samples received by the laboratory on 08/23/2018.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. These results are in compliance with the 2009 NELAC Standards and the appropriate agencies listed below, unless otherwise noted in the case narrative. This analytical report should be reproduced in its entirety.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica Esser
Project Manager

Certification List

Certification List			Expires
ADEQ	Arkansas Department of Environmental Quality	17-065-0	09/26/2018
DODELAP	DOD ELAP Accreditation (A2LA)	3269.01	03/31/2019
ILEPA	Illinois Secondary NELAP Accreditation	004366	04/30/2019
KDHE	Kansas Secondary NELAP Accreditation	E-10384	04/30/2019
LELAP	Louisiana Primary NELAP Accreditation	04165	06/30/2019
NCDEQ	North Carolina Dept. of Environmental Quality Accreditation	688	12/31/2018
NJDEP	New Jersey Secondary NELAP Accreditation	WI004	06/30/2019
ODEQ	Oklahoma Department of Environmental Quality Accreditation	2018-087	08/31/2019
TCEQ	Texas Secondary NELAP Accreditation	T104704504-16-7	11/30/2018
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2019



2525 Advance Road
Madison, WI 53718
608.221.8700 Phone
608.221.4889 Fax

TRC Environmental Corporation, Inc.
708 Heartland Trail, Ste 3000
Madison WI, 53717

Project: MKC Storm Sewer/Raingarden - Madison, WI
Project Number: 268304
Project Manager: Andrew Stehn

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OUTFALL - 082318	A183423-01	Soil	08/23/2018	08/23/2018
MH-1A-082318	A183423-02	Soil	08/23/2018	08/23/2018

CASE NARRATIVE

Sample Receipt Information:

2 samples were received on 08/23/2018. Samples were received on ice. Samples were received in acceptable condition.

Please see the chain of custody (COC) document at the end of this report for additional information.



2525 Advance Road
 Madison, WI 53718
 608.221.8700 Phone
 608.221.4889 Fax

TRC Environmental Corporation, Inc.
 708 Heartland Trail, Ste 3000
 Madison WI, 53717

Project: MKC Storm Sewer/Raingarden - Madison, WI
 Project Number: 268304
 Project Manager: Andrew Stehn

OUTFALL - 082318

Date Sampled

A183423-01 (Soil)

08/23/2018 11:30

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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Pace Analytical - Madison

Polychlorinated Biphenyls by EPA Method 8082

Preparation Batch: A808346

PCB-1016	ND	0.0061	0.13	mg/kg dry	1	08/27/2018	08/28/2018 02:45	EPA 8082A	
PCB-1221	ND	0.0088	0.13	mg/kg dry	1	08/27/2018	08/28/2018 02:45	EPA 8082A	
PCB-1232	ND	0.0059	0.13	mg/kg dry	1	08/27/2018	08/28/2018 02:45	EPA 8082A	
PCB-1242	ND	0.012	0.13	mg/kg dry	1	08/27/2018	08/28/2018 02:45	EPA 8082A	
PCB-1248	0.32	0.011	0.13	mg/kg dry	1	08/27/2018	08/28/2018 02:45	EPA 8082A	
PCB-1254	ND	0.0097	0.13	mg/kg dry	1	08/27/2018	08/28/2018 02:45	EPA 8082A	
PCB-1260	ND	0.0095	0.13	mg/kg dry	1	08/27/2018	08/28/2018 02:45	EPA 8082A	
Total PCBs	0.32	0.012	0.13	mg/kg dry	1	08/27/2018	08/28/2018 02:45	EPA 8082A	

Surrogate: Tetrachloro-meta-xylene

100 % 69.6-121

08/27/2018

08/28/2018 02:45

EPA 8082A

Surrogate: Decachlorobiphenyl

91.7 % 56.6-128

08/27/2018

08/28/2018 02:45

EPA 8082A

Classical Chemistry Parameters

Preparation Batch: A808351

% Solids	75.0		0.00	% by Weight	1	08/27/2018	08/28/2018 06:40	SM 2540B	
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 608.221.4889 Fax

TRC Environmental Corporation, Inc.
 708 Heartland Trail, Ste 3000
 Madison WI, 53717

Project: MKC Storm Sewer/Raingarden - Madison, WI
 Project Number: 268304
 Project Manager: Andrew Stehn

MH-1A-082318
A183423-02 (Soil)

Date Sampled
08/23/2018 12:45

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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Pace Analytical - Madison

Polychlorinated Biphenyls by EPA Method 8082

Preparation Batch: A808346

PCB-1016	ND	0.0053	0.11	mg/kg dry	1	08/27/2018	08/28/2018 03:10	EPA 8082A	
PCB-1221	ND	0.0076	0.11	mg/kg dry	1	08/27/2018	08/28/2018 03:10	EPA 8082A	
PCB-1232	ND	0.0050	0.11	mg/kg dry	1	08/27/2018	08/28/2018 03:10	EPA 8082A	
PCB-1242	ND	0.010	0.11	mg/kg dry	1	08/27/2018	08/28/2018 03:10	EPA 8082A	
PCB-1248	0.14	0.0099	0.11	mg/kg dry	1	08/27/2018	08/28/2018 03:10	EPA 8082A	
PCB-1254	ND	0.0084	0.11	mg/kg dry	1	08/27/2018	08/28/2018 03:10	EPA 8082A	
PCB-1260	ND	0.0081	0.11	mg/kg dry	1	08/27/2018	08/28/2018 03:10	EPA 8082A	
Total PCBs	0.14	0.010	0.11	mg/kg dry	1	08/27/2018	08/28/2018 03:10	EPA 8082A	
<i>Surrogate: Tetrachloro-meta-xylene</i>			92.4 %	69.6-121		08/27/2018	08/28/2018 03:10	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl</i>			83.5 %	56.6-128		08/27/2018	08/28/2018 03:10	EPA 8082A	

Classical Chemistry Parameters

Preparation Batch: A808351

% Solids	87.3		0.00	% by Weight	1	08/27/2018	08/28/2018 06:40	SM 2540B	
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TRC Environmental Corporation, Inc.
708 Heartland Trail, Ste 3000
Madison WI, 53717

Project: MKC Storm Sewer/Raingarden - Madison, WI
Project Number: 268304
Project Manager: Andrew Stehn

Polychlorinated Biphenyls by EPA Method 8082 - Quality Control

Pace Analytical - Madison

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A808346 - EPA 3570

Blank (A808346-BLK1)

Prepared: 08/27/2018 Analyzed: 08/28/2018 02:20

PCB-1016	ND	0.10	mg/kg wet							
PCB-1221	ND	0.10	mg/kg wet							
PCB-1232	ND	0.10	mg/kg wet							
PCB-1242	ND	0.10	mg/kg wet							
PCB-1248	ND	0.10	mg/kg wet							
PCB-1254	ND	0.10	mg/kg wet							
PCB-1260	ND	0.10	mg/kg wet							
Total PCBs	ND	0.10	mg/kg wet							
<i>Surrogate: Tetrachloro-meta-xylene</i>	0.203		mg/kg wet	0.2400		84.7	69.6-121			
<i>Surrogate: Decachlorobiphenyl</i>	0.221		mg/kg wet	0.2400		92.2	56.6-128			

LCS (A808346-BS1)

Prepared: 08/27/2018 Analyzed: 08/28/2018 01:55

PCB-1248	1.93	0.10	mg/kg wet	2.000		96.5	74.4-123			
<i>Surrogate: Tetrachloro-meta-xylene</i>	0.225		mg/kg wet	0.2400		93.6	69.6-121			
<i>Surrogate: Decachlorobiphenyl</i>	0.245		mg/kg wet	0.2400		102	56.6-128			

Matrix Spike (A808346-MS1)

Source: A183423-02

Prepared: 08/27/2018 Analyzed: 08/28/2018 03:35

PCB-1248	2.35	0.11	mg/kg dry	2.291	0.138	96.5	61.9-141			
<i>Surrogate: Tetrachloro-meta-xylene</i>	0.271		mg/kg dry	0.2749		98.6	69.6-121			
<i>Surrogate: Decachlorobiphenyl</i>	0.244		mg/kg dry	0.2749		88.8	56.6-128			

Matrix Spike Dup (A808346-MSD1)

Source: A183423-02

Prepared: 08/27/2018 Analyzed: 08/28/2018 04:00

PCB-1248	2.21	0.11	mg/kg dry	2.291	0.138	90.3	61.9-141	6.30	20	
<i>Surrogate: Tetrachloro-meta-xylene</i>	0.252		mg/kg dry	0.2749		91.6	69.6-121			
<i>Surrogate: Decachlorobiphenyl</i>	0.224		mg/kg dry	0.2749		81.6	56.6-128			



2525 Advance Road
 Madison, WI 53718
 608.221.8700 Phone
 608.221.4889 Fax

TRC Environmental Corporation, Inc. 708 Heartland Trail, Ste 3000 Madison WI, 53717	Project: MKC Storm Sewer/Raingarden - Madison, WI Project Number: 268304 Project Manager: Andrew Stehn
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Classical Chemistry Parameters - Quality Control

Pace Analytical - Madison

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A808351 - % Solids

Duplicate (A808351-DUP1)	Source: A183423-01		Prepared: 08/27/2018 Analyzed: 08/28/2018 06:40							
% Solids	78.1	0.00	% by Weight		75.0			4.04	20	

TRC Environmental Corporation, Inc.
708 Heartland Trail, Ste 3000
Madison WI, 53717

Project: MKC Storm Sewer/Raingarden - Madison, WI
Project Number: 268304
Project Manager: Andrew Stehn

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis. If the word 'dry' does not appear after the units, results are reported on an as-is basis.

RPD Relative Percent Difference

(Please Print Clearly)

Company Name: TRC Environmental
 Branch/Location: Madison, WI
 Project Contact: Andy Stehn
 Phone: 608-807-8112
 Project Number: 268304
 Project Name: MKC Rain Garden/Storm Sewer
 Project State: WI
 Sampled By (Print): Ben Wachholz
 Sampled By (Sign): *Ben Wachholz*
 PO #: 103478
 Regulatory Program:



UPPER MIDWEST REGION

MN: 612-607-1700 WI: 920-469-2436

CHAIN OF CUSTODY

***Preservation Codes**
 A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
 H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

FILTERED?
(YES/NO)
 PRESERVATION
(CODE)*

Y/N	Pick Letter	Analyses Requested																		
N	A	PCBS																		

Quote #:
 Mail To Contact: Andy Stehn
 Mail To Company: TRC Environmental
 Mail To Address: 708 Heartland Trail Suite 3000 Madison, WI 53717
 Invoice To Contact:
 Invoice To Company: Same as above
 Invoice To Address:
 Invoice To Phone: 608-807-8112
 CLIENT COMMENTS: LAB COMMENTS (Lab Use Only) Profile #
 01
 02

Data Package Options (billable)
 EPA Level III
 EPA Level IV

MS/MSD
 On your sample (billable)
 NOT needed on your sample

Matrix Codes
 A = Air W = Water
 B = Biota DW = Drinking Water
 C = Charcoal GW = Ground Water
 O = Oil SW = Surface Water
 S = Soil WW = Waste Water
 Sl = Sludge WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION		MATRIX	Y/N	Pick Letter	Analyses Requested													
		DATE	TIME																	
	OUTFALL-082318	8/23/18	11:30	S		X														
	MH-1A-082318	8/23/18	12:45	S		X														

Rush Turnaround Time Requested - Prelims (Rush TAT subject to approval/surcharge) Date Needed: Relinquished By: *Ben Wachholz* Date/Time: 8/23/18 14:20 Received By: *Donna E...* Date/Time: 8-23-18 14:20 PACE Project No.

Transmit Prelim Rush Results by (complete what you want): Receipt Temp = *on ice* °C

Email #1: Relinquished By: Date/Time: Received By: Date/Time: Sample Receipt pH OK / Adjusted

Email #2: Relinquished By: Date/Time: Received By: Date/Time: Cooler Custody Seal Present / Not Present Intact / Not Intact

Telephone: Relinquished By: Date/Time: Received By: Date/Time:

Fax: Relinquished By: Date/Time: Received By: Date/Time:

Samples on HOLD are subject to special pricing and release of liability



2525 Advance Road
Madison, WI 53718
608.221.8700 Phone
608.221.4889 Fax

October 29, 2018

Andrew Stehn
TRC Environmental Corporation, Inc.
708 Heartland Trail, Ste 3000
Madison, WI 53717
RE: MKC Storm Sewer/Raingarden - Madison, WI

Enclosed are the analytical results for the samples received by the laboratory on 10/18/2018.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. These results are in compliance with the 2009 NELAC Standards and the appropriate agencies listed below, unless otherwise noted in the case narrative. This analytical report should be reproduced in its entirety.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jessica Esser
Project Manager

Certification List			Expires
ADEQ	Arkansas Department of Environmental Quality	17-065-0	09/26/2018
DODELAP	DOD ELAP Accreditation (A2LA)	3269.01	03/31/2019
ILEPA	Illinois Secondary NELAP Accreditation	004366	04/30/2019
KDHE	Kansas Secondary NELAP Accreditation	E-10384	04/30/2019
LELAP	Louisiana Primary NELAP Accreditation	04165	06/30/2019
NCDEQ	North Carolina Dept. of Environmental Quality Accreditation	688	12/31/2018
NJDEP	New Jersey Secondary NELAP Accreditation	WI004	06/30/2019
ODEQ	Oklahoma Department of Environmental Quality Accreditation	2018-087	08/31/2019
TCEQ	Texas Secondary NELAP Accreditation	T104704504-16-7	11/30/2018
WDNR	Wisconsin Certification under NR 149	113289110	08/31/2019



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TRC Environmental Corporation, Inc.
708 Heartland Trail, Ste 3000
Madison WI, 53717

Project: MKC Storm Sewer/Raingarden - Madison, WI
Project Number: 268304
Project Manager: Andrew Stehn

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MH-1A 100818	A184218-01	Soil	10/08/2018	10/18/2018
Outfall 100818	A184218-02	Soil	10/08/2018	10/18/2018

CASE NARRATIVE

Sample Receipt Information:

2 samples were received on 10/18/2018. Samples were received on ice. Samples were received in acceptable condition.

Please see the chain of custody (COC) document at the end of this report for additional information.



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 Madison, WI 53718
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TRC Environmental Corporation, Inc.
 708 Heartland Trail, Ste 3000
 Madison WI, 53717

Project: MKC Storm Sewer/Raingarden - Madison, WI
 Project Number: 268304
 Project Manager: Andrew Stehn

MH-1A 100818

Date Sampled

A184218-01 (Soil)

10/08/2018 12:45

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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Pace Analytical - Madison

Polychlorinated Biphenyls by EPA Method 8082

Preparation Batch: A810269

PCB-1016	ND	0.0058	0.13	mg/kg dry	1	10/23/2018	10/23/2018 23:34	EPA 8082A	
PCB-1221	ND	0.0084	0.13	mg/kg dry	1	10/23/2018	10/23/2018 23:34	EPA 8082A	
PCB-1232	ND	0.0056	0.13	mg/kg dry	1	10/23/2018	10/23/2018 23:34	EPA 8082A	
PCB-1242	ND	0.011	0.13	mg/kg dry	1	10/23/2018	10/23/2018 23:34	EPA 8082A	
PCB-1248	0.16	0.011	0.13	mg/kg dry	1	10/23/2018	10/23/2018 23:34	EPA 8082A	M, X
PCB-1254	ND	0.0093	0.13	mg/kg dry	1	10/23/2018	10/23/2018 23:34	EPA 8082A	
PCB-1260	ND	0.0090	0.13	mg/kg dry	1	10/23/2018	10/23/2018 23:34	EPA 8082A	
Total PCBs	0.16	0.011	0.13	mg/kg dry	1	10/23/2018	10/23/2018 23:34	EPA 8082A	

Surrogate: Tetrachloro-meta-xylene

100 % 71.5-118

10/23/2018 10/23/2018 23:34 EPA 8082A

Surrogate: Decachlorobiphenyl

102 % 56.1-132

10/23/2018 10/23/2018 23:34 EPA 8082A

Classical Chemistry Parameters

Preparation Batch: A810275

% Solids	78.7		0.00	% by Weight	1	10/24/2018	10/24/2018 17:30	SM 2540B	
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2525 Advance Road
 Madison, WI 53718
 608.221.8700 Phone
 608.221.4889 Fax

TRC Environmental Corporation, Inc.
 708 Heartland Trail, Ste 3000
 Madison WI, 53717

Project: MKC Storm Sewer/Raingarden - Madison, WI
 Project Number: 268304
 Project Manager: Andrew Stehn

Outfall 100818

Date Sampled

A184218-02 (Soil)

10/08/2018 16:18

Analyte	Result	Limit of Detection	Limit of Quantitation	Units	Dilution	Prepared	Analyzed	Method	Qualifiers
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Pace Analytical - Madison

Polychlorinated Biphenyls by EPA Method 8082

Preparation Batch: A810269

PCB-1016	ND	0.0067	0.15	mg/kg dry	1	10/23/2018	10/24/2018 00:49	EPA 8082A	
PCB-1221	ND	0.0096	0.15	mg/kg dry	1	10/23/2018	10/24/2018 00:49	EPA 8082A	
PCB-1232	ND	0.0064	0.15	mg/kg dry	1	10/23/2018	10/24/2018 00:49	EPA 8082A	
PCB-1242	ND	0.013	0.15	mg/kg dry	1	10/23/2018	10/24/2018 00:49	EPA 8082A	
PCB-1248	0.57	0.012	0.15	mg/kg dry	1	10/23/2018	10/24/2018 00:49	EPA 8082A	
PCB-1254	ND	0.011	0.15	mg/kg dry	1	10/23/2018	10/24/2018 00:49	EPA 8082A	
PCB-1260	ND	0.010	0.15	mg/kg dry	1	10/23/2018	10/24/2018 00:49	EPA 8082A	
Total PCBs	0.57	0.013	0.15	mg/kg dry	1	10/23/2018	10/24/2018 00:49	EPA 8082A	
<i>Surrogate: Tetrachloro-meta-xylene</i>			102 %	71.5-118		10/23/2018	10/24/2018 00:49	EPA 8082A	
<i>Surrogate: Decachlorobiphenyl</i>			98.2 %	56.1-132		10/23/2018	10/24/2018 00:49	EPA 8082A	

Classical Chemistry Parameters

Preparation Batch: A810275

% Solids	68.9		0.00	% by Weight	1	10/24/2018	10/24/2018 17:30	SM 2540B	
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TRC Environmental Corporation, Inc.
708 Heartland Trail, Ste 3000
Madison WI, 53717

Project: MKC Storm Sewer/Raingarden - Madison, WI
Project Number: 268304
Project Manager: Andrew Stehn

Polychlorinated Biphenyls by EPA Method 8082 - Quality Control

Pace Analytical - Madison

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A810269 - EPA 3570

Blank (A810269-BLK1)

Prepared: 10/23/2018 Analyzed: 10/23/2018 23:09

PCB-1016	ND	0.10	mg/kg wet							
PCB-1221	ND	0.10	mg/kg wet							
PCB-1232	ND	0.10	mg/kg wet							
PCB-1242	ND	0.10	mg/kg wet							
PCB-1248	ND	0.10	mg/kg wet							
PCB-1254	ND	0.10	mg/kg wet							
PCB-1260	ND	0.10	mg/kg wet							
Total PCBs	ND	0.10	mg/kg wet							
Surrogate: Tetrachloro-meta-xylene	0.224		mg/kg wet	0.2400		93.3	71.5-118			
Surrogate: Decachlorobiphenyl	0.212		mg/kg wet	0.2400		88.5	56.1-132			

LCS (A810269-BS1)

Prepared: 10/23/2018 Analyzed: 10/23/2018 22:44

PCB-1248	2.03	0.10	mg/kg wet	2.000		102	74.4-123			
Surrogate: Tetrachloro-meta-xylene	0.245		mg/kg wet	0.2400		102	71.5-118			
Surrogate: Decachlorobiphenyl	0.238		mg/kg wet	0.2400		99.1	56.1-132			

Matrix Spike (A810269-MS1)

Source: A184218-01

Prepared: 10/23/2018 Analyzed: 10/23/2018 23:59

PCB-1248	3.31	0.13	mg/kg dry	2.540	0.160	124	77.6-118			M
Surrogate: Tetrachloro-meta-xylene	0.298		mg/kg dry	0.3048		97.6	71.5-118			
Surrogate: Decachlorobiphenyl	0.287		mg/kg dry	0.3048		94.2	56.1-132			

Matrix Spike Dup (A810269-MSD1)

Source: A184218-01

Prepared: 10/23/2018 Analyzed: 10/24/2018 00:24

PCB-1248	2.48	0.13	mg/kg dry	2.540	0.160	91.4	77.6-118	28.5	20	X
Surrogate: Tetrachloro-meta-xylene	0.288		mg/kg dry	0.3048		94.4	71.5-118			
Surrogate: Decachlorobiphenyl	0.285		mg/kg dry	0.3048		93.6	56.1-132			

TRC Environmental Corporation, Inc.
708 Heartland Trail, Ste 3000
Madison WI, 53717

Project: MKC Storm Sewer/Raingarden - Madison, WI
Project Number: 268304
Project Manager: Andrew Stehn

Classical Chemistry Parameters - Quality Control

Pace Analytical - Madison

Analyte	Result	Limit of Quantitation	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A810275 - % Solids

Duplicate (A810275-DUP1)

Source: A184315-01

Prepared: 10/24/2018 Analyzed: 10/24/2018 17:30

% Solids	69.0	0.00	% by Weight		69.0			0.0104	20	
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TRC Environmental Corporation, Inc.
708 Heartland Trail, Ste 3000
Madison WI, 53717

Project: MKC Storm Sewer/Raingarden - Madison, WI
Project Number: 268304
Project Manager: Andrew Stehn

Notes and Definitions

- X Precision for the matrix spike duplicate, laboratory control sample duplicate or lab duplicate was outside of control limits.
- M The matrix spike and/or matrix spike duplicate recovery was outside of the laboratory control limits.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. If the word 'dry' does not appear after the units, results are reported on an as-is basis.
- RPD Relative Percent Difference



Pace Analytical - ECCS Division
 2525 Advance Road
 Madison, WI 53718
 608-221-8700 (phone)
 608-221-4889 (fax)

CHAIN OF CUSTODY

No. 09418

Page: 1 of 1

Project Number: 268304		PO Number: CALL A-STEAN		Lab Work Order #: A184218				Report To: ANDREW STEAN							
Project Name: MWE - RG		Preservation Codes				Company: TRC									
Project Location (City, State): Madison, WI		Analyses Requested: A				Address 1:									
Turn Around (check one): <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush		Matrix: PCBs Total # of Containers: 1				Address 2:									
If Rush, Report Due Date:						E-mail Address:									
Sampled By (Print): BEN WACHKOLZ						Invoice To:									
Sample Description		Collection		Matrix				Total # of Containers							
		Date	Time									Comments		Lab ID	Lab Receipt Time
MH-1A 100818		10/8/18	1245	S	1	X				01					
OUTFALL 100818		10/8/18	1618	S	1	X				02					
Preservation Codes A=None B=HCL C=H ₂ SO ₄ D=HNO ₃ E=EnCore F=Methanol G=NaOH O=Other (Indicate) Matrix Codes A=Air S=Soil W=Water O=Other		Other Comments: Samples kept in refrigerator after sampling and placed on ice for shipping		Relinquished By: <i>Andrew Stean</i> Relinquished By:		Date: 10/18/18 Date:		Time: 14:00 Time:		Received By: <i>Keri-Anne Kelli</i> Received By:		Date: 10/18/18 Date:		Time: 1400 Time:	
Custody Seal: <input checked="" type="checkbox"/> NA <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact				Shipped Via: <i>Wellch</i>		Receipt Temp: <i>on ice</i>		Thermometer #/ Exp. Date:		Temp Blank: <input type="checkbox"/> Y <input type="checkbox"/> N					