

**Thompson, Matthew A - DNR**

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**From:** Eric Lindman <Eric.Lindman@ci.wausau.wi.us>  
**Sent:** Tuesday, April 23, 2019 11:20 AM  
**To:** Thompson, Matthew A - DNR; Iverson, Bruce  
**Subject:** Sewer Main Penta - Flow Stream  
**Attachments:** Penta\_Lab\_Sewer\_04122019.pdf

Here are the latest test results from our second round of testing in the sewage flow.

*Eric Lindman, P.E.*

Director of Public Works  
City of Wausau  
407 Grant St.  
Wausau, WI 54403-4783  
P: 715-261-6745  
C: 715-292-2606

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Statement of Confidentiality

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WAUSAU WATER WORKS  
407 GRANT STREET  
WAUSAU, WI 54401

Project Number: 19004457  
Report Date: 4/12/2019  
Sampled By: CLIENT

Attn: DAVE ERICKSON/KEVIN FABEL/KEN BLOOM

# Samples: 8 WASTEWATER

Sample Number: 49009609  
Sample ID: MH #2 ADRAIN ST  
Sample Date: 3/26/2019  
Date Received: 3/26/2019

Parameter	Results	Units	LOD	LOQ	Dil.	Method	Analyzed	Codes
PENTACHLOROPHENOL	- SEE ATTACHED SYNERGY REPORT REPORT -							7*

Sample Number: 49009610  
Sample ID: MH #13  
Sample Date: 3/26/2019  
Date Received: 3/26/2019

Parameter	Results	Units	LOD	LOQ	Dil.	Method	Analyzed	Codes
PENTACHLOROPHENOL	- SEE ATTACHED SYNERGY REPORT -							7*

Sample Number: 49009611  
Sample ID: MH #53  
Sample Date: 3/26/2019  
Date Received: 3/26/2019

Parameter	Results	Units	LOD	LOQ	Dil.	Method	Analyzed	Codes
PENTACHLOROPHENOL	- SEE ATTACHED SYNERGY REPORT -							7*

Sample Number: 49009612  
Sample ID: MH #54  
Sample Date: 3/26/2019  
Date Received: 3/26/2019

Parameter	Results	Units	LOD	LOQ	Dil.	Method	Analyzed	Codes
PENTACHLOROPHENOL	- SEE ATTACHED SYNERGY REPORT -							7*

Sample Number: 49009613  
Sample ID: MH #11  
Sample Date: 3/26/2019  
Date Received: 3/26/2019

Parameter	Results	Units	LOD	LOQ	Dil.	Method	Analyzed	Codes
PENTACHLOROPHENOL	- SEE ATTACHED SYNERGY REPORT -							7*

Sample Number: 49009614  
Sample ID: MH #6  
Sample Date: 3/26/2019  
Date Received: 3/26/2019

Parameter	Results	Units	LOD	LOQ	Dil.	Method	Analyzed	Codes
PENTACHLOROPHENOL	- SEE ATTACHED SYNERGY REPORT -							7*

Sample Number: 49009615  
Sample ID: MH #5 NORTH CLEARY  
Sample Date: 3/26/2019  
Date Received: 3/26/2019

Parameter	Results	Units	LOD	LOQ	Dil.	Method	Analyzed	Codes
PENTACHLOROPHENOL	- SEE ATTACHED SYNERGY REPORT -							7*

Sample Number: 49009616  
Sample ID: MH #5 WEST ADRIAN  
Sample Date: 3/26/2019  
Date Received: 3/26/2019

Parameter	Results	Units	LOD	LOQ	Dil.	Method	Analyzed	Codes
PENTACHLOROPHENOL	- SEE ATTACHED SYNERGY REPORT -							7*

\*Quality Assurance Code(s):  
7. Analyzed by sub contracted lab: Certification #445037560  
All LOD/LOQs adjusted for dilution and/or solids content.

BADGER LABORATORIES, INC.  
WDNR Certified Lab #445023150  
Approved By:



BLE:gr

# Synergy Environmental Lab, INC

1990 Prospect Ct., Appleton, WI 54914 \*P 920-830-2455 \* F 920-733-0631

JOHN LARSON  
 BADGER LABORATORIES & ENGINEERING  
 501 W BELL STREET  
 NEENAH WI 54956

Report Date 11-Apr-19

Project Name  
 Project #

Invoice # E35935

Lab Code 5035935A  
 Sample ID 9609  
 Sample Matrix Water  
 Sample Date 3/26/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Semi Volatiles										
Pentachlorophenol (PCP)	22.9	ug/l	1.84	5.85	1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorobiphenyl-surrogate	85	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorophenol-surrogate	24.1	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Nitrobenzene-d5-surrogate	79	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Phenol-d6-surrogate	19.7	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
p-Terphenyl-d14-surrogate	99	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2,4,6-Tribromophenol-surrogate	98	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1

Lab Code 5035935B  
 Sample ID 9610  
 Sample Matrix Water  
 Sample Date 3/26/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Semi Volatiles										
Pentachlorophenol (PCP)	< 1.84	ug/l	1.84	5.85	1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorobiphenyl-surrogate	22.7	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorophenol-surrogate	11.1	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Nitrobenzene-d5-surrogate	21.4	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Phenol-d6-surrogate	8.6	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
p-Terphenyl-d14-surrogate	22.4	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2,4,6-Tribromophenol-surrogate	24.4	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1

Project Name  
Project #

Invoice # E35935

Lab Code 5035935C  
Sample ID 9611  
Sample Matrix Water  
Sample Date 3/26/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Semi Volatiles										
Pentachlorophenol (PCP)	21.7	ug/l	1.84	5.85	1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorobiphenyl-surrogate	76	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorophenol-surrogate	23.3	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Nitrobenzene-d5-surrogate	68	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Phenol-d6-surrogate	16.1	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
p-Terphenyl-d14-surrogate	78	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2,4,6-Tribromophenol-surrogate	86	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1

Lab Code 5035935D  
Sample ID 9612  
Sample Matrix Water  
Sample Date 3/26/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Semi Volatiles										
Pentachlorophenol (PCP)	19.3	ug/l	1.84	5.85	1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorobiphenyl-surrogate	71	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorophenol-surrogate	18.7	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Nitrobenzene-d5-surrogate	64	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Phenol-d6-surrogate	12.9	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
p-Terphenyl-d14-surrogate	69	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2,4,6-Tribromophenol-surrogate	81	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1

Lab Code 5035935E  
Sample ID 9613  
Sample Matrix Water  
Sample Date 3/26/2019

	Result	Unit	LOD	LOQ	Dil	Method	Ext Date	Run Date	Analyst	Code
Organic										
Semi Volatiles										
Pentachlorophenol (PCP)	20.9	ug/l	1.84	5.85	1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorobiphenyl-surrogate	79	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorophenol-surrogate	20.6	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Nitrobenzene-d5-surrogate	72	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Phenol-d6-surrogate	< 1	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
p-Terphenyl-d14-surrogate	72	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2,4,6-Tribromophenol-surrogate	90	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1

**Project Name**  
**Project #**

**Invoice #** E35935

**Lab Code** 5035935F  
**Sample ID** 9614  
**Sample Matrix** Water  
**Sample Date** 3/26/2019

	<b>Result</b>	<b>Unit</b>	<b>LOD</b>	<b>LOQ</b>	<b>Dil</b>	<b>Method</b>	<b>Ext Date</b>	<b>Run Date</b>	<b>Analyst</b>	<b>Code</b>
Organic										
Semi Volatiles										
Pentachlorophenol (PCP)	< 1.84	ug/l	1.84	5.85	1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorobiphenyl-surrogate	85	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorophenol-surrogate	29.2	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Nitrobenzene-d5-surrogate	79	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Phenol-d6-surrogate	17.6	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
p-Terphenyl-d14-surrogate	84	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2,4,6-Tribromophenol-surrogate	97	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1

**Lab Code** 5035935G  
**Sample ID** 9615  
**Sample Matrix** Water  
**Sample Date** 3/26/2019

	<b>Result</b>	<b>Unit</b>	<b>LOD</b>	<b>LOQ</b>	<b>Dil</b>	<b>Method</b>	<b>Ext Date</b>	<b>Run Date</b>	<b>Analyst</b>	<b>Code</b>
Organic										
Semi Volatiles										
Pentachlorophenol (PCP)	< 1.84	ug/l	1.84	5.85	1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorobiphenyl-surrogate	81	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorophenol-surrogate	28.1	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Nitrobenzene-d5-surrogate	71	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Phenol-d6-surrogate	18.8	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
p-Terphenyl-d14-surrogate	85	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2,4,6-Tribromophenol-surrogate	96	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1

**Lab Code** 5035935H  
**Sample ID** 9616  
**Sample Matrix** Water  
**Sample Date** 3/26/2019

	<b>Result</b>	<b>Unit</b>	<b>LOD</b>	<b>LOQ</b>	<b>Dil</b>	<b>Method</b>	<b>Ext Date</b>	<b>Run Date</b>	<b>Analyst</b>	<b>Code</b>
Organic										
Semi Volatiles										
Pentachlorophenol (PCP)	29.3	ug/l	1.84	5.85	1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorobiphenyl-surrogate	74	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2-Fluorophenol-surrogate	24.7	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Nitrobenzene-d5-surrogate	66	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
Phenol-d6-surrogate	16.2	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
p-Terphenyl-d14-surrogate	75	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1
2,4,6-Tribromophenol-surrogate	87	REC %			1	8270C	3/28/2019	4/4/2019	MJR	1

**Project Name**  
**Project #**

**Invoice #** E35935

"J" Flag: Analyte detected between LOD and LOQ

LOD Limit of Detection

LOQ Limit of Quantitation

<i>Code</i>	<i>Comment</i>
1	Laboratory QC within limits.

All solid sample results reported on a dry weight basis unless otherwise indicated. All LOD's and LOQ's are adjusted for dilutions but not dry weight. Subcontracted results are denoted by SUB in the analyst field.

**Authorized Signature**

A handwritten signature in black ink, appearing to read "Michael P. ...", written over a horizontal line.

CHAIN OF CUSTODY RECORD

# Synergy

## Environmental Lab, Inc.

Chain # N<sup>o</sup> 3275

Page \_\_\_ of \_\_\_

Lab I.D. #	
Account No.:	Quote No.:
Project #:	
Sampler: (signature):	

1990 Prospect Ct. • Appleton, WI 54914  
920-830-2455 • FAX 920-733-0631

<p><b>Sample Handling Request</b></p> <p>Rush Analysis Date Required _____ (Rushes accepted only with prior authorization)</p> <p><input checked="" type="checkbox"/> Normal Turn Around</p>
--

Project (Name / Location):		Analysis Requested										Other Analysis					
Reports To:	Invoice To:	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 524.2)	VOC (EPA 8260)	8-PCRA METALS	pentachlorophenol	PID/ FID
Company: <i>Badger Labs</i>	Company:																
Address:	Address:																
City State Zip:	City State Zip:																
Phone:	Phone:																
FAX:	FAX:																

Lab I.D.	Sample I.D.	Collection Date	Time	Comp	Grab	Filtered Y/N	No. of Containers	Sample Type (Matrix)*	Preservation	DRO (Mod DRO Sep 95)	GRO (Mod GRO Sep 95)	LEAD	NITRATE/NITRITE	OIL & GREASE	PAH (EPA 8270)	PCB	PVOC (EPA 8021)	PVOC + NAPHTHALENE	SULFATE	TOTAL SUSPENDED SOLIDS	VOC DW (EPA 524.2)	VOC (EPA 8260)	8-PCRA METALS	pentachlorophenol	PID/ FID	
5035735A	9609	3-26			Y	N	1	WW	NP																	
B	10						1																			
C	11						3																			
D	12						1																			
E	13						1																			
F	14						1																			
G	15						1																			
H	16						1																			

Comments/Special Instructions ("Specify groundwater "GW", Drinking Water "DW", Waste Water "WW", Soil "S", Air "A", Oil, Sludge etc.)

<p>Sample Integrity - To be completed by receiving lab:</p> <p>Method of Shipment: <i>Overnight</i></p> <p>Temp. of Temp. Blank: _____ °C On Ice: <input checked="" type="checkbox"/></p> <p>Cooler seal intact upon receipt: <input checked="" type="checkbox"/> Yes _____ No</p>	Relinquished By: (sign) <i>JJA</i>	Time <i>1500</i>	Date <i>3/26/19</i>	Received By: (sign) _____	Time _____	Date _____
	Received in Laboratory By: <i>CJR</i>					
	Time: <i>11:30</i> Date: <i>3/27/19</i>					



