## Illicit Discharge Investigation, Hamilton Township - April 2019

The Rutgers Cooperative Extension Water Resources Program collected samples from nine outfall sites in Hamilton Township, Mercer County, New Jersey on April 29, 2019 (See Figure 1) that exhibited dry weather flow. These nine outfall sites were identified as being potential illicit discharges based on visual inspections conducted in July 2015 and reports in 2015 of having cloudy brown or grey water with an odor (See Attachment 1).

Samples collected on April 29, 2019 were analyzed by New Jersey Analytical Laboratories (See Attachment 2) for potassium, ammonia, and surfactants to determine if the sites were characteristic of an illicit discharge. The concentration of potassium, ammonia as N, and surfactants measured at each of the nine outfall sites, as well as the calculated ammonia to potassium ratio, can be found in Table 1.

Given the absence of surfactants, these dry weather flows are unlikely to be from sanitary wastewater sources, but they may still be illicit discharges of industrial wastewater, rinse water, backwash or cooling water (NJDEP, 2018). The ratio of ammonia as N to potassium can be used to distinguish a sanitary wastewater source from a washwater source. The ammonia as N to potassium ratio of sanitary sewage is characteristically greater than 1.0. Dry weather flows with an ammonia as N to potassium ratio less than 1.0 are likely to be a washwater source and not a sanitary wastewater source (NJDEP, 2018). The ratios in Table 1 illustrate that the dry weather flows observed are most likely from a washwater source.

Most industrial discharges can be identified by high potassium concentrations and/or high ammonia as N concentrations. The benchmark concentration for potassium to identify industrial discharges is  $\geq 20$  mg/L, and the benchmark concentration for ammonia as N to identify industrial discharges is  $\geq 50$  mg/L (Brown, Caraco, and Pitt, 2004). All potassium and ammonia as N concentrations reported in Table 1 are well below these benchmark concentrations, illustrating that the dry weather flows observed are most likely not from an industrial source.

No evidence of illicit discharges was detected from the nine outfall sites sampled in Hamilton Township, Mercer County, New Jersey on April 29, 2019.

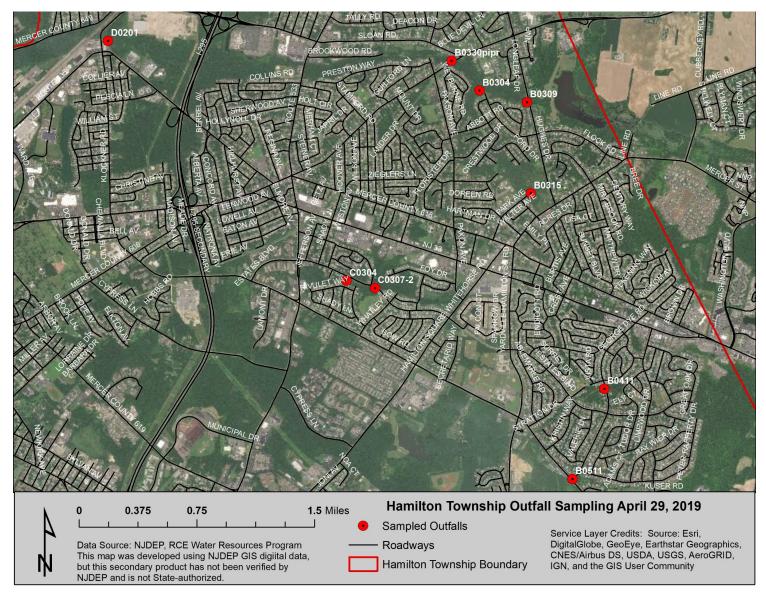


Figure 1: Hamilton Township outfall sampling sites, April 29, 2019

Table 1: Results from Hamilton Township outfall sampling, April 29, 2019

			Potassium	Ammonia as		Surfactants
Closest Address	Outfall ID #	Time	mg/L	N mg/L	NH3:K ratio	(MBAS) mg/L
86 Klockner Road	D0201	10:23AM	1.75	0.23	0.13	ND
489 Flock Road	B0330pipr	11:16AM	2.58	0.2	0.08	ND
533 Flock Road	B0304	11:57AM	2.33	0.17	0.07	ND
335 Hughes Drive	B0309	12:36PM	2.9	0.31	0.11	ND
90 Hughes Drive	B0315	1:15PM	3.72	0.51	0.14	ND
83 Whitehall Road	C0304	2:11PM	1.91	0.13	0.07	ND
833 Estates Boulevard	C0307-2	2:37PM	2.48	0.48	0.19	ND
293 George Dye Road	B0411	3:01PM	2.95	0.34	0.12	ND
Klockner & George Dye Road	B0511	3:22PM	3.37	0.17	0.05	ND

ND = non-detect

## **Resources:**

Brown, E., Caraco, D., Pitt, R. 2004. Illicit Discharge Detection and Elimination: A Guidance Manual: Chapter 12 Indicator Monitoring, pp. 134-135.

New Jersey Department of Environmental Protection (NJDEP). 2018. Tier A Municipal Stormwater Guidance Document. Chapter 3.6: MS4 Outfall Pipe Mapping and Illicit Discharge and Scour Detection Control, pp. 6-12.

Developed by the Rutgers Cooperative Extension Water Resources Program Funded by Hamilton Township, Mercer County, New Jersey

**Attachment 1: 2015 Outfall Inspections** 

ID Number: B0304

**Closest Waterway:** 

Miry Run

**Closest Address:** 

533 Flock Road

## Short Summary:

- 14" diameter concrete pipe
- Outfall structure is spalling
- Cloudy, grey water
- Sewage odor
- Floatable trash











<u>Date Assessed</u>:

7/2/15

ID Number: B0309

**Closest Waterway:** 

Miry Run

**Closest Address:** 

335 Hughes Drive

## Short Summary:

- 28" diameter concrete pipe
- Cloudy, grey water
- Sewage odor
- Sediment deposits and floatable trash
- Significant erosion has been caused by the outfall
- Erosion has undermined outfall stability











<u>Date Assessed</u>:

7/2/15

ID Number: B0315

**Closest Waterway:** 

**Un-coded Tributary** 

**Closest Address:** 

90 Hughes Drive

## Short Summary:

- 16" diameter plastic pipe
- Sewage odor
- Sediment deposits, oil deposits,
   and floatable trash
- Excessive vegetation growth













Date Assessed: 7/2/15

ID Number: B0330

**Closest Waterway:** 

Miry Run

**Closest Address:** 

489 Flock Rd

## Short Summary:

- Outfall pipe is not accessible by foot
- Reinforced concrete pipe
- Cloudy, grey water
- Sediment deposits
- Sewage odor



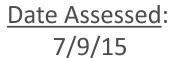












ID Number: B0411

**Closest Waterway:** 

**Pond Run** 

**Closest Address:** 

## Short Summary:

- 30" diameter concrete pipe
- Sewage odor
- Opaque, brown water
- Raw sewage and floatable trash
- Minor erosion has been caused by the outfall
- Lip has deteriorated and has exposed metal reinforcement













Date Assessed: 8/13/15

ID Number: B0511

**Closest Waterway:** 

Pond Run

Closest Address:

## Short Summary:

- Outfall is 35" tall and 50" wide
- Cloudy, brown water
- Rancid odor
- Pipe is spalling
- Fish were swimming nearby













Date Assessed: 8/13/15

ID Number: C0304

**Closest Waterway:** 

Pond Run

**Closest Address:** 

83 Whitehall Road

## Short Summary:

- 18" diameter concrete pipe
- Opaque, brown water
- Excessive oil and iron deposits
- Minor erosion has been caused by the outfall



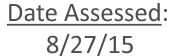












ID Number: C0307

**Closest Waterway:** 

Pond Run

**Closest Address:** 

833 Estates Boulevard

## Short Summary:

- Outfall pipe is 15" tall and 16" side (elliptical pipe)
- Reinforced concrete pipe
- Sour odor
- Cloudy, brown water
- Minor erosion has been caused by the outfall
- Pipe is corroding and separating from headwall













Date Assessed: 8/27/15

ID Number: D0201

**Closest Waterway:** 

Miry Run

**Closest Address:** 

86 Klockner Rd

## Short Summary:

- 28" diameter concrete pipe
- Sulfide odor
- Cloudy, grey water
- Sediment deposits and floatable trash
- Pipe has a large hole on upper surface
- Erosion has undermined outfall stability













<u>Date Assessed</u>: 7/9/15

	Developed by the Rutgers Cooperative Extension Water Resources Program Funded by Hamilton Township, Mercer County, New Jersey
Attachment 2: Laboratory Re	ports, New Jersey Analytical Laboratories





### CERTIFICATE OF ANALYSIS: PRELIMINARY REPORT

NJ11005-NY12046

Proj	ect Name:	Hamilton, N	J	W	orkorder: No	75792	

Sara Mellor University Procurement Servicers Rutgers 33 Knightsbridge Rd, 1st Floor, East Wing Piscataway, NJ 08854

Project Name and Number: Hamilton, NJ

May 15, 2019

Dear Sara Mellor,

This report relates only to the sample(s) as received by the laboratory. Laboratory reports may not be reproduced, except in full, without the written approval of the laboratory.

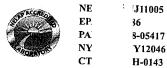
The issuance of the final Certificate of Analysis takes precedence over any previous Preliminary Report. Caution is advised for the utilization of preliminary data included in reports labeled as "Preliminary Report" and should not be used for regulatory purposes. A laboratory signature is provided on final reports only.

If you have any questions in reference to this laboratory report, please contact your NJAL project coordinator or laboratory manager listed at the bottom of this report at (609) 737-3477.

Note: This cover page is included as part of the Analytical Report and must be retained as a permanent record thereof.

PRELIMINARY REPORT

DRAFT REPORT





## **NARRATIVE**

NJAL Lab Work Rutgers Cooper r# N075792

NJAL received the sa

associated with this Chain of Custody in compliance with NJDEP guidelines.

The requested analy

hods and results are detailed in the following data summary report.

Sample collection wa

rmed by the individual indicated on the chain of custody.

Any exception to me or See Data Flags, N ocedures are listed in the comments section below,

Definitions.

Comments:

Samples collected b

omer.

MBAS (Surfactants)

zed by ALS Environmental, NJDEP Lab ID# PA010.

DRAFT REPORT

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

DRAFT REPORT, DATA S

TO CHANGE

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05/01/19

1

Lab ID:

Sample ID:

Ammonia as N

N075792-01

D0201

Matrix: Surface Water

Date Collected: 04/29/19 10:23

Date Received: 04/29/19 16:20

05/01/19 14:05

M 4500-NH3 B+D-1:

**Total Metals** <u>Analyte</u> **Results** Flag <u>Units</u> <u>MDL</u> RDL <u>Method</u> **Analyzed Prepared Dilution** EPA 200.7 1.75 mg/L 0.138 0.400 05/09/19 12:56 05/01/19 1 Potassium **General Chemistry Parameters Analyte** <u>Results</u> <u>Flag</u> <u>Units</u> MDL RDL <u>Method</u> <u>Analyzed</u> **Prepared** <u>Dilution</u>

mg/L

0.23

0.0070

0.10

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Lab ID:

Sample ID:

N075792-02

B0329-2

Matrix: Surface Water

Date Collected: 04/29/19 11:16

Date Received: 04/29/19 16:20

**Total Metals Analyte** <u>MDL</u> RDL **Results** Flag <u>Method</u> **Prepared Dilution** <u>Units</u> <u>Analyzed</u> mg/L 0.138 0.400 EPA 200.7 05/09/19 12:59 05/01/19 1 2.58 Potassium **General Chemistry Parameters** 

**Analyte** <u>Results</u> <u>Flag</u> <u>Units</u> <u>MDL</u> <u>RDL</u> <u>Method</u> **Analyzed Prepared Dilution** Ammonia as N 0.20 mg/L 0.0070 0.10 IM 4500-NH3 B+D-1: 05/01/19 14:05 05/01/19 1

DRAFT REPORT





Lab ID:

Sample ID:

N075792-03

B0304

Matrix: Surface Water

Date Collected: 04/29/19 11:57

**Date Received:** 04/29/19 16:20

Total Metals									
Analyte	Results	Flag	<u>Units</u>	MDL	RDL	<u>Method</u>	<u>Analyzed</u>	Prepared	Dilution
Potassium	2.33		mg/L	0.138	0.400	EPA 200.7	05/09/19 13:01	05/01/19	1
General Chemistry Parameters						_			
<u>Analyte</u>	<u>Results</u>	Flag	<u>Units</u>	MDL	RDL	<u>Method</u>	Analyzed	Prepared	Dilution
Ammonia as N	0.17		mg/L	0.0070	0.10	M 4500-NH3 B+D-1	05/01/19 14:05	05/01/19	1

DRAFT REPORT





Lab ID:

Sample ID:

N075792-04

B0309

Matrix: Surface Water

Date Collected: 04/29/19 12:36

Date Received: 04/29/19 16:20

Total Metals									
Analyte	<u>Results</u>	<u>Flaq</u>	<u>Units</u>	MDL	RDL	Method	<b>Analyzed</b>	Prepared	<b>Dilution</b>
Potassium	2.90		mg/L	0.138	0.400	EPA 200.7	05/09/19 13:04	05/01/19	1
General Chemistry Parameters									
<u>Analyte</u>	<u>Results</u>	Flag	<u>Units</u>	MDL -	RDL	Method	<u>Analyzed</u>	Prepared	Dilution
Ammonia as N	0.31		mg/L	0.0070	0.10	M 4500-NH3 B+D-1	05/01/19 14:05	05/01/19	1

DRAFT REPORT





Lab ID:

N075792-05

Matrix: Surface Water

**Date Collected:** 04/29/19 13:15

Sample ID: B0315

Date Received: 04/29/19 16:20

Total Metals									
Analyte	<u>Results</u>	<u>Flaq</u>	<u>Units</u>	MDL	RDL	<u>Method</u>	<u>Analyzed</u>	Prepared	<b>Dilution</b>
Potassium	3.72		mg/L	0.138	0.400	EPA 200.7	05/09/19 13:06	05/01/19	1
<b>General Chemistry Parameters</b>									
Analyte	<u>Results</u>	Flag	<u>Units</u>	MDL	<u>RDL</u>	<u>Method</u>	<u>Analyzed</u>	<u>Prepared</u>	Dilution
Ammonia as N	0.51		mg/L	0.0070	0.10	3M 4500-NH3 B+D-1:	05/01/19 14:05	05/01/19	1

DRAFT REPORT





Lab ID:

N075792-06

Matrix: Surface Water

Date Collected: 04/29/19 14:11

Sample ID:

C0304

Date Received: 04/29/19 16:20

Total Metals	171 - 31 111111111111								
<u>Analyte</u>	<u>Results</u>	<u>Flag</u>	<u>Units</u>	MDL	<u>RDL</u>	Method	<u>Analyzed</u>	Prepared	<b>Dilution</b>
Potassium	1.91		mg/L	0.138	0.400	EPA 200.7	05/09/19 13:09	05/01/19	1
General Chemistry Parameters								•	
Analyte	<u>Results</u>	<u>Flag</u>	<u>Units</u>	MDL	<u>RDL</u>	Method	<u>Analyzed</u>	Prepared	<b>Dilution</b>
Ammonia as N	0.13		mg/L	0.0070	0.10	M 4500-NH3 B+D-1:	05/01/19 14:05	05/01/19	1

DRAFT REPORT





05/01/19

1

Lab ID:

Sample ID:

Ammonia as N

N075792-07

C0307-2

Matrix: Surface Water

0.48

Date Collected: 04/29/19 14:37

05/01/19 14:05

Date Received: 04/29/19 16:20

3M 4500-NH3 B+D-1:

**Total Metals Analyte Results** <u>MDL</u> RDL **Method Dilution** <u>Flag</u> **Units Analyzed** <u>Prepared</u> mg/L 0.138 0.400 EPA 200.7 05/09/19 13:11 05/01/19 1 **Potassium** 2.48 **General Chemistry Parameters Analyte Results** <u>Flag</u> <u>Units</u> <u>MDL</u> <u>RDL</u> <u>Method</u> **Analyzed Prepared Dilution** 

0.0070

0.10

mg/L

DRAFT REPORT





Lab ID:

N075792-08

Matrix: Surface Water

Date Collected: 04/29/19 15:01

Sample ID: B0411

Date Received: 04/29/19 16:20

Total Metals									
<u>Analyte</u>	<u>Results</u>	<u>Flaq</u>	<u>Units</u>	MDL	RDL	Method	<b>Analyzed</b>	<u>Prepared</u>	<u>Dilution</u>
Potassium	2.95		mg/L	0.138	0.400	EPA 200.7	05/09/19 13:14	05/01/19	1
General Chemistry Parameters									
Analyte	<u>Results</u>	<u>Flag</u>	<u>Units</u>	MDL	RDL	Method	<u>Analyzed</u>	<u>Prepared</u>	<b>Dilution</b>
Ammonia as N	0.34		mg/L	0.0070	0.10	iM 4500-NH3 B+D-1:	05/01/19 14:05	05/01/19	1

DRAFT REPORT





Lab ID:

N075792-09

B0511

Matrix: Surface Water

Date Collected: 04/29/19 15:22

Date Received: 04/29/19 16:20

Tot	al I	Mei	tale

Sample ID:

<u>Analyte</u>	<u>Results</u>	Flag	<u>Units</u>	MDL	RDL	<u>Method</u>	<u>Analyzed</u>	<b>Prepared</b>	<b>Dilution</b>
Potassium	3.37		mg/L	0.138	0.400	EPA 200.7	05/09/19 13:22	05/01/19	1

**General Chemistry Parameters** 

<u>Analyte</u>	<u>Results</u>	Flag	<u>Units</u>	MDL	<u>RDL</u>	<u>Method</u>	<b>Analyzed</b>	<b>Prepared</b>	<b>Dilution</b>
Ammonia as N	0.17		mg/L	0.0070	0.10	M 4500-NH3 B+D-1:	05/01/19 14:05	05/01/19	1

DRAFT REPORT



Toxicity Characteristic Leachate Procedure

TCLP



380 Scotch Road Ewing, NJ 08628 609-737-3477 (p) www.njal.com

### **Notes and Definitions**

X1	Matrix Spike (MS) and Matrix Spike Duplicate (MSD) relative percent difference exceeded the acceptance criteria.
U	Compound not detected
D	Sample required dilution due to elevated concentration above calibration range or matrix interference. Reporting limit elevated.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the Reporting Detection Limit (RDL)
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
<	Less than reporting limit
≤	Less than or equal to reporting limit
>	Greater than reporting limit
≥	Greater than or equal to reporting limit
MDL	Method Detection Limit
RDL	Reporting Detection Limit
MCL/AL	Maxium Contaminant Level/Action Level
mg/kg wet	Results reported as wet weight
TTLC	Total Threshold Limit Concentration
STLC	Soluble Threshold Limit Concentration

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DRAFT REPORT





NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

May 4, 2019

Mr. Allen Thomas New Jersey Analytical Labs 380 Scotch Road Suite 1B, Bldg. 2 Trenton, NJ 08628

## **Certificate of Analysis**

Project Name:

WASTEWATER SUBMISSIONS

Workorder:

3031362

Purchase Order:

Workorder ID:

N075792

Dear Mr. Thomas:

Enclosed are the analytical results for samples received by the laboratory on Wednesday, May 1, 2019.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Allen Thomas , Mr. Allen Thomas , Mr. Allen Thomas

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Ms. Susan J Scherer Project Coordinator

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Report ID: 3031362 - 5/4/2019

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

## **SAMPLE SUMMARY**

Workorder: 3031362 N075792

	Sample ID				
Lab ID		Matrix	Date Collected	Date Received	Collected By
3031362001	N075792-01	Waste Water	4/29/2019 10:23	5/1/2019 21:21	Collected by Client
3031362002	N075792-02	Waste Water	4/29/2019 11:16	5/1/2019 21:21	Collected by Client
3031362003	N075792-03	Waste Water	4/29/2019 11:57	5/1/2019 21:21	Collected by Client
3031362004	N075792-04	Waste Water	4/29/2019 12:36	5/1/2019 21:21	Collected by Client
3031362005	N075792-05	Waste Water	4/29/2019 13:15	5/1/2019 21:21	Collected by Client
3031362006	N075792-06	Waste Water	4/29/2019 14:11	5/1/2019 21:21	Collected by Client
3031362007	N075792-07	Waste Water	4/29/2019 14:37	5/1/2019 21:21	Collected by Client
3031362008	N075792-08	Waste Water	4/29/2019 15:01	5/1/2019 21:21	Collected by Client
3031362009	N075792-09	Waste Water	4/29/2019 15:22	5/1/2019 21:21	Collected by Client

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

### **SAMPLE SUMMARY**

Workorder: 3031362 N075792

#### Notes

- -- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- -- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- -- The Chain of Custody document is included as part of this report.
- -- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- -- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- -- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- -- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- -- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.

#### Standard Acronyms/Flags

- J Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
- U Indicates that the analyte was Not Detected (ND)
- N Indicates presumptive evidence of the presence of a compound
- MDL Method Detection Limit
- PQL Practical Quantitation Limit
- RDL Reporting Detection Limit
- ND Not Detected indicates that the analyte was Not Detected at the RDL
- Cntr Analysis was performed using this container
- RegLmt Regulatory Limit
- LCS Laboratory Control Sample
- MS Matrix Spike
- MSD Matrix Spike Duplicate
- DUP Sample Duplicate
- %Rec Percent Recovery
- RPD Relative Percent Difference
- LOD DoD Limit of Detection
- LOQ DoD Limit of Quantitation
- DL DoD Detection Limit
- I Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
- (S) Surrogate Compound
- NC Not Calculated
- \* Result outside of QC limits

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

### **ANALYTICAL RESULTS**

Workorder: 3031362 N075792

Lab ID: 3031362001

N075792-01 00201 Date Collected: 4/29/2019 10:23

Matrix:

Waste Water

Date Received: 5/1/2019 21:21

**Parameters** Results Units RDL Method Flag Prepared Ву Analyzed Ву Cntr

**WET CHEMISTRY** 

Sample ID:

Surfactants (MBAS) ND 1 mg/L 0.050 SM5540C-2011 5/2/19 04:30 MBW A

Ms. Susan J Scherer **Project Coordinator** 





NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

### **ANALYTICAL RESULTS**

Workorder: 3031362 N075792

Lab ID:

**Parameters** 

3031362002

N075792-02 B 6329-2

Date Collected: 4/29/2019 11:16

Matrix:

Waste Water

Sample ID:

Date Received: 5/1/2019 21:21

Results

Flag

1

RDL

Method

Prepared

Analyzed

Ву Cntr

WET CHEMISTRY

Surfactants (MBAS)

ND

mg/L

Units

0.100 SM5540C-2011

5/2/19 04:30 MBW A

Ms. Susan J Scherer **Project Coordinator** 

Ву





NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DOD ELAP: PJLA 74618 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

### **ANALYTICAL RESULTS**

Workorder: 3031362 N075792

Lab ID: 3031362003 Date Collected: 4/29/2019 11:57 Matrix: Waste Water

Sample ID: N075792-03 80304 Date Received: 5/1/2019 21:21

Parameters Results Flag Units RDL Method Prepared By Analyzed By Cntr

WET CHEMISTRY

Surfactants (MBAS) ND 1 mg/L 0.050 SM5540C-2011 5/2/19 04:30 MBW A

Ms. Susan J Scherer Project Coordinator





RDL

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

### **ANALYTICAL RESULTS**

Workorder: 3031362 N075792

Lab ID: 3031362004

Date Collected: 4/29/2019 12:36

Prepared

Matrix:

Waste Water

80309 Sample ID: N075792-04

Date Received: 5/1/2019 21:21

Analyzed By Cntr

**WET CHEMISTRY** 

Parameters

Surfactants (MBAS)

ND

Results

mg/L

Units

Flag

1

0.050 SM5540C-2011

Method

5/2/19 04:30 MBW A

Ms. Susan J Scherer **Project Coordinator** 

Ву





RDL

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

### **ANALYTICAL RESULTS**

Workorder: 3031362 N075792

Lab ID:

**Parameters** 

3031362005

80315

Results

Date Collected: 4/29/2019 13:15

Method

Ву

Prepared

Matrix:

Waste Water

Sample ID:

N075792-05

Date Received: 5/1/2019 21:21

Analyzed Ву Cntr

**WET CHEMISTRY** 

Surfactants (MBAS)

ND

1 mg/L

Units

Flag

0.100 SM5540C-2011

5/2/19 04:30 MBW A

Ms. Susan J Scherer **Project Coordinator** 





NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DOD ELAP: PJLA 74618 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

## **ANALYTICAL RESULTS**

Workorder: 3031362 N075792

Lab ID: Sample ID: 3031362006

N075792-06 (

C0304

Date Collected: 4/29/2019 14:11

Matrix:

Waste Water

Date Received: 5/1/2019 21:21

Parameters

Results

Flag Units

RDL

Method

Prepared

By Analyzed

By Cntr

WET CHEMISTRY

Surfactants (MBAS)

ND

1 mg/L

0.050 SM5540C-2011

5/2/19 04:30 MBW A

Ms. Susan J Scherer Project Coordinator





RDL

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

## **ANALYTICAL RESULTS**

Workorder: 3031362 N075792

Lab ID: 3031362007

Date Collected: 4/29/2019 14:37

Matrix:

Waste Water

Sample ID:

**Parameters** 

N075792-07 CO307-2

Results

Date Received: 5/1/2019 21:21

Prepared

Analyzed Ву

Cntr

WET CHEMISTRY

Surfactants (MBAS)

ND

mg/L

Units

Flag

0.100 SM5540C-2011

Method

5/2/19 04:30 MBW A

Ms. Susan J Scherer **Project Coordinator** 

By





NELAP Certifications: NJ PA010, NY 11759, PA 22-293 DoD ELAP: PJLA 74618 State Certifications: FL E871113, WA C999, MD 128, VA 460157, WV DW 9961-C, WV 343

## **ANALYTICAL RESULTS**

Workorder: 3031362 N075792

Lab ID: 3031362008

Sample ID:

80411 N075792-08

Date Collected: 4/29/2019 15:01

Matrix:

Waste Water

Date Received: 5/1/2019 21:21

Parameters	Results	Flag	Units	RDL	Method Prepa	red By Analyzed B	y Cntr
WET CHEMISTRY							
Surfactants (MBAS)	ND	1	mg/L	0.050	SM5540C-2011	5/2/19 04:30 ME	BW A

Ms. Susan J Scherer **Project Coordinator** 





NELAP Certifications: NJ PA010, NY 11759, PA 22-293 DOD ELAP: PJLA 74618 State Certifications: FL E871113, WA C999, MD 128, VA 460157, WV DW 9961-C, WV 343

## **ANALYTICAL RESULTS**

Workorder: 3031362 N075792

Lab ID:

3031362009

Date Collected: 4/29/2019 15:22

RDL

Matrix:

Analyzed

Waste Water

By Cntr

Sample ID: N

**Parameters** 

N075792-09

B0511

Results

Date Received: 5/1/2019 21:21

Prepared

WET CHEMISTRY

Surfactants (MBAS)

ND

1 mg/L

Units

Flag

0.050 SM5540C-2011

Method

5/2/19 04:30 MBW A

Ms. Susan J Scherer Project Coordinator

Ву





NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DOD ELAP: PJLA 74618 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

## **ANALYTICAL RESULTS**

Workorder: 3031362 N075792

PARAMETER QU	JALIFIER	RS		
Lab ID	#	Sample ID	Analytical Method	Analyte
3031362001	1	N075792-01	SM5540C-2011	Surfactants (MBAS)
MBAS calculated	as LAS	molecular weight 342 g/mol.		,
3031362002	1	N075792-02	SM5540C-2011	Surfactants (MBAS)
MBAS calculated	as LAS	molecular weight 342 g/mol.		
3031362003	1	N075792-03	SM5540C-2011	Surfactants (MBAS)
MBAS calculated	as LAS	molecular weight 342 g/mol.		,
3031362004	1	N075792-04	SM5540C-2011	Surfactants (MBAS)
MBAS calculated	as LAS	molecular weight 342 g/mol.		
3031362005	1	N075792-05	SM5540C-2011	Surfactants (MBAS)
MBAS calculated	as LAS	molecular weight 342 g/mol.		. ,
3031362006	1	N075792-06	SM5540C-2011	Surfactants (MBAS)
MBAS calculated	as LAS	molecular weight 342 g/mol.		
3031362007	1	N075792-07	SM5540C-2011	Surfactants (MBAS)
MBAS calculated	as LAS i	molecular weight 342 g/mol.		,
3031362008	1	N075792-08	SM5540C-2011	Surfactants (MBAS)
MBAS calculated	as LAS i	molecular weight 342 g/mol.		
3031362009	1	N075792-09	SM5540C-2011	Surfactants (MBAS)
MBAS calculated	as LAS i	molecular weight 342 g/mol.		,

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

Report ID: 3031362 - 5/4/2019 Page 13 of 17





NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618 State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343

## **ANALYSIS - PREP METHOD CROSS REFERENCE TABLE**

Workorder: 3031362 N075792

Lab ID	Sample ID	Analysis Method	Prep Method
3031362001	N075792-01	SM5540C-2011	
3031362002	N075792-02	SM5540C-2011	
3031362003	N075792-03	SM5540C-2011	
3031362004	N075792-04	SM5540C-2011	
3031362005	N075792-05	SM5540C-2011	
3031362006	N075792-06	SM5540C-2011	
3031362007	N075792-07	SM5540C-2011	
3031362008	N075792-08	SM5540C-2011	
3031362009	N075792-09	SM5540C-2011	

Canada: Burlington · Calgary · Centre of Excellence · Edmonton · Fort McMurray · Fort St. John · Grande Prairie · London · Mississauga · Richmond Hill · Saskatoon · Thunder Bay Vancouver Waterloo · Winnipeg · Yellowknife United States: Cincinnati · Everett · Fort Collins · Holland · Houston · Middletown · Salt Lake City · Spring City · York Mexico: Monterrey

Report ID: 3031362 - 5/4/2019 Page 14 of 17



New Jersey Analytical Laboratories 380 Scotch Rd, Building 2 Ewing, NJ 08628 NJDEP: 11005 NYELAP: 12046 PADEP: 68-05417 CT: PH-0143

Subcontract
Chain of Custody
NJAL Lab ID NO



Sending Laboratory:

**New Jersey Analytical Laboratories** 

380 Scotch Road Ewing, NJ 08628 Phone: 609-737-3477 Fax: 609-737-3052

Project Manager: Robert Hulit

**Subcontracted Laboratory:** 

ALSI

34 Dogwood Lane Middleton, PA 17057 Phone: (717) 944-5541

Fax: (717) 944-1430

Work Order: N075792

Comments: Grato Analysis Sampled By: SMICHOTH Due **Expires** Sample ID: N075792-01 Surface Water Sampled: 04/29/2019 10:23 MBAS 5540 C 05/13/2019 05/01/2019 10:23 Containers Supplied: 500 mL Plastic Unpreserved (B) Sample IO: N075792-02 Surface Water Sampled: 04/29/2019 11:16 MBAS 5540 C 05/13/2019 05/01/2019 11:16 Containers Supplied: 500 mL Plastic Unpreserved Sample ID: N075792-03 Surface Water Sampled: 04/29/2019 11:57 MBAS 5540 C 05/01/2019 11:57 05/13/2019 Containers Supplied: 500 mt, Plastic Unpreserved Sample ID: N075792-04 Surface Water Sampled: 04/29/2019 12:36 MBAS 5540 C 05/13/2019 05/01/2019 12:36 Containers Supplied: 500 mL Plastic Unpreserved Sample ID: N075792-05 Surface Water | Sampled: 04/29/2019 13:15 MBAS 5540 C 05/13/2019 05/01/2019 13:15 Containers Supplied: 500 mL Plastic Unpreserved (8) Sample ID: N075792-06 Surface Water Sampled: 04/29/2019 14:11 05/13/2019 COMMON COURIER / LS COURIE COMMON COURIER ALS CULDIER Date Received By Corrected Temp on Ropt Page 1 of 2 Page 1 of 2

THUM



New Jersey Analytical Laboratories 380 Scotch Rd, Building 2 Ewing, NJ 08628 NJDEP: 11005 NYELAP: 12046 PADEP: 68-05417 CT: PH-0143

Subcontract
Chain of Custody
NJAL Lab IDNO36392

Work Order: N075792 (Continued)

Analysis		Dug	Expires	Sampled By: SMI Client	Comments: Grob
Containers Supplied: 500 mL Mastic Unpreserved (B)					
Sample ID: N075792-07	Surface Water	Sampled: 04/29	/2019 14:37		
MBAS 5540 C		05/13/2019	05/01/2019 14:37		The state of the s
Containers Supplied: 500 mL Plastic Unpreserved (B)					
Sample ID: N075792-08	Surface Water	Sampled: 04/29,	/2019 15:01	and a deal definition of the second s	
MBAS 5540 C		05/13/2019	05/01/2019 15:01		
Containers Supplied: 500 mL Plastic Unpreserved (8)					
Sample ID: N075792-09	Surface Water	Sampled: 04/29/	/2019 15:22		The state of the s
MBAS 5540 C		05/13/2019	05/01/2019 15:22		And the second s
Containers Supplied: 500 mt. Plastic Unpreserved (8)					

Released By COMMON COURIER /ALS COURIER

Corrected Temp on Rept\_

Corrected Temp on

Page 2 of 2

0.12 Thus

Page 2 of 2



301 Fulling Mill Road Middletown, PA 17057 P: (717) 944-5541

P: (717) 944-5541 F: (717) 944-1430

# **Condition of Sample Receipt Form**

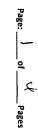
Client:	MJAL	Work Order #:	3031362	Initials:	Date:	/2	
	ושתנ	•	300100L	- N	7		
1. Were air	bills / tracking numbe	rs present and recorded?		************************************	NONE	YES	NO
		Tracking numb	er:				
2. Are Cust	ody Seals on shipping	containers intact?		4 41612841842494940747777777484744483777788474188	NONE	(YES)	NO
3. Are Cust	ody Seals on sample o	containers intact?	41.541.6478619417997917941797779188759157777	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	NONE	YES	NO
4. Is there	a COC (Chain-of-Custo	dy) present?	, , ,	(36%3626634613661651613666666666666666666666666	*************	(ES-	NO.
5. Are the	COC and bottle labels	complete, legible and in ag	reement?		-	XES	NO
5a. Doe	s the COC contain sar	nple locations?	*******************************	=, === : = , = , = , = , = , = , = , = ,		YES	NO
5b. Doe	s the COC contain dat	e and time of sample collec	tion for all samples?	<b>18+82+,14,17168989427984777777777777777777777777777777</b>		XES.	NO
Sc. Doe	s the COC contain san	nple collectors name?	******************************			Œ	NO ·
5d. Doe	s the COC note the ty	pe(s) of preservation for all	bottles?	*	******************************	YES"	NO
5e. Doe	s the COC note the nu	mber of bottles submitted	for each sample?	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	************	(ES	NO
Sf. Doe:	the COC note the typ	e of sample, composite or	grab?			€£\$	NO
5g. Doe	s the COC note the m	atrix of the sample(s)?		************************************		OES!	NO
6. Are all a	queous samples requi	ring preservation preserved	correctly?		N/A	₹ĒS	.NO
7. Were all	samples placed in the	proper containers for the r	equested analyses, with s	ufficient volume?	*************	(ES	NO
8. Are all s	amples within holding	times for the requested an	alyses?	4 h 4 h 11 d 4 h 4 d 4 h 4 d 4 h 4 h 4 h 4 h 4 h 4	***************************************	(YES	NO
9. Were all	sample containers rec	eived intact and headspace	free when required? (not	broken, leaking, frozen, et	c.)	YES'	NO
10. Did we	receive trip blanks ( a	pplies only for methods EPA	A 504, EPA 524.2 and 163	1E (LL Hg)?		YES	NO
11. Were ti	ne samples received o	n Ice?	£\$#\$\$#\$\$#\$############################	******************************		Œ	NO.
12. Were s	ample temperatures m	neasured at 0.0-6.0°C	*************************	uuni voi sau ovaava atkiini vat ota kviidtavk) di	***********	ŒŠ	NO
1		If YES, fill out Reportable D				YES	(O)
13a. Ar	e the samples required	for SDWA compliance repo	ort ng?		N/A	YES	NO
136. Di	d the client provide a :	SDWA PWS ID#?	************************************		/ N/A	YES	NO
13c. Ar	e all aqueous unpresei	ved SDWA samples pH 5-9?	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	*	N/A	YES	NO.
13d. Di	d the client provide th	e SOWA sample location ID/	Description?		N/A	YES	NO
13e. Di	f the client provide th	e SDWA sample type (D, E, F	t, C, P, S)?		NACO	YES	NÓ
	Cooler#:						
	Temperature (°C):	01		and an annual annual and an annual an	440000000000000000000000000000000000000		^
	Thermometer ID:	40					

COMMENTS (Required for all NO responses above and any sample non-conformance):

Rev. 1/10/2019

RAFT REPORT	The results in this report app custody document. This ana	oly to the samples analyzed in accordance lytical report must be reproduced in its ent	with the chain of irety.

# New Jersey Analytical Laboratories

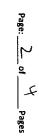


# Lab Job# W075792-09

LABORATORY SERVICES
380 Scotch Rd. Building 2 Suite 1B Ewing, NJ 08628 Phone: 609-737-3477 Fax:609-737-3052 www.NJAL.com or www.InternationalHydronics.com

The state of the s		,			
CLIENT/Company: University Procurement Servicers Rutgers University	Iniversity	PRESERVATIVE	COMMENTS	Collected By :	
CONTACT NAME: Sarakarhadan MC 1 67 Phone: Cell: 732-232-1629	232-1629		С	Signature:	
client Report & Bill to Address: University Procurement Services Rutgers, The State University of New	niversity of New		e, 4'	Organization:	<u>-</u>
Jersey, 33 Knightsbridge Road, 1st Floor, East Wing, Piscataway, New Jersey 08854 Report To Email: Saralkphæiarrsep138@scarletmail.rutgers.edu	vay, New Jersey 08854 seter Co Privisco, ruiter is 18 du	I 4'C	nioSulfat		
Hamilton NJ		I	um Th		· <del>-</del>
Proj. Address: NJAL Quote # 18817		NaOH	Sodiu		cation
U Date Time Sample Identification	Grab Comp. Matrix # Bottles	H2SO4 HNO3 Caustic HCL Un-Pre	Other Sterile -		pH Verifi
			*****	ANALYSIS REQUESTED ~~~~~	
4/29/19 10:23 DOZOI	x SW 1	×	Ammonia	(1 x 250 mL, Plastic, H250g)	
	x SW 1	×	Surfactants (MBAS)	(1x 500 mL/Gless, UnPrev)	
4	x SW 1	×	Potassium (200.7)	( 1 x 250 mL, Plastic, HNO3)	
11,16 60373-5	x SW 1	×	Ammonia	(1 x 250 mL, Plastic, H2SO4)	
	x SW 1	×	Surfactants (MBAS)		
	x SW 1	×	Potassium (200.7)	) (1 × 250 ml.; Plastic, HNO3)	
11:57 \$ 03	× 5W 1	×	Ammonia	( 1 x 250 mL, Plastic, H2SO4)	
	x SW 1	×	Surfactants (MBAS)	・ アルミから(な) (1×500 mL/Glass, UnPrev)	
4	x SW 1	×	Potassium (200.7)	) ( 1 x 250 mL, Plastic, HNO3)	
4					
Turn Around Time: Results Due By: Date:	Matrix: DW = Drinking Water,	rinking Water, WW =Wastewater,	SL = Sludge,	S=Soil, SW=Surface H2O, GW = Ground H2O, WST=Waste	
Relinquished by:    Date   Time   Received By:	Relinquished by:	hed by:	Date Time	Received By:	
Relinquished by: Date Time Received By:	Relinquished by:	hed by:	1/29/19 Time	Received for Laboratory by: 4)	
Lab Use: Samples Collected by Customer: [X.] Samples Collected by NIAL Field Services [	Samples D Samples D	Samples Delivered to Lab by Customer [X] Samples Delivered to Lab by NJAL Field Services:	[X ] Services: [ ])	Initials: 116 N Cooler Temp = 0.8 'C	ń





Lab Job#

N075792-09

LABORATORY SERVICES
380 Scotch Rd. Building 2 Suite 1B Ewing, NJ 08628 Phone: 609-737-3477 Fax:609-737-3052 www.NJAl.com or www.InternationalHydronics.com

									+	l	١		1	ļ					
CLIENT/Company:		iversity	Procuremer	ıt Ser	University Procurement Servicers Rutgers University	rsity			****			PRE	PRESERVATIVE	ATIV	m		COMMENTS		Collected By:
CONTACT NAME:	Į.	Sarah Phelan			Phone: Cell: 732-232-1629	529				-	$\dashv$		$\dashv$	$\dashv$	_	$\subseteq$		•	Signature:
Client Report & Bill to Address:		Jniversity P	rocurement Se	rvices	University Procurement Services Rutgers, The State University of New	ity of I	Vew									e, 4'			Organization:
Jersey, 33 Kni Report To Email:	nightsbri : Sarah	dge Road, 1 Phelan se	htsbridge Road, 1st Floor, East Wing, Piscataway, Sarah Phelan sep138@scarletmail.rutgers.edu	Ving, P mail.ru	Jersey, 33 Knightsbridge Road, 1st Floor, East Wing, Piscataway, New Jersey 08854 Report To Email: Sarah Phelan sep138@scarletmail.rutgers.edu	854								1 4 °C		ioSulfat			Turn-Around Time:
Project Name:	Hamilton NJ	וא מ									- Ciu			Coo		m Th			
Proj. Address:						l				A		UH		/ed,		diu			ìon
NJAL Quote # 18817	18817											: Na		serv		- So			ficati
ab Use	Date	Time	Sar	nple Id	Sample Identification	Grab .	Comp.	Matrix	# Bottles	H25O4 HNO3		Caustic	HCL	Un-Pre	Other	Sterile			pH Verif
																	5	~~~~ Al	ANALYSIS REQUESTED ~~~~~
/Y:	29	21.16	E 61	\$30	9	×	S	WS	μ.	×							Ammonia		( 1 x 250 mL, Plastic, H2SQ4)
~						×	S	WS	js					×			Surfactants (MBAS)	(MBAS)	(1×500 ml, Ghass, UnPrev)
		4		4		×	S	SW	1		×			_			Potassium (200.7)	า (200.7)	( 1 x 250 mL, Plastic, HNO3)
		5/1	£0 %	ارد م/		× ·	S	¥.	<u> </u>	<u>×</u>		<u>.::-</u>		<u> </u>	i ,:	• •	Ammonia	-	( 1 x 250 mL, Plastic, H2SO4)
				4		×	S	WS	Н					×		1	Surfactants (MBAS)	s (MBAS)	(1x 500 mL/Glass, UnPrev)
		•		<del>&lt;</del>		×	S	WS	H		×	. : :					Potassium (200.7)	n (200.7)	(1 x 250 mL, Plastic, HNO3)
		1111	07	20	Ŧ	×	S	WS	-	×							Ammonia	_	( 1 x 250 mL, Plastic, H2SO4)
				-		×	S	WS	1					×			Surfactants (MBAS)	s (MBAS)	子のかって(ユウ (1×500 ml,Glass, UnPrey)
	,	1				×	S	WS	1		×				<u> </u>		Potassium (200.7)	n (200.7)	( 1 x 250 mL, Plastic, HNO3)
E				J									ļ	<u> </u>	<u> </u>				
Turn	Turn Around Time :		Results Due By: Date:	te:		-	Matrix: DW = Drinking Water,	₩ W	Drin	king	Vate		WW =Wastewater,	Vaste	wate	r, S	SL = Sludge, S:	-Sail, SW=Su	S=Soil, SW=Surface H2O, GW = Ground H2O, WST=Waste
Reling	Relinquished by	M.	Date Hostin	Time 190	Received By:		20	Relinquished by:	ilshei	d by:						Date		Time	Received By:
Relinc	Relinquished by:	••	Date	Time	Received By:		20	Relinquished by:	ishe	d by				:		€ Par	21/26	16,79	Received for Laboratory by:
asn qer	e.		Samples Coll Samples Coll	ected by ected by	Samples Collected by Customer: [X] Samples Collected by NIAL Field Services [ ]		5 Sa	Samples Delivered to Lab by Customer 【 X 】 Samples Delivered to Lab by NJAL Field Services:	s Della	vered vered	8 8	8 8	N Cus	omer	Sen	[ x ]			Lob Use Tools Y / N. Golet Temp = C
[						ŀ	ŀ	ŀ			-								





tab Job#

N075792-09

LABORATORY SERVICES
380 Scotch Rd. Building 2 Suite 1B Ewing, NJ 08628 Phone: 609-737-3477 Fax:609-737-3052 www.NJAL.com or www.InternationalHydronics.com

:		•			Collected By :	
LIENT/Company: University Pro	University Procurement Servicers Rutgers University	ersity	PRESERVATIVE	COMMENTS	Name:	
ONTACT NAME: Sarah Phelan	Phone: Cell: 732-232-1629	629		С	Signature:	
- 1	University Procurement Services Rutgers, The State University of New	sity of New		:e, 4 <sup>t</sup>	Organization:	
ersey, 33 Knightsbridge Road, 1st teport To Email: Sarah Phelan sep1	33 Knightsbridge Road, 1st Floor, East Wing, Piscataway, New Jersey 08854 Email: Sarah Phelan sep138@scarletmail.rutgers.edu	854	I 4'C	ioSulfat	Turn-Around Time:	
roject Name: Hamilton NJ			)H	lium Th		on 
VIAL Quote # 18817		,	Nitrio NaC	- Sod	3.004	icatio
ab Use Time	Sample Identification	Grab Comp. Matrix # Bottles	H2SO4 HNO3 Caustic HCL Un-Pre Other	Sterile -		pH Verif
					ANALYSIS REQUESTED ~~~~~	
4/27 2:32	(6307-2	x SW 1	×	Ammonia	( 1 x 250 mL, Plastic, H2S <u>O4</u> )	
		x SW 1	×	Surfactants (MBAS)	(1 x 500 mL, Glass, UnPrev)	
6	ψ	x SW 1	×	Potassium (200.7)	( 1 × 250 mL, Plastic, HNO3)	
301	80411	x SW 1	× .	Ammonia	( 1 x 250 mt, Plastic, H2SO4)	
		x SW 1	×	Surfactants (MBAS)		
		× SW 1	×	Potassium (200.7)	(1 x	
3.72	115 94	x SW 1	×	Ammonia	( 1 x 250 mL, Plastic, H2SO4)	
		x SW 1	×	Surfactants (MBAS)	(1×500 mL,Glass, Unitrev)	
4		x SW 1	×	Potassium (200.7)	) (1 x 250 mL, Plastic, HNO3)	
<u> </u>						
Turn Around Time: Results Due By: Date:	Due By: Date:	Matrix: DW = Drinking Water,	rinking Water, WW =Wastewater, St = Slu	ter, St = Sludge, S=Soil, SW=	dge, S=Soil, SW=Surface H2O, GW = Ground H2O, WST=Waste	
Relinquished by:	Date Time Received By:	Relinquished by:	hed by:	Date Time	Received By:	
Relinquished by:	Date Time Received By:	Relinquished by:	hed by:	Date 11/26/14	Received for Lapouron by:	
Lib Use:	Samples Collected by Customer: [X.] Samples Collected by NIAL Field Services	Samples D Samples O	Samples Delivered to Lab by Customer [ X ] Samples Delivered to Lab by NJAL Field Services:	[X ] ervices: [	Initials: Cooler Temp Control of Cooler Temp Cooler Te	

Z	New Jersey Analytical Laborator
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Lab Job#

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LABORATORY SERVICES
380 Scotch Rd. Building 2 Suite 1B Ewing, NJ 08628 Phone: 609-737-3477 Fax:609-737-3052 www.NJAL.com or www.InternationalHydronics.com

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F	Re	Re	Tu	. "											NJAL Quote #	Name	t To En		CONTACT NAME:	r/Com
Lab Use:	Relinquished by:	Relinquished	Turn Around Time: Results Due By: Date:											Date	##		o Email: Sarah Dheigh sep138@startetfiall.rutgers.pdu.	to Addre	NAM	pany:
	shed b	thed	ound				7,77								18817	Hamilton NJ	Sara	ŀ	S	⊆
	Υ.	1/2	Time											Time		š	h Diagram	University Procurement Services Rutgers, The State University of New	Sarate Blacker Mellor	University Procurement Servicers Rutgers University
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Samples Collected by Customer: 【X一】 Samples Collected by NJAL Field Services	Time	Time 4720	ite:						Ø	D	þ	す		Sample Identification				Nice SALE	٩	nt Se
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tomer: L Field	Received By:	Received 8y:							12	Ø,	D.	0		ificat				gers,	Phone: Cell: 732-232-1629	ers
(X Service	d By:	d 8y:							٥	h	$\Gamma$	4		ion				i he	<u>€</u>	Rute
				-						位:	6						JASC	tate	: 732	gers
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CALCA CALCA								1		×	×	×		Grab		6	107	Austr	1629	/ers
			Ma							-				Comp.			10	, ot		₹
Sam	Reli	Reli	Matrix: DW = Drinking Water, WW = Wastewater, SL =				1 .	. A		WS	WS	WS		Matrix			S. C.	ž		
Samples Delivered to Lab by Customer [X]	Relinquished by:	Relinquished by:	V = Dr						1	ш	<b></b>	1-3		# Bottles			2			
livered	ed by	ed by	inking									×		H2SO4	_					
8 B		"	Water,					1.5	-	×				HNO3 Caustic						
₹.δ \$.\$			¥.					<u> </u>			_			HCL		•				PRESE
Stome AL Fle			=Wast						1.		×			Un-Pre	serve	d, Co	ol 4'C			PRESERVATIVE
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ervices:	e/h	Date	ζ, SL:		-				-	P	Sur	A		Sterile	- Sodi	um T	hioSulfa	ite,	4'C	-
	12									otas	urfact	Ammonia								co
47.73	2		e, S=							sium	tants	onia	5							COMMENTS
16. 17 18. 17	Time (分)	Time	Soil, S							Potassium (200.7)	rfactants (MBAS)		2 2 2 2 2							3
			Sludge, S=Soil, SW=Surface H2O, GW = Ground H2O, WST=Waste							7)	(S)		1 1	i				н	ŌÑ	2.0
Lab Use liced. Y / N Coolet Temp= Inittals: @ NIAL	Refeired for Laboratory b	Received By:	face H										ANALYSIS REQUESTED ~~~~~				Turn-Around Time:	13	Signature: Organization:	Collected By : Name:
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17	and for Labor	"	W = G										SE				nd T			By:
Z	\$ 100 mg		round							(1×2		(1x	E STE				me:	ii Ii		
Cooler Temp	2		H20,	-						50 mL,	× 500	250 m	5 5							
AL P	12)		WST=				.:	:		Plastic	具。	L, Plasi	5 5							
	7 >		<b>Vaste</b>	-						1 x 250 ml, Plastic, HNO3)	(1x 500 mL, Glass, UnPrev)	(1 x 250 ml, Plastic, H2SO4)								
										=	Prev)	足						11		
C					İ									pH Verif	icatio	n				
1,300	<u> </u>		<u></u>			L	<u></u>	<u> </u>	<u></u>			1	L	l						