

Appendix 5

2018 MS4 Stormwater Annual Report

Water Testing Data

Part 4



Tuesday, November 20, 2018

Attn: Mr. Luke Whitehouse
ATC Associates
290 Roberts St., Suite 301
East Hartford, CT 06108

Project ID: 204118 NEW HAVEN STORMWATER
Sample ID#s: CB96275 - CB96285

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,


Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2018

FOR: Attn: Mr. Luke Whitehouse
 ATC Associates
 290 Roberts St., Suite 301
 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER
 Location Code: ATC-EHDAS
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by: AP
 Received by: LB
 Analyzed by: see "By" below

Date: 11/13/18
 Time: 2:30
 11/13/18
 8:00

Laboratory Data

SDG ID: GCB96275
 Phoenix ID: CB96275

Project ID: 204118 NEW HAVEN STORMWATER
 Client ID: 07

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Boron	0.05	0.05	mg/L	1	11/14/18	CPP	SW6010C
Hardness (CaCO3)	101	0.1	mg/L	1	11/15/18		E209.7
Escherichia Coli	>24200	10	MPN/100 mls	10	11/13/18 09:25	KDB/KDB	SM9223B-04
Enterococci Bacteria	>24200	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	Enterolert
Fecal Coliforms MPN	>24200	10	MPN/100 mls	1	11/13/18 10:00	RM/KDB	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	11/13/18 18:59	O	SM4500CI-G-00
C.O.D.	152	10	mg/L	1	11/15/18	MSF	SM5220D-11
Conductivity	505	5.00	umhos/cm	1	11/14/18	RR/EG	SM2510B-11
MBAS	0.86	0.05	mg/L	1	11/13/18 22:26	S	SM5540 C-11
Ammonia as Nitrogen	5.14	0.05	mg/L	1	11/17/18	KDB	E350.1
Nitrite-N	0.070	0.010	mg/L	1	11/13/18 18:15	TB	E353.2
Nitrate-N	1.02	0.02	mg/L	1	11/13/18 18:15	TB	E353.2
Oil and Grease by EPA 1664	6.7	1.4	mg/L	1	11/13/18	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	11/15/18	RWR	SM2520B-10
Nitrogen Tot Kjeldahl	13.6	0.20	mg/L	2	11/17/18	KDB	E351.1
Phosphorus, as P	1.34	0.050	mg/L	5	11/13/18	MI	SM4500PE-11
Total Suspended Solids	82	7.7	mg/L	1.5	11/14/18	MM/EG	SM2540D-11
Total Metals Digestion	Completed				11/13/18	AG	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

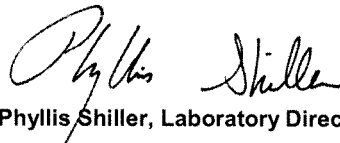
Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If there are any questions regarding this data, please call Phoenix Client Services.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

November 20, 2018

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 November 20, 2018

FOR: Attn: Mr. Luke Whitehouse
 ATC Associates
 290 Roberts St., Suite 301
 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER
 Location Code: ATC-EHDAS
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by: AP
 Received by: LB
 Analyzed by: see "By" below

Date Time
 11/13/18 2:55
 11/13/18 8:00

Laboratory Data

SDG ID: GCB96275
 Phoenix ID: CB96276

Project ID: 204118 NEW HAVEN STORMWATER
 Client ID: 011

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Boron	< 0.05	0.05	mg/L	1	11/14/18	CPP	SW6010C
Hardness (CaCO3)	43.2	0.1	mg/L	1	11/15/18		E200 7
Escherichia Coli	609	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SM9223B-04
Enterococci Bacteria	602	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	Enterolert
Fecal Coliforms MPN	383	10	MPN/100 mls	1	11/13/18 10:00	RM/KDB	Colilert-18
Total Coliforms	17300	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	11/13/18 19:01	O	SM4500CI-G-00
C.O.D.	19	10	mg/L	1	11/15/18	MSF	SM5220D-11
Conductivity	186	5.00	umhos/cm	1	11/14/18	RR/EG	SM2510B-11
MBAS	0.09	0.05	mg/L	1	11/13/18 22:28	S	SM5540 C-11
Ammonia as Nitrogen	0.17	0.05	mg/L	1	11/17/18	KDB	E350.1
Nitrite-N	< 0.010	0.010	mg/L	1	11/13/18 18:18	TB	E353.2
Nitrate-N	0.49	0.02	mg/L	1	11/13/18 18:18	TB	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	11/13/18	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	11/15/18	RWR	SM2520B-10
Nitrogen Tot Kjeldahl	0.48	0.10	mg/L	1	11/17/18	KDB	E351.1
Phosphorus, as P	0.076	0.010	mg/L	1	11/13/18	MI	SM4500PE-11
Total Suspended Solids	7.0	5.0	mg/L	1	11/14/18	MM/EG	SM2540D-11
Total Metals Digestion	Completed				11/13/18	AG	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

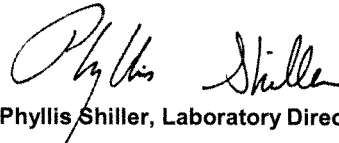
Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If there are any questions regarding this data, please call Phoenix Client Services.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

November 20, 2018

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2018

FOR: Attn: Mr. Luke Whitehouse
 ATC Associates
 290 Roberts St., Suite 301
 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER
 Location Code: ATC-EHDAS
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by: AP
 Received by: LB
 Analyzed by: see "By" below

Date

11/13/18
 11/13/18

Time

3:05
 8:00

Laboratory Data

SDG ID: GCB96275
 Phoenix ID: CB96277

Project ID: 204118 NEW HAVEN STORMWATER
 Client ID: CB159

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Boron	< 0.05	0.05	mg/L	1	11/14/18	CPP	SW6010C
Hardness (CaCO ₃)	17.5	0.1	mg/L	1	11/15/18		E200.7
Escherichia Coli	243	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SM9223B-04
Enterococci Bacteria	862	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	Enterolert
Fecal Coliforms MPN	134	10	MPN/100 mls	1	11/13/18 10:00	RM/KDB	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SW9223B-06
Chlorine Residual	0.03	0.02	mg/L	1	11/13/18 19:02	O	SM4500Cl-G-00
C.O.D.	139	10	mg/L	1	11/15/18	MSF	SM5220D-11
Conductivity	37	5.00	umhos/cm	1	11/14/18	RR/EG	SM2510B-11
MBAS	0.07	0.05	mg/L	1	11/13/18 22:29	S	SM5540 C-11
Ammonia as Nitrogen	< 0.10	0.10	mg/L	2	11/17/18	KDB	E350.1
Nitrite-N	< 0.010	0.010	mg/L	1	11/13/18 18:23	TB	E353.2
Nitrate-N	< 0.02	0.02	mg/L	1	11/13/18 18:23	TB	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	11/13/18	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	11/15/18	RWR	SM2520B-10
Nitrogen Tot Kjeldahl	0.79	0.20	mg/L	2	11/17/18	KDB	E351.1
Phosphorus, as P	0.452	0.010	mg/L	1	11/13/18	MI	SM4500PE-11
Total Suspended Solids	17	5.7	mg/L	1.1	11/14/18	MM/EG	SM2540D-11
Total Metals Digestion	Completed				11/13/18	AG	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

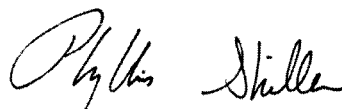
Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If there are any questions regarding this data, please call Phoenix Client Services.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

November 20, 2018

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 November 20, 2018

FOR: Attn: Mr. Luke Whitehouse
 ATC Associates
 290 Roberts St., Suite 301
 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER
 Location Code: ATC-EHDAS
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by: AP
 Received by: LB
 Analyzed by: see "By" below

Date

11/13/18
 11/13/18

Time

3:30
 8:00

Laboratory Data

SDG ID: GCB96275
 Phoenix ID: CB96278

Project ID: 204118 NEW HAVEN STORMWATER
 Client ID: CB166A

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Boron	< 0.05	0.05	mg/L	1	11/14/18	CPP	SW6010C
Hardness (CaCO3)	14.2	0.1	mg/L	1	11/15/18		E200.7
Escherichia Coli	146	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SM9223B-04
Enterococci Bacteria	24200	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	Enterolert
Fecal Coliforms MPN	388	10	MPN/100 mls	1	11/13/18 10:00	RM/KDB	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	11/13/18 19:02	O	SM4500CI-G-00
C.O.D.	294	10	mg/L	1	11/15/18	MSF	SM5220D-11
Conductivity	84	5.00	umhos/cm	1	11/14/18	RR/EG	SM2510B-11
MBAS	0.06	0.05	mg/L	1	11/13/18 22:30	S	SM5540 C-11
Ammonia as Nitrogen	0.31	0.10	mg/L	2	11/17/18	KDB	E350.1
Nitrite-N	< 0.010	0.010	mg/L	1	11/13/18 18:24	TB	E353.2
Nitrate-N	< 0.02	0.02	mg/L	1	11/13/18 18:24	TB	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	11/13/18	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	11/15/18	RWR	SM2520B-10
Nitrogen Tot Kjeldahl	3.11	0.20	mg/L	2	11/17/18	KDB	E351.1
Phosphorus, as P	1.21	0.050	mg/L	5	11/13/18	MI	SM4500PE-11
Total Suspended Solids	39	11	mg/L	2.3	11/14/18	MM/EG	SM2540D-11
Total Metals Digestion	Completed				11/13/18	AG	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If there are any questions regarding this data, please call Phoenix Client Services.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

November 20, 2018

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2018

FOR: Attn: Mr. Luke Whitehouse
 ATC Associates
 290 Roberts St., Suite 301
 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER
 Location Code: ATC-EHDAS
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by: AP
 Received by: LB
 Analyzed by: see "By" below

Date

11/13/18
 11/13/18

Time

3:40
 8:00

Laboratory Data

SDG ID: GCB96275
 Phoenix ID: CB96279

Project ID: 204118 NEW HAVEN STORMWATER
 Client ID: CB172

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Boron	< 0.05	0.05	mg/L	1	11/14/18	CPP	SW6010C
Hardness (CaCO3)	13.2	0.1	mg/L	1	11/15/18		E200.7
Escherichia Coli	439	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SM9223B-04
Enterococci Bacteria	650	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	Enterolert
Fecal Coliforms MPN	148	10	MPN/100 mls	1	11/13/18 10:00	RM/KDB	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	11/13/18 19:03	O	SM4500Cl-G-00
C.O.D.	127	10	mg/L	1	11/15/18	MSF	SM5220D-11
Conductivity	34	5.00	umhos/cm	1	11/14/18	RR/EG	SM2510B-11
MBAS	< 0.05	0.05	mg/L	1	11/13/18 22:31	S	SM5540 C-11
Ammonia as Nitrogen	< 0.10	0.10	mg/L	2	11/17/18	KDB	E350.1
Nitrite-N	< 0.010	0.010	mg/L	1	11/13/18 18:25	TB	E353.2
Nitrate-N	< 0.02	0.02	mg/L	1	11/13/18 18:25	TB	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	11/13/18	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	11/15/18	RWR	SM2520B-10
Nitrogen Tot Kjeldahl	0.72	0.20	mg/L	2	11/17/18	KDB	E351.1
Phosphorus, as P	0.492	0.010	mg/L	1	11/13/18	MI	SM4500PE-11
Total Suspended Solids	66	10	mg/L	2	11/14/18	MM/EG	SM2540D-11
Total Metals Digestion	Completed				11/13/18	AG	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

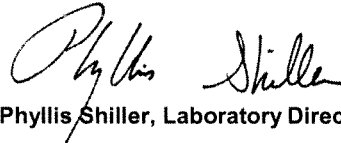
Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If there are any questions regarding this data, please call Phoenix Client Services.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

November 20, 2018

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 November 20, 2018

FOR: Attn: Mr. Luke Whitehouse
 ATC Associates
 290 Roberts St., Suite 301
 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER
 Location Code: ATC-EHDAS
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by: AP
 Received by: LB
 Analyzed by: see "By" below

Date

11/13/18
 11/13/18

Time

3:55
 8:00

Laboratory Data

SDG ID: GCB96275
 Phoenix ID: CB96280

Project ID: 204118 NEW HAVEN STORMWATER
 Client ID: CB214

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Boron	< 0.05	0.05	mg/L	1	11/15/18	EK	SW6010C
Hardness (CaCO3)	12.7	0.1	mg/L	1	11/15/18		E200.7
Escherichia Coli	161	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SM9223B-04
Enterococci Bacteria	>24200	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	Enterolert
Fecal Coliforms MPN	231	10	MPN/100 mls	1	11/13/18 10:00	RM/KDB	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SW9223B-06
Chlorine Residual	0.03	0.02	mg/L	1	11/13/18 19:04	O	SM4500Cl-G-00
C.O.D.	199	10	mg/L	1	11/15/18	MSF	SM5220D-11
Conductivity	61	5.00	umhos/cm	1	11/14/18	RR/EG	SM2510B-11
MBAS	0.09	0.05	mg/L	1	11/13/18 22:32	S	SM5540 C-11
Ammonia as Nitrogen	0.21	0.10	mg/L	2	11/17/18	KDB	E350.1
Nitrite-N	< 0.010	0.010	mg/L	1	11/13/18 18:26	TB	E353.2
Nitrate-N	< 0.02	0.02	mg/L	1	11/13/18 18:26	TB	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	11/13/18	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	11/15/18	RWR	SM2520B-10
Nitrogen Tot Kjeldahl	1.99	0.20	mg/L	2	11/17/18	KDB	E351.1
Phosphorus, as P	1.91	0.050	mg/L	5	11/13/18	MI	SM4500PE-11
Total Suspended Solids	68	15	mg/L	2.9	11/14/18	MM/EG	SM2540D-11
Total Metals Digestion	Completed				11/13/18	AG	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If there are any questions regarding this data, please call Phoenix Client Services.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

November 20, 2018

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2018

FOR: Attn: Mr. Luke Whitehouse
 ATC Associates
 290 Roberts St., Suite 301
 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER
 Location Code: ATC-EHDAS
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by: AP
 Received by: LB
 Analyzed by: see "By" below

Date

11/13/18
 11/13/18

Time

4:20
 8:00

Laboratory Data

SDG ID: GCB96275
 Phoenix ID: CB96281

Project ID: 204118 NEW HAVEN STORMWATER
 Client ID: CB689

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Boron	< 0.05	0.05	mg/L	1	11/14/18	CPP	SW6010C
Hardness (CaCO3)	1.3	0.1	mg/L	1	11/15/18		E200.7
Escherichia Coli	41	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SM9223B-04
Enterococci Bacteria	201	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	Enterolert
Fecal Coliforms MPN	31	10	MPN/100 mls	1	11/13/18 10:00	RM/KDB	Colilert-18
Total Coliforms	17300	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SW9223B-06
Chlorine Residual	0.03	0.02	mg/L	1	11/13/18 19:05	O	SM4500CI-G-00
C.O.D.	< 10	10	mg/L	1	11/15/18	MSF	SM5220D-11
Conductivity	11	5.00	umhos/cm	1	11/14/18	RR/EG	SM2510B-11
MBAS	< 0.05	0.05	mg/L	1	11/13/18 22:35	S	SM5540 C-11
Ammonia as Nitrogen	< 0.05	0.05	mg/L	1	11/17/18	KDB	E350.1
Nitrite-N	< 0.010	0.010	mg/L	1	11/13/18 18:27	TB	E353.2
Nitrate-N	0.05	0.02	mg/L	1	11/13/18 18:27	TB	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	11/13/18	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	11/15/18	RWR	SM2520B-10
Nitrogen Tot Kjeldahl	0.13	0.10	mg/L	1	11/17/18	KDB	E351.1
Phosphorus, as P	0.115	0.010	mg/L	1	11/13/18	MI	SM4500PE-11
Total Suspended Solids	25	5.0	mg/L	1	11/14/18	MM/EG	SM2540D-11
Total Metals Digestion	Completed				11/13/18	AG	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level


Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If there are any questions regarding this data, please call Phoenix Client Services.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

November 20, 2018

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 November 20, 2018

FOR: Attn: Mr. Luke Whitehouse
 ATC Associates
 290 Roberts St., Suite 301
 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER
 Location Code: ATC-EHDAS
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by: AP
 Received by: LB
 Analyzed by: see "By" below

Date

11/13/18
 11/13/18

Time

4:40
 8:00

Laboratory Data

SDG ID: GCB96275
 Phoenix ID: CB96282

Project ID: 204118 NEW HAVEN STORMWATER
 Client ID: CB771

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Boron	< 0.05	0.05	mg/L	1	11/14/18	CPP	SW6010C
Hardness (CaCO3)	42.9	0.1	mg/L	1	11/15/18		E200.7
Escherichia Coli	>24200	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SM9223B-04
Enterococci Bacteria	>24200	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	Enterolert
Fecal Coliforms MPN	>24200	10	MPN/100 mls	1	11/13/18 10:00	RM/KDB	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	11/13/18 19:08	O	SM4500CI-G-00
C.O.D.	298	10	mg/L	1	11/15/18	MSF	SM5220D-11
Conductivity	139	5.00	umhos/cm	1	11/14/18	RR/EG	SM2510B-11
MBAS	0.16	0.05	mg/L	1	11/13/18 22:36	S	SM5540 C-11
Ammonia as Nitrogen	0.36	0.10	mg/L	2	11/17/18	KDB	E350.1
Nitrite-N	0.012	0.010	mg/L	1	11/13/18 18:28	TB	E353.2
Nitrate-N	< 0.02	0.02	mg/L	1	11/13/18 18:28	TB	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	11/13/18	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	11/15/18	RWR	SM2520B-10
Nitrogen Tot Kjeldahl	3.12	0.20	mg/L	2	11/17/18	KDB	E351.1
Phosphorus, as P	0.890	0.020	mg/L	2	11/13/18	MI	SM4500PE-11
Total Suspended Solids	140	17	mg/L	3.3	11/14/18	MM/EG	SM2540D-11
Total Metals Digestion	Completed				11/13/18	AG	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

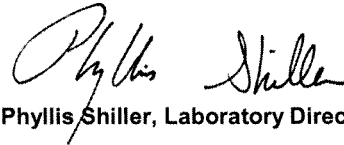
Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If there are any questions regarding this data, please call Phoenix Client Services.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

November 20, 2018

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 November 20, 2018

FOR: Attn: Mr. Luke Whitehouse
 ATC Associates
 290 Roberts St., Suite 301
 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER
 Location Code: ATC-EHDAS
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by: AP
 Received by: LB
 Analyzed by: see "By" below

Date

11/13/18
 11/13/18

Time

4:50
 8:00

Laboratory Data

SDG ID: GCB96275
 Phoenix ID: CB96283

Project ID: 204118 NEW HAVEN STORMWATER
 Client ID: 012

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Boron	< 0.05	0.05	mg/L	1	11/14/18	CPP	SW6010C
Hardness (CaCO3)	26.3	0.1	mg/L	1	11/15/18		E200.7
Escherichia Coli	5480	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SM9223B-04
Enterococci Bacteria	5170	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	Enterolert
Fecal Coliforms MPN	1860	10	MPN/100 mls	1	11/13/18 10:00	RM/KDB	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	11/13/18 19:09	O	SM4500CI-G-00
C.O.D.	23	10	mg/L	1	11/15/18	MSF	SM5220D-11
Conductivity	106	5.00	umhos/cm	1	11/14/18	RR/EG	SM2510B-11
MBAS	< 0.05	0.05	mg/L	1	11/13/18 22:37	S	SM5540 C-11
Ammonia as Nitrogen	< 0.05	0.05	mg/L	1	11/17/18	KDB	E350.1
Nitrite-N	< 0.010	0.010	mg/L	1	11/13/18 18:29	TB	E353.2
Nitrate-N	0.18	0.02	mg/L	1	11/13/18 18:29	TB	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	11/13/18	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	11/15/18	RWR	SM2520B-10
Nitrogen Tot Kjeldahl	0.26	0.10	mg/L	1	11/17/18	KDB	E351.1
Phosphorus, as P	0.229	0.010	mg/L	1	11/13/18	MI	SM4500PE-11
Total Suspended Solids	6.0	5.0	mg/L	1	11/14/18	MM/EG	SM2540D-11
Total Metals Digestion	Completed				11/13/18	AG	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

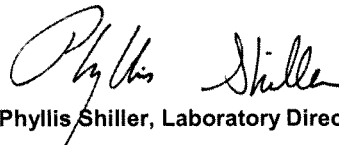
Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If there are any questions regarding this data, please call Phoenix Client Services.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

November 20, 2018

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2018

FOR: Attn: Mr. Luke Whitehouse
 ATC Associates
 290 Roberts St., Suite 301
 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER
 Location Code: ATC-EHDAS
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by: AP
 Received by: LB
 Analyzed by: see "By" below

Date

11/13/18
 11/13/18

Time

5:30
 8:00

Laboratory Data

SDG ID: GCB96275
 Phoenix ID: CB96284

Project ID: 204118 NEW HAVEN STORMWATER
 Client ID: 014

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Boron	< 0.05	0.05	mg/L	1	11/14/18	CPP	SW6010C
Hardness (CaCO3)	41.4	0.1	mg/L	1	11/15/18		E200.7
Escherichia Coli	3450	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SM9223B-04
Enterococci Bacteria	2280	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	Enterolert
Fecal Coliforms MPN	588	10	MPN/100 mls	1	11/13/18 10:00	RM/KDB	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SW9223B-06
Chlorine Residual	< 0.02	0.02	mg/L	1	11/13/18 19:10	O	SM4500CI-G-00
C.O.D.	42	10	mg/L	1	11/15/18	MSF	SM5220D-11
Conductivity	118	5.00	umhos/cm	1	11/14/18	RR/EG	SM2510B-11
MBAS	0.07	0.05	mg/L	1	11/13/18 22:38	S	SM5540 C-11
Ammonia as Nitrogen	< 0.05	0.05	mg/L	1	11/17/18	KDB	E350.1
Nitrite-N	< 0.010	0.010	mg/L	1	11/13/18 18:30	TB	E353.2
Nitrate-N	0.48	0.02	mg/L	1	11/13/18 18:30	TB	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	11/13/18	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	11/15/18	RWR	SM2520B-10
Nitrogen Tot Kjeldahl	0.44	0.10	mg/L	1	11/17/18	KDB	E351.1
Phosphorus, as P	0.278	0.010	mg/L	1	11/13/18	MI	SM4500PE-11
Total Suspended Solids	19	5.0	mg/L	1	11/14/18	MM/EG	SM2540D-11
Total Metals Digestion	Completed				11/13/18	AG	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

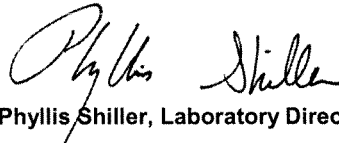
Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If there are any questions regarding this data, please call Phoenix Client Services.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

November 20, 2018

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

November 20, 2018

FOR: Attn: Mr. Luke Whitehouse
 ATC Associates
 290 Roberts St., Suite 301
 East Hartford, CT 06108

Sample Information

Matrix: STORM WATER
 Location Code: ATC-EHDAS
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by: AP
 Received by: LB
 Analyzed by: see "By" below

Date

11/13/18
 11/13/18

Time

6:00
 8:00

Laboratory Data

SDG ID: GCB96275
 Phoenix ID: CB96285

Project ID: 204118 NEW HAVEN STORMWATER
 Client ID: 066

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Boron	< 0.05	0.05	mg/L	1	11/14/18	CPP	SW6010C
Hardness (CaCO3)	6.0	0.1	mg/L	1	11/15/18		E200.7
Escherichia Coli	3080	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SM9223B-04
Enterococci Bacteria	2190	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	Enterolert
Fecal Coliforms MPN	1480	10	MPN/100 mls	1	11/13/18 10:00	RM/KDB	Colilert-18
Total Coliforms	>24200	10	MPN/100 mls	10	11/13/18 08:25	KDB/KDB	SW9223B-06
Chlorine Residual	0.02	0.02	mg/L	1	11/13/18 19:11	O	SM4500CI-G-00
C.O.D.	38	10	mg/L	1	11/15/18	MSF	SM5220D-11
Conductivity	24	5.00	umhos/cm	1	11/14/18	RR/EG	SM2510B-11
MBAS	< 0.05	0.05	mg/L	1	11/13/18 22:39	S	SM5540 C-11
Ammonia as Nitrogen	0.15	0.05	mg/L	1	11/17/18	KDB	E350.1
Nitrite-N	< 0.010	0.010	mg/L	1	11/13/18 18:31	TB	E353.2
Nitrate-N	0.08	0.02	mg/L	1	11/13/18 18:31	TB	E353.2
Oil and Grease by EPA 1664	< 1.4	1.4	mg/L	1	11/13/18	MSF	E1664A
Salinity	< 0.5	0.5	ppt	1	11/15/18	RWR	SM2520B-10
Nitrogen Tot Kjeldahl	0.41	0.10	mg/L	1	11/17/18	KDB	E351.1
Phosphorus, as P	0.182	0.010	mg/L	1	11/13/18	MI	SM4500PE-11
Total Suspended Solids	12	5.0	mg/L	1	11/14/18	MM/EG	SM2540D-11
Total Metals Digestion	Completed				11/13/18	AG	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

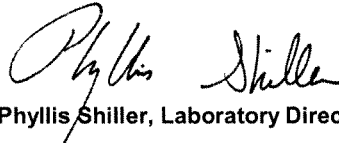
Comments:

The regulatory hold time for Chlorine is immediately. This Chlorine was performed in the laboratory and may be considered outside of hold-time.

The LAS standard used for the MBAS analysis has a molecular weight of 342 g/mol.

If there are any questions regarding this data, please call Phoenix Client Services.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

November 20, 2018

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

November 20, 2018

QA/QC Data

SDG I.D.: GCB96275

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 456163 (mg/L), QC Sample No: CB91566 (CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285)													
<u>ICP Metals - Aqueous</u>													
Boron	BRL	0.05	<0.05	<0.05	NC	95.3			94.7			75 - 125	20



Environmental Laboratories, Inc.

587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

November 20, 2018

QA/QC Data

SDG I.D.: GCB96275

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 456055 (mg/L), QC Sample No: CB92522 (CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285)													
Oil and Grease by EPA 1664A	BRL	1.4				97.0	99.0	2.0				85 - 115	20
Comment:													
Additional: MS acceptance range 75-125%.													
QA/QC Batch 456259 (mg/L), QC Sample No: CB92532 (CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285)													
Total Suspended Solids	BRL	5.0	10	11	NC	90.0						85 - 115	20
QA/QC Batch 456145 (mg/L), QC Sample No: CB92776 (CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285)													
Phosphorus, as P	BRL	0.01	0.017	0.019	NC	103			101			85 - 115	20
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 456156 (mg/L), QC Sample No: CB96275 (CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285)													
MBAS	BRL	0.05	0.85	0.85	1.20	97.3			84.3			85 - 115	20
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 456385 (mg/L), QC Sample No: CB96276 (CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285)													
C.O.D.	BRL	10	19	21	NC	101			103			85 - 115	20
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 456249 (umhos/cm), QC Sample No: CB96599 (CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285)													
Conductivity	BRL	5.00	327	332	1.50	95.9						85 - 115	20
Comment:													
Additional criteria matrix spike acceptance range is 75-125%.													
QA/QC Batch 456196 (mg/L), QC Sample No: CB96275 (CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285)													
Nitrate-N	BRL	0.02	1.02	1.02	0	104			99.4			90 - 110	20
Nitrite-N	BRL	0.01	0.070	0.07	0	104			99.2			90 - 110	20
QA/QC Batch 456412 (mg/L), QC Sample No: CB91937 (CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285)													
Ammonia as Nitrogen	BRL	0.05	0.07	0.07	NC	98.7			98.9			90 - 110	20
Nitrogen Tot Kjeldahl	BRL	0.10	2.76	3.18	14.1	105			103			85 - 115	20
Comment:													
TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.													
QA/QC Batch 456191 (mg/L), QC Sample No: CB96275 (CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285)													
Chlorine Residual	BRL	0.02	<0.02	<0.02	NC	110							

QA/QC Data

SDG I.D.: GCB96275

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
-----------	-------	-----------	------------------	---------------	------------	----------	-----------	------------	---------	----------	-----------	--------------------	--------------------

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample


LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference



Phyllis Shiller, Laboratory Director

November 20, 2018

Tuesday, November 20, 2018

Criteria: None

State: CT

Sample Criteria Exceedances Report

GCB96275 - ATC-EHDAS

SampNo Acode Phoenix Analyte

Criteria

Result

RL

Criteria

RL
Criteria

Analysis
Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedances. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedance information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



REASONABLE CONFIDENCE PROTOCOL LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. **Client:** ATC Associates
Project Location: 204118 NEW HAVEN STORMWATER **Project Number:**
Laboratory Sample ID(s): CB96275-CB96285 **Sampling Date(s):** 11/13/2018

List RCP Methods Used (e.g., 8260, 8270, et cetera) 6010

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1A	Were the method specified preservation and holding time requirements met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1B	<u>VPH and EPH methods only:</u> Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
2	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	Were samples received at an appropriate temperature (< 6 Degrees C)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
4	Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5	a) Were reporting limits specified or referenced on the chain-of-custody? b) Were these reporting limits met?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7	Are project-specific matrix spikes and laboratory duplicates included in the data set?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Rashmi Makol **Position:** Project Manager
Printed Name: Rashmi Makol **Date:** Tuesday, November 20, 2018
Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



RCP Certification Report

November 20, 2018

SDG I.D.: GCB96275

SDG Comments

Metals Analysis:

The client requested a shorter list of elements than the 6010 RCP list. Only Boron is reported as requested on the chain of custody.

Wet Chemistry Analysis

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

BECKMAN DU720 #2 11/13/18-3 Michael Tran, Chemist 11/13/18

CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285

BECKMAN DU720 11/13/18-2 Andreana Panzo, Chemist 11/13/18

CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285

The initial calibration met all criteria including a standard run at the reporting level.

All method verification standards and blanks met criteria

HACH DR 5000 11/15/18-1

CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285

The initial calibration met all criteria including a standard run at the reporting level.

All method verification standards and blanks met criteria.

QC (Batch Specific):

Batch 456055 (CB92522)

CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285

All LCS recoveries were within 85 - 115 with the following exceptions: None.

All LCSD recoveries were within 85 - 115 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

Additional: MS acceptance range 75-125%.

Additional criteria matrix spike acceptance range is 75-125%.

Batch 456145 (CB92776)

CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285

All LCS recoveries were within 85 - 115 with the following exceptions: None.

Additional criteria matrix spike acceptance range is 75-125%.

Batch 456249 (CB96599)

CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285

All LCS recoveries were within 85 - 115 with the following exceptions: None.

Additional criteria matrix spike acceptance range is 75-125%.

Batch 456259 (CB92532)

CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285

All LCS recoveries were within 85 - 115 with the following exceptions: None.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



RCP Certification Report

November 20, 2018

SDG I.D.: GCB96275

Wet Chemistry Analysis

Additional criteria matrix spike acceptance range is 75-125%.

QC (Site Specific):

Batch 456156 (CB96275)

CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285

All LCS recoveries were within 85 - 115 with the following exceptions: None.

All MS recoveries were within 75 - 125 with the following exceptions: None.

Additional criteria matrix spike acceptance range is 75-125%.

Batch 456385 (CB96276)

CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285

All LCS recoveries were within 85 - 115 with the following exceptions: None.

All MS recoveries were within 75 - 125 with the following exceptions: None.

Additional criteria matrix spike acceptance range is 75-125%.

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

BLUE 11/14/18 11:51

Cindy Pearce, Emily Kolominskaya, Chemist 11/14/18

CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285

The initial calibration met criteria.

The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.

The continuing calibration blanks were less than the reporting level for the elements reported.

The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria. The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 456163 (CB91566)

CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285

All LCS recoveries were within 75 - 125 with the following exceptions: None.

LACHAT

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

LACHAT 11/13/18-1

Thomas Budz, Chemist 11/13/18

CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285

The initial calibration met all criteria including a standard run at the reporting level.

All method verification standards and blanks met criteria.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



RCP Certification Report

November 20, 2018

SDG I.D.: GCB96275

LACHAT

QC (Site Specific):

Batch 456196 (CB96275)

CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285

All LCS recoveries were within 90 - 110 with the following exceptions: None.

All MS recoveries were within 90 - 110 with the following exceptions: None.

NITROGEN

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

LACHAT 11/17/18-1

Kandi Della Bella, Chemist 11/17/18

CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285

The initial calibration met all criteria including a standard run at the reporting level.

All method verification standards and blanks met criteria.

QC (Batch Specific):

Batch 456412 (CB91937)

CB96275, CB96276, CB96277, CB96278, CB96279, CB96280, CB96281, CB96282, CB96283, CB96284, CB96285

All LCS recoveries were within 85 - 115 with the following exceptions: None.

TKN is reported as Organic Nitrogen in the Blank, LCS, DUP and MS.

Temperature Narration

The samples were received at 1.5C with cooling initiated.

(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

CHAIN OF CUSTODY RECORD



587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
 Email: info@phoenixlab.com Fax (860) 645-0823
 Client Services (860) 645-8726

Customer: **ATC Group Services**
 Address: **290 Roberts Street**
Suite 301
East Hartford, CT

Project: **20118 New Haven Spinnaker** Project P.O.:
 Report to: **Luke Whitehead**
 Invoice to: **ATC**
 QUOTE #

Data Delivery/Contact Options:
 Fax:
 Phone:
 Email: **info@phoenixlab.com**

Coolant: IPK ICE No No
 Cooler: Yes No
 Temp **40** °C Pg **1** of **1**

Sampler's Signature: *du Dwyer* Date: **11/13/18**
 Client Sample - Information - Identification

Matrix Code:
 DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
 RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe Oil=Oil
 B=Bulk L=Liquid X=X (Other)


PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Analysis Request
960275	07	SW	11/13/18	2:30	X
960276	011			2:55	X
960277	CB157			3:05	X
960278	CB166A			3:30	X
960279	CB172			3:40	X
960280	CB214			3:55	X
960281	CB689			4:10	X
960282	CB771			4:40	X
960283	012			4:50	X
960284	014			5:30	X
960285	066	SW	11/13/18	6:00	X

oil + grease
 metal, oil, PCBs
 TSS, NO₂-N, NO₃-N, NH₄-N
 metal, COD, TP, TN, fecal, enteric?

Relinquished by: *[Signature]* Accepted by: *[Signature]* Date: **11/13/18** Time: **06:00**
 Comments, Special Requirements or Regulations:
 Turnaround Time:
 1 Day*
 2 Days*
 3 Days*
 Standard
 Other
 *SURCHARGE APPLIES

MA MCP Certification
 GW-1
 GW-2
 GW-3
 S-1 GW-1
 S-1 GW-2
 S-1 GW-3
 S-2 GW-1
 S-2 GW-2
 S-2 GW-3
 S-3 GW-1
 S-3 GW-2
 S-3 GW-3
 MWRA eSMART
 Other
 State where samples were collected: **CT**
 *SURCHARGE APPLIES

Data Format
 Excel
 PDF
 GIS/Key
 EQUIS
 Other
 Data Package
 Tier II Checklist
 Full Data Package*
 Phoenix Std Report
 Other



www.phoenixlabs.com<<https://www.phoenixlabs.com>>

Please do not reply to this email.

LABORATORY REPORTS AND CHAIN OF CUSTODY

12/21/2018

1005 BOSTON POST ROAD
MADISON, CT 06443



ENVIRONMENTAL
CONSULTING LABORATORIES, INC.

Phone 203-245-0568
Fax 203-318-0830
Connecticut Certification PH-0535
www.eclinonline.com

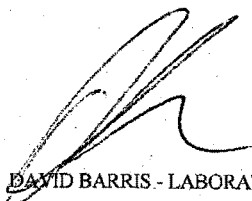
Report of Analysis

Name: ATC Group Services, LLC
290 Roberts St.
Suite 301
East Hartford, CT 06108
Attn: Luke Whitehouse

Sample ID#: 121966
Sample Type: Water
Sample Source: New Haven Stormwater
Sampler: Client

Sample Date: 12/21/2018
Receipt Date: 12/21/2018
Report Date: 12/28/2018
Sample Site: 046

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	410	MPN/100mL	Colilert-18	100	12/21/2018	DB
Coliform, Total	8420	MPN/100mL	Colilert-18	100	12/21/2018	DB
Enterococcus Bacteria	1990	MPN/100mL	Enterolert	100	12/21/2018	DB
Fecal Coliform Bacteria	200	MPN/100mL	Colilert-18	100	12/21/2018	DB


DAVID BARRIS - LABORATORY DIRECTOR

ND = Not Detected

1005 BOSTON POST ROAD
MADISON, CT 06443



ENVIRONMENTAL
CONSULTING LABORATORIES, INC.

Phone 203-245-0568
Fax 203-318-0830
Connecticut Certification PH-0535
www.eclinonline.com

Report of Analysis

Name: ATC Group Services, LLC
290 Roberts St.
Suite 301
East Hartford, CT 06108
Attn: Luke Whitehouse

Sample ID#: 121967
Sample Type: Water
Sample Source: New Haven Stormwater
Sampler: Client

Sample Date: 12/21/2018
Receipt Date: 12/21/2018
Report Date: 12/28/2018
Sample Site: 047

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	3360	MPN/100mL	Colilert-18	100	12/21/2018	DB
Coliform, Total	13540	MPN/100mL	Colilert-18	100	12/21/2018	DB
Enterococcus Bacteria	1580	MPN/100mL	Enterolert	100	12/21/2018	DB
Fecal Coliform Bacteria	1610	MPN/100mL	Colilert-18	100	12/21/2018	DB


DAVID BARRIS - LABORATORY DIRECTOR

ND = Not Detected

1005 BOSTON POST ROAD
MADISON, CT 06443



ENVIRONMENTAL
CONSULTING LABORATORIES, INC.

Phone 203-245-0568
Fax 203-318-0830
Connecticut Certification PH-0535
www.eclinonline.com

Report of Analysis

Name: ATC Group Services, LLC
290 Roberts St.
Suite 301
East Hartford, CT 06108
Attn: Luke Whitehouse

Sample ID#: 121968
Sample Type: Water
Sample Source: New Haven Stormwater
Sampler: Client

Sample Date: 12/21/2018
Receipt Date: 12/21/2018
Report Date: 12/28/2018
Sample Site: 089

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	9590	MPN/100mL	Colilert-18	100	12/21/2018	DB
Coliform, Total	46110	MPN/100mL	Colilert-18	100	12/21/2018	DB
Enterococcus Bacteria	5540	MPN/100mL	Enterolert	100	12/21/2018	DB
Fecal Coliform Bacteria	2980	MPN/100mL	Colilert-18	100	12/21/2018	DB

A handwritten signature in black ink, appearing to read 'David Barris', is written over a faint circular stamp or watermark.

DAVID BARRIS - LABORATORY DIRECTOR

ND = Not Detected

1005 BOSTON POST ROAD
MADISON, CT 06443



ENVIRONMENTAL
CONSULTING LABORATORIES, INC.

Phone 203-245-0568
Fax 203-318-0830
Connecticut Certification PH-0535
www.eclinonline.com

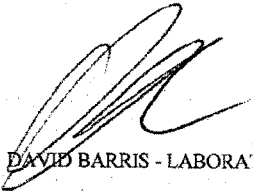
Report of Analysis

Name: ATC Group Services, LLC
290 Roberts St.
Suite 301
East Hartford, CT 06108
Attn: Luke Whitehouse

Sample ID#: 121969
Sample Type: Water
Sample Source: New Haven Stormwater
Sampler: Client

Sample Date: 12/21/2018
Receipt Date: 12/21/2018
Report Date: 12/28/2018
Sample Site: 0121

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	520	MPN/100mL	Colilert-18	100	12/21/2018	DB
Coliform, Total	11450	MPN/100mL	Colilert-18	100	12/21/2018	DB
Enterococcus Bacteria	1580	MPN/100mL	Enterolert	100	12/21/2018	DB
Fecal Coliform Bacteria	310	MPN/100mL	Colilert-18	100	12/21/2018	DB


DAVID BARRIS - LABORATORY DIRECTOR

ND = Not Detected

1005 BOSTON POST ROAD
MADISON, CT 06443



ENVIRONMENTAL
CONSULTING LABORATORIES, INC.

Phone 203-245-0568
Fax 203-318-0830
Connecticut Certification PH-0535
www.eclinonline.com

Report of Analysis

Name: ATC Group Services, LLC
290 Roberts St.
Suite 301
East Hartford, CT 06108
Attn: Luke Whitehouse

Sample ID#: 121970
Sample Type: Water
Sample Source: New Haven Stormwater
Sampler: Client

Sample Date: 12/21/2018
Receipt Date: 12/21/2018
Report Date: 12/28/2018
Sample Site: 0132

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	7940	MPN/100mL	Colilert-18	100	12/21/2018	DB
Coliform, Total	18600	MPN/100mL	Colilert-18	100	12/21/2018	DB
Enterococcus Bacteria	630	MPN/100mL	Enterolert	100	12/21/2018	DB
Fecal Coliform Bacteria	1100	MPN/100mL	Colilert-18	100	12/21/2018	DB

A handwritten signature in black ink, appearing to be 'DB' or similar initials, written over a circular stamp area.

DAVID BARRIS - LABORATORY DIRECTOR

ND = Not Detected

1005 BOSTON POST ROAD
MADISON, CT 06443



ENVIRONMENTAL
CONSULTING LABORATORIES, INC.

Phone 203-245-0568
Fax 203-318-0830
Connecticut Certification PH-0535
www.eclinonline.com

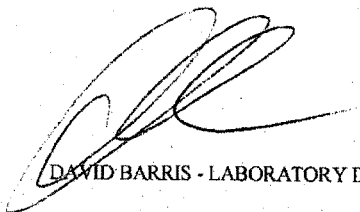
Report of Analysis

Name: ATC Group Services, LLC
290 Roberts St.
Suite 301
East Hartford, CT 06108
Attn: Luke Whitehouse

Sample ID#: 121971
Sample Type: Water
Sample Source: New Haven Stormwater
Sampler: Client

Sample Date: 12/21/2018
Receipt Date: 12/21/2018
Report Date: 12/28/2018
Sample Site: 0138

Parameter	Sample Result	Units	Method	MDL	Analysis Date	Analyst
Biological						
Coliform, E. Coli	100	MPN/100mL	Colilert-18	100	12/21/2018	DB
Coliform, Total	77010	MPN/100mL	Colilert-18	100	12/21/2018	DB
Enterococcus Bacteria	1630	MPN/100mL	Enterolert	100	12/21/2018	DB
Fecal Coliform Bacteria	100	MPN/100mL	Colilert-18	100	12/21/2018	DB


DAVID BARRIS - LABORATORY DIRECTOR

ND = Not Detected

Client: ATC Group Services
 Contact: Luke Whitehouse
 Address: 290 Roberts Street Suite 301, E. Hartford, CT
 Phone: 860-282-9924

Project: New Haven Stormwater

TNC NTNC COMM
 NPDES SPDES

Samplers Name: (Print)
Ali Lemay, Greg Ostrowski

Client ID	Sampling Location	Date	Time	Sample Type			Number of Containers	ECL Sample ID
				Water	Solid	Grab		
	046	12-21-18	0450	X		X	1	121966
	047		0445	X		X	1	121967
	089		0540	X		X	1	121968
	0121		0600	X		X	1	121969
	0132		0710	X		X	1	121970
	0138	12-21-18	0645	X		X	1	121971

Analysis

*Total x 20 cfs.
focal, enterococci*

Relinquished by: [Signature] Date: 12-21-18 Time: 9:00 AM

Received by: Jua Sepa Date: 12/21/18 Time: 9:00

Relinquished by: _____ Date: _____ Time: _____

Received by: _____ Date: _____ Time: _____

Were Samples received within holding time? Y
 Were Samples chilled upon receipt? Y
 Are Samples in appropriate containers? Y
 If No Explain _____

Are containers broken or leaking? Y
 Did Samples need to be split upon receipt? Y
 Were Samples presented properly? Y

10.10

Environmental Consulting Labs, Inc.
 1005 Boston Post Road
 Madison, CT 06443

Invoice
 Invoice Number:
 57313

Invoice Date:
 Dec 28, 2018

Voice: 203-245-0568
 Fax: 203-318-0830

Page:
 1

Sold To:
 ATC Group Services, LLC
 290 Roberts St.
 Suite 301
 East Hartford, CT 06108

Ship to:
 ATC Group Services
 290 Roberts St.
 Suite 301
 East Hartford, CT 06108

Customer ID		Customer PO		Payment Terms	
ATC Group		New Haven Stormwater		Net 30 Days	
Laboratory Contact		Sample Number		Ship Date	Due Date
DAVID BARRIS		121966-971		12/28/18	1/27/19
Quantity	Item	Description	Unit Price	Extension	
6.00	TOTAL COLIFORM-ECOLI	TOTAL COLIFORM AND ECOLI BACTERIA TEST BY QUANTRAY COLI-LERT TEST	75.00	450.00	
6.00	ENTEROCOCCI	ENTEROCOCCI BACTERIA	75.00	450.00	
6.00	FECAL COLIFORM	Fecal Coliform bacteria test by Colilert	75.00	450.00	

Subtotal	1,350.00
Sales Tax	85.73
Total Invoice Amount	1,435.73
Payment Received	
TOTAL	1,435.73

Check No: