

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Thursday, June 16, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: GW Eel River

Comments:

Project Number: A19

Collection Date: 4/25/11 **Collection Time:** 11:40

Sampled By: Kim Michaelis

Lab Order Number: WW-110865

Date Received: 04/25/11

Sample Type	Sample Time	Sample Date	Comments			
A19 A	11:40	4/25/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	63.0	6.0	05/03/11	MC	2540 C
Total Organic Carbon*	mg/L	0.62*	0.5	04/29/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	05/04/11	RIA*	*
Iron	mg/L	0.01	0.01	04/29/11	MC	200.7
Mercury*	mg/L	BRL	0.0005	05/04/11	RIA*	245.1
Boron	mg/L	0.014	0.010	04/29/11	MC	200.7
Copper	mg/L	BRL	0.003	04/29/11	MC	200.7
Nitrate-N	mg/L	1.18	0.01	04/26/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/26/11	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	05/04/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/26/11	MC	SM4500 NH3 C
Chloride	mg/L	10.8	3.0	04/26/11	LL	300.0
Total Phosphorous (P)	mg/L	0.099	0.005	05/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	04/26/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.1*	0.5	04/29/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.03	NA	06/14/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.18	NA	06/14/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.009	0.005	04/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/14/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/14/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.21	NA	06/14/11	MC	Calculation

$$TN = DON(0.18) + PON(0.1) + NH_4(0.01) + NO_3(1.18) + NO_2(0.002) = 1.472$$

BRL=below reportable limits

*see attached

Ronald J. Saari
Laboratory Director

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MA CERT. NO.: M-MA 063

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Thursday, June 16, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: GW Eel River

Comments:

Project Number: DW-1

Collection Date: 4/25/11 **Collection Time:** 9:00

Sampled By: Kim Michaelis

Lab Order Number: WW-110864

Date Received: 04/25/11

Sample Type	Sample Time	Sample Date	Comments			
DW-1 A	9:00	4/25/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	240	6.0	05/03/11	MC	2540 C
Total Organic Carbon*	mg/L	5.4*	0.5	04/29/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	05/04/11	RIA*	*
Total Iron	mg/L	3.36	0.01	05/02/11	MC	200.7
Mercury*	mg/L	BRL	0.0005	05/04/11	RIA*	245.1
Boron	mg/L	0.019	0.010	04/29/11	MC	200.7
Copper	mg/L	BRL	0.003	04/29/11	MC	200.7
Nitrate-N	mg/L	0.28	0.01	04/26/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/26/11	LL	300.0
Ammonia-N *	mg/L	0.28*	0.02	05/04/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.49	0.2	06/15/11	MC	SM4500 NH3 C
Chloride	mg/L	127	3.0	04/29/11	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	05/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.35	0.2	06/15/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	4.0*	0.5	04/29/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.56	NA	06/14/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.07	NA	06/14/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	1.40	NA	06/14/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	NA	06/14/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.63	NA	06/14/11	MC	Calculation

$$TN = DON(0.07) + PON(0.14) + NH_4(0.28) + NO_3(0.28) + NO_2(0.002) = 0.772$$

BRL=below reportable limits

*see attached

Ronald J. Saafi

Laboratory Director

ENVIROTECH LABORATORIES, INC.

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Thursday, June 16, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: GW Eel River

Comments:

Project Number: A13

Collection Date: 4/25/11 **Collection Time:** 10:15

Sampled By: Kim Michaelis

Lab Order Number: WW-110863

Date Received: 04/25/11

Sample Type		Sample Time	Sample Date	Comments		
A13	A	10:15	4/25/11			
Parameters		Units	Test Results	Reportable Limits	Date Analyzed	Analyst
						Method
Total Dissolved Solids		mg/L	242	6.0	05/03/11	MC
Total Organic Carbon*		mg/L	3.8*	0.5	04/29/11	RIA*
Volatile Organic Compounds*		ug/L	ND*	*	05/04/11	RIA*
Total Iron		mg/L	4.28	0.01	05/02/11	MC
Mercury*		mg/L	BRL	0.0005	05/04/11	RIA*
Boron		mg/L	0.024	0.010	04/29/11	MC
Copper		mg/L	BRL	0.003	04/29/11	MC
Nitrate-N		mg/L	0.27	0.01	04/26/11	LL
Nitrite-N		mg/L	BRL	0.004	04/26/11	LL
Ammonia-N *		mg/L	0.23*	0.02	05/04/11	RIA*
Total Kjeldhal Nitrogen		mg/L	0.35	0.2	06/15/11	MC
Chloride		mg/L	130	3.0	04/29/11	LL
Total Phosphorous (P)		mg/L	BRL	0.005	05/02/11	MC
Dissolved Kjeldhal Nitrogen		mg/L	0.21	0.2	06/15/11	MC
Dissolved Total Organic Carbon		mg/L	4.5*	0.5	04/29/11	RIA*
Dissolved Inorganic Nitrogen		mg/L	0.50	NA	06/14/11	MC
Dissolved Organic Nitrogen		mg/L	BRL	NA	06/14/11	MC
Ortho Phosphorous (P)		mg/L	BRL	0.005	04/27/11	MC
Particulate Organic Carbon		mg/L	BRL	NA	06/14/11	MC
Particulate Organic Nitrogen		mg/L	0.14	NA	06/14/11	MC
Total Dissolved Nitrogen		mg/L	0.48	NA	06/14/11	MC

$$TN = DON(0.1) + PON(0.14) + NH_4(0.23) + NO_3(0.27) + NO_2(0.002) = 0.742$$

BRL=below reportable limits

*see attached

Ronald J. Saari
Laboratory Director

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Thursday, June 16, 2011

Plymouth Environmental Management

Kim Michaelis
11 Lincoln St. Plymouth

ProjectName: GW Eel River

Comments:

Project Number: GW-1

Collection Date: 4/25/11 **Collection Time:** 7:00

Sampled By: Kim Michaelis

Lab Order Number: WW-110862

Date Received: 04/25/11

Sample Type	Sample Time	Sample Date	Comments			
GW-1 A	7:00	4/25/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	10.0	6.0	05/03/11	MC	2540 C
Total Organic Carbon*	mg/L	<0.5*	0.5	04/29/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	05/04/11	RIA*	*
Total Iron	mg/L	BRL	0.01	04/29/11	MC	200.7
Mercury*	mg/L	BRL	0.0005	05/05/11	RIA*	245.1
Boron	mg/L	BRL	0.010	04/29/11	MC	200.7
Copper	mg/L	BRL	0.003	04/29/11	MC	200.7
Nitrate-N	mg/L	BRL	0.01	04/26/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/26/11	LL	300.0
Ammonia-N *	mg/L	0.11*	0.02	05/04/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/26/11	MC	SM4500 NH3 C
Chloride	mg/L	BRL	3.0	04/26/11	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	05/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	04/26/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.64*	0.5	04/29/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.12	NA	06/14/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.09	NA	06/14/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/14/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/14/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.21	NA	06/14/11	MC	Calculation

$$TN = DON(0.09) + PON(0.1) + NH_4(0.11) + NO_3(0.005) + NO_2(0.002) = 0.307$$

BRL=below reportable limits

*see attached


Ronald J. Saari
Laboratory Director

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Thursday, June 16, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: GW Eel River

Comments:

Project Number: 5S

Collection Date: 4/25/11 **Collection Time:** 13:15

Sampled By: Kim Michaelis

Lab Order Number: WW-110866

Date Received: 04/25/11

Sample Type	Sample Time	Sample Date	Comments			
5S A	13:15	4/25/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	963	6.0	05/03/11	MC	2540 C
Total Organic Carbon*	mg/L	0.94*	0.5	04/29/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	05/04/11	RIA*	*
Total Iron	mg/L	0.27	0.01	04/29/11	MC	200.7
Mercury*	mg/L	BRL	0.0005	05/04/11	RIA*	245.1
Boron	mg/L	0.012	0.010	04/29/11	MC	200.7
Copper	mg/L	BRL	0.003	04/29/11	MC	200.7
Nitrate-N	mg/L	0.40	0.01	04/26/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/26/11	LL	300.0
Ammonia-N *	mg/L	0.02*	0.02	05/04/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/26/11	MC	SM4500 NH3 C
Chloride	mg/L	530	3.0	04/29/11	LL	300.0
Total Phosphorous (P)	mg/L	0.092	0.005	05/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	04/26/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.0*	0.5	04/29/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.42	NA	06/14/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.18	NA	06/14/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.007	0.005	04/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/14/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/14/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.60	NA	06/14/11	MC	Calculation

$$TN = \text{DON} (0.12) + \text{PON} (0.1) + \text{NH}_4 (0.02) + \text{NO}_3 (0.40) + \text{NO}_2 (0.002) = 0.702$$

BRL=below reportable limits

*see attached


Ronald J. Saari
Laboratory Director

6

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

JW-110862

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/25/11	0700	GW-1	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4
4/25/11	1015	A13	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4

JW-110863

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 4/25/11 1450

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/25/11	0900	DW-1	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4
4/25/11	1140	A19	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 4/25/11 1140

(12)

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW-110866

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/25/11	1315	SS	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4
			2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4

Km.
X please
Filter
sample

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Michaelis

Received By:

Date/Time:

[Signature] 4/25/11 1850

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 4/27/11
Date Reported: 5/5/11
P.O. #:
Work Order #: 1104-07842

DESCRIPTION: PLYMOUTH ENV.

Subject sample(s) has/have been analyzed by our Warwick, R.I. laboratory with the attached results.

Reference: All parameters were analyzed by U.S. EPA approved methodologies.
The specific methodologies are listed in the methods column of the Certificate Of Analysis.

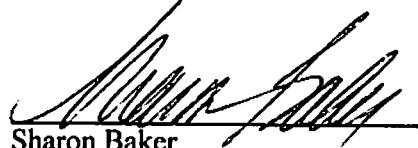
Data qualifiers (if present) are explained in full at the end of a given sample's analytical results.
The Certificate of Analysis shall not be reproduced except in full, without written approval of R.I. Analytical.
Results relate only to samples submitted to the laboratory for analysis.
Test results are not blank corrected.

Certification #: RI-033, MA-RI015, CT-PH-0508, ME-RI015
NH-253700 A & B, USDA S-41844

This Certificate represents all data associated with the referenced work order and is paginated for completeness. The complete Certificate includes one attachment; the original Chain of Custody.

If you have any questions regarding this work, or if we may be of further assistance, please contact our customer service department.

Approved by:



Sharon Baker
MIS / Data Reporting Manager

enc: Chain of Custody

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07842

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-110862 GW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/25/2011 @ 07:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.11	0.02	mg/l	SM 4500-NH3 C	5/4/11	KES
TOC Low Level	<0.5	0.5	mg/l	SM 5310B	4/29/11	TV
Dissolved TOC	0.64	0.5	mg/l	EPA 415.1	4/29/11	TV
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromoform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromomethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloroethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Chloroform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromomethane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07842

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-110862 GW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/25/2011 @ 07:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Naphthalene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Styrene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Toluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
o-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Acetone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Hexanone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	5/4/11	RGM
Surrogates			RANGE	SW-846 8260B	5/4/11	RGM
Dibromofluoromethane	96		86-118%	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07842

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-110862 GW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/25/2011 @ 07:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	99		88-110%	SW-846 8260B	5/4/11	RGM
4-Bromofluorobenzene	96		86-115%	SW-846 8260B	5/4/11	RGM
1,2 Dichloroethane-d4	94		80-120%	SW-846 8260B	5/4/11	RGM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	5/4/11	JJP

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07842

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-110863 A 13

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/25/2011 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.23	0.02	mg/l	SM 4500-NH3 C	5/4/11	KES
TOC Low Level	3.8	0.5	mg/l	SM 5310B	4/29/11	TV
Dissolved TOC	4.5	0.5	mg/l	EPA 415.1	4/29/11	TV
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromoform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromomethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloroethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Chloroform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromomethane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07842

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-110863 A 13

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/25/2011 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Naphthalene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Styrene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Toluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
o-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Acetone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Hexanone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	5/4/11	RGM
Surrogates			RANGE	SW-846 8260B	5/4/11	RGM
Dibromofluoromethane	95		86-118%	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07842

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-110863 A 13

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/25/2011 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	99		88-110%	SW-846 8260B	5/4/11	RGM
4-Bromofluorobenzene	96		86-115%	SW-846 8260B	5/4/11	RGM
1,2 Dichloroethane-d4	95		80-120%	SW-846 8260B	5/4/11	RGM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	5/4/11	JJP

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07842

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-110864 DW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/25/2011 @ 09:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.28	0.02	mg/l	SM 4500-NH3 C	5/4/11	KES
TOC Low Level	5.4	0.5	mg/l	SM 5310B	4/29/11	TV
Dissolved TOC	4.0	0.5	mg/l	EPA 415.1	4/29/11	TV
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromoform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromomethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloroethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Chloroform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromomethane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07842

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-110864 DW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/25/2011 @ 09:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Naphthalene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Styrene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Toluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
o-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Acetone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Hexanone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	5/4/11	RGM
Surrogates			RANGE	SW-846 8260B	5/4/11	RGM
Dibromofluoromethane	97		86-118%	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07842

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-110864 DW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/25/2011 @ 09:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	102		88-110%	SW-846 8260B	5/4/11	RGM
4-Bromofluorobenzene	97		86-115%	SW-846 8260B	5/4/11	RGM
1,2 Dichloroethane-d4	95		80-120%	SW-846 8260B	5/4/11	RGM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	5/4/11	JJP

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07842

PLYMOUTH ENV.

Sample # 004

SAMPLE DESCRIPTION: WW-110865 A 19

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/25/2011 @ 11:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	5/4/11	KES
TOC Low Level	0.62	0.5	mg/l	SM 5310B	4/29/11	TV
Dissolved TOC	1.1	0.5	mg/l	EPA 415.1	4/29/11	TV
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromoform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromomethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloroethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Chloroform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromomethane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07842

PLYMOUTH ENV.

Sample # 004

SAMPLE DESCRIPTION: WW-110865 A 19

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/25/2011 @ 11:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Naphthalene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Styrene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Toluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
o-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Acetone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Hexanone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	5/4/11	RGM
Surrogates			RANGE	SW-846 8260B	5/4/11	RGM
Dibromofluoromethane	95		86-118%	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07842

PLYMOUTH ENV.

Sample # 004

SAMPLE DESCRIPTION: WW-110865 A 19

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/25/2011 @ 11:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	100		88-110%	SW-846 8260B	5/4/11	RGM
4-Bromofluorobenzene	94		86-115%	SW-846 8260B	5/4/11	RGM
1,2 Dichloroethane-d4	96		80-120%	SW-846 8260B	5/4/11	RGM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	5/4/11	JJP

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07842

PLYMOUTH ENV.

Sample # 005

SAMPLE DESCRIPTION: WW-110866 5 S

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/25/2011 @ 13:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.02	0.02	mg/l	SM 4500-NH3 C	5/4/11	KES
TOC Low Level	0.94	0.5	mg/l	SM 5310B	4/29/11	TV
Dissolved TOC	1.0	0.5	mg/l	EPA 415.1	4/29/11	TV
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260H	5/4/11	RGM
Bromobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromoform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromomethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloroethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Chloroform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromomethane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans 1,2 Dichloroethylene	<1	1	ug/l	SW-846 8260D	5/4/11	RGM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07842

PLYMOUTH ENV.

Sample # 005

SAMPLE DESCRIPTION: WW-110866 5 S

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/25/2011 @ 13:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Naphthalene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Styrene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Toluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
o-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Acetone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Hexanone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	5/4/11	RGM
Surrogates			RANGE	SW-846 8260B	5/4/11	RGM
Dibromofluoromethane	98		86-118%	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07842

PLYMOUTH ENV.

Sample # 005

SAMPLE DESCRIPTION: WW-110866 5 S

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/25/2011 @ 13:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	101		88-110%	SW-846 8260B	5/4/11	RGM
4-Bromofluorobenzene	96		86-115%	SW-846 8260B	5/4/11	RGM
1,2 Dichloroethane-d4	96		80-120%	SW-846 8260B	5/4/11	RGM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	5/4/11	JJP

CHAIN OF CUSTODY FORM

ENVIROTECH LABS, INC.

8 Jan Sebastian Dr., Unit 12

Sandwich, MA 02563

(508)888-6460

1-800-339-6460

FAX (508)888-6446

RI Analytical

M RI 015

Address 41 Illinois Avenue
Warwick, RI 02888

Phone# 401-737-8500

Fax# 401-738-1970

PWS: Project Name: Plymouth Env.

Sampler: KM

Lab ID #	Date	Time	Comp	Grab	Station location	Container	Pres.	Sample type	Analysis requested
WW-110862	04/25/11	0700		X	GW-1	P	H ₂ SO ₄	Groundwater	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved
						P	HNO ₃		Mercury
						2 VOA	HCl		EPA 8260 Extended
WW-110863	04/25/11	1110		X	A 13	P	H ₂ SO ₄	Groundwater	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved
						P	HNO ₃		Mercury
						2 VOA	HCl		EPA 8260 Extended
WW-110864	04/25/11	0900		X	DW-1	P	H ₂ SO ₄	Groundwater	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved
						P	HNO ₃		Mercury
						2 VOA	HCl		EPA 8260 Extended
WW-110865	04/25/11	1140		X	A 19	P	H ₂ SO ₄	Groundwater	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved
						P	HNO ₃	3.02	Mercury
						2 VOA	HCl	ph 28.1	EPA 8260 Extended
									1104-07842

Relinquished:

Jan Jawally

Date/Time

4/27/11 1320

Received:

[Signature]

Relinquished:

[Signature]

Date/Time

4/27/11 1645

Received:

[Signature]

TOC dissolved samples are filtered
Contact lab with any exceeded MCL

1/2

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Tuesday, June 28, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: GW Eel River

Comments:

Project Number: 2DR

Collection Date: 04/26/11 Collection Time: 12:20

Sampled By: Kim Michaelis

Lab Order Number: WW-110879

Date Received: 04/26/11

Sample Type	Sample Time	Sample Date	Comments			
2 DR A	12:20	4/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	286	6.0	05/03/11	MC	2540 C
Total Organic Carbon*	mg/L	1.3*	0.5	04/29/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	05/04/11	RIA*	*
Iron	mg/L	34.4	0.01	05/02/11	MC	200.7
Boron	mg/L	0.13	0.010	04/29/11	MC	200.7
Nitrate-N	mg/L	0.10	0.01	04/27/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/27/11	LL	300.0
Ammonia-N *	mg/L	0.07*	0.02	05/04/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/27/11	MC	SM4500 NH3 C
Chloride	mg/L	153	3.0	04/29/11	LL	300.0
Total Phosphorous (P)	mg/L	0.043	0.005	05/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	04/27/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.5*	0.5	04/29/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.17	NA	06/14/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.13	NA	06/14/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/14/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/14/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.30	NA	06/14/11	MC	Calculation

$$TN = DON (0.13) + PON (0.1) + NH_4 (0.07) + NO_3 (0.1) + NO_2 (0.002) = 0.402$$

BRL=below reportable limits

*see attached

Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Tuesday, June 28, 2011

Plymouth Environmental Management

Kim Michaelis
11 Lincoln St. Plymouth

ProjectName: GW Eel River **Comments:**
Project Number: A21 A
Collection Date: 04/26/11 **Collection Time:** 4/26/11 13:40
Sampled By: Kim Michaelis
Lab Order Number: WW-110880
Date Received: 04/26/11

Sample Type	Sample Time	Sample Date	Comments			
A 21-A A	A21-A	4/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	77.0	6.0	05/03/11	MC	2540 C
Total Organic Carbon*	mg/L	0.98*	0.5	04/29/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	05/04/11	RIA*	*
Total Iron	mg/L	1.67	0.01	05/02/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	05/04/11	RIA*	245.1
Boron	mg/L	0.011	0.010	04/29/11	MC	200.7
Copper	mg/L	BRL	0.003	04/29/11	MC	200.7
Nitrate-N	mg/L	0.17	0.01	04/28/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/28/11	LL	300.0
Ammonia-N *	mg/L	0.11*	0.02	05/04/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.35	0.2	04/27/11	MC	SM4500 NH3 C
Chloride	mg/L	23.7	3.0	04/28/11	LL	300.0
Total Phosphorous (P)	mg/L	0.050	0.005	05/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	04/27/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.97*	0.5	04/29/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.28	NA	06/14/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.09	NA	06/14/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.012	0.005	04/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.01	NA	06/14/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.15	NA	06/14/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.37	NA	06/14/11	MC	Calculation

$$TN = DON (0.09) + PON (0.15) + NH_4 (0.11) + NO_3 (0.17) + NO_2 (0.002) = 0.522$$

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
Laboratory Director

✓

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Tuesday, June 28, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: GW Eel River

Comments:

Project Number: A15

Collection Date: 04/26/11 **Collection Time:** 10:05

Sampled By: Kim Michaelis

Lab Order Number: WW-110881

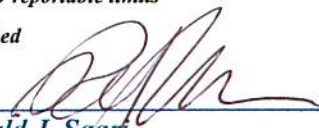
Date Received: 04/26/11

Sample Type	Sample Time	Sample Date	Comments			
A-15 A	10:05	4/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	166	6.0	05/03/11	MC	2540 C
Total Organic Carbon*	mg/L	0.84*	0.5	04/29/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	05/04/11	RIA*	*
Total Iron	mg/L	0.01	0.01	04/29/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	05/04/11	RIA*	245.1
Boron	mg/L	BRL	0.010	04/29/11	MC	200.7
Copper	mg/L	BRL	0.003	04/29/11	MC	200.7
Nitrate-N	mg/L	1.31	0.01	04/28/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/28/11	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	05/04/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/27/11	MC	SM4500 NH3 C
Chloride	mg/L	50.0	3.0	04/28/11	LL	300.0
Total Phosphorous (P)	mg/L	0.19	0.005	05/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	04/27/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.85*	0.5	04/29/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	1.33	NA	06/14/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.18	NA	06/14/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/14/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/14/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	1.51	NA	06/14/11	MC	Calculation

$$TN = DON(0.18) + PON(0.1) + NH_4(0.01) + NO_3(1.31) + NO_2(0.002) = 1.602$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari

Laboratory Director

✓

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Tuesday, June 28, 2011

Plymouth Environmental Management

Kim Michaelis
 11 Lincoln St. Plymouth

ProjectName: Gw Eel River

Comments:

Project Number: 2SR

Collection Date: 04/26/11 **Collection Time:** 11:40

Sampled By: Kim Michaelis

Lab Order Number: WW-110882

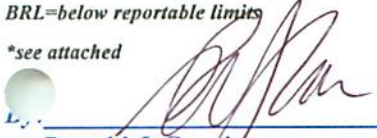
Date Received: 04/26/11

Sample Type	Sample Time	Sample Date	Comments			
2 SR A	11:40	4/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	116	6.0	05/03/11	MC	2540 C
Total Organic Carbon*	mg/L	1.0*	0.5	04/29/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	05/04/11	RIA*	*
Iron	mg/L	0.03	0.01	04/29/11	MC	200.7
Boron	mg/L	BRL	0.010	04/29/11	MC	200.7
Nitrate-N	mg/L	1.34	0.01	04/28/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/28/11	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	05/04/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/27/11	MC	SM4500 NH3 C
Chloride	mg/L	43.7	3.0	04/28/11	LL	300.0
Total Phosphorous (P)	mg/L	0.13	0.005	05/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	04/27/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.64*	0.5	04/29/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	1.36	NA	06/14/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.18	NA	06/14/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.36	NA	06/14/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/14/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	1.54	NA	06/14/11	MC	Calculation

$$TN = DON(0.18) + PON(0.1) + NH_4(0.01) + NO_3(1.34) + NO_2(0.002) = 1.632$$

BRL=below reportable limits

*see attached


 Ronald J. Saari
 Laboratory Director

②

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW110879

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/26/11	1220	200	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4
4/26/11	1340	A21-A	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4

WW110880

*No Cu or
Hg

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 4/26/11 1600

6

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
NW 110881 4/26/11	1005	A15	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4
NW 110882 4/26/11	1140	2SR	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu , Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4

x No Cu or Hg

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 4/26/11 1605

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07841

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-110879 2 DR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2011 @ 12:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.07	0.02	mg/l	SM 4500-NH3 C	5/4/11	KES
TOC Low Level	1.3	0.5	mg/l	SM 5310B	4/29/11	TV
Dissolved TOC	1.5	0.5	mg/l	EPA 415.1	4/29/11	TV
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromoform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromomethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloroethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Chloroform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromomethane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07841

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-110879 2 DR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2011 @ 12:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Naphthalene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Styrene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Toluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
o-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Acetone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Hexanone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	5/4/11	RGM
Surrogates			RANGE	SW-846 8260B	5/4/11	RGM
Dibromofluoromethane	92		86-118%	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07841

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-110879 2 DR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2011 @ 12:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	99		88-110%	SW-846 8260B	5/4/11	RGM
4-Bromofluorobenzene	92		86-115%	SW-846 8260B	5/4/11	RGM
1,2 Dichloroethane-d4	96		80-120%	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07841

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-110880 A21-A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2011 @ 13:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.11	0.02	mg/l	SM 4500-NH3 C	5/4/11	KES
TOC Low Level	0.98	0.5	mg/l	SM 5310B	4/29/11	TV
Dissolved TOC	0.97	0.5	mg/l	EPA 415.1	4/29/11	TV
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromoform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromomethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloroethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Chloroform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromomethane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,2-Dichloroethylen	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07841

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-110880 A21-A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2011 @ 13:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Naphthalene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Styrene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Toluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
o-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Acetone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Hexanone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	5/4/11	RGM
Surrogates			RANGE	SW-846 8260B	5/4/11	RGM
Dibromofluoromethane	94		86-118%	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07841

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-110880 A21-A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2011 @ 13:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	99		88-110%	SW-846 8260B	5/4/11	RGM
4-Bromofluorobenzene	94		86-115%	SW-846 8260B	5/4/11	RGM
1,2 Dichloroethane-d4	94		80-120%	SW-846 8260B	5/4/11	RGM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	5/4/11	JJP

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07841

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-110881 A 15

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2011 @ 10:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	5/4/11	KES
TOC Low Level	0.84	0.5	mg/l	SM 5310B	4/29/11	TV
Dissolved TOC	0.85	0.5	mg/l	EPA 415.1	4/29/11	TV
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromoform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromomethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloroethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Chloroform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromomethane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07841

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-110881 A 15

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2011 @ 10:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Naphthalene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Styrene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Toluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
o-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Acetone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Hexanone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	5/4/11	RGM
Surrogates			RANGE	SW-846 8260B	5/4/11	RGM
Dibromofluoromethane	93		86-118%	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07841

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-110881 A 15

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2011 @ 10:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	99		88-110%	SW-846 8260B	5/4/11	RGM
4-Bromofluorobenzene	94		86-115%	SW-846 8260B	5/4/11	RGM
1,2 Dichloroethane-d4	97		80-120%	SW-846 8260B	5/4/11	RGM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	5/4/11	JJP

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07841

PLYMOUTH ENV.

Sample # 004

SAMPLE DESCRIPTION: WW-110882 2 SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2011 @ 11:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	5/4/11	KES
TOC Low Level	1.0	0.5	mg/l	SM 5310B	4/29/11	TV
Dissolved TOC	0.64	0.5	mg/l	EPA 415.1	4/29/11	TV
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromoform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromomethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloroethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Chloroform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromomethane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07841

PLYMOUTH ENV.

Sample # 004

SAMPLE DESCRIPTION: WW-110882 2 SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2011 @ 11:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Naphthalene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Styrene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Toluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
o-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Acetone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Hexanone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	5/4/11	RGM
Surrogates			RANGE	SW-846 8260B	5/4/11	RGM
Dibromofluoromethane	95		86-118%	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/11

Work Order #: 1104-07841

PLYMOUTH ENV.

Sample # 004

SAMPLE DESCRIPTION: WW-110882 2 SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2011 @ 11:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	99		88-110%	SW-846 8260B	5/4/11	RGM
4-Bromofluorobenzene	97		86-115%	SW-846 8260B	5/4/11	RGM
1,2 Dichloroethane-d4	96		80-120%	SW-846 8260B	5/4/11	RGM

CHAIN OF CUSTODY FORM

ENVIROTECH LABS, INC.

8 Jan Sebastian Dr., Unit 12

Sandwich, MA 02563

(508)888-6460

1-800-339-6460

FAX (508)888-6446

RI Analytical

M RI 015

Address 41 Illinois Avenue
Warwick, RI 02888

Phone# 401-737-8500

Fax# 401-738-1970

PWS:

Project Name: Plymouth Env.

Sampler:

KM

Lab ID #	Date	Time	Comp	Grab	Station location	Container	Pres.	Sample type	Analysis requested
WW-110879	04/26/11	1220		X	2 DR ✓	P	H ₂ SO ₄	Groundwater	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved
						P	HNO₃		Mercury
						2 VOA	HCl		EPA 8260 Extended
WW-110880	04/26/11	1340		X	A21-A	P	H ₂ SO ₄	Groundwater	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved
						P	HNO ₃		Mercury
						2 VOA	HCl		EPA 8260 Extended
WW-110881	04/26/11	1005		X	A 15	P	H ₂ SO ₄	Groundwater	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved
						P	HNO ₃		Mercury
						2 VOA	HCl		EPA 8260 Extended
WW-110882	04/26/11	1140		X	2 SR	P	H ₂ SO ₄	Groundwater	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved
						P	HNO₃		Mercury
						2 VOA	HCl		EPA 8260 Extended
								301	
									1104-07841

Relinquished:

Jan Lavalley

Date/Time

4/27/11 1320

Received:

[Signature]

Relinquished:

[Signature]

Date/Time

4/27/11 1645

Received:

*[Signature]*TOC dissolved samples are filtered
Contact lab with any exceeded MCL

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Tuesday, June 28, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: GW Eel River

Comments:

Project Number: Bradford

Collection Date: 04/27/11 **Collection Time:** 8:00

Sampled By: Kim Michaelis

Lab Order Number: WW-110891

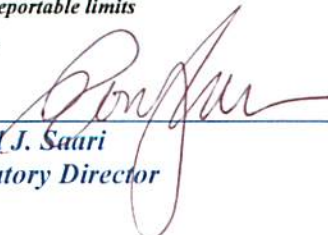
Date Received: 04/27/11

Sample Type	Sample Time	Sample Date	Comments			
Bradford A	8:00	4/27/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	47.0	6.0	05/03/11	MC	2540 C
Total Organic Carbon*	mg/L	0.61*	0.5	04/29/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	05/04/11	RIA*	*
Iron	mg/L	1.53	0.01	05/02/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	05/05/11	RIA*	245.1
Boron	mg/L	0.013	0.010	04/29/11	MC	200.7
Copper	mg/L	0.015	0.003	04/29/11	MC	200.7
Nitrate-N	mg/L	0.16	0.01	04/28/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/28/11	LL	300.0
Ammonia-N *	mg/L	<0.10*	0.02	05/04/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/29/11	MC	SM4500 NH3 C
Chloride	mg/L	12.3	3.0	04/28/11	LL	300.0
Total Phosphorous (P)	mg/L	0.056	0.005	05/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	04/29/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.90*	0.5	04/29/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.26	NA	06/14/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.10	NA	06/14/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.010	0.005	04/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/14/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/14/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.36	NA	06/14/11	MC	Calculation

$$TN = DON (0.1) + PON (0.1) + NH_4 (0.05) + NO_3 (0.16) + NO_2 (0.002) = 0.412$$

BRL=below reportable limits

*see attached


Ronald J. Sauri
Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Tuesday, June 28, 2011

Plymouth Environmental Management
Kim Michaelis
11 Lincoln St. Plymouth

ProjectName: GW Eel River **Comments:**
Project Number: A17
Collection Date: 04/27/11 **Collection Time:** 10:20
Sampled By: Kim Michaelis
Lab Order Number: WW-110892
Date Received: 04/27/11

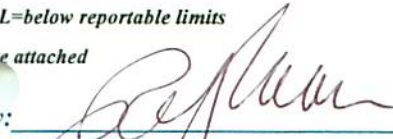
Sample Type	Sample Time	Sample Date	Comments			
A 17 A	10:20	4/27/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	108	6.0	05/03/11	MC	2540 C
Total Organic Carbon*	mg/L	0.81*	0.5	04/29/11	RIA*	SM 5310 C
Volatle Organic Compounds*	ug/L	ND*	*	05/04/11	RIA*	*
Total Iron	mg/L	BRL	0.01	04/29/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	05/05/11	RIA*	245.1
Boron	mg/L	0.011	0.010	04/29/11	MC	200.7
Copper	mg/L	BRL	0.003	04/29/11	MC	200.7
Nitrate-N	mg/L	1.10	0.01	04/28/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/28/11	LL	300.0
Ammonia-N *	mg/L	<0.10*	0.02	05/04/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/29/11	MC	SM4500 NH3 C
Chloride	mg/L	39.2	3.0	04/28/11	LL	300.0
Total Phosphorous (P)	mg/L	0.15	0.005	05/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	04/29/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.74*	0.5	04/29/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	1.20	NA	06/14/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.10	NA	06/14/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.010	0.005	04/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.10	NA	06/14/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/14/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	1.30	NA	06/14/11	MC	Calculation

$$TN = DON(0.1) + PON(0.1) + NH_4(0.05) + NO_3(1.10) + NO_2(0.002) = 1.352$$

BRL=below reportable limits

*see attached

By:


Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Tuesday, June 28, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: GW Eel River

Comments:

Project Number: 7SR

Collection Date: 04/27/11 **Collection Time:** 12:00

Sampled By: Kim Michaelis

Lab Order Number: WW-110893

Date Received: 04/27/11

Sample Type	Sample Time	Sample Date	Comments			
7 SR A	12:00	4/27/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	247	6.0	05/03/11	MC	2540 C
Total Organic Carbon*	mg/L	0.95*	0.5	04/29/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	05/04/11	RIA*	*
Total Iron	mg/L	0.03	0.01	04/29/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	05/05/11	RIA*	245.1
Boron	mg/L	BRL	0.010	04/29/11	MC	200.7
Copper	mg/L	BRL	0.003	04/29/11	MC	200.7
Nitrate-N	mg/L	0.20	0.01	04/28/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/28/11	LL	300.0
Ammonia-N *	mg/L	<0.10*	0.02	05/04/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/29/11	MC	SM4500 NH3 C
Chloride	mg/L	133	3.0	04/29/11	LL	300.0
Total Phosphorous (P)	mg/L	0.063	0.005	05/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	04/29/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.69*	0.5	04/29/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.30	NA	06/14/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.10	NA	06/14/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.30	NA	06/14/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/14/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.40	NA	06/14/11	MC	Calculation

$$TN = DON (0.1) + PON (0.1) + NH_4 (0.05) + NO_3 (0.2) + NO_2 (0.002) = 0.452$$

BRL=below reportable limits

*see attached

By:

Ronald J. Sadri
Laboratory Director

6

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/27/11	0800	Bradford	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4
4/27/11	1020	A17	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 1325 4/27/11

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW110893

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/27/11	1200	752	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4
			2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Michaelis

Received By:

Date/Time:

[Signature] 4/27/11 1325

Envirotech Laboratories, Inc.

8 Jan Sebastian Drive unit 12
Sandwich, MA 02563
Ph: (508) 888-6460
Fax: (508) 888-6446

June 29, 2011

Kim Machaelis
Plymouth Environmental Management
11 Lincoln Street
Plymouth, MA 0202360

Dear Kim:

Re: Eel River project

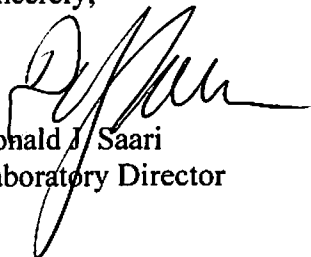
After reviewing the data, many samples showed levels of dissolved TOC more than the total TOC levels.

The laboratory reanalyzed the samples and produced the same values. I understand that at the low levels that are being achieved that this could occur.

The particulate organic carbon value is derived from the difference of total TOC minus dissolved TOC. Where the value is a negative number, we have reported the result as BRL.

If you have any questions feel free to contact me

Sincerely,



Ronald J. Saari
Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/28/11

Work Order #: 1104-07962

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-110891 BRADFORD

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2011 @ 08:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.10	0.10	mg/l	SM 4500-NH3 C	5/4/11	KA
TOC Low Level	0.61	0.5	mg/l	SM-5310B	4/29/11	TV
Dissolved TOC	0.90	0.5	mg/l	EPA 415.1	4/29/11	TV
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromoform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromomethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloroethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Chloroform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromomethane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/28/11

Work Order #: 1104-07962

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-110891 BRADFORD

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2011 @ 08:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Naphthalene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Styrene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Toluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
o-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Acetone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Hexanone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	5/4/11	RGM
Surrogates			RANGE	SW-846 8260B	5/4/11	RGM
Dibromofluoromethane	98		86-118%	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/28/11

Work Order #: 1104-07962

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-110891 BRADFORD

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2011 @ 08:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	101		88-110%	SW-846 8260B	5/4/11	RGM
4-Bromofluorobenzene	96		86-115%	SW-846 8260B	5/4/11	RGM
1,2 Dichloroethane-d4	96		80-120%	SW-846 8260B	5/4/11	RGM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	5/5/11	PJC

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/28/11

Work Order #: 1104-07962

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-110892 A 17

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2011 @ 10:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.10	0.10	mg/l	SM 4500-NH3 C	5/4/11	KA
TOC Low Level	0.81	0.5	mg/l	SM-5310B	4/29/11	TV
Dissolved TOC	0.74	0.5	mg/l	EPA 415.1	4/29/11	TV
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromoform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromomethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloroethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Chloroform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromomethane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/28/11

Work Order #: 1104-07962

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-110892 A 17

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2011 @ 10:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Naphthalene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Styrene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Toluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
o-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Acetone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Hexanone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	5/4/11	RGM
Surrogates			RANGE	SW-846 8260B	5/4/11	RGM
Dibromofluoromethane	98		86-118%	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/28/11

Work Order #: 1104-07962

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-110892 A 17

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2011 @ 10:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	102		88-110%	SW-846 8260B	5/4/11	RGM
4-Bromofluorobenzene	98		86-115%	SW-846 8260B	5/4/11	RGM
1,2 Dichloroethane-d4	95		80-120%	SW-846 8260B	5/4/11	RGM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	5/5/11	PJC

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/28/11

Work Order #: 1104-07962

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-110893 7SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2011 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.10	0.10	mg/l	SM 4500-NH3 C	5/4/11	KA
TOC Low Level	0.95	0.5	mg/l	SM-5310B	4/29/11	TV
Dissolved TOC	0.69	0.5	mg/l	EPA 415.1	4/29/11	TV
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromoform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Bromomethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloroethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Chloroform	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Chloromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dibromomethane	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/28/11

Work Order #: 1104-07962

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-110893 7SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2011 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Naphthalene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Styrene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Toluene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichloroethene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
o-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	5/4/11	RGM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	5/4/11	RGM
Acetone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
2-Hexanone	<10	10	ug/l	SW-846 8260B	5/4/11	RGM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	5/4/11	RGM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	5/4/11	RGM
Surrogates			RANGE	SW-846 8260B	5/4/11	RGM
Dibromofluoromethane	99		86-118%	SW-846 8260B	5/4/11	RGM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/28/11

Work Order #: 1104-07962

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-110893 7SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2011 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	103		88-110%	SW-846 8260B	5/4/11	RGM
4-Bromofluorobenzene	99		86-115%	SW-846 8260B	5/4/11	RGM
1,2 Dichloroethane-d4	97		80-120%	SW-846 8260B	5/4/11	RGM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	5/5/11	PJC

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, December 21, 2011

Plymouth Environmental Management
K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: GW Eel River **Comments:**
Project Number: GW-1
Collection Date: 10/24/11 **Collection Time:** 8:00
Sampled By: Kim Tower
Lab Order Number: WW-112573
Date Received: 10/24/11

Sample Type	Sample Time	Sample Date	Comments			
GW-1 A	8:00	10/24/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	BRL	6.0	11/15/11	MC	2540 C
Total Organic Carbon*	mg/L	<0.5*	0.5	10/27/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	10/28/11	RIA*	*
Total Iron	mg/L	0.01	0.01	10/31/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	10/28/11	RIA*	245.1
Boron	mg/L	BRL	0.010	12/12/11	MC	200.7
Copper	mg/L	BRL	0.003	10/31/11	MC	200.7
Nitrate-N	mg/L	BRL	0.01	10/24/11	RL	300.0
Nitrite-N	mg/L	BRL	0.004	10/24/11	RL	300.0
Ammonia-N *	mg/L	0.27*	0.02	11/09/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	10/28/11	MC	SM4500 NH3 C
Chloride	mg/L	BRL	3.0	10/24/11	RL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	11/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	10/28/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.70*	0.5	10/27/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.27	NA	12/21/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	12/21/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	10/25/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	12/21/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	12/21/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.21	NA	12/21/11	MC	Calculation

$$TN = DON(0.1) + PON(0.1) + NH_4(0.27) + NO_3(0.005) + NO_2(0.002) = 0.477$$

BRL=below reportable limits

*see attached

By:

Ronald J. Sauri
Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21113

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-112573 GW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/24/2011 @ 08:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.27	0.02	mg/l	SM 4500-NH3 C	11/10/11	SJC
TOC Low Level	<0.5	0.5	mg/l	SM-5310B	10/27/11	JRG
Dissolved TOC	0.70	0.5	mg/l	EPA 415.1	10/27/11	JRG
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromomethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21113

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-112573 GW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/24/2011 @ 08:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Styrene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Toluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	10/27/11	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
Acetone	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	10/27/11	MMM
Surrogates			RANGE	SW-846 8260B	10/27/11	MMM
Dibromofluoromethane	105		86-118%	SW-846 8260B	10/27/11	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21113

PLYMOUTH ENV.

Sample # 001						
SAMPLE DESCRIPTION: WW-112573 GW-1						
SAMPLE TYPE: GRAB			SAMPLE DATE/TIME: 10/24/2011 @ 08:00			
PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	102		88-110%	SW-846 8260B	10/27/11	MMM
4-Bromofluorobenzene	103		86-115%	SW-846 8260B	10/27/11	MMM
1,2 Dichloroethane-d4	88		80-120%	SW-846 8260B	10/27/11	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/28/11	BLG

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Wednesday, December 21, 2011

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River **Comments:**
Project Number: A 13
Collection Date: 10/24/11 **Collection Time:** 10:15
Sampled By: Kim Tower
Lab Order Number: WW-112574
Date Received: 10/24/11

Sample Type	Sample Time	Sample Date	Comments			
A 13 A	10:15	10/24/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	320	6.0	11/15/11	MC	2540 C
Total Organic Carbon*	mg/L	2.5*	0.5	10/27/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	4**	*	10/28/11	RIA*	*
Total Iron	mg/L	3.49	0.01	10/31/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	10/28/11	RIA*	245.1
Boron	mg/L	0.012	0.010	12/12/11	MC	200.7
Copper	mg/L	0.003	0.003	10/31/11	MC	200.7
Nitrate-N	mg/L	0.18	0.01	10/24/11	RL	300.0
Nitrite-N	mg/L	BRL	0.004	10/24/11	RL	300.0
Ammonia-N *	mg/L	0.15*	0.02	11/09/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.42	0.2	10/28/11	MC	SM4500 NH3 C
Chloride	mg/L	187	3.0	10/25/11	LL	300.0
Total Phosphorous (P)	mg/L	0.014	0.005	11/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	10/28/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.7*	0.5	10/27/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.33	NA	12/21/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.13	NA	12/21/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.006	0.005	10/25/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	12/21/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	NA	12/21/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.46	NA	12/21/11	MC	Calculation

$$TN = DON(0.13) + PON(0.14) + NH_4(0.15) + NO_3(0.18) + NO_2(0.002) = 0.602$$

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21113

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-112574 A 13

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/24/2011 @ 10:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.15	0.02	mg/l	SM 4500-NH3 C	11/9/11	EK
TOC Low Level	2.5	0.5	mg/l	SM-5310B	10/27/11	JRG
Dissolved TOC	2.7	0.5	mg/l	EPA 415.1	10/27/11	JRG
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Bromomethane	<5	5	ug/l	SW-846 8260B	10/28/11	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	10/28/11	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	10/28/11	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	10/28/11	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	10/28/11	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	10/28/11	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21113

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-112574 A 13

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/24/2011 @ 10:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	10/28/11	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Styrene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Toluene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Methyl Tertiary Butyl Ether (MTBE)	4	2	ug/l	SW-846 8260B	10/28/11	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	10/28/11	MMM
Acetone	<10	10	ug/l	SW-846 8260B	10/28/11	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	10/28/11	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	10/28/11	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	10/28/11	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	10/28/11	MMM
Surrogates			RANGE	SW-846 8260B	10/28/11	MMM
Dibromofluoromethane	102		86-118%	SW-846 8260B	10/28/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21113

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-112574 A 13

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/24/2011 @ 10:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	102		88-110%	SW-846 8260B	10/28/11	MMM
4-Bromofluorobenzene	103		86-115%	SW-846 8260B	10/28/11	MMM
1,2 Dichloroethane-d4	97		80-120%	SW-846 8260B	10/28/11	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/28/11	BLG

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, December 21, 2011

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number: 2 SR

Collection Date: 10/24/11 Collection Time: 11:10

Sampled By: Kim Tower

Lab Order Number: WW-112575

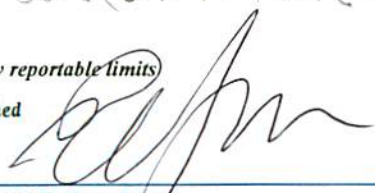
Date Received: 10/24/11

Sample Type	Sample Time	Sample Date	Comments			
2 SR A	11:10	10/24/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	58.0	6.0	11/15/11	MC	2540 C
Total Organic Carbon*	mg/L	0.67*	0.5	10/27/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	10/28/11	RIA*	*
Total Iron	mg/L	0.03	0.01	10/31/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	10/28/11	RIA*	245.1
Boron	mg/L	BRL	0.010	12/12/11	MC	200.7
Copper	mg/L	BRL	0.003	10/31/11	MC	200.7
Nitrate-N	mg/L	0.69	0.01	10/24/11	RL	300.0
Nitrite-N	mg/L	BRL	0.004	10/24/11	RL	300.0
Ammonia-N *	mg/L	0.03*	0.02	11/09/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.35	0.2	10/28/11	MC	SM4500 NH3 C
Chloride	mg/L	20.6	3.0	10/24/11	RL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	11/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	10/28/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.92*	0.5	10/27/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.72	NA	12/21/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.18	NA	12/21/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	10/25/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	12/21/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	NA	12/21/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.90	NA	12/21/11	MC	Calculation

$$TN = DON(0.18) + PON(0.14) + NH_4(0.03) + NO_3(0.69) + NO_2(0.002) = 1.042$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21113

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-112575 2 SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/24/2011 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.03	0.02	mg/l	SM 4500-NH3 C	11/9/11	EK
TOC Low Level	0.67	0.5	mg/l	SM-5310B	10/27/11	JRG
Dissolved TOC	0.92	0.5	mg/l	EPA 415.1	10/27/11	JRG
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Bromomethane	<5	5	ug/l	SW-846 8260B	10/28/11	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	10/28/11	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	10/28/11	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	10/28/11	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	10/28/11	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	10/28/11	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21113

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-112575 2 SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/24/2011 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	10/28/11	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Styrene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Toluene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	10/28/11	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	10/28/11	MMM
Acetone	<10	10	ug/l	SW-846 8260B	10/28/11	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	10/28/11	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	10/28/11	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	10/28/11	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	10/28/11	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	10/28/11	MMM
Surrogates			RANGE	SW-846 8260B	10/28/11	MMM
Dibromofluoromethane	98		86-118%	SW-846 8260B	10/28/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21113

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-112575 2 SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/24/2011 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	98		88-110%	SW-846 8260B	10/28/11	MMM
4-Bromofluorobenzene	101		86-115%	SW-846 8260B	10/28/11	MMM
1,2 Dichloroethane-d4	92		80-120%	SW-846 8260B	10/28/11	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/28/11	BLG

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Wednesday, December 21, 2011

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River **Comments:**
Project Number: 2 DR
Collection Date: 10/24/11 **Collection Time:** 11:50
Sampled By: Kim Tower
Lab Order Number: WW-112576
Date Received: 10/24/11

Sample Type	Sample Time	Sample Date	Comments			
2 DR A	11:50	10/24/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	143	6.0	11/15/11	MC	2540 C
Total Organic Carbon*	mg/L	1.1*	0.5	10/27/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	10/27/11	RIA*	*
Total Iron	mg/L	18.2	0.01	10/31/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	10/28/11	RIA*	245.1
Boron	mg/L	0.040	0.010	12/12/11	MC	200.7
Copper	mg/L	BRL	0.003	10/31/11	MC	200.7
Nitrate-N	mg/L	0.12	0.01	10/24/11	RL	300.0
Nitrite-N	mg/L	BRL	0.004	10/24/11	RL	300.0
Ammonia-N *	mg/L	<0.10*	0.02	11/09/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	10/28/11	MC	SM4500 NH3 C
Chloride	mg/L	59.2	3.0	10/24/11	RL	300.0
Total Phosphorous (P)	mg/L	0.011	0.005	11/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	10/28/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.1*	0.5	10/27/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.12	NA	12/21/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	12/21/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	10/25/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	12/21/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.28	NA	12/21/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.12	NA	12/21/11	MC	Calculation

$$TN = DON(0.0) + PON(0.28) + NH_4(0.00) + NO_3(0.12) + NO_2(0.002) = 0.512$$

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21110

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-112576 2DR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/24/2011 @ 11:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.10	0.10	mg/l	SM 4500-NH3 C	11/9/11	EK
TOC Low Level	1.1	0.5	mg/l	SM-5310B	10/27/11	JRG
Dissolved TOC	1.1	0.5	mg/l	EPA 415.1	10/27/11	JRG
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromomethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21110

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-112576 2DR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/24/2011 @ 11:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Styrene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Toluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	10/27/11	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
Acetone	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	10/27/11	MMM
Surrogates			RANGE	SW-846 8260B	10/27/11	MMM
Dibromofluoromethane	102		86-118%	SW-846 8260B	10/27/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21110

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-112576 2DR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/24/2011 @ 11:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	100		88-110%	SW-846 8260B	10/27/11	MMM
4-Bromofluorobenzene	100		86-115%	SW-846 8260B	10/27/11	MMM
1,2 Dichloroethane-d4	98		80-120%	SW-846 8260B	10/27/11	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/28/11	BLG

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, December 21, 2011

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.
Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number: A 21-A

Collection Date: 10/24/11 **Collection Time:** 13:45

Sampled By: Kim Tower

Lab Order Number: WW-112577

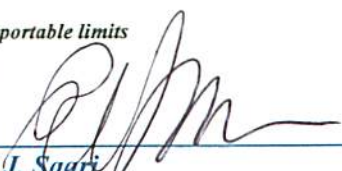
Date Received: 10/24/11

Sample Type	Sample Time	Sample Date	Comments			
A 21-A A	13:45	10/24/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	69.0	6.0	11/15/11	MC	2540 C
Total Organic Carbon*	mg/L	1.1*	0.5	10/27/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	10/27/11	RIA*	*
Total Iron	mg/L	1.83	0.01	10/31/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	10/28/11	RIA*	245.1
Boron	mg/L	0.012	0.010	12/12/11	MC	200.7
Copper	mg/L	0.004	0.003	10/31/11	MC	200.7
Nitrate-N	mg/L	BRL	0.01	10/24/11	RL	300.0
Nitrite-N	mg/L	BRL	0.004	10/24/11	RL	300.0
Ammonia-N *	mg/L	0.16*	0.02	11/09/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.42	0.2	10/28/11	MC	SM4500 NH3 C
Chloride	mg/L	25.0	3.0	10/24/11	RL	300.0
Total Phosphorous (P)	mg/L	0.044	0.005	11/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	10/28/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.3*	0.5	10/27/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.16	NA	12/21/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.12	NA	12/21/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.030	0.005	10/25/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	12/21/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	NA	12/21/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.28	NA	12/21/11	MC	Calculation

$$TN = DON (0.12) + PON (0.14) + NH_4 (0.16) + NO_3 (0.005) + NO_2 (0.002) = 0.427$$

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21110

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-112577 A21-A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/24/2011 @ 13:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.16	0.10	mg/l	SM 4500-NH3 C	11/9/11	EK
TOC Low Level	1.1	0.5	mg/l	SM-5310B	10/27/11	JRG
Dissolved TOC	1.3	0.5	mg/l	EPA 415.1	10/27/11	JRG
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromomethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21110

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-112577 A21-A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/24/2011 @ 13:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Styrene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Toluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	10/27/11	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
Acetone	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	10/27/11	MMM
Surrogates			RANGE	SW-846 8260B	10/27/11	MMM
Dibromofluoromethane	97		86-118%	SW-846 8260B	10/27/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21110

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-112577 A21-A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/24/2011 @ 13:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	99		88-110%	SW-846 8260B	10/27/11	MMM
4-Bromofluorobenzene	100		86-115%	SW-846 8260B	10/27/11	MMM
1,2 Dichloroethane-d4	93		80-120%	SW-846 8260B	10/27/11	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	10/28/11	BLG

②

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: **GW Eel River -Plymouth MA**
Sampler: Kim Michaelis (KM)
 Kim Michaelis

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10/24/11	0800	GW-1	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4
10/24/11	1015	A13	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Tower 10/24/11 1530

Received By:

Date/Time:

[Signature] 10/24/11 1530

6

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us

Project Name: GW Eel River -Plymouth MA

Sampler: Kim Michaelis (KM)

Tower

WW112575

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10/24/11	2 1110	252	2	Glass Vial	VOC	HCL
1	1	1	1	1 Liter Plastic	Dissolved	NONE
1	1	1	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
1	1	1	1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
1	1	1	1	Plastic	TOC	H2SO4
10/24/11	1150	202	2	Glass Vial	VOC	HCL
1	1	1	1	1 Liter Plastic	Dissolved	NONE
1	1	1	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
1	1	1	1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
1	1	1	1	Plastic	TOC	H2SO4

WW112576

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 10/24/11 1531

6

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: **GW Eel River -Plymouth MA**
Sampler: Kim Michaelis (KM)

Tower

WW12577

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10/24/11	1345	A21-A	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4
			2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

[Signature] 10/24/11 1530

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, December 21, 2011

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

Project Name: GW Eel River

Comments:

Project Number: DW-1

Collection Date: 10/25/11 Collection Time: 8:50

Sampled By: Kim Tower

Lab Order Number: WW-112588

Date Received: 10/25/11

Sample Type	Sample Time	Sample Date	Comments			
DW-1 A	8:50	10/25/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	115	6.0	11/15/11	MC	2540 C
Total Organic Carbon*	mg/L	0.61*	0.5	10/27/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	10/27/11	RIA*	*
Total Iron	mg/L	0.02	0.01	10/31/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	11/01/11	RIA*	245.1
Boron	mg/L	BRL	0.010	12/12/11	MC	200.7
Copper	mg/L	0.003	0.003	10/31/11	MC	200.7
Nitrate-N	mg/L	0.91	0.01	10/25/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	10/25/11	LL	300.0
Ammonia-N *	mg/L	0.03*	0.02	11/09/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	10/28/11	MC	SM4500 NH3 C
Chloride	mg/L	52.6	3.0	10/25/11	LL	300.0
Total Phosphorous (P)	mg/L	0.014	0.005	11/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	10/28/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.56*	0.5	10/27/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.94	NA	12/21/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	12/21/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.011	0.005	10/25/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	12/21/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.21	NA	12/21/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.94	NA	12/21/11	MC	Calculation

$$TN = DON(0.1) + PON(0.21) + NH_4(0.03) + NO_3(0.91) + NO_2(0.002) = 1.252$$

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21111

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-112588 DW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/25/2011 @ 08:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.03	0.02	mg/l	SM 4500-NH3 C	11/9/11	EK
TOC Low Level	0.61	0.5	mg/l	SM-5310B	10/27/11	JRG
Dissolved TOC	0.56	0.5	mg/l	EPA 415.1	10/27/11	JRG
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromomethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21111

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-112588 DW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/25/2011 @ 08:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Styrene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Toluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	10/27/11	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
Acetone	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	10/27/11	MMM
Surrogates			RANGE	SW-846 8260B	10/27/11	MMM
Dibromofluoromethane	98		86-118%	SW-846 8260B	10/27/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21111

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-112588 DW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/25/2011 @ 08:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	98		88-110%	SW-846 8260B	10/27/11	MMM
4-Bromofluorobenzene	98		86-115%	SW-846 8260B	10/27/11	MMM
1,2 Dichloroethane-d4	92		80-120%	SW-846 8260B	10/27/11	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/1/11	PJC

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Wednesday, December 21, 2011

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River
Project Number: A-17
Collection Date: 10/25/11
Sampled By: Kim Tower
Lab Order Number: WW-112589
Date Received: 10/25/11

Comments:

Sample Type	Sample Time	Sample Date	Comments			
A 17 A	11:25	10/25/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	113	6.0	11/15/11	MC	2540 C
Total Organic Carbon*	mg/L	0.50*	0.5	10/27/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	10/27/11	RIA*	*
Total Iron	mg/L	0.01	0.01	10/31/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	11/01/11	RIA*	245.1
Boron	mg/L	BRL	0.010	12/12/11	MC	200.7
Copper	mg/L	0.003	0.003	10/31/11	MC	200.7
Nitrate-N	mg/L	0.91	0.01	10/25/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	10/25/11	LL	300.0
Ammonia-N *	mg/L	0.03*	0.02	11/09/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	10/28/11	MC	SM4500 NH3 C
Chloride	mg/L	53.0	3.0	10/25/11	LL	300.0
Total Phosphorous (P)	mg/L	0.011	0.005	11/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	10/28/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.62*	0.5	10/27/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.94	NA	12/21/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.18	NA	12/21/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.009	0.005	10/25/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	12/21/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	12/21/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	1.12	NA	12/21/11	MC	Calculation

$$TN = DON(0.18) + PON(0.07) + NH_4(0.03) + NO_3(0.91) + NO_2(0.002) = 1.192$$

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21111

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-112589 A17

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/25/2011 @ 11:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.03	0.02	mg/l	SM 4500-NH3 C	11/9/11	EK
TOC Low Level	0.50	0.5	mg/l	SM-5310B	10/27/11	JRG
Dissolved TOC	0.62	0.5	mg/l	EPA 415.1	10/27/11	JRG
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Bromomethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21111

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-112589 A17

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/25/2011 @ 11:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Styrene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Toluene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	10/27/11	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	10/27/11	MMM
Acetone	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	10/27/11	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	10/27/11	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	10/27/11	MMM
Surrogates			RANGE	SW-846 8260B	10/27/11	MMM
Dibromofluoromethane	99		86-118%	SW-846 8260B	10/27/11	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/25/11

Work Order #: 1110-21111

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-112589 A17

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/25/2011 @ 11:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	98		88-110%	SW-846 8260B	10/27/11	MMM
4-Bromofluorobenzene	102		86-115%	SW-846 8260B	10/27/11	MMM
1,2 Dichloroethane-d4	91		80-120%	SW-846 8260B	10/27/11	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/1/11	PJC

2

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: **GW Eel River -Plymouth MA**
Sampler: Kim Tower (KT)

Tower
Michaelis
tower

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10/25/11	0850	DW-1	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4
10/25/11	1125	A17	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Tower 10/25/11 1405

Received By:

Date/Time:

L. Lowally 10/25/11 1405

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Thursday, December 22, 2011

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River
Project Number: Bradford
Collection Date: 10/26/11
Sampled By: K. Tower
Lab Order Number: WW-112613
Date Received: 10/26/11

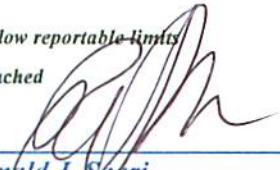
Comments:

Sample Type	Sample Time	Sample Date	Comments			
Bradford A	7:45	10/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	32.0	6.0	11/15/11	MC	2540 C
Total Organic Carbon*	mg/L	0.66*	0.5	11/09/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	11/02/11	RIA*	*
Total Iron	mg/L	1.29	0.01	10/31/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	11/01/11	RIA*	245.1
Boron	mg/L	BRL	0.010	12/12/11	MC	200.7
Copper	mg/L	0.012	0.003	10/31/11	MC	200.7
Nitrate-N	mg/L	0.13	0.01	10/27/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	10/27/11	LL	300.0
Ammonia-N *	mg/L	0.13*	0.02	11/11/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	10/28/11	MC	SM4500 NH3 C
Chloride	mg/L	11.6	3.0	10/27/11	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	11/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	10/28/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.56*	0.5	11/09/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.26	NA	12/21/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.08	NA	12/21/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	10/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	NA	12/21/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	12/21/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.34	NA	12/21/11	MC	Calculation

$$TN = DON(0.08) + PON(0.07) + NH_4(0.13) + NO_3(0.13) + NO_2(0.002) = 0.412$$

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/28/11

Work Order #: 1110-21407

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-112613 BRADFORD

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/26/2011 @ 07:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.13	0.02	mg/l	SM 4500-NH3 C	11/11/11	SJC
TOC Low Level	0.66	0.5	mg/l	SM-5310B	11/9/11	JRG
Dissolved TOC	0.56	0.5	mg/l	EPA 415.1	11/9/11	JRG
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromomethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/28/11

Work Order #: 1110-21407

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-112613 BRADFORD

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/26/2011 @ 07:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/2/11	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/2/11	MMM
Surrogates			RANGE	SW-846 8260B	11/2/11	MMM
Dibromofluoromethane	104		86-118%	SW-846 8260B	11/2/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/28/11

Work Order #: 1110-21407

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-112613 BRADFORD

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/26/2011 @ 07:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	101		88-110%	SW-846 8260B	11/2/11	MMM
4-Bromofluorobenzene	95		86-115%	SW-846 8260B	11/2/11	MMM
1,2 Dichloroethane-d4	90		80-120%	SW-846 8260B	11/2/11	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/1/11	PJC

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Wednesday, December 21, 2011

Plymouth Environmental Management
 K. Towers/ 11 Lincoln St.
 Plymouth, MA

ProjectName: GW Eel River **Comments:**
Project Number: A 15
Collection Date: 10/26/11 **Collection Time:** 10:50
Sampled By: Kim Tower
Lab Order Number: WW-112614
Date Received: 10/26/11

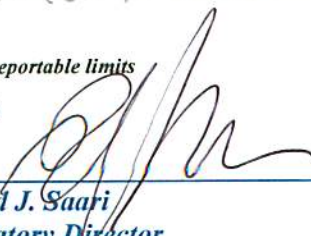
Sample Type	Sample Time	Sample Date	Comments			
A 15 A	10:50	10/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	283	6.0	11/15/11	MC	2540 C
Total Organic Carbon*	mg/L	0.55*	0.5	11/09/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	11/02/11	RIA*	*
Total Iron	mg/L	0.02	0.01	10/31/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	11/01/11	RIA*	245.1
Boron	mg/L	BRL	0.010	12/12/11	MC	200.7
Copper	mg/L	0.005	0.003	10/31/11	MC	200.7
Nitrate-N	mg/L	1.32	0.01	10/27/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	10/27/11	LL	300.0
Ammonia-N *	mg/L	0.07*	0.02	11/11/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	10/28/11	MC	SM4500 NH3 C
Chloride	mg/L	105	3.0	10/31/11	LL	300.0
Total Phosphorous (P)	mg/L	0.033	0.005	11/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	10/28/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.63*	0.5	11/09/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	1.39	NA	12/21/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.14	NA	12/21/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.033	0.005	10/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	12/21/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	12/21/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	1.53	NA	12/21/11	MC	Calculation

$$TN = DON(0.14) + PON(0.07) + NH_4(0.07) + NO_3(1.32) + NO_2(0.002) = 1.602$$

BRL=below reportable limits

*see attached

By:


 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/28/11

Work Order #: 1110-21407

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-112614 A15

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/26/2011 @ 10:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.07	0.02	mg/l	SM 4500-NH3 C	11/11/11	SJC
TOC Low Level	0.55	0.5	mg/l	SM-5310B	11/9/11	JRG
Dissolved TOC	0.63	0.5	mg/l	EPA 415.1	11/9/11	JRG
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromomethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/28/11

Work Order #: 1110-21407

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-112614 A15

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/26/2011 @ 10:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/2/11	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/2/11	MMM
Surrogates			RANGE	SW-846 8260B	11/2/11	MMM
Dibromofluoromethane	106		86-118%	SW-846 8260B	11/2/11	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/28/11

Work Order #: 1110-21407

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-112614 A15

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/26/2011 @ 10:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	103		88-110%	SW-846 8260B	11/2/11	MMM
4-Bromofluorobenzene	100		86-115%	SW-846 8260B	11/2/11	MMM
1,2 Dichloroethane-d4	101		80-120%	SW-846 8260B	11/2/11	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/1/11	PJC

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Thursday, December 22, 2011

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number: 5S

Collection Date: 10/26/11 Collection Time: 12:45

Sampled By: Kim Tower

Lab Order Number: WW-112615

Date Received: 10/26/11

Sample Type	Sample Time	Sample Date	Comments			
5 S A	12:45	10/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	568	6.0	11/15/11	MC	2540 C
Total Organic Carbon*	mg/L	0.67*	0.5	11/09/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	1**	*	11/02/11	RIA*	*
Total Iron	mg/L	0.30	0.01	10/31/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	11/01/11	RIA*	245.1
Boron	mg/L	BRL	0.010	12/12/11	MC	200.7
Copper	mg/L	0.006	0.003	10/31/11	MC	200.7
Nitrate-N	mg/L	0.35	0.01	10/27/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	10/27/11	LL	300.0
Ammonia-N *	mg/L	0.06*	0.02	11/11/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	10/28/11	MC	SM4500 NH3 C
Chloride	mg/L	340	3.0	10/31/11	LL	300.0
Total Phosphorous (P)	mg/L	0.15	0.005	11/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	10/28/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.65*	0.5	11/09/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.41	NA	12/21/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	12/21/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.015	0.005	10/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	12/21/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.21	NA	12/21/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.41	NA	12/21/11	MC	Calculation

$$TN = DAN(0.1) + PON(0.21) + NH_4(0.06) + NO_3(0.35) + NO_2(0.002) = 0.722$$

BRL=below reportable limits

*see attached

By:

Ronald J. Saah
Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/28/11

Work Order #: 1110-21407

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-112615 5S

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/26/2011 @ 12:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.06	0.02	mg/l	SM 4500-NH3 C	11/11/11	SJC
TOC Low Level	0.67	0.5	mg/l	SM-5310B	11/9/11	JRG
Dissolved TOC	0.65	0.5	mg/l	EPA 415.1	11/9/11	JRG
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromomethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
Chloroform	1	1	ug/l	SW-846 8260B	11/2/11	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/28/11

Work Order #: 1110-21407

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-112615 5S

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/26/2011 @ 12:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/2/11	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/2/11	MMM
Surrogates			RANGE	SW-846 8260B	11/2/11	MMM
Dibromofluoromethane	101		86-118%	SW-846 8260B	11/2/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/28/11

Work Order #: 1110-21407

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-112615 5S

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/26/2011 @ 12:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	100		88-110%	SW-846 8260B	11/2/11	MMM
4-Bromofluorobenzene	100		86-115%	SW-846 8260B	11/2/11	MMM
1,2 Dichloroethane-d4	103		80-120%	SW-846 8260B	11/2/11	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/1/11	PJC

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, December 21, 2011

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: GW Eel River

Comments:

Project Number: A 19

Collection Date: 10/26/11 **Collection Time:** 13:55

Sampled By: Kim Tower

Lab Order Number: WW-112616

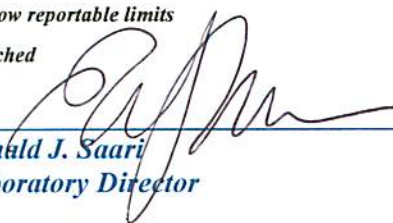
Date Received: 10/26/11

Sample Type	Sample Time	Sample Date	Comments			
A 19 A	15:10	10/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	58.0	6.0	11/15/11	MC	2540 C
Total Organic Carbon*	mg/L	0.85*	0.5	11/09/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	11/02/11	RIA*	*
Total Iron	mg/L	0.08	0.01	10/31/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	11/01/11	RIA*	245.1
Boron	mg/L	0.011	0.010	12/12/11	MC	200.7
Copper	mg/L	BRL	0.003	10/31/11	MC	200.7
Nitrate-N	mg/L	1.07	0.01	10/27/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	10/27/11	LL	300.0
Ammonia-N *	mg/L	0.06*	0.02	11/11/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	10/28/11	MC	SM4500 NH3 C
Chloride	mg/L	9.9	3.0	10/27/11	LL	300.0
Total Phosphorous (P)	mg/L	0.016	0.005	11/02/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	10/28/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.90*	0.5	11/09/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	1.13	NA	12/21/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.15	NA	12/21/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.010	0.005	10/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	12/21/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	12/21/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	1.28	NA	12/21/11	MC	Calculation

$$TN = DON(0.15) + PON(0.07) + NH_4(0.06) + NO_3(1.07) + NO_2(0.002) = 1.352$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/28/11

Work Order #: 1110-21407

PLYMOUTH ENV.

Sample # 004

SAMPLE DESCRIPTION: WW-112616 A19

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/26/2011 @ 13:55

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.06	0.02	mg/l	SM 4500-NH3 C	11/11/11	SJC
TOC Low Level	0.85	0.5	mg/l	SM-5310B	11/9/11	JRG
Dissolved TOC	0.90	0.5	mg/l	EPA 415.1	11/9/11	JRG
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromomethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/28/11

Work Order #: 1110-21407

PLYMOUTH ENV.

Sample # 004

SAMPLE DESCRIPTION: WW-112616 A19

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/26/2011 @ 13:55

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/2/11	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/2/11	MMM
Surrogates			RANGE	SW-846 8260B	11/2/11	MMM
Dibromofluoromethane	105		86-118%	SW-846 8260B	11/2/11	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/28/11

Work Order #: 1110-21407

PLYMOUTH ENV.

Sample # 004

SAMPLE DESCRIPTION: WW-112616 A19

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/26/2011 @ 13:55

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	100		88-110%	SW-846 8260B	11/2/11	MMM
4-Bromofluorobenzene	104		86-115%	SW-846 8260B	11/2/11	MMM
1,2 Dichloroethane-d4	98		80-120%	SW-846 8260B	11/2/11	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/1/11	PJC

2

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM) Tower (LT)

hw-112613

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10/26/11	0745	Bradford	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4
10/26/11	1050	A15	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4

hw-112614

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

Michaelis 10/26/11 1510

2

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: **GW Eel River -Plymouth MA**
Sampler: Kim Michaelis (KW) Tower (KT)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10/26/11	1245	5S	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4
10/26/11	1355	A19	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4

*Please filter *
SS called Kim about comment?

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Tower

Received By: Date/Time:

Rhavalis 10/26/11 1510RL

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Thursday, December 22, 2011

Plymouth Environmental Management
 K.Towers/ 11 Lincoln St.
 Plymouth, MA

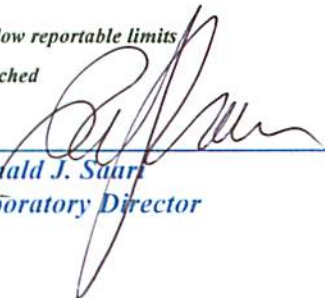
ProjectName: Gw Eel River-Plymouth **Comments:**
Project Number: 7SR
Collection Date: 10/27/11 **Collection Time:** 12:30
Sampled By: KT
Lab Order Number: WW-112621
Date Received: 10/27/11

Sample Type	Sample Time	Sample Date	Comments			
7SR A	12:30	10/27/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	270	6.0	11/15/11	MC	2540 C
Total Organic Carbon*	mg/L	0.61*	0.5	11/09/11	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	11/02/11	RIA*	*
Total Iron	mg/L	0.010	0.01	10/31/11	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	11/03/11	RIA*	245.1
Boron	mg/L	BRL	0.010	12/12/11	MC	200.7
Copper	mg/L	0.020	0.003	10/31/11	MC	200.7
Nitrate-N	mg/L	0.19	0.01	10/27/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	10/27/11	LL	300.0
Ammonia-N *	mg/L	0.06*	0.02	11/15/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	10/28/11	MC	SM4500 NH3 C
Chloride	mg/L	149	3.0	10/31/11	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	11/03/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	10/28/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.76*	0.5	11/09/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.25	NA	12/21/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	12/21/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	10/27/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	12/21/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.21	NA	12/21/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.25	NA	12/21/11	MC	Calculation

$$TN = DON(0.1) + PON(0.21) + NH_4(0.06) + NO_3(0.19) + NO_2(0.002) = 0.562$$

BRL=below reportable limits

*see attached

By: 
 Ronald J. Stuart
 Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/28/11

Work Order #: 1110-21408

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-112621 7SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/27/2011 @ 12:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.06	0.02	mg/l	SM 4500-NH3 C	11/15/11	SJC
TOC Low Level	0.60	0.5	mg/l	SM-5310B	11/9/11	JRG
Dissolved TOC	0.76	0.5	mg/l	EPA 415.1	11/9/11	JRG
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Bromomethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/28/11

Work Order #: 1110-21408

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-112621 7SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/27/2011 @ 12:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/2/11	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/2/11	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/2/11	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/2/11	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/2/11	MMM
Surrogates			RANGE	SW-846 8260B	11/2/11	MMM
Dibromofluoromethane	101		86-118%	SW-846 8260B	11/2/11	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 10/28/11

Work Order #: 1110-21408

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-112621 7SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 10/27/2011 @ 12:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	100		88-110%	SW-846 8260B	11/2/11	MMM
4-Bromofluorobenzene	98		86-115%	SW-846 8260B	11/2/11	MMM
1,2 Dichloroethane-d4	86		80-120%	SW-846 8260B	11/2/11	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/3/11	PJC

①

DB
WW-112621

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis Tower
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM) Tower (KT)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
10/27/11	1230	75R	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4
			2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury, O-Phos	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chloride, Copper, Iron, Mercury, VOC

Relinquished By: Date/Time

Kim Tower 10/27/11

Received By:

Date/Time:

10/27/11 1400

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Thursday, June 09, 2011

Plymouth Environmental Management
Kim Michaelis
11 Lincoln St. Plymouth

ProjectName: SW Eel River **Comments:**
Project Number: S-8B
Collection Date: 04/20/11 **Collection Time:** 7:30
Sampled By: Kim Michaelis
Lab Order Number: WW-110816
Date Received: 04/20/11

Sample Type	Sample Time	Sample Date	Comments			
S-8B A	7:30	4/20/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	BRL	6.0	04/25/11	MC	2540 C
Total Organic Carbon*	mg/L	0.62*	0.5	04/27/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	04/25/11	MC	200.7
Nitrate-N	mg/L	BRL	0.01	04/19/11	RL	300.0
Nitrite-N	mg/L	BRL	0.004	04/19/11	RL	300.0
Ammonia-N *	mg/L	0.22*	0.02	04/27/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/22/11	MC	SM4500 NH3 C
Chloride	mg/L	BRL	3.0	04/19/11	RL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	04/21/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	04/22/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.50*	0.5	04/27/11	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.22	NA	06/09/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.02	NA	06/09/11	MC	Calculation
Chlorophyll-a	*	2.1*	*	04/13/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/20/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.12	NA	06/09/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/09/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.20	NA	06/09/11	MC	Calculation

$$TN = DON (0.62) + PON (0.1) + TKN (.1) + NO_3 (0.005) + NO_2 (0.002) = 0.227$$

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

✓
ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

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FAX (508)888-6446

Thursday, June 09, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-5B

Collection Date: 04/20/11 **Collection Time:** 8:40

Sampled By: Kim Michaelis

Lab Order Number: WW-110817

Date Received: 04/20/11

Sample Type	Sample Time	Sample Date	Comments			
S-5B A	8:40	4/20/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	101	6.0	04/25/11	MC	2540 C
Total Organic Carbon*	mg/L	4.6*	0.5	04/27/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	04/25/11	MC	200.7
Nitrate-N	mg/L	0.16	0.01	04/21/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/21/11	LL	300.0
Ammonia-N *	mg/L	0.04*	0.02	04/27/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	04/22/11	MC	SM4500 NH3 C
Chloride	mg/L	42.4	3.0	04/21/11	LL	300.0
Total Phosphorous (P)	mg/L	0.067	0.005	04/21/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	04/22/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.5*	0.5	04/27/11	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.20	NA	06/09/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.16	NA	06/09/11	MC	Calculation
Chlorophyll-a	*	9.1*	*	04/13/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/20/11	MC	4500-P
Particulate Organic Carbon	mg/L	2.10	NA	06/09/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/09/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.36	NA	06/09/11	MC	Calculation

$$TN = DON(0.16) + PON(0.1) + TKN(0.21) + NO_3(0.16) + NO_2(0.002) = 0.632$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari

Laboratory Director

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Thursday, June 09, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-4A

Collection Date: 04/20/11 **Collection Time:** 9:05

Sampled By: Kim Michaelis

Lab Order Number: WW-110818

Date Received: 04/20/11

Sample Type	Sample Time	Sample Date	Comments			
S-4A A	9:05	4/20/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	64	6.0	04/25/11	MC	2540 C
Total Organic Carbon*	mg/L	2.6*	0.5	04/27/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	04/25/11	MC	200.7
Nitrate-N	mg/L	0.13	0.01	04/21/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/21/11	LL	300.0
Ammonia-N *	mg/L	0.10*	0.02	04/27/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	04/22/11	MC	SM4500 NH3 C
Chloride	mg/L	26.2	3.0	04/21/11	LL	300.0
Total Phosphorous (P)	mg/L	0.063	0.005	04/21/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	04/22/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.8*	0.5	04/27/11	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.23	NA	06/09/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.10	NA	06/09/11	MC	Calculation
Chlorophyll-a	*	3.5*	*	04/13/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/20/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/09/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/09/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.33	NA	06/09/11	MC	Calculation

$$TN = DON(0.10) + PON(0.1) + TKN(0.1) + NO_3(0.13) + NO_2(0.002) = 0.432$$

BRL=below reportable limits

*see attached

By: _____

Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

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Thursday, June 09, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-3A

Collection Date: 04/20/11 **Collection Time:** 9:20

Sampled By: Kim Michaelis

Lab Order Number: WW-110819

Date Received: 04/20/11

Sample Type	Sample Time	Sample Date	Comments			
S-3A A	9:20	4/20/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	68	6.0	04/25/11	MC	2540 C
Total Organic Carbon*	mg/L	1.6*	0.5	04/27/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	04/25/11	MC	200.7
Nitrate-N	mg/L	0.20	0.01	04/21/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/21/11	LL	300.0
Ammonia-N *	mg/L	0.13*	0.02	04/27/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.35	0.2	04/22/11	MC	SM4500 NH3 C
Chloride	mg/L	27.0	3.0	04/21/11	LL	300.0
Total Phosphorous (P)	mg/L	0.050	0.005	04/21/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	04/22/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.1*	0.5	04/27/11	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.33	NA	06/09/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.15	NA	06/09/11	MC	Calculation
Chlorophyll-a	*	9.9*	*	04/13/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/20/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/09/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	06/09/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.48	NA	06/09/11	MC	Calculation

$$TN = DON(0.15) + PON(0.07) + TLN(0.35) + NO_3(0.20) + NO_2(0.002) = 0.772$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari

Laboratory Director

ENVIROTECH LABORATORIES, INC.

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FAX (508)888-6446

Thursday, June 09, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-2B

Collection Date: 04/20/11 **Collection Time:** 9:50

Sampled By: Kim Michaelis

Lab Order Number: WW-110820

Date Received: 04/20/11

Sample Type	Sample Time	Sample Date	Comments			
S-2B A	9:50	4/20/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	67	6.0	04/25/11	MC	2540 C
Total Organic Carbon*	mg/L	1.7*	0.5	04/27/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	04/25/11	MC	200.7
Nitrate-N	mg/L	BRL	0.01	04/21/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/21/11	LL	300.0
Ammonia-N *	mg/L	0.03*	0.02	04/27/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.77	0.2	04/22/11	MC	SM4500 NH3 C
Chloride	mg/L	24.1	3.0	04/21/11	LL	300.0
Total Phosphorous (P)	mg/L	0.060	0.005	04/21/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	04/22/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.9*	0.5	04/27/11	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	BRL	NA	06/09/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.18	NA	06/09/11	MC	Calculation
Chlorophyll-a	*	13*	*	04/13/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/20/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/09/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.56	NA	06/09/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.21	NA	04/13/11	RIA*	Calculation

$$TN = DON(0.18) + PON(0.56) + TLN(0.77) + NO_3(0.005) + NO_2(0.002) = 1.517$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

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FAX (508)888-6446

Thursday, June 09, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-6A

Collection Date: 04/20/11 **Collection Time:** 10:45

Sampled By: Kim Michaelis

Lab Order Number: WW-110821

Date Received: 04/20/11

Sample Type	Sample Time	Sample Date	Comments			
S-6A A	10:45	4/20/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	55	6.0	04/25/11	MC	2540 C
Total Organic Carbon*	mg/L	1.5*	0.5	04/27/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	04/25/11	MC	200.7
Nitrate-N	mg/L	0.25	0.01	04/21/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/21/11	LL	300.0
Ammonia-N *	mg/L	0.06*	0.02	04/27/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	04/22/11	MC	SM4500 NH3 C
Chloride	mg/L	17.2	3.0	04/21/11	LL	300.0
Total Phosphorous (P)	mg/L	0.043	0.005	04/21/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	04/22/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.4*	0.5	04/27/11	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.31	NA	06/09/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.14	NA	06/09/11	MC	Calculation
Chlorophyll-a	*	<1.1*	*	04/13/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/20/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.10	NA	06/09/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.08	NA	06/09/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.45	NA	04/13/11	RIA*	Calculation

$$TN = DON (0.14) + PON (0.08) + TKN (0.28) + NO_3 (0.25) + NO_2 (0.002) = 0.752$$

BRL=below reportable limits

*see attached

By:


Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

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(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, June 15, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-12

Collection Date: 04/20/11 **Collection Time:** 11:05

Sampled By: Kim Michaels

Lab Order Number: WW-110822

Date Received: 04/20/11

Sample Type		Sample Time	Sample Date	Comments		
S-12	A	11:05	4/20/11			
Parameters		Units	Test Results	Reportable Limits	Date Analyzed	Analyst
						Method
Total Dissolved Solids		mg/L	51	6.0	04/25/11	MC
Total Organic Carbon*		mg/L	1.8*	0.5	04/27/11	RIA*
Boron		mg/L	BRL	0.010	04/25/11	MC
Nitrate-N		mg/L	0.27	0.01	04/21/11	LL
Nitrite-N		mg/L	BRL	0.004	04/21/11	LL
Ammonia-N *		mg/L	0.06*	0.02	04/27/11	RIA*
Total Kjeldhal Nitrogen		mg/L	0.28	0.2	04/22/11	MC
Chloride		mg/L	15.9	3.0	04/21/11	LL
Total Phosphorous (P)		mg/L	0.050	0.005	04/21/11	MC
Dissolved Kjeldhal Nitrogen		mg/L	0.21	0.2	04/22/11	MC
Dissolved Total Organic Carbon		mg/L	1.7*	0.5	04/27/11	RIA*
Dissolved Inorganic Nitrogen		mg/L	0.33	NA	06/09/11	MC
Dissolved Organic Nitrogen		mg/L	0.14	NA	06/09/11	MC
Chlorophyll-a		*	2.7*	*	04/13/11	RIA*
Ortho Phosphorous (P)		mg/L	BRL	0.005	04/20/11	MC
Particulate Organic Carbon		mg/L	0.10	NA	06/09/11	MC
Particulate Organic Nitrogen		mg/L	0.08	NA	06/09/11	MC
Total Dissolved Nitrogen		mg/L	0.47	NA	06/09/11	MC

$$TN = DON(0.14) + PON(0.08) + TLN(0.28) + NO_3(0.27) + NO_2(0.002) = 0.772$$

BRL=below reportable limits

*see attached

By:

Ronald J. Saggi

Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

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FAX (508)888-6446

Thursday, June 09, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-8A

Collection Date: 04/20/11 **Collection Time:** 11:20

Sampled By: Kim Michaelis

Lab Order Number: WW-110823

Date Received: 04/20/11

Sample Type	Sample Time	Sample Date	Comments			
S-8A A	11:20	4/20/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	53	6.0	04/25/11	MC	2540 C
Total Organic Carbon*	mg/L	1.7*	0.5	04/27/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	04/25/11	MC	200.7
Nitrate-N	mg/L	0.27	0.01	04/21/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/21/11	LL	300.0
Ammonia-N *	mg/L	0.08*	0.02	04/27/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	04/22/11	MC	SM4500 NH3 C
Chloride	mg/L	15.9	3.0	04/21/11	LL	300.0
Total Phosphorous (P)	mg/L	0.050	0.005	04/21/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	04/22/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.8*	0.5	04/27/11	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.35	NA	06/09/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.12	NA	06/09/11	MC	Calculation
Chlorophyll-a	*	2.7*	*	04/13/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/20/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/09/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.01	NA	06/09/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.47	NA	06/09/11	MC	Calculation

$$TN = DON(0.12) + PON(0.01) + TKN(0.21) + NO_3(0.27) + NO_2(0.002) = 0.612$$

BRL=below reportable limits

*see attached

By:

Ronald J. Saari

Laboratory Director

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 4/21/11
Date Reported: 4/28/11
P.O. #:
Work Order #: 1104-07413

DESCRIPTION: PLYMOUTH ENV.

Subject sample(s) has/have been analyzed by our Warwick, R.I. laboratory with the attached results.

Reference: All parameters were analyzed by U.S. EPA approved methodologies.
The specific methodologies are listed in the methods column of the Certificate Of Analysis.

Data qualifiers (if present) are explained in full at the end of a given sample's analytical results.
The Certificate of Analysis shall not be reproduced except in full, without written approval of R.I. Analytical.
Results relate only to samples submitted to the laboratory for analysis.
Test results are not blank corrected.

Certification #: RI-033, MA-RI015, CT-PH-0508, ME-RI015
NH-253700 A & B, USDA S-41844

This Certificate represents all data associated with the referenced work order and is paginated for completeness. The complete Certificate includes one attachment; the original Chain of Custody.

If you have any questions regarding this work, or if we may be of further assistance, please contact our customer service department.

Approved by:


Sharon Baker
MIS / Data Reporting Manager

enc: Chain of Custody

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/21/11

Work Order #: 1104-07413

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-110816 S-8B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/20/2011 @ 07:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	2.1	1.1	mg/m ³	SM 10200-H	4/13/11	ML
Ammonia (as N)	0.22	0.10	mg/l	SM 4500-NH3 C	4/27/11	KA
TOC Low Level	0.62	0.5	mg/l	SM 5310B	4/27/11	TV
Dissolved TOC	0.500	0.5	mg/l	EPA 415.1	4/27/11	TV

Sample # 002

SAMPLE DESCRIPTION: WW-110817 S-5B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/20/2011 @ 08:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	9.1	1.1	mg/m ³	SM 10200-H	4/13/11	ML
Ammonia (as N)	0.04	0.02	mg/l	SM 4500-NH3 C	4/27/11	KA
TOC Low Level	4.6	0.5	mg/l	SM 5310B	4/27/11	TV
Dissolved TOC	2.5	0.5	mg/l	EPA 415.1	4/27/11	TV

Sample # 003

SAMPLE DESCRIPTION: WW-110818 S-4A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/20/2011 @ 09:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	3.5	1.1	mg/m ³	SM 10200-H	4/13/11	ML
Ammonia (as N)	0.10	0.02	mg/l	SM 4500-NH3 C	4/27/11	KA
TOC Low Level	2.6	0.5	mg/l	SM 5310B	4/27/11	TV
Dissolved TOC	2.8	0.5	mg/l	EPA 415.1	4/27/11	TV

Sample # 004

SAMPLE DESCRIPTION: WW-110819 S-3A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/20/2011 @ 09:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	9.9	1.1	mg/m ³	SM 10200-H	4/13/11	ML
Ammonia (as N)	0.13	0.10	mg/l	SM 4500-NH3 C	4/27/11	KA
TOC Low Level	1.6	0.5	mg/l	SM 5310B	4/27/11	TV
Dissolved TOC	2.1	0.5	mg/l	EPA 415.1	4/27/11	TV

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/21/11

Work Order #: 1104-07413

PLYMOUTH ENV.

Sample # 005

SAMPLE DESCRIPTION: WW-110820 S-2B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/20/2011 @ 09:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	13	1.1	mg/m ³	SM 10200-H	4/13/11	ML
Ammonia (as N)	0.03	0.02	mg/l	SM 4500-NH3 C	4/27/11	KA
TOC Low Level	1.7	0.5	mg/l	SM 5310B	4/27/11	TV
Dissolved TOC	2.9	0.5	mg/l	EPA 415.1	4/27/11	TV

Sample # 006

SAMPLE DESCRIPTION: WW-110821 S-6A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/20/2011 @ 10:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	4/13/11	ML
Ammonia (as N)	0.06	0.02	mg/l	SM 4500-NH3 C	4/27/11	KA
TOC Low Level	1.5	0.5	mg/l	SM 5310B	4/27/11	TV
Dissolved TOC	1.4	0.5	mg/l	EPA 415.1	4/27/11	TV

Sample # 007

SAMPLE DESCRIPTION: WW-110822 S-12

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/20/2011 @ 11:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	2.7	1.1	mg/m ³	SM 10200-H	4/13/11	ML
Ammonia (as N)	0.06	0.02	mg/l	SM 4500-NH3 C	4/27/11	KA
TOC Low Level	1.8	0.5	mg/l	SM 5310B	4/27/11	TV
Dissolved TOC	1.7	0.5	mg/l	EPA 415.1	4/27/11	TV

Sample # 008

SAMPLE DESCRIPTION: WW-110823 S-8A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/20/2011 @ 11:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	2.7	1.1	mg/m ³	SM 10200-H	4/13/11	ML
Ammonia (as N)	0.08	0.02	mg/l	SM 4500-NH3 C	4/26/11	KA
TOC Low Level	1.7	0.5	mg/l	SM 5310B	4/27/11	TV
Dissolved TOC	1.8	0.5	mg/l	EPA 415.1	4/27/11	TV

✓

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
NW110816 4/20/11	0730	S-8B	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
NW110817 4/20/11	0840	S-5B	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By:

[Signature]

Date/Time:

4/20/11 1300

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
WW110818 4/20/11	0905	S-4A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
JW110819 4/20/11	0920	S-3A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 4/20/11 1300

2

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 / 508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/20/11	0950	S-2B	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
4/20/11	1045	S-6A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 4/20/11 1300

6

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4-20-11	1105	S-12	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
4/20/11	1120	S-8A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 4/20/11 1300

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, June 15, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: Harbor Sampling

Comments:

Project Number: S-7

Collection Date: 5/16/11 **Collection Time:** NA

Sampled By: Kim Michaelis

Lab Order Number: WW-111039

Date Received: 05/16/11

Sample Type	Sample Time	Sample Date	Comments			
S-7 A	11:00	5/16/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Nitrate-N/Nitrite-N	mg/L	BRL	0.01	05/17/11	MC	4500-NO3
Total Organic Carbon*	mg/L	0.8*	0.5	05/26/11	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.14*	0.02	05/19/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	05/18/11	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.027	0.005	06/03/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	05/18/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.7*	0.5	05/26/11	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.15	NA	06/14/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.07	NA	06/14/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	05/17/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	NA	06/14/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/14/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.22	NA	06/14/11	MC	Calculation

$$TN = DON (0.07) + PON (0.1) + TKN (0.21) + NO_3/NO_2 (0.005) = 0.385$$

BRL=below reportable limits

*see attached

By:

Ronald L Saari

Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, June 15, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: Harbor Sampling

Comments:

Project Number: S-10

Collection Date: 5/16/11 **Collection Time:** NA

Sampled By: Kim Michaelis

Lab Order Number: WW-111040

Date Received: 05/16/11

Sample Type	Sample Time	Sample Date	Comments			
S-10 A	10:45	5/16/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Nitrate-N/Nitrite-N	mg/L	BRL	0.01	05/17/11	MC	4500-NO3
Total Organic Carbon*	mg/L	5.1*	0.5	05/26/11	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.05*	0.02	05/19/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	05/18/11	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.022	0.005	06/03/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	05/18/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	05/26/11	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.06	NA	06/14/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.15	NA	06/14/11	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	05/17/11	MC	4500-P
Particulate Organic Carbon	mg/L	4.6	NA	06/14/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.08	NA	06/14/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.21	NA	06/14/11	MC	Calculation

$$TN = DON(0.15) + PON(0.08) + TLN(0.28) + NO_3/NO_2(0.005) = 0.515$$

BRL=below reportable limits

*see attached

By:

Ronald J. Saari

Laboratory Director



CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 5/17/11
Date Reported: 5/27/11
P.O. #:
Work Order #: 1105-09231

DESCRIPTION: PLYMOUTH ENV.

Subject sample(s) has/have been analyzed by our Warwick, R.I. laboratory with the attached results.

Reference: All parameters were analyzed by U.S. EPA approved methodologies.
The specific methodologies are listed in the methods column of the Certificate Of Analysis.

Data qualifiers (if present) are explained in full at the end of a given sample's analytical results.
The Certificate of Analysis shall not be reproduced except in full, without written approval of R.I. Analytical.
Results relate only to samples submitted at the laboratory for analysis.
Test results are not blank corrected.

Certification #: RI-033, MA-RI015, CT-PH-0508, ME-RI015
NH-253700 A & B, USDA S-41844

This Certificate represents all data associated with the referenced work order and is paginated for completeness. The complete Certificate includes one attachment; the original Chain of Custody.

If you have any questions regarding this work, or if we may be of further assistance, please contact our customer service department.

Approved by:

Sharon Baker
MIS / Data Reporting Manager

enc: Chain of Custody

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 5/17/11

Work Order #: 1105-09231

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-111039 S-7

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 5/16/2011 @ 11:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.14	0.02	mg/l	SM 4500-NH3 C	5/19/11	KA
TOC Low Level	0.8	0.5	mg/l	SM-5310B	5/26/11	ML
Dissolved TOC	0.7	0.5	mg/l	EPA 415.1	5/26/11	ML

Sample # 002

SAMPLE DESCRIPTION: WW-111040 S-10

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 5/16/2011 @ 10:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.05	0.02	mg/l	SM 4500-NH3 C	5/19/11	KA
TOC Low Level	5.1	0.5	mg/l	SM-5310B	5/26/11	ML
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	5/26/11	ML



CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.
Attn: Mr. Ron Saari
8 Jan Sebastian Drive
Sandwich, MA 02563

Date Received: 4/28/11
Date Reported: 5/5/11
P.O. #:
Work Order #: 1104-07962

DESCRIPTION: PLYMOUTH ENV.

Subject sample(s) has/have been analyzed by our Warwick, R.I. laboratory with the attached results.

Reference: All parameters were analyzed by U.S. EPA approved methodologies.
The specific methodologies are listed in the methods column of the Certificate Of Analysis.

Data qualifiers (if present) are explained in full at the end of a given sample's analytical results.
The Certificate of Analysis shall not be reproduced except in full, without written approval of R.I. Analytical.
Results relate only to samples submitted to the laboratory for analysis.
Test results are not blank corrected.

Certification #: RI-033, MA-RI015, CT-PH-0508, ME-RI015
NH-253700 A & B, USDA S-41844

This Certificate represents all data associated with the referenced work order and is paginated for completeness. The complete Certificate includes one attachment; the original Chain of Custody.

If you have any questions regarding this work, or if we may be of further assistance, please contact our customer service department.

Approved by:

Sharon Baker
MIS / Data Reporting Manager

enc: Chain of Custody

[illegible]

1.6 C on ice

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: Harbor Sampling -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
5/16/11	1040	S-7	1	Plastic	TOC	H2SO4
1	1100	S-7	1	Plastic	NO3, NO2, Ortho, Dissolved	NONE
1	1100	S-7	1	1 Liter Plastic	TKN, NH3, TP	H2SO4
5/16/11	1045	S-10	1	Plastic	TOC	H2SO4
1	1	S-10	1	Plastic	NO3, NO2, Ortho, Dissolved	NONE
1	1	S-10	1	1 Liter Plastic	TKN, NH3, TP	H2SO4

WW111039

WW111040

NOTE: Analysis needed for reporting in lowest detection possible; O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen

Relinquished By: Date/Time

Kim Michaelis

Received By:

Date/Time:

[Signature] 5/16/11 1530

Nitrate -N low
Nitrite -N low
Kjeldahl Nitrogen (low)
Total Dissolved Nitrogen
Ammonia -N low*
Ortho Phos (P) low
Total Phos (P) low
Kjeldahl Nitrogen Dissolved (low)
TOC Dissolved* (low)
Dissolved Organic Nitrogen (low)

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-6A

Collection Date: 5/24/11 Collection Time: 9:00

Sampled By: Kim Michaelis

Lab Order Number: WW-111092

Date Received: 05/24/11

Sample Type	Sample Time	Sample Date	Comments			
S-6A A	9:00	5/24/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	59	6.0	06/04/11	MC	2540 C
Total Organic Carbon*	mg/L	2.4*	0.5	06/07/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/27/11	MC	200.7
Nitrate-N	mg/L	0.22	0.01	05/25/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	05/25/11	LL	300.0
Ammonia-N *	mg/L	0.03*	0.02	06/03/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	06/14/11	MC	SM4500 NH3 C
Chloride	mg/L	16.4	3.0	05/25/11	LL	300.0
Total Phosphorous (P)	mg/L	0.032	0.005	06/03/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	06/15/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.4*	0.5	06/07/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.25	NA	06/14/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	06/14/11	Calculation	Calculation
Chlorophyll-a	*	<1.1*	*	06/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	05/24/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/07/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/14/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	< 0.42	NA	06/14/11	Calculation	Calculation

$$TN = DON(0.1) + PON(0.1) + TLN(0.28) + NO_3(0.22) + NO_2(0.002) = 0.702$$

BRL=below reportable limits

*see attached

By:

Ronald J. Sagri

Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-12

Collection Date: 5/24/11 **Collection Time:** 9:15

Sampled By: Kim Michaelis

Lab Order Number: WW-111093

Date Received: 05/24/11

Sample Type	Sample Time	Sample Date	Comments			
S-12 A	9:15	5/24/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	53	6.0	06/04/11	MC	2540 C
Total Organic Carbon*	mg/L	2.7*	0.5	06/07/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/27/11	MC	200.7
Nitrate-N	mg/L	0.20	0.01	05/25/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	05/25/11	LL	300.0
Ammonia-N *	mg/L	0.02*	0.02	06/03/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	06/14/11	MC	SM4500 NH3 C
Chloride	mg/L	14.9	3.0	05/25/11	LL	300.0
Total Phosphorous (P)	mg/L	0.028	0.005	06/03/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	06/15/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.8*	0.5	06/07/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.22	NA	06/14/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	06/14/11	Calculation	Calculation
Chlorophyll-a	*	1.9*	*	06/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	05/24/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/07/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/14/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	< 0.40	NA	06/14/11	Calculation	Calculation

$$TN = DON(0.1) + PON(0.1) + TKN(0.21) + NO_3(0.20) + NO_2(0.002) = 0.612$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari

Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-8A

Collection Date: 5/24/11 Collection Time: 8:00

Sampled By: Kim Michaelis

Lab Order Number: WW-111094

Date Received: 05/24/11

Sample Type	Sample Time	Sample Date	Comments			
S-8A A	8:00	5/24/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	95	6.0	06/04/11	MC	2540 C
Total Organic Carbon*	mg/L	2.8*	0.5	06/07/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/27/11	MC	200.7
Nitrate-N	mg/L	0.14	0.01	05/25/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	05/25/11	LL	300.0
Ammonia-N *	mg/L	0.03*	0.02	06/03/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	06/14/11	MC	SM4500 NH3 C
Chloride	mg/L	41.1	3.0	05/25/11	LL	300.0
Total Phosphorous (P)	mg/L	0.048	0.005	06/03/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	06/15/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	3.1*	0.5	06/07/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.17	NA	06/14/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	06/14/11	Calculation	Calculation
Chlorophyll-a	*	3.2*	*	06/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	05/24/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/07/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/14/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	< 0.34	NA	06/14/11	Calculation	Calculation

$$TIN = DON(0.1) + PON(0.1) + TEN(0.28) + NO_3(0.14) + NO_2(0.002) = 0.622$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari

Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

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FAX (508)888-6446

Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-4A

Collection Date: 5/24/11 Collection Time: 8:15

Sampled By: Kim Michaelis

Lab Order Number: WW-111095

Date Received: 05/24/11

Sample Type	Sample Time	Sample Date	Comments			
S-4A A	8:15	5/24/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	69	6.0	06/04/11	MC	2540 C
Total Organic Carbon*	mg/L	4.3*	0.5	06/07/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/27/11	MC	200.7
Nitrate-N	mg/L	0.08	0.01	05/25/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	05/25/11	LL	300.0
Ammonia-N *	mg/L	0.03*	0.02	06/03/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	06/14/11	MC	SM4500 NH3 C
Chloride	mg/L	23.5	3.0	05/25/11	LL	300.0
Total Phosphorous (P)	mg/L	0.065	0.005	06/03/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	06/15/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	4.5*	0.5	06/07/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.11	NA	06/14/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	06/14/11	Calculation	Calculation
Chlorophyll-a	*	2.7*	*	06/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	05/24/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/07/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/14/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	< 0.28	NA	06/14/11	Calculation	Calculation

$$TN = DON(0.1) + PON(0.1) + TKN(0.1) + NO_3(0.09) + NO_2(0.002) = 0.382$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.
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Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis
 11 Lincoln St. Plymouth

ProjectName: SW Eel River **Comments:**
Project Number: S-8B
Collection Date: 5/24/11 **Collection Time:** 7:45
Sampled By: Kim Michaelis
Lab Order Number: WW-111096
Date Received: 05/24/11

Sample Type	Sample Time	Sample Date	Comments			
S-8B A	7:45	5/24/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	<6.0	6.0	06/04/11	MC	2540 C
Total Organic Carbon*	mg/L	<0.5*	0.5	06/07/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/27/11	MC	200.7
Nitrate-N	mg/L	BRL	0.01	05/25/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	05/25/11	LL	300.0
Ammonia-N *	mg/L	0.06*	0.02	06/03/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	06/14/11	MC	SM4500 NH3 C
Chloride	mg/L	BRL	3.0	05/25/11	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	06/03/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	06/15/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.74*	0.5	06/07/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.06	NA	06/14/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	06/14/11	Calculation	Calculation
Chlorophyll-a	*	<1.1*	*	06/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	05/24/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/07/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/14/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	< 0.20	NA	06/17/11	Calculation	Calculation

$$TN = DON(0.1) + PON(0.1) + TKN(0.1) + NO_3(0.005) + NO_2(0.002) = < 0.307$$

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saadri
 Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
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(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-5B

Collection Date: 5/24/11 Collection Time: 7:50

Sampled By: Kim Michaelis

Lab Order Number: WW-111097

Date Received: 05/24/11

Sample Type	Sample Time	Sample Date	Comments			
S-5B A	7:50	5/24/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	104	6.0	06/04/11	MC	2540 C
Total Organic Carbon*	mg/L	2.8*	0.5	06/07/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/27/11	MC	200.7
Nitrate-N	mg/L	0.13	0.01	05/25/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	05/25/11	LL	300.0
Ammonia-N *	mg/L	0.05*	0.02	06/03/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	06/15/11	MC	SM4500 NH3 C
Chloride	mg/L	41.4	3.0	05/25/11	LL	300.0
Total Phosphorous (P)	mg/L	0.050	0.005	06/03/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.20	0.2	06/15/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.9*	0.5	06/07/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.18	NA	06/14/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	0.15	NA	06/14/11	Calculation	Calculation
Chlorophyll-a	*	1.1*	*	06/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	05/24/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/07/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.08	NA	06/14/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	< 0.33	NA	06/14/11	Calculation	Calculation

$$TN = DON (0.15) + PON (0.08) + TLN (0.28) + NO_3 (0.13) + NO_2 (0.002) = 0.642$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari

Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

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FAX (508)888-6446

Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-3A

Collection Date: 5/24/11 Collection Time: 8:30

Sampled By: Kim Michaelis

Lab Order Number: WW-111098

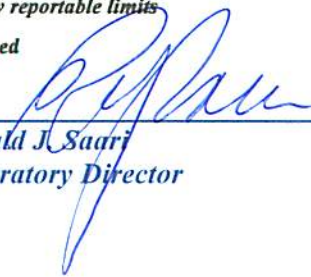
Date Received: 05/24/11

Sample Type	Sample Time	Sample Date	Comments			
S-3A A	8:30	5/24/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	66	6.0	06/04/11	MC	2540 C
Total Organic Carbon*	mg/L	2.0*	0.5	06/07/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/27/11	MC	200.7
Nitrate-N	mg/L	0.17	0.01	05/25/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	05/25/11	LL	300.0
Ammonia-N *	mg/L	0.03*	0.02	06/03/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.42	0.2	06/15/11	MC	SM4500 NH3 C
Chloride	mg/L	24.8	3.0	05/25/11	LL	300.0
Total Phosphorous (P)	mg/L	0.027	0.005	06/03/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	06/15/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.2*	0.5	06/07/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.20	NA	06/14/11	calculation	Calculation
Dissolved Organic Nitrogen	mg/L	0.18	NA	06/15/11	calculation	Calculation
Chlorophyll-a	*	4.5*	*	06/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	05/24/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/07/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.21	NA	06/14/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	0.38	NA	06/14/11	Calculation	Calculation

$$TN = DON(0.18) + PON(0.21) + TLN(0.42) + NO_3(0.17) + NO_2(0.002) = 0.982$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Sagri
Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-2B

Collection Date: 5/24/11 **Collection Time:** 8:45

Sampled By: Kim Michaelis

Lab Order Number: WW-111099

Date Received: 05/24/11

Sample Type	Sample Time	Sample Date	Comments			
S-2B A	8:45	5/24/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	61	6.0	06/04/11	MC	2540 C
Total Organic Carbon*	mg/L	2.0*	0.5	06/07/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	05/27/11	MC	200.7
Nitrate-N	mg/L	BRL	0.01	05/25/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	05/25/11	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	06/03/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.49	0.2	06/15/11	MC	SM4500 NH3 C
Chloride	mg/L	21.6	3.0	05/25/11	LL	300.0
Total Phosphorous (P)	mg/L	0.072	0.005	06/03/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	06/15/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.9*	0.5	06/07/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	BRL	NA	06/14/11	calculation	Calculation
Dissolved Organic Nitrogen	mg/L	0.28	NA	06/15/11	calculation	Calculation
Chlorophyll-a	*	4.5*	*	06/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	05/24/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.10	NA	06/07/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.21	NA	06/14/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	0.28	NA	06/14/11	Calculation	Calculation

$$TN = DON(0.28) + PON(0.21) + TKN(0.49) + NO_3(0.005) + NO_2(0.002) = 0.987$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Sauri

Laboratory Director

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 5/26/11

Work Order #: 1105-09973

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-111096 S-8B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 5/24/2011 @ 07:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	6/3/11	ML
Ammonia (as N)	0.06	0.02	mg/l	SM 4500-NH3 C	6/3/11	EC
TOC Low Level	<0.5	0.5	mg/l	SM-5310B	6/7/11	TV
Dissolved TOC	0.74	0.5	mg/l	EPA 415.1	6/7/11	TV

Sample # 002

SAMPLE DESCRIPTION: WW-111097 S-5B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 5/24/2011 @ 07:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	1.1	1.1	mg/m ³	SM 10200-H	6/3/11	ML
Ammonia (as N)	0.05	0.02	mg/l	SM 4500-NH3 C	6/3/11	EC
TOC Low Level	2.8	0.5	mg/l	SM-5310B	6/7/11	TV
Dissolved TOC	2.9	0.5	mg/l	EPA 415.1	6/7/11	TV

Sample # 003

SAMPLE DESCRIPTION: WW-111095 S-4A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 5/24/2011 @ 08:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	2.7	1.1	mg/m ³	SM 10200-H	6/3/11	ML
Ammonia (as N)	0.03	0.02	mg/l	SM 4500-NH3 C	6/3/11	EC
TOC Low Level	4.3	0.5	mg/l	SM-5310B	6/7/11	TV
Dissolved TOC	4.5	0.5	mg/l	EPA 415.1	6/7/11	TV

Sample # 004

SAMPLE DESCRIPTION: WW-111098 S-3A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 5/24/2011 @ 08:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	4.5	1.1	mg/m ³	SM 10200-H	6/3/11	ML
Ammonia (as N)	0.03	0.02	mg/l	SM 4500-NH3 C	6/3/11	EC
TOC Low Level	2.0	0.5	mg/l	SM-5310B	6/7/11	TV
Dissolved TOC	2.2	0.5	mg/l	EPA 415.1	6/7/11	TV

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 5/26/11

Work Order #: 1105-09973

PLYMOUTH ENV.

Sample # 005

SAMPLE DESCRIPTION: WW-111099 S-2B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 5/24/2011 @ 08:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	4.5	1.1	mg/m ³	SM 10200-H	6/3/11	ML
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	6/3/11	EC
TOC Low Level	2.0	0.5	mg/l	SM-5310B	6/7/11	TV
Dissolved TOC	1.9	0.5	mg/l	EPA 415.1	6/7/11	TV

Sample # 006

SAMPLE DESCRIPTION: WW-111092 S-6A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 5/24/2011 @ 09:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	6/3/11	ML
Ammonia (as N)	0.03	0.02	mg/l	SM 4500-NH3 C	6/3/11	EC
TOC Low Level	2.4	0.5	mg/l	SM-5310B	6/7/11	TV
Dissolved TOC	2.4	0.5	mg/l	EPA 415.1	6/7/11	TV

Sample # 007

SAMPLE DESCRIPTION: WW-111093 S-12

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 5/24/2011 @ 09:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	1.9	1.1	mg/m ³	SM 10200-H	6/3/11	ML
Ammonia (as N)	0.02	0.02	mg/l	SM 4500-NH3 C	6/3/11	EC
TOC Low Level	2.7	0.5	mg/l	SM-5310B	6/7/11	TV
Dissolved TOC	2.8	0.5	mg/l	EPA 415.1	6/7/11	TV

Sample # 008

SAMPLE DESCRIPTION: WW-111094 S-8A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 5/24/2011 @ 08:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	3.2	1.1	mg/m ³	SM 10200-H	6/3/11	ML
Ammonia (as N)	0.03	0.02	mg/l	SM 4500-NH3 C	6/3/11	EC
TOC Low Level	2.8	0.5	mg/l	SM-5310B	6/7/11	TV
Dissolved TOC	3.1	0.5	mg/l	EPA 415.1	6/7/11	TV

6

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
5/24/11	0900	S-6A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
5/24/11	0915	S-12	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

Liam Savally 5/24/11 1200

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
NW-111094 5/24/11	0800	S-8A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
NW-111095 5/24/11	0815	S-4A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

Sam Tawally 5/24/11 1200

6

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type:bottle	Analysis	Preservative
NW-111096 5/24/11	0745	S-8B	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
NW-111097 5/24/11	0750	S-5B	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

Sam Savally 5/24/11 1200

6

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
5/24/11	0830	S-3A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
5/24/11	0845	S-2B	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

Laura Savally 5/24/11 1200

ENVIROTECH LABORATORIES, INC.
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8 Jan Sebastian Drive
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Thursday, September 08, 2011

Plymouth Environmental Management

Kim Michaelis
 11 Lincoln St. Plymouth

ProjectName: SW Eel River **Comments:**
Project Number: S-8B
Collection Date: 6/13/11 **Collection Time:** 8:00
Sampled By: Kim Michaelis
Lab Order Number: WW-111252
Date Received: 06/13/11

Sample Type	Sample Time	Sample Date	Comments			
S-8B A	8:00	6/13/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	<6.0	6.0	06/16/11	MC	2540 C
Total Organic Carbon*	mg/L	<0.5*	0.5	06/16/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	06/14/11	MC	200.7
Nitrate-N	mg/L	BRL	0.01	06/14/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/14/11	LL	300.0
Ammonia-N *	mg/L	0.29*	0.02	06/16/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	06/17/11	MC	SM4500 NH3 C
Chloride	mg/L	BRL	3.0	06/14/11	LL	300.0
Total Phosphorous (P)	mg/L	0.078	0.005	06/16/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	06/20/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	06/16/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.29	NA	06/20/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	06/21/11	Calculation	Calculation
Chlorophyll-a	*	1.9*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	06/14/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/16/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/21/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	0.28	NA	06/21/11	calculation	Calculation

$$TN = DON(0.0) + PON(0.1) + TKN(0.28) + NO_3(0.005) + NO_2(0.002) = 0.487$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
 Laboratory Director

ENVIROTECH LABORATORIES, INC.
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8 Jan Sebastian Drive
Sandwich, MA 02563
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FAX (508)888-6446

Thursday, September 08, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-5B

Collection Date: 06/13/11 **Collection Time:** 8:20

Sampled By: Kim Michaelis

Lab Order Number: WW-111253

Date Received: 06/13/11

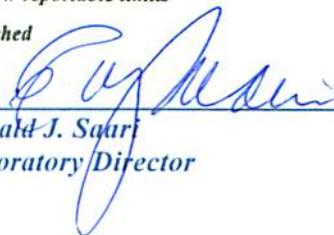
Sample Type	Sample Time	Sample Date	Comments			
S-5B A	8:20	6/13/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	82	6.0	06/16/11	MC	2540 C
Total Organic Carbon*	mg/L	3.5*	0.5	06/16/11	RIA*	SM 5310 C
Boron	mg/L	0.011	0.010	06/14/11	MC	200.7
Nitrate-N	mg/L	0.13	0.01	06/14/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/14/11	LL	300.0
Ammonia-N *	mg/L	0.08	0.02	06/17/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.20	0.2	06/17/11	MC	SM4500 NH3 C
Chloride	mg/L	36.3	3.0	06/14/11	LL	300.0
Total Phosphorous (P)	mg/L	0.032	0.005	06/16/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	06/20/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	3.4*	0.5	06/16/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.21	NA	06/20/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	06/21/11	Calculation	Calculation
Chlorophyll-a	*	6.7*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.012	0.005	06/14/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/16/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/21/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	< 0.33	NA	06/21/11	Calculation	Calculation

$$TN = DON (0.1) + PON (0.1) + TKN (0.20) + NO_3 (0.13) + NO_2 (0.002) = 0.532$$

BRL=below reportable limits

*see attached

By:


Ronald J. Sauri
Laboratory Director

ENVIROTECH LABORATORIES, INC.
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8 Jan Sebastian Drive
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Monday, October 31, 2011

Plymouth Environmental Management

K. Towers/ 11 Lincoln St.

Plymouth, MA

ProjectName: SW Eel River

Comments:

Project Number: S-8A

Collection Date: 06/13/11 **Collection Time:** 8:30

Sampled By: Kim Michaelis

Lab Order Number: WW-111254

Date Received: 06/13/11

Sample Type	Sample Time	Sample Date	Comments			
S-8A A	8:30	6/13/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	86	6.0	06/16/11	MC	2540 C
Total Organic Carbon*	mg/L	3.6*	0.5	06/16/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	06/14/11	MC	200.7
Nitrate-N	mg/L	0.13	0.01	06/14/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/14/11	LL	300.0
Ammonia-N *	mg/L	0.04*	0.02	06/22/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	06/17/11	MC	SM4500 NH3 C
Chloride	mg/L	36.3	3.0	06/14/11	LL	300.0
Total Phosphorous (P)	mg/L	0.027	0.005	06/16/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	06/20/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	3.3*	0.5	06/16/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.17	NA	06/20/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	06/21/11	Calculation	Calculation
Chlorophyll-a	*	7.7*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.012	0.005	06/14/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.30	NA	06/16/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/21/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	< 0.33	NA	06/21/11	Calculation	Calculation

$$TN = DON(0.1) + PON(0.1) + TKN(0.1) + NO_3(0.13) + NO_2(0.002) = 0.432$$

BRL=below reportable limits

*see attached

By: _____

Ronald J. Saari
 Laboratory Director

ENVIROTECH LABORATORIES, INC.
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 Sandwich, MA 02563
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Thursday, September 08, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-4A

Collection Date: 06/13/11 **Collection Time:** 9:00

Sampled By: Kim Michaelis

Lab Order Number: WW-111255

Date Received: 06/13/11

Sample Type	Sample Time	Sample Date	Comments			
S-4A A	9:00	6/13/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	58	6.0	06/16/11	MC	2540 C
Total Organic Carbon*	mg/L	5.3*	0.5	06/16/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	06/14/11	MC	200.7
Nitrate-N	mg/L	0.09	0.01	06/14/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/14/11	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	06/22/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.42	0.2	06/17/11	MC	SM4500 NH3 C
Chloride	mg/L	25.4	3.0	06/14/11	LL	300.0
Total Phosphorous (P)	mg/L	0.028	0.005	06/16/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	06/20/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	5.4*	0.5	06/16/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.09	NA	06/20/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	0.28	NA	06/21/11	Calculation	Calculation
Chlorophyll-a	*	4.5*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.010	0.005	06/14/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.10	NA	06/16/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	NA	06/21/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	0.37	NA	06/21/11	Calculation	Calculation

$$TN = DON(0.28) + PON(0.14) + TKN(0.42) + NO_3(0.09) + NO_2(0.002) = 0.932$$

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

ENVIROTECH LABORATORIES, INC.

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8 Jan Sebastian Drive
Sandwich, MA 02563
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Thursday, September 08, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-3A

Collection Date: 06/13/11 Collection Time: 10:15

Sampled By: Kim Michaelis

Lab Order Number: WW-111256

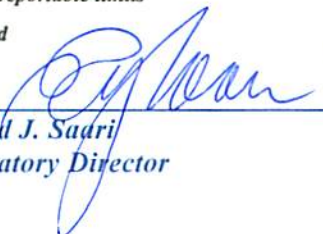
Date Received: 06/13/11

Sample Type	Sample Time	Sample Date	Comments			
S-3A A	10:15	6/13/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	58	6.0	06/16/11	MC	2540 C
Total Organic Carbon*	mg/L	3.7*	0.5	06/16/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	06/14/11	MC	200.7
Nitrate-N	mg/L	0.13	0.01	06/14/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/14/11	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	06/22/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	06/20/11	MC	SM4500 NH3 C
Chloride	mg/L	25.7	3.0	06/14/11	LL	300.0
Total Phosphorous (P)	mg/L	0.028	0.005	06/16/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	06/20/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.3*	0.5	06/16/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.13	NA	06/20/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	06/21/11	Calculation	Calculation
Chlorophyll-a	*	10*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	06/14/11	MC	4500-P
Particulate Organic Carbon	mg/L	2.4	NA	06/16/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/21/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	< 0.33	NA	06/21/11	Calculation	Calculation

$$TN = DON(0.1) + PON(0.1) + TLN(0.21) + NO_3(0.13) + NO_2(0.002) = 0.542$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Sadri
Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

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FAX (508)888-6446

Thursday, September 08, 2011

Plymouth Environmental Management

Kim Michaelis
11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-2B

Collection Date: 06/13/11 Collection Time: 10:30

Sampled By: Kim Michaelis

Lab Order Number: WW-111257

Date Received: 06/13/11

Sample Type	Sample Time	Sample Date	Comments			
S-2B A	10:30	6/13/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	56	6.0	06/16/11	MC	2540 C
Total Organic Carbon*	mg/L	2.0*	0.5	06/16/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	06/14/11	MC	200.7
Nitrate-N	mg/L	0.06	0.01	06/14/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/14/11	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	06/22/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.35	0.2	06/20/11	MC	SM4500 NH3 C
Chloride	mg/L	23.0	3.0	06/14/11	LL	300.0
Total Phosphorous (P)	mg/L	0.025	0.005	06/16/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	06/20/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.74*	0.5	06/16/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.06	NA	06/20/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	0.21	NA	06/21/11	Calculation	Calculation
Chlorophyll-a	*	14*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	06/14/11	MC	4500-P
Particulate Organic Carbon	mg/L	1.3	NA	06/16/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	NA	06/21/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	0.27	NA	06/21/11	Calculation	Calculation

$$TN = DON(0.21) + PON(0.14) + TLN(0.35) + NO_3(0.06) + NO_2(0.002) = 0.762$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
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Thursday, September 08, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-6A

Collection Date: 06/13/11 Collection Time: 10:15

Sampled By: Kim Michaelis

Lab Order Number: WW-111258

Date Received: 06/13/11

Sample Type	Sample Time	Sample Date	Comments			
S-6A A	10:45	6/13/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	40	6.0	06/16/11	MC	2540 C
Total Organic Carbon*	mg/L	2.5*	0.5	06/16/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	06/14/11	MC	200.7
Nitrate-N	mg/L	0.21	0.01	06/14/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/14/11	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	06/22/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	06/20/11	MC	SM4500 NH3 C
Chloride	mg/L	15.8	3.0	06/14/11	LL	300.0
Total Phosphorous (P)	mg/L	0.023	0.005	06/16/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	06/20/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.5*	0.5	06/16/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.21	NA	06/20/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	0.21	NA	06/21/11	Calculation	Calculation
Chlorophyll-a	*	4.3*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.018	0.005	06/14/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/16/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	06/21/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	0.42	NA	06/21/11	calculation	Calculation

$$TN = DON(0.21) + PON(0.07) + TLN(0.28) + NO_3(0.21) + NO_2(0.002) = 0.772$$

BRL=below reportable limits

*see attached

By:

Ronald J. Saari

Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

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(508)888-6460 1-800-339-6460
FAX (508)888-6446

Thursday, September 08, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-12

Collection Date: 06/13/11 **Collection Time:** 11:15

Sampled By: Kim Michaelis

Lab Order Number: WW-111259

Date Received: 06/13/11

Sample Type	Sample Time	Sample Date	Comments			
S-12 A	11:15	6/13/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	57	6.0	06/16/11	MC	2540 C
Total Organic Carbon*	mg/L	2.5*	0.5	06/16/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	06/14/11	MC	200.7
Nitrate-N	mg/L	0.20	0.01	06/14/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/14/11	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	06/22/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	06/20/11	MC	SM4500 NH3 C
Chloride	mg/L	14.2	3.0	06/14/11	LL	300.0
Total Phosphorous (P)	mg/L	0.027	0.005	06/16/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	06/20/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.4*	0.5	06/16/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.20	NA	06/20/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	06/21/11	Calculation	Calculation
Chlorophyll-a	*	3.5*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.013	0.005	06/14/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/16/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/21/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	< 0.40	NA	06/21/11	MC	Calculation

$$+N = DON(0.1) + PON(0.1) + +LN(0.21) + NO_3(0.20) + NO_2(0.002) = 0.62$$

BRL=below reportable limits

*see attached

By:

Ronald J. Saari

Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Thursday, September 08, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: Harbor Sampling

Comments:

Project Number: S-7

Collection Date: 06/13/11 **Collection Time:** 9:45

Sampled By: Kim Michaelis

Lab Order Number: WW-111260

Date Received: 06/13/11

Sample Type	Sample Time	Sample Date	Comments			
Harbor Sampling S-7A	9:45	6/13/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Nitrate-N/Nitrite-N	mg/L	BRL	0.01	06/14/11	MC	4500-NO3
Total Organic Carbon*	mg/L	4.3*	0.5	06/16/11	RIA*	SM 5310 C
Ammonia-N *	mg/L	<0.02*	0.02	06/22/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	06/20/11	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.045	0.005	06/16/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	07/19/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.3*	0.5	06/16/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	BRL	NA	06/20/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	0.21	NA	06/21/11	Calculation	Calculation
Ortho Phosphorous (P)	mg/L	0.015	0.005	06/14/11	MC	4500-P
Particulate Organic Carbon	mg/L	3.0	NA	06/16/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	06/21/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	0.21	NA	06/22/11	Calculation	Calculation

$$TN = DON(0.21) + PON(0.07) + TKLN(0.28) + NO_3/NO_2(0.005) = 0.565$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari

Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
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Thursday, September 08, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: Harbor Sampling

Comments:

Project Number: S-10

Collection Date: 06/13/11 **Collection Time:** 9:30

Sampled By: Kim Michaelis

Lab Order Number: WW-111261

Date Received: 06/13/11

Sample Type	Sample Time	Sample Date	Comments			
Harbor Sampling S-10A	9:30	6/13/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Nitrate-N/Nitrite-N	mg/L	BRL	0.01	06/14/11	MC	4500-NO3
Total Organic Carbon*	mg/L	<0.5*	0.5	06/16/11	RIA*	SM 5310 C
Ammonia-N *	mg/L	<0.02*	0.02	06/22/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	07/19/11	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.037	0.005	06/16/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	07/19/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	06/16/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	BRL	NA	06/20/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	06/21/11	Calculation	Calculation
Ortho Phosphorous (P)	mg/L	0.012	0.005	06/14/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	06/16/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	06/21/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	< 0.20	NA	06/21/11	Calculation	Calculation

$$TN = DON(0.1) + PON(0.1) + TDN(0.21) + NO_3/NO_2(0.005) = 0.415$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari

Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 6/14/11

Work Order #: 1106-11250

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-111252 S-8B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/13/2011 @ 08:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.29	0.02	mg/l	SM 4500-NH3 C	6/16/11	MEL
Chlorophyll A	1.9	1.1	mg/m ³	SM 10200-H	6/21/11	ML
TOC Low Level	<0.5	0.5	mg/l	SM 5310B	6/16/11	CCP
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	6/16/11	CCP

Sample # 002

SAMPLE DESCRIPTION: WW-111253 S-5B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/13/2011 @ 08:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.08	0.02	mg/l	SM 4500-NH3 C	6/17/11	JRD
Chlorophyll A	6.7	1.1	mg/m ³	SM 10200-H	6/21/11	ML
TOC Low Level	3.5	0.5	mg/l	SM 5310B	6/16/11	CCP
Dissolved TOC	3.4	0.5	mg/l	EPA 415.1	6/16/11	CCP

Sample # 003

SAMPLE DESCRIPTION: WW-111254 S-8A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/13/2011 @ 08:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.04	0.02	mg/l	SM 4500-NH3 C	6/22/11	EVH
Chlorophyll A	7.7	1.1	mg/m ³	SM 10200-H	6/21/11	ML
TOC Low Level	3.6	0.5	mg/l	SM 5310B	6/16/11	CCP
Dissolved TOC	3.3	0.5	mg/l	EPA 415.1	6/16/11	CCP

Sample # 004

SAMPLE DESCRIPTION: WW-111255 S-4A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/13/2011 @ 09:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	6/22/11	EVH
Chlorophyll A	4.5	1.1	mg/m ³	SM 10200-H	6/21/11	ML
TOC Low Level	5.3	0.5	mg/l	SM 5310B	6/16/11	CCP
Dissolved TOC	5.4	0.5	mg/l	EPA 415.1	6/16/11	CCP

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 6/14/11

Work Order #: 1106-11250

PLYMOUTH ENV.

Sample # 005

SAMPLE DESCRIPTION: WW-111256 S-3A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/13/2011 @ 10:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	6/22/11	EVH
Chlorophyll A	10	1.1	mg/m ³	SM 10200-H	6/21/11	ML
TOC Low Level	3.7	0.5	mg/l	SM 5310B	6/16/11	CCP
Dissolved TOC	1.3	0.5	mg/l	EPA 415.1	6/16/11	CCP

Sample # 006

SAMPLE DESCRIPTION: WW-111257 S-2B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/13/2011 @ 10:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	6/22/11	EVH
Chlorophyll A	14	1.1	mg/m ³	SM 10200-H	6/21/11	ML
TOC Low Level	2.0	0.5	mg/l	SM 5310B	6/16/11	CCP
Dissolved TOC	0.74	0.5	mg/l	EPA 415.1	6/16/11	CCP

Sample # 007

SAMPLE DESCRIPTION: WW-111258 S-6A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/13/2011 @ 10:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	6/22/11	EVH
Chlorophyll A	4.3	1.1	mg/m ³	SM 10200-H	6/21/11	ML
TOC Low Level	2.5	0.5	mg/l	SM 5310B	6/16/11	CCP
Dissolved TOC	2.5	0.5	mg/l	EPA 415.1	6/16/11	CCP

Sample # 008

SAMPLE DESCRIPTION: WW-111259 S-12

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/13/2011 @ 11:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	6/22/11	EVH
Chlorophyll A	3.5	1.1	mg/m ³	SM 10200-H	6/21/11	ML
TOC Low Level	2.5	0.5	mg/l	SM 5310B	6/16/11	CCP
Dissolved TOC	2.4	0.5	mg/l	EPA 415.1	6/16/11	CCP

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 6/14/11

Work Order #: 1106-11348

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-111260 S-7

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/13/2011 @ 09:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.0.02	0.02	mg/l	SM 4500-NH3 C	6/22/11	EVII
TOC Low Level	4.3	0.5	mg/l	SM 5310B	6/16/11	CCP
Dissolved TOC	1.3	0.5	mg/l	EPA 415.1	6/16/11	CCP

Sample # 002

SAMPLE DESCRIPTION: WW-111261 S-10

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/13/2011 @ 09:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	6/22/11	EVII
TOC Low Level	<0.5	0.5	mg/l	SM 5310B	6/16/11	CCP
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	6/16/11	CCP

6

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

UW 111252

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
6/13/11	0800 0805	S-8B	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
6/13/11	0820	S-5B	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

UW 111253

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By:

Date/Time:

[Signature] 6/13/11 1441

6

Chain of Custody

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
6/13/11	0830	S-8A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
6/13/11	0900	S-4A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 6/13/11 1445

6

Chain of Custody

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	#bottles	Type bottle	Analysis	Preservative
6/13/11	1045	S-6A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
6/13/11	1115	S-12	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 6/13/11 1045

2

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: Harbor Sampling -Plymouth MA
Sampler: Kim Michaelis (KM)

SW 111260

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
6/12/11	0945	S-7	1	Plastic	TOC	H2SO4
		S-7	1	Plastic	NO3, NO2, Ortho,	NONE
		S-7	1	1 Liter Plastic	TKN, NH3, TP	H2SO4
		S-7	1	Plastic	Dissolved	None
6/13/11	0930	S-10	1	Plastic	TOC	H2SO4
		S-10	1	Plastic	NO3, NO2, Ortho, Dissolved	NONE
		S-10	1	1 Liter Plastic	TKN, NH3, TP	H2SO4
		S-10	1	Plastic	Dissolved	None

WW 111261

NOTE: Analysis needed for reporting in lowest detection possible; O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen

Relinquished By: Date/Time

Kim Michaelis

Received By:

Date/Time:

[Signature] 6/17/11 @ 1441

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis
 11 Lincoln St. Plymouth

ProjectName: SW Eel River
Project Number: S-6A
Collection Date: 7/26/11
Sampled By: K. Michaelis
Lab Order Number: WW-111768
Date Received: 07/26/11

Comments:

Sample Type	Sample Time	Sample Date	Comments			
S-6A A	12:15	7/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	53	6.0	07/27/11	MC	2540 C
Chloride grab	mg/L	17.6	3.0	07/26/11	RL	300.0
Total Organic Carbon*	mg/L	3.3*	0.5	08/03/11	RIA*	SM 5310 C
Boron	mg/L	0.012	0.010	08/02/11	MC	200.7
Nitrate-N	mg/L	0.13	0.01	07/26/11	RL	300.0
Nitrite-N	mg/L	BRL	0.004	07/26/11	RL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/01/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	08/04/11	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.033	0.005	08/01/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	08/04/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.9*	0.5	08/03/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.13	NA	08/04/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	08/04/11	Calculation	Calculation
Chlorophyll-a	*	4.5*	*	08/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	08/01/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.4	NA	08/03/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	08/04/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	< 0.33	NA	08/04/11	Calculation	Calculation

$$TN = DON(0.1) + PON(0.1) + TKN(0.1) + NO_3(0.13) + NO_2(0.002) = 0.432$$

BRL=below reportable limits

*see attached

By: 
 Ronald J. Satri
 Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis
11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-12

Collection Date: 7/26/11 Collection Time: 12:30

Sampled By: K. Michaelis

Lab Order Number: WW-111769

Date Received: 07/26/11

Sample Type	Sample Time	Sample Date	Comments			
S-12 A		7/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	47	6.0	07/27/11	MC	2540 C
Chloride grab	mg/L	16.3	3.0	07/26/11	RL	300.0
Total Organic Carbon*	mg/L	4.2*	0.5	08/03/11	RIA*	SM 5310 C
Boron	mg/L	0.014	0.010	08/02/11	MC	200.7
Nitrate-N	mg/L	0.12	0.01	07/26/11	RL	300.0
Nitrite-N	mg/L	BRL	0.004	07/26/11	RL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/01/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	08/04/11	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.092	0.005	08/01/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	08/04/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	3.6*	0.5	08/03/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.12	NA	08/04/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	08/04/11	Calculation	Calculation
Chlorophyll-a	*	<1.1*	*	08/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.005	0.005	08/01/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.6	NA	08/03/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	08/04/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	< 0.32	NA	08/04/11	Calculation	Calculation

$$TN = DON(0.1) + PON(0.1) + TKN(0.1) + NO_3(0.12) + NO_2(0.002) = 0.422$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Sadri
Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-3A

Collection Date: 7/26/11 **Collection Time:** 10:10

Sampled By: K. Michaelis

Lab Order Number: WW-111770

Date Received: 07/26/11

Sample Type	Sample Time	Sample Date	Comments			
S-3A A	10:10	7/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	70	6.0	07/27/11	MC	2540 C
Chloride grab	mg/L	28.2	3.0	07/26/11	RL	300.0
Total Organic Carbon*	mg/L	3.1*	0.5	08/03/11	RIA*	SM 5310 C
Boron	mg/L	0.009	0.010	08/02/11	MC	200.7
Nitrate-N	mg/L	0.10	0.01	07/26/11	RL	300.0
Nitrite-N	mg/L	BRL	0.004	07/26/11	RL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/01/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.56	0.2	08/04/11	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.048	0.005	08/01/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	08/04/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.4*	0.5	08/03/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.12	NA	08/04/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	08/04/11	Calculation	Calculation
Chlorophyll-a	*	13*	*	08/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.007	0.005	08/01/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.7	NA	08/03/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	08/04/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	< 0.30	NA	08/04/11	Calculation	Calculation

$$TN = DON(0.1) + RN(0.1) + TKN(0.56) + NO_3(0.10) + NO_2(0.002) = 0.862$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
 Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis
 11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-2B

Collection Date: 7/26/11 **Collection Time:** 11:00

Sampled By: K. Michaelis

Lab Order Number: WW-111771

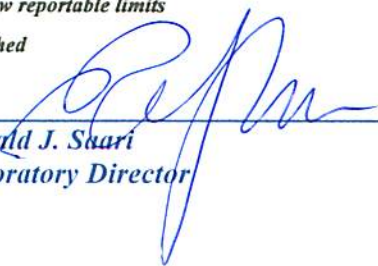
Date Received: 07/26/11

Sample Type	Sample Time	Sample Date	Comments			
S-2B A	11:00	7/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	55	6.0	07/27/11	MC	2540 C
Chloride grab	mg/L	23.9	3.0	07/26/11	RL	300.0
Total Organic Carbon*	mg/L	2.3*	0.5	08/03/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	08/02/11	MC	200.7
Nitrate-N	mg/L	BRL	0.01	07/26/11	RL	300.0
Nitrite-N	mg/L	BRL	0.004	07/26/11	RL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/01/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	08/04/11	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.14	0.005	08/01/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	08/04/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.2*	0.5	08/03/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	BRL	NA	08/04/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	0.21	NA	08/04/11	Calculation	Calculation
Chlorophyll-a	*	11*	*	08/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	08/01/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	NA	08/03/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	08/04/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	0.21	NA	08/04/11	Calculation	Calculation

$$TN = DON(0.21) + PON(0.07) + TKN(0.28) + NO_3(0.005) + NO_2(0.002) = 0.567$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Skari
 Laboratory Director

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
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(508)888-6460 1-800-339-6460
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Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-8B

Collection Date: 7/26/11 Collection Time: 9:15

Sampled By: K. Michaelis

Lab Order Number: WW-111772

Date Received: 07/26/11

Sample Type	Sample Time	Sample Date	Comments			
S-8B A	9:15	7/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	BRL	6.0	07/27/11	MC	2540 C
Chloride grab	mg/L	BRL	3.0	07/26/11	RL	300.0
Total Organic Carbon*	mg/L	<0.5*	0.5	08/03/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	08/02/11	MC	200.7
Nitrate-N	mg/L	BRL	0.01	07/26/11	RL	300.0
Nitrite-N	mg/L	BRL	0.004	07/26/11	RL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/01/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	08/04/11	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	BRL	0.005	08/01/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	08/04/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	08/03/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	BRL	NA	08/04/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	08/04/11	Calculation	Calculation
Chlorophyll-a	*	<1.1*	*	08/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.007	0.005	08/01/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	08/03/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	08/04/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	< 0.20	NA	08/04/11	Calculation	Calculation

$$TN = DON(0.1) + PON(0.1) + TKN(0.1) + NO_3(0.005) + NO_2(0.01) = < 0.315$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.

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FAX (508)888-6446

Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-5B

Collection Date: 7/26/11 Collection Time: 9:30

Sampled By: K. Michaelis

Lab Order Number: WW-111773

Date Received: 07/26/11

Sample Type	Sample Time	Sample Date	Comments			
S-5B A	9:30	7/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	97	6.0	07/27/11	MC	2540 C
Chloride grab	mg/L	42.4	3.0	07/26/11	RL	300.0
Total Organic Carbon*	mg/L	2.5*	0.5	08/03/11	RIA*	SM 5310 C
Boron	mg/L	0.013	0.010	08/02/11	MC	200.7
Nitrate-N	mg/L	BRL	0.01	07/26/11	RL	300.0
Nitrite-N	mg/L	BRL	0.004	07/26/11	RL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/01/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.42	0.2	08/04/11	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.18	0.005	08/01/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	08/04/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.3*	0.5	08/03/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	BRL	NA	08/04/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	0.28	NA	08/04/11	Calculation	Calculation
Chlorophyll-a	*	24*	*	08/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.017	0.005	08/01/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.2	NA	08/03/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	NA	08/04/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	0.28	NA	08/04/11	Calculation	Calculation

$$TN = DON(0.28) + PON(0.14) + TKN(0.42) + NO_3(0.005) + NO_2(0.002) = 0.847$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.
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Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-8A

Collection Date: 7/26/11 **Collection Time:** 9:40

Sampled By: K. Michaelis

Lab Order Number: WW-111774

Date Received: 07/26/11

Sample Type	Sample Time	Sample Date	Comments			
S-8A A	9:40	7/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	95	6.0	07/27/11	MC	2540 C
Chloride grab	mg/L	42.6	3.0	07/26/11	RL	300.0
Total Organic Carbon*	mg/L	3.0*	0.5	08/03/11	RIA*	SM 5310 C
Boron	mg/L	0.016	0.010	08/02/11	MC	200.7
Nitrate-N	mg/L	BRL	0.01	07/26/11	RL	300.0
Nitrite-N	mg/L	BRL	0.004	07/26/11	RL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/01/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.42	0.2	08/04/11	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.22	0.005	08/01/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	08/04/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.4*	0.5	08/03/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	BRL	NA	08/04/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	0.28	NA	08/04/11	Calculation	Calculation
Chlorophyll-a	*	20*	*	08/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.023	0.005	08/01/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.6	NA	08/03/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	NA	08/04/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	0.28	NA	08/04/11	Calculation	Calculation

$$TN = DON(0.28) + PON(0.14) + TKN(0.42) + NO_3(0.005) + NO_2(0.002) = 0.847$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
(508)888-6460 1-800-339-6460
FAX (508)888-6446

Wednesday, September 07, 2011

Plymouth Environmental Management

Kim Michaelis

11 Lincoln St. Plymouth

ProjectName: SW Eel River

Comments:

Project Number: S-4A

Collection Date: 7/26/11 **Collection Time:** 9:55

Sampled By: K. Michaelis

Lab Order Number: WW-111775

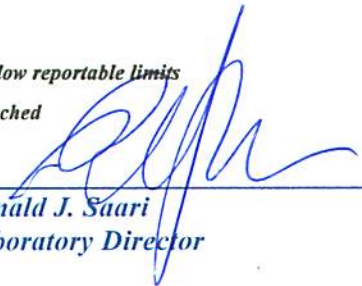
Date Received: 07/26/11

Sample Type	Sample Time	Sample Date	Comments			
S-4A A	9:55	7/26/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	70	6.0	07/27/11	MC	2540 C
Chloride grab	mg/L	27.6	3.0	07/26/11	RL	300.0
Total Organic Carbon*	mg/L	2.3*	0.5	08/03/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	08/02/11	MC	200.7
Nitrate-N	mg/L	BRL	0.01	07/26/11	RL	300.0
Nitrite-N	mg/L	BRL	0.004	07/26/11	RL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/01/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	08/04/11	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.15	0.005	08/01/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	08/04/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.2*	0.5	08/03/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	BRL	NA	08/04/11	Calculation	Calculation
Dissolved Organic Nitrogen	mg/L	0.28	NA	08/04/11	Calculation	Calculation
Chlorophyll-a	*	<1.1*	*	08/03/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.008	0.005	08/01/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	NA	08/03/11	Calculation	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	08/04/11	Calculation	Calculation
Total Dissolved Nitrogen	mg/L	0.28	NA	08/04/11	Calculation	Calculation

$$TN = DON (0.28) + PON (0.1) + TLN (0.28) + NO_3 (0.005) + NO_2 (0.002) = 0.667$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari

Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 7/27/11

Work Order #: 1107-14430

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-111768 S-6B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/26/2011 @ 12:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/1/11	JRD
Chlorophyll A	4.5	1.1	mg/m ³	SM 10200-H	8/3/11	ML
TOC Low Level	3.3	0.5	mg/l	SM-5310B	8/3/11	ML
Dissolved TOC	2.9	0.5	mg/l	EPA 415.1	8/3/11	ML

Sample # 002

SAMPLE DESCRIPTION: WW-111769 S-12

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/26/2011 @ 12:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/1/11	JRD
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	8/3/11	ML
TOC Low Level	4.2	0.5	mg/l	SM-5310B	8/3/11	ML
Dissolved TOC	3.6	0.5	mg/l	EPA 415.1	8/3/11	ML

Sample # 003

SAMPLE DESCRIPTION: WW-111770 S-3A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/26/2011 @ 10:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/1/11	JRD
Chlorophyll A	13	1.1	mg/m ³	SM 10200-H	8/3/11	ML
TOC Low Level	3.1	0.5	mg/l	SM-5310B	8/3/11	ML
Dissolved TOC	2.4	0.5	mg/l	EPA 415.1	8/3/11	ML

Sample # 004

SAMPLE DESCRIPTION: WW-111771 S-2B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/26/2011 @ 11:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/1/11	JRD
Chlorophyll A	11	1.1	mg/m ³	SM 10200-H	8/3/11	ML
TOC Low Level	2.3	0.5	mg/l	SM-5310B	8/3/11	ML
Dissolved TOC	2.2	0.5	mg/l	EPA 415.1	8/3/11	ML

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 7/27/11

Work Order #: 1107-14430

PLYMOUTH ENV.

Sample # 005

SAMPLE DESCRIPTION: WW-111772 S-8B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/26/2011 @ 09:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/1/11	JRD
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	8/3/11	ML
TOC Low Level	<0.5	0.5	mg/l	SM-5310B	8/3/11	ML
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	8/3/11	ML

Sample # 006

SAMPLE DESCRIPTION: WW-111773 S-5B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/26/2011 @ 09:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/1/11	JRD
Chlorophyll A	24	1.1	mg/m ³	SM 10200-H	8/3/11	ML
TOC Low Level	2.5	0.5	mg/l	SM-5310B	8/3/11	ML
Dissolved TOC	2.3	0.5	mg/l	EPA 415.1	8/3/11	ML

Sample # 007

SAMPLE DESCRIPTION: WW-111774 S-8A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/26/2011 @ 09:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/1/11	JRD
Chlorophyll A	20	1.1	mg/m ³	SM 10200-H	8/3/11	ML
TOC Low Level	3.0	0.5	mg/l	SM-5310B	8/3/11	ML
Dissolved TOC	2.4	0.5	mg/l	EPA 415.1	8/3/11	ML

Sample # 008

SAMPLE DESCRIPTION: WW-111775 S-4A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/26/2011 @ 09:55

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/1/11	JRD
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	8/3/11	ML
TOC Low Level	2.3	0.5	mg/l	SM-5310B	8/3/11	ML
Dissolved TOC	2.2	0.5	mg/l	EPA 415.1	8/3/11	ML

6

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
7/26/11	1215	S-6A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
7/26/11	1230	S-12	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

M. Michaelis 7/26/11 1:30

— P

6

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW111770

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
7/26/11	1010	S-3A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
7/26/11	1100	S-2B	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

WW111771

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By:

Date/Time:

Michaelis 7/26/11 1:30

1

2

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
7/26/11	0915	S-8B	1	1 Liter Plastic	Dissolved	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4
7/26/11	0930	S-5B	1	1 Liter Plastic	Dissolved	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

Ma On That 7/26/11 1:30

6

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW111774

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
7/26/11	0940	S-8A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
7/26/11	0955	S-4A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

WW111775

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

Kim Michaelis 7/26/11 1:30

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

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Wednesday, October 05, 2011

Plymouth Environmental Management
K. Michaelis/ 11 Lincoln St.
Plymouth, MA

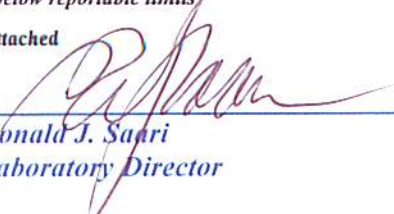
ProjectName: SW Eel River **Comments:**
Project Number: S-3A
Collection Date: 9/12/11 **Collection Time:** 10:45
Sampled By: K. Michaelis
Lab Order Number: WW-112173
Date Received: 09/12/11

Sample Type	Sample Time	Sample Date	Comments			
S-3A A	10:45	9/12/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	53	6.0	09/29/11	MC	2540 C
Total Organic Carbon*	mg/L	<0.5*	0.5	09/15/11	RIA*	SM 5310 C
Boron	mg/L	0.018	0.010	09/15/11	MC	200.7
Nitrate-N	mg/L	0.16	0.01	09/12/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/12/11	LL	300.0
Ammonia-N *	mg/L	0.24*	0.02	09/20/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	09/13/11	MC	SM4500 NH3 C
Chloride	mg/L	25.7	3.0	09/12/11	LL	300.0
Total Phosphorous (P)	mg/L	0.042	0.005	09/15/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	09/13/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	09/15/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.40	NA	10/05/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	10/05/11	MC	Calculation
Chlorophyll-a	*	6.4*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	09/13/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	10/05/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	10/05/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	< 0.36	NA	10/04/11	MC	Calculation

$$TN = DON(0.1) + PON(0.1) + TILN(0.1) + NO_3(0.16) + NO_2(0.002) = 0.462$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Satri
Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
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Wednesday, October 05, 2011

Plymouth Environmental Management
 K. Michaelis/ 11 Lincoln St.
 Plymouth, MA

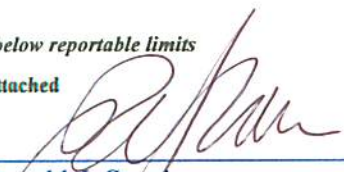
ProjectName: SW Eel River **Comments:**
Project Number: S-2B
Collection Date: 9/12/11 **Collection Time:** 11:00
Sampled By: K. Michaelis
Lab Order Number: WW-112174
Date Received: 09/12/11

Sample Type	Sample Time	Sample Date	Comments			
S-2B A	11:00	9/12/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	49	6.0	09/29/11	MC	2540 C
Total Organic Carbon*	mg/L	<0.5*	0.5	09/15/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	09/15/11	MC	200.7
Nitrate-N	mg/L	BRL	0.01	09/12/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/12/11	LL	300.0
Ammonia-N *	mg/L	0.09*	0.02	09/20/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	09/13/11	MC	SM4500 NH3 C
Chloride	mg/L	21.5	3.0	09/12/11	LL	300.0
Total Phosphorous (P)	mg/L	0.028	0.005	09/15/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	09/13/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	09/15/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.09	NA	10/04/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	10/04/11	MC	Calculation
Chlorophyll-a	*	7.4*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	09/13/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	10/04/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	10/04/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	< 0.36	NA	10/04/11	MC	Calculation

$$TN = DON(0.1) + PON(0.1) + TLN(0.1) + NO_3(0.005) + NO_2(0.002) = < 0.307$$

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

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Wednesday, October 05, 2011

Plymouth Environmental Management
 K. Michaelis/ 11 Lincoln St.
 Plymouth, MA

ProjectName: SW Eel River **Comments:**
Project Number: S-12
Collection Date: 9/12/11 **Collection Time:** 11:15
Sampled By: K. Michaelis
Lab Order Number: WW-112175
Date Received: 09/12/11

Sample Type	Sample Time	Sample Date	Comments			
S-12 A	11:15	9/12/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	43	6.0	09/29/11	MC	2540 C
Total Organic Carbon*	mg/L	<0.5*	0.5	09/15/11	RIA*	SM 5310 C
Boron	mg/L	0.013	0.010	09/15/11	MC	200.7
Nitrate-N	mg/L	0.19	0.01	09/12/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/12/11	LL	300.0
Ammonia-N *	mg/L	0.14*	0.02	09/20/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	09/13/11	MC	SM4500 NH3 C
Chloride	mg/L	16.4	3.0	09/12/11	LL	300.0
Total Phosphorous (P)	mg/L	0.036	0.005	09/15/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	09/13/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	09/15/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.33	NA	10/04/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	10/04/11	MC	Calculation
Chlorophyll-a	*	6.1*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.007	0.005	09/13/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	10/04/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	10/04/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	< 0.39	NA	10/04/11	MC	Calculation

$$TN = DON(0.1) + PON(0.1) + TKLN(0.21) + NO_3(0.19) + NO_2(0.002) = 0.602$$

BRL=below reportable limits

*see attached

By: _____

Ronald J. Sauri
 Laboratory Director

ENVIROTECH LABORATORIES, INC.
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Wednesday, October 05, 2011

Plymouth Environmental Management

K. Michaelis/ 11 Lincoln St.

Plymouth, MA

ProjectName: SW Eel River

Comments:

Project Number: S-6A

Collection Date: 9/12/11 **Collection Time:** 11:30

Sampled By: K. Michaelis

Lab Order Number: WW-112176

Date Received: 09/12/11

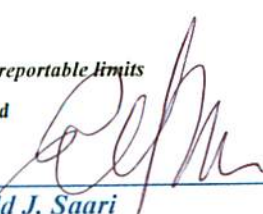
Sample Type	Sample Time	Sample Date	Comments			
S-6A A	11:30	9/12/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	48	6.0	09/29/11	MC	2540 C
Total Organic Carbon*	mg/L	<0.5*	0.5	09/15/11	RIA*	SM 5310 C
Boron	mg/L	0.009	0.010	09/15/11	MC	200.7
Nitrate-N	mg/L	0.23	0.01	09/13/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/13/11	LL	300.0
Ammonia-N *	mg/L	0.05*	0.02	09/20/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	09/13/11	MC	SM4500 NH3 C
Chloride	mg/L	18.1	3.0	09/13/11	LL	300.0
Total Phosphorous (P)	mg/L	0.035	0.005	09/15/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	09/13/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	09/15/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.28	NA	10/04/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.16	NA	10/04/11	MC	Calculation
Chlorophyll-a	*	<1.1*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.005	0.005	09/13/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	10/04/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	10/04/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.44	NA	10/04/11	MC	Calculation

$$TN = DON (0.16) + PON (0.1) + TLN (0.21) + NO_3 (0.23) + NO_2 (8.002) = 0.702$$

BRL=below reportable limits

*see attached

By:


 Ronald J. Saari
 Laboratory Director

ENVIROTECH LABORATORIES, INC.
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8 Jan Sebastian Drive
 Sandwich, MA 02563
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Wednesday, October 05, 2011

Plymouth Environmental Management
 K. Michaelis/ 11 Lincoln St.
 Plymouth, MA

ProjectName: SW Eel River **Comments:**
Project Number: S-8B
Collection Date: 9/12/11 **Collection Time:** 9:50
Sampled By: K. Michaelis
Lab Order Number: WW-112177
Date Received: 09/12/11

Sample Type	Sample Time	Sample Date	Comments			
S-8B A	9:50	9/12/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	BRL	6.0	09/29/11	MC	2540 C
Total Organic Carbon*	mg/L	<0.5*	0.5	09/15/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	09/15/11	MC	200.7
Nitrate-N	mg/L	BRL	0.01	09/13/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/13/11	LL	300.0
Ammonia-N *	mg/L	0.07*	0.02	09/20/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	BRL	0.2	09/13/11	MC	SM4500 NH3 C
Chloride	mg/L	BRL	3.0	09/13/11	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	09/15/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	BRL	0.2	09/13/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	09/15/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	BRL	NA	10/04/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	10/04/11	MC	Calculation
Chlorophyll-a	*	<1.1*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	09/13/11	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	NA	10/04/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	10/04/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	< 0.20	NA	10/04/11	MC	Calculation

$$TN = DON(0.1) + PON(0.1) + TKN(0.1) + NO_3(0.005) + NO_2(0.002) = < 0.307$$

BRL=below reportable limits

*see attached

By: _____

Ronald J. Saari
 Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

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Wednesday, October 05, 2011

Plymouth Environmental Management
 K. Michaelis/ 11 Lincoln St.
 Plymouth, MA

ProjectName: SW Eel River
Project Number: S-5B
Collection Date: 9/12/11 **Collection Time:** 10:00
Sampled By: K. Michaelis
Lab Order Number: WW-112178
Date Received: 09/12/11

Comments:

Sample Type	Sample Time	Sample Date	Comments			
S-5B A	10:00	9/12/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	79	6.0	09/29/11	MC	2540 C
Total Organic Carbon*	mg/L	1.5*	0.5	09/15/11	RIA*	SM 5310 C
Boron	mg/L	0.010	0.010	09/15/11	MC	200.7
Nitrate-N	mg/L	0.17	0.01	09/13/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/13/11	LL	300.0
Ammonia-N *	mg/L	0.38*	0.02	09/20/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.35	0.2	09/13/11	MC	SM4500 NH3 C
Chloride	mg/L	36.4	3.0	09/13/11	LL	300.0
Total Phosphorous (P)	mg/L	0.053	0.005	09/15/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.35	0.2	09/13/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.2*	0.5	09/15/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.55	NA	10/04/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	BRL	NA	10/04/11	MC	Calculation
Chlorophyll-a	*	<1.1*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.012	0.005	09/13/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.3	NA	10/04/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	10/04/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.52	NA	10/04/11	MC	Calculation

$$TN = DON(0.1) + PON(0.1) + TLN(0.35) + NO_3(0.17) + NO_2(0.002) = 0.722$$

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

ENVIROTECH LABORATORIES, INC. MA CERT. NO.: M-MA 063

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Sandwich, MA 02563
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Wednesday, October 05, 2011

Plymouth Environmental Management
K. Michalelis/ 11 Lincoln St.
Plymouth, MA

Project Name: SW Eel River
Project Number: S-84
Collection Date: 9/12/11
Sampled By: K. Michalelis
Lab Order Number: WW-112179
Date Received: 09/12/11

Collection Time: 10:15

Comments:

Sample Type	Sample Time	Sample Date	Comments			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	80	6.0	09/29/11	MC	2540 C
Total Organic Carbon*	mg/L	1.6*	0.5	09/15/11	RIA*	SM 5310 C
Boron	mg/L	0.011	0.010	09/15/11	MC	200.7
Nitrate-N	mg/L	0.16	0.01	09/13/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/13/11	LL	300.0
Ammonia-N *	mg/L	0.34*	0.02	09/20/11	RIA*	SM4500 NH3 C
Total Kjeldahl Nitrogen	mg/L	0.49	0.2	09/13/11	MC	SM4500 NH3 C
Chloride	mg/L	36.5	3.0	09/13/11	LL	300.0
Total Phosphorus (P)	mg/L	0.047	0.005	09/15/11	MC	4500-P
Dissolved Kjeldahl Nitrogen	mg/L	0.42	0.2	09/13/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.4*	0.5	09/15/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.50	NA	10/04/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.08	NA	10/04/11	MC	Calculation
Chlorophyll-a	*	3.7*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.012	0.005	09/13/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.2	NA	10/04/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	10/04/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.58	NA	06/21/11	RIA*	Calculation

$$TN = DON(0.08) + PON(0.07) + TKN(0.49) + NO_3(0.16) + NO_2(0.002) = 0.802$$

BRL=below reportable limits

*see attached

By: 
Ronald J. Sauri
Laboratory Director

ENVIROTECH LABORATORIES, INC.
MA CERT. NO.: M-MA 063

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 Sandwich, MA 02563
 (508)888-6460 1-800-339-6460
 FAX (508)888-6446

Wednesday, October 05, 2011

Plymouth Environmental Management
 K. Michaelis/ 11 Lincoln St.
 Plymouth, MA

ProjectName: SW Eel River
Project Number: S-4A
Collection Date: 9/12/11 **Collection Time:** 10:35
Sampled By: K. Michaelis
Lab Order Number: WW-112180
Date Received: 09/12/11

Comments:

Sample Type	Sample Time	Sample Date	Comments			
S-4A A	10:35	9/12/11				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	62	6.0	09/29/11	MC	2540 C
Total Organic Carbon*	mg/L	2.2*	0.5	09/15/11	RIA*	SM 5310 C
Boron	mg/L	BRL	0.010	09/15/11	MC	200.7
Nitrate-N	mg/L	0.12	0.01	09/13/11	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/13/11	LL	300.0
Ammonia-N *	mg/L	0.21*	0.02	09/20/11	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.35	0.2	09/13/11	MC	SM4500 NH3 C
Chloride	mg/L	26.2	3.0	09/13/11	LL	300.0
Total Phosphorous (P)	mg/L	0.033	0.005	09/15/11	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.35	0.2	09/13/11	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.9*	0.5	09/15/11	RIA*	EPA 415.1
Dissolved Inorganic Nitrogen	mg/L	0.33	NA	10/04/11	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.14	NA	10/04/11	MC	Calculation
Chlorophyll-a	*	3.7*	*	06/21/11	RIA*	*
Ortho Phosphorous (P)	mg/L	0.005	0.005	09/13/11	MC	4500-P
Particulate Organic Carbon	mg/L	0.3	NA	10/04/11	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	BRL	NA	10/04/11	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.47	NA	10/04/11	MC	Calculation

$$TN = DON (0.14) + PON (0.1) + TLN (0.35) + NO_3 (0.12) + NO_2 (0.002) = 0.712$$

BRL=below reportable limits

*see attached

By: 
 Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 9/13/11

Work Order #: 1109-17665

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-112173 S-3A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/12/2011 @ 10:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.24	0.02	mg/l	SM 4500-NH3 C	9/20/11	SJC
Chlorophyll A	6.4	1.1	mg/m ³	SM 10200-H	9/21/11	JRD
TOC Low Level	<0.5	0.5	mg/l	SM-5310B	9/15/11	JRG
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	9/15/11	JRG

Sample # 002

SAMPLE DESCRIPTION: WW-112174 S-2B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/12/2011 @ 11:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.09	0.02	mg/l	SM 4500-NH3 C	9/20/11	SJC
Chlorophyll A	7.4	1.1	mg/m ³	SM 10200-H	9/21/11	JRD
TOC Low Level	<0.5	0.5	mg/l	SM-5310B	9/15/11	JRG
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	9/15/11	JRG

Sample # 003

SAMPLE DESCRIPTION: WW-112175 S-12

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/12/2011 @ 11:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.14	0.02	mg/l	SM 4500-NH3 C	9/20/11	SJC
Chlorophyll A	6.1	1.1	mg/m ³	SM 10200-H	9/21/11	JRD
TOC Low Level	<0.5	0.5	mg/l	SM-5310B	9/15/11	JRG
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	9/15/11	JRG

Sample # 004

SAMPLE DESCRIPTION: WW-112176 S-6A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/12/2011 @ 11:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.05	0.02	mg/l	SM 4500-NH3 C	9/20/11	SJC
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	9/21/11	JRD
TOC Low Level	<0.5	0.5	mg/l	SM-5310B	9/15/11	JRG
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	9/15/11	JRG

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 9/13/11

Work Order #: 1109-17665

PLYMOUTH ENV.

Sample # 005

SAMPLE DESCRIPTION: WW-112177 S-8B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/12/2011 @ 09:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.07	0.02	mg/l	SM 4500-NH3 C	9/20/11	SJC
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	9/21/11	JRD
TOC Low Level	<0.5	0.5	mg/l	SM-5310B	9/15/11	JRG
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	9/15/11	JRG

Sample # 006

SAMPLE DESCRIPTION: WW-112178 S-5B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/12/2011 @ 10:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.38	0.02	mg/l	SM 4500-NH3 C	9/20/11	SJC
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	9/21/11	JRD
TOC Low Level	1.5	0.5	mg/l	SM-5310B	9/15/11	JRG
Dissolved TOC	1.2	0.5	mg/l	EPA 415.1	9/15/11	JRG

Sample # 007

SAMPLE DESCRIPTION: WW-112179 S-8A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/12/2011 @ 10:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.34	0.02	mg/l	SM 4500-NH3 C	9/20/11	SJC
Chlorophyll A	3.7	1.1	mg/m ³	SM 10200-H	9/21/11	JRD
TOC Low Level	1.6	0.5	mg/l	SM-5310B	9/15/11	JRG
Dissolved TOC	1.4	0.5	mg/l	EPA 415.1	9/15/11	JRG

Sample # 008

SAMPLE DESCRIPTION: WW-112180 S-4A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/12/2011 @ 10:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.21	0.02	mg/l	SM 4500-NH3 C	9/20/11	SJC
Chlorophyll A	3.7	1.1	mg/m ³	SM 10200-H	9/21/11	JRD
TOC Low Level	2.2	0.5	mg/l	SM-5310B	9/15/11	JRG
Dissolved TOC	1.9	0.5	mg/l	EPA 415.1	9/15/11	JRG

CHAIN OF CUSTODY FORM

ENVIROTECH LABS, INC.

8 Jan Sebastian Dr., Unit 12

Sandwich, MA 02563

(508)888-6460

1-800-339-6460

FAX (508)888-6446

RI Analytical

M RI 015

Address 41 Illinois Avenue
Warwick, RI 02888

Phone# 401-737-8500

Fax# 401-738-1970

PWS:

Project Name: Plymouth Env.

Sampler:

KM

Lab ID #	Date	Time	Comp	Grab	Station location	Container	Pres.	Sample type	Analysis requested
WW-112173	09/12/11	1045		X	S-3A	P	H ₂ SO ₄	Surface water	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved low detection
						G	Ice		Chlorophyll-a
WW-112174	09/12/11	1100		X	S-2B	P	H ₂ SO ₄	Surface water	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved low detection
						G	Ice		Chlorophyll-a
WW-112175	09/12/11	1115		X	S-12	P	H ₂ SO ₄	Surface water	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved low detection
						G	Ice		Chlorophyll-a
WW-112176	09/12/01	1130		X	S-6A	P	H ₂ SO ₄	Surface water	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved low detection
						G	Ice		Chlorophyll-a
WW-112177	09/12/11	0950		X	S-8B	P	H ₂ SO ₄	Surface water	Ammonia-N (0.02 mdl)
						P	H ₂ SO ₄		TOC total low detection
						P	H ₂ SO ₄		TOC dissolved low detection
						G	Ice		Chlorophyll-a

Relinquished:

Sam Savally

Date/Time

12/11/11
1440

Received:

*[Signature]*TOC dissolved samples are filtered
Contact lab with any exceeded MCL

Relinquished:

[Signature]

Date/Time

12/13/11
1625

Received:

*[Signature]**pu: v*

[illegible]

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
9/12/11	1045	S-3A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
9/12/11	1100	S-2B	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

J. Lavalley 9/12/11 1220

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of CustodyClient:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

1W-112175

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
9/12/11	1115	S-12	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
9/12/11	1130	S-6A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

1W-112176

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

S. Lavalley 9/12/11 1220

14

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
9/12/11	0950	S-8B	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
9/12/11	1000	S-5B	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

J. Lavally 9/12/11 1220

6

Laboratory:

Envirotech Laboratories, 8 Sebastian Drive, Unit 12, Sandwich Ma 02563
(508) 888-6460

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
JW-112179 9/12/11	1015	S-8A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
JW-112180 9/12/11	1035	S-4A	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Ortho, Boron, TDS, Chloride, NO ₂ , NO ₃	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, O-Phosphate, Total Phosphate, Ammonia, Nitrate, Nitrite, Total Kjeldahl Nitrogen, Total Dissolved Nitrogen, Dissolved Inorganic Nitrogen, Dissolved Organic Nitrogen, Particulate Organic Carbon, Particulate Organic Nitrogen, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

J. Savalley 9/12/11 1220