ARCADIS U.S., Inc.
194 Forbes Road
Braintree
Massachusetts 02184
Tel 781.356.7300
Fax 781.356.2211
www.arcadis-us.com

Ms. Olga Vergara
EPA-Region 1
Office of Ecosystem Protection (OEP06-3)
5 Post Office Square
Boston, Massachusetts, 02109-3912

Environment

Subject:
Notice of Intent (NOI) – Dewatering General Permit (DGP) and
MassDEP BRP WM-10 Permit for Construction or Foundation Dewatering
29-33 Corinth Street
Roslindale, Massachusetts

Date:
November 8, 2011

Contact:
Allen Walker

Phone:
781-356-7300

Email:
allen.walker@arcadis-us.com

Our ref:
HT116909.0001

Dear Ms. Vergara:

Pursuant to the National Pollutant Discharge Elimination System (NPDES) regulations, ARCADIS U.S., Inc (ARCADIS) has prepared this Notice of Intent (NOI) for a Dewatering General Permit for the above referenced site (the Site). The Site is owned by Bank of America and is an active bank branch. There are sumps in the basement of the building with a discharge to a nearby storm water drain, which is currently permitted as a Remediation General Permit (RGP). The discharge water has been treated due to an upgradient release of apparent gasoline and volatile organic compounds (VOCs) at the Site that affected the groundwater that collects in the sumps. The discharge no longer requires treatment for the former oil release and a Dewatering General Permit (DGP) is sought to remove the water that accumulates in the basement sumps.

The NOI application has been filed electronically to the designated United States Environmental Protection Agency (EPA) email address for a DGP application and sent to the Massachusetts Department of Environmental Protection (MassDEP). Attached to this letter is the suggested NOI form (Attachment A). The following text addresses requirements of the NOI that could not specifically be addressed on the NOI form. Note that if the response is clear on the NOI form, no additional information is provided in the following response. Once the permit request is approved, a Notice of Termination (NOT) will be prepared for the RGP to close that permit.

1 – General Facility Information

1 d - Topographic Map of Site and Outfall

The Site is located in Roslindale, an urban area of Boston, which is serviced by a network of storm water drains. Attachment B is a topographic map indicating the Site location and the location of the outfall. Note that the discharge from the Site is to a nearby manhole drain, which discharges to an unnamed conduit at the western edge of the property along Washington Street that discharges to the Stony Brook conduit.

1 e – Prior NPDES Permit at the Site

As noted previously, there are four sumps in the basement of the building with a discharge to a nearby storm water drain, which is currently permitted as a RGP. The discharge water has been treated due to an upgradient release of apparently gasoline and VOCs at the Site that affected the groundwater that collects in the sumps at the Site. The discharge no longer requires treatment and a DGP is sought to remove the water that accumulates in the basement sumps. The permit No. for the RGP permit is MAG910021. Once the DGP permit takes effect, a NOT will be filed for the RGP permit.

2 – Discharge Information

2 b – Describe Discharge Activity

This application is for long-term dewatering of a foundation sump.

2 f – Source of the Discharge and if Groundwater, Effluent Test Results

The source of the discharge is groundwater and as required by the NPDES DGP General Permit provisions, the effluent or discharge water was sampled as required by Section 4.4.5 of the General Permit for: antimony, arsenic, cadmium, chromium (total), chromium (VI), chloride, copper, iron, mercury, nickel, silver, zinc and pH. The receiving water was also sampled for hardness.

For the discharge water sample labeled as: “INF 8-31-11”, the metals analysis results were non-detectable (ND) except for iron at a concentration of 2,700 milligrams per liter (mg/l). The chloride concentration was 520 mg/l and the pH was 6.74.

The influent sample was also incorrectly submitted for hardness analysis as a sample of the receiving water was to be submitted for hardness analysis.

A sample of the receiving water was sampled on September 30, 2011 for hardness and the hardness result was 19 mg/l. Note that the sample bottle for the receiving water for hardness analysis was incorrectly labeled as: “EFF-9-30-11”, which is the same as the discharge water as this was conducted during the normal monthly sampling. However, separate samples were collected, but were labeled and reported with the same identification. Copies of the laboratory reports for both sampling events are included as Attachment C.

2 g – What Treatment Does the Wastewater Receive Prior to Discharge

As set forth previously, the water is currently treated under an RGP permit. The water from the four sumps discharges to an equalization tank, through one of two particulate bag filters and through two 660-pound liquid phase activated carbon vessels in series for treatment and is then discharged.

2 i – Identify Discharges within 100 feet of the Site.

The website referenced in this question was followed, but the website indicated that the data is no longer available.

3 – Contaminant Information

3-a: Are any pH or De-Chlorination Chemicals Used in this Discharge?

There is no pH or de-chlorination treatment of the water at the Site.

3-b: Report any known remediation activities or water-quality based issue in the vicinity of the discharge.

The discharge water has been treated due to an upgradient release, or releases, of apparent gasoline and volatile organic compounds (VOCs) that affected the groundwater that collects in the sumps. The discharge no longer requires treatment and a DGP is sought to remove the water that accumulates in the basement sumps. There are several Massachusetts Contingency Plan (MCP) release disposal sites in the nearby area.

Though, none were readily identifiable as the source that was affecting the water in the buildings sump. These affects have also diminished with time so that treatment of the water is no longer required.

As set forth previously, a groundwater treatment system was installed to treat the water that collected in the basement sumps. The water from the four sumps discharges to an equalization tank, through one of two particulate bag filters and through two 660-pound liquid phase activated carbon vessels in series for treatment and is then discharged.

4 – Determination of Endangered Species Act (ESA) Eligibility

4-a: Are any threatened or endangered species, or designated critical habitat, in proximity to the discharge?

There are no endangered species or designated critical habitat in proximity to the discharge area.

4-b: Has any consultation with the federal services been completed?

There was no consultation with the federal services as there are no endangered species or designated critical habitat in proximity to the discharge area. Though, Appendix III of the DGP was followed and Criterion A was found to be applicable. As noted in Criterion A, a copy of the most current county ESA list is included as Attachment D. The MassDEP Priority Resource Map was also reviewed, which indicated that there are no areas of critical environmental concern in the discharge area.

4-c: Is consultation under way?

No consultation is underway associated with the ESA as noted in the response to 4 b.

4-d: What were the results of the consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries Service?

There was no consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries Service as there are no endangered species or designated critical habitat in proximity to the discharge area as set forth previously. A "no jeopardy" opinion was checked on the NOI form.

4-e: Which of the five eligibility criteria listed in Appendix 2, Section G (A, B, C, D or E) have you met?

Eligibility criterion A was met for this ESA determination as there are no endangered species or designated critical habitat in proximity to the discharge area.

4-f: Please attach a copy of the most current federal listing of endangered and threatened species, found at USF&W website.

A copy of the most current county ESA list is included as Attachment D.

5 – Documentation of National Historic Preservation Act Requirements

5-a: Are any historic properties listed or eligible for listing on the National Registry of Historic Places located at the facility or in proximity to the discharge?

There are no historic properties listed on the facility site or in proximity of the discharge. The National Registry of Historic Places was reviewed and the print out of the one property that was listed is included as Attachment E.

6 – Supplemental Information

The MassDEP Transmittal Form for Permit Application and Payment is included as Attachment F. The other supplemental information is set forth in this letter and/or in the attachments.

Please call us if you have any questions regarding this matter.

Sincerely,

ARCADIS U.S., Inc.

Allen R. Walker, P. E., LSP
Principal Environmental Engineer

Attachments:

A – NOI Form.
B – Topographic Map.
C – Laboratory Report of Discharge and Receiving Water.
D – Most Current County Endangered and Threatened Species Act (ESA) List.
E – National Registry of Historic Places listing for Roslindale, MA.
F – MassDEP Transmittal Form for Permit Application and Payment.

ATTACHMENT A

NOI Form

II. Suggested Notice of Intent (NOI) Form

1. General facility information. Please provide the following information about the facility.

a) Name of facility: Bank of America	**Mailing Address for the Facility:** Bank of America, N.A., C/O Dennis McInerney, Corp. Workplace Environmental Risk, Mail Stop CT2-545-01-02, 200 Glastonbury Blvd., Glastonbury, CT 06033	
b) Location Address of the Facility (if different from mailing address): Bank of America, Bank Branch MA6-202, 29-33 Corinth Street, Roslindale, MA 02131	**Facility Location** **longitude:** 71/07/ 46.77 **latitude:** 42/17/9.76	**Type of Business:** Bank branch. **Facility SIC codes:** 6021

c) Name of facility owner: Bank of America **Owner's email:** dennis.p.mcinerney@bankofamerica.com

Owner's Tel #: 646-556-0759 **Owner's Fax #:** 704-804-5326

Address of owner (if different from facility address)

Owner is (check one): 1. Federal____ 2. State _____ 3.Tribal_____ 4. Private ✓ 4. Other _____(Describe)

Legal name of Operator, if not owner: ARCADIS U.S., Inc.

Operator Contact Name: Allen Walker

Operator Tel Number: (781) 356-7300 **Fax Number:** (781) 356-2211

Operator's email: allen.walker@arcadis-us.com

Operator Address (if different from owner)

Arcadis U.S., Inc.,194 Forbes Road, Braintree, MA 02184

d) Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached? ✓

e) Check Yes or No for the following:

1. **Has a prior NPDES permit been granted for the discharge? Yes ✓ No____ If Yes, Permit Number:** MAG910021
2. **Is the discharge a "new discharge" as defined by 40 CFR Section 122.22? Yes_____ No ✓**
3. **Is the facility covered by an individual NPDES permit? Yes_____ No ✓ If Yes, Permit Number ____**
4. **Is there a pending application on file with EPA for this discharge? Yes_____ No ✓ If Yes, date of submittal:**

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed)

a) Name of receiving water into which discharge will occur: Stony Brook
State Water Quality Classification: Class B Freshwater: Yes Marine Water: No

b) Describe the discharge activities for which the owner/applicant is seeking coverage:
1. Construction dewatering of groundwater intrusion and/or storm water accumulation.
(2.) Short-term or long-term dewatering of foundation sumps.
3. Other.

c) Number of outfalls 1

For each outfall:

d) Estimate the maximum daily and average monthly flow of the discharge (in gallons per day – GPD). Max Daily Flow 32,430 GPD
Average Monthly Flow 2,462 GPD

e) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 7.51 Min pH 6.24

f) Identify the source of the discharge (i.e. potable water, surface water, or groundwater). If groundwater, the facility shall submit effluent test results, as required in Section 4.4.5 of the General Permit. See attached.

g) What treatment does the wastewater receive prior to discharge? None for new discharge.

h) Is the discharge continuous? Yes ✓ No _____ If no, is the discharge periodic (P) (occurs regularly, i.e., monthly or seasonally, but is not continuous all year) or intermittent (I) (occurs sometimes but not regularly) or both (B) _____
If (P), number of days or months per year of the discharge _____ and the specific months of discharge _____;
If (I), number of days/year there is a discharge _____
Is the discharge temporary? Yes _____ No ✓
If yes, approximate start date of dewatering _____ approximate end date of dewatering _____

i) Latitude and longitude of each discharge within 100 feet (See http://www.epa.gov/tri/report/siting_tool): Outfall 1: long._____ lat._____;
Outfall 2: long._____ lat._____; Outfall 3: long._____ lat._____.

j) If the source of the discharge is potable water, please provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water and attach any calculation sheets used to support stream flow and dilution calculations_____ cfs
(See Appendix VII for equations and additional information)

MASSACHUSETTS FACILITIES: See Section 3.4 and Appendix 1 of the General Permit for more information on Areas of Critical Environmental Concern (ACEC):

k) **Does the discharge occur in an ACEC? Yes _____ No ✓**
If yes, provide the name of the ACEC:

3. Contaminant Information

a) **Are any pH neutralization and/or dechlorination chemicals used in the discharge? If so, include the chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC_{50} in percent for aquatic organism(s)).** Not applicable.

b) **Please report any known remediation activities or water-quality issues in the vicinity of the discharge.** See attached.

4. Determination of Endangered Species Act Eligibility: Provide documentation of ESA eligibility as required at Part 3.4 and Appendices III and IV. In addition, respond to the following questions.

a) **Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes___No ✓**
b) **Has any consultation with the federal services been completed ? Yes___ No ✓**
c) **Is consultation underway? Yes ___ No ✓**
d) **What were the results of the consultation with the U.S. Fish and Wildlife Service and/or NOAA Fisheries Service (check one): a "no jeopardy" opinion ✓ or written concurrence___ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat.**
e) **Which of the five eligibility criteria listed in Appendix 2, Section B (A,B,C,D,or E) have you met?** A
f) **Please attach a copy of the most current federal listing of endangered and threatened species, found at USF&W website.** See attached.

5. Documentation of National Historic Preservation Act requirements: Please respond to the following questions:

a) **Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility site or in proximity to the discharge? Yes _____ No ✓**
b) **Have any State or Tribal historic preservation officers been consulted in this determination? Yes _____ or No ✓ If yes, attach the results of the consultation(s).**
c) **Which of the three National Historic Preservation Act requirements listed in Appendix 3, Section C (1,2 o3) have you met?** 1

6. Supplemental Information: Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit

7. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:

I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the dewatering system; (2) the discharge consists solely of dewatering and authorized pH adjustment and/or

dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product or finished product; (4) if the discharge of dewatering subsequently mixes with other permitted wastewater (i.e.stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for dewatering discharge; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility Name: Bank of America, Bank Branch MA6-202, 699 Washington Street, Norwood, MA

Operator signature: Allen Walker

Title: Principal Environmental Engineer

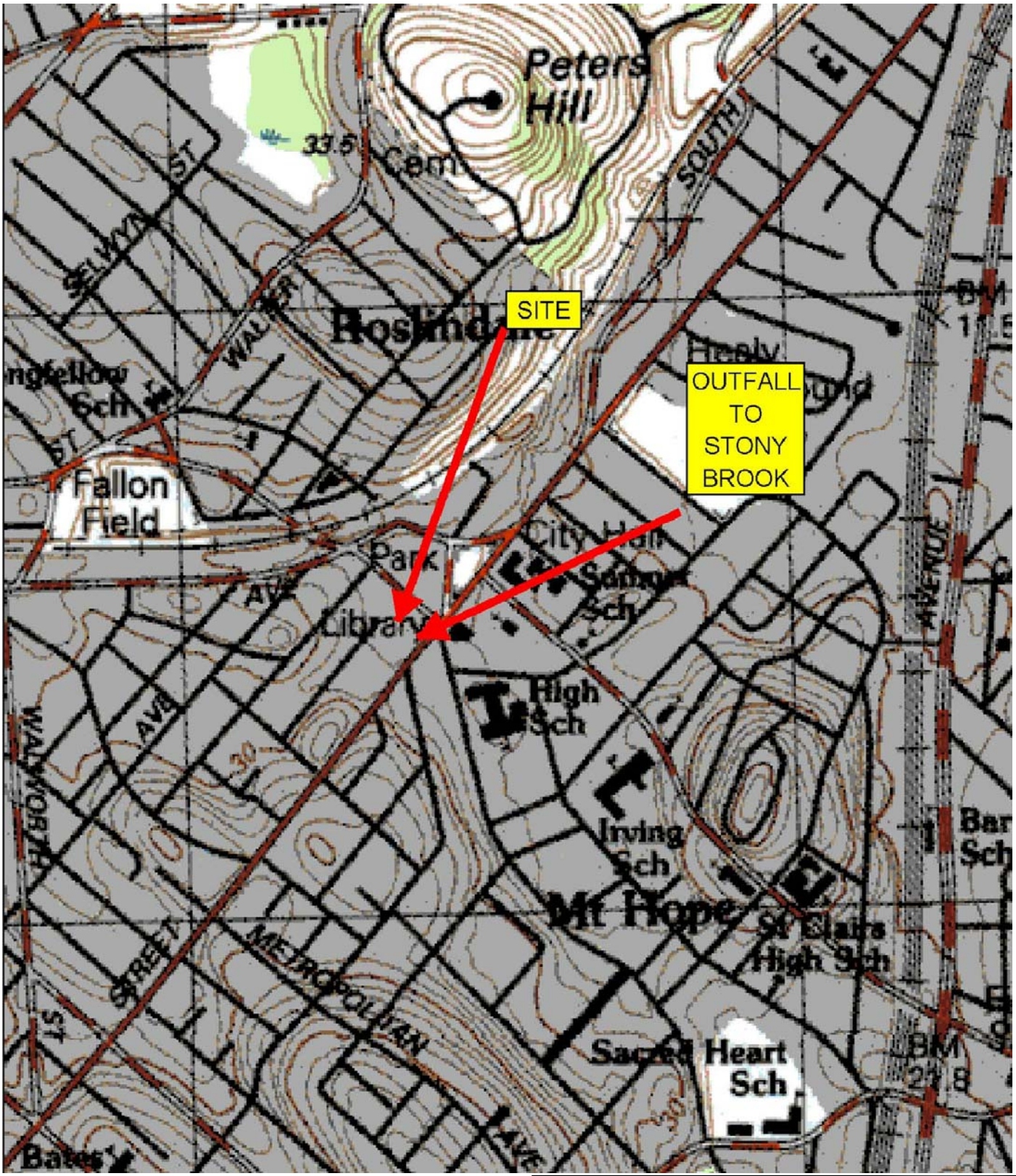
Date: 11/7/11

Federal regulations require this application to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.

ATTACHMENT B

Topographic Map



29 CORINTH STREET
ROSLINDALE, MASSACHUSETTS

SITE LOCATION MAP

ARCADIS

FIGURE
1

ATTACHMENT C

Laboratory Report of Discharge and Receiving Water.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Westfield
Westfield Executive Park
53 Southampton Road
Westfield, MA 01085
Tel: (413)572-4000

TestAmerica Job ID: 360-36046-1
Client Project/Site: HT116909.0000

For:
ARCADIS U.S., Inc
194 Forbes Road
Braintree, Massachusetts 02184

Attn: Mr. Mike Baer

Authorized for release by:
09/08/2011 11:17:47 AM
Joe Chimi
Report Production Representative
joe.chimi@testamericainc.com

Designee for

Becky Mason
Project Manager II
becky.mason@testamericainc.com

Table of Contents

Job ID: 360-36046-1

Laboratory: TestAmerica Westfield

Narrative

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 08/31/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.9 C.

TOTAL METALS
Sample INF 8-31-11 (360-36046-1) was analyzed for total metals in accordance with EPA 200.7 Rev 4.4. The sample was prepared and analyzed on 09/02/2011.

Sample INF 8-31-11 (360-36046-1)[2X] required dilution prior to analysis due to high non-target concentration. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the total metals analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY (CVAA)
Sample INF 8-31-11 (360-36046-1) was analyzed for total mercury (CVAA) in accordance with EPA Method 245.1. The sample was prepared and analyzed on 09/01/2011.

No difficulties were encountered during the mercury analysis.

All quality control parameters were within the acceptance limits.

HARDNESS
Sample INF 8-31-11 (360-36046-1) was analyzed for hardness in accordance with SM20 2340B. The sample was analyzed on 09/02/2011.

No difficulties were encountered during the hardness analysis.

All quality control parameters were within the acceptance limits.

ANIONS (28 DAY HOLD TIME)
Sample INF 8-31-11 (360-36046-1) was analyzed for anions (28 day hold time) in accordance with EPA Method 300.0. The sample was analyzed on 09/06/2011.

Sample INF 8-31-11 (360-36046-1)[50X] required dilution prior to analysis due to high concentration. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the anions analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Job ID: 360-36046-1 (Continued)

Laboratory: TestAmerica Westfield (Continued)

Sample INF 8-31-11 (360-36046-1) was analyzed for hexavalent chromium in accordance with SM19 3500 CR D. The sample was analyzed on 09/01/2011.

Sample INF 8-31-11 (360-36046-1) required laboratory refiltration to reduce interferences. The sample was cloudy or unclear, most likely due to high turbidity.

No difficulties were encountered during the hexavalent chromium analysis.

All quality control parameters were within the acceptance limits.

PH

Sample INF 8-31-11 (360-36046-1) was analyzed for pH in accordance with SM20 4500 H+ B. The sample was analyzed on 09/01/2011.

No difficulties were encountered during the pH analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0000

TestAmerica Job ID: 360-36046-1

Client Sample ID: INF 8-31-11 — Lab Sample ID: 360-36046-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	2700		200		ug/L	2		200.7 Rev 4.4	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Hardness as calcium carbonate	240		2.6		mg/L	1		SM 2340B	Total/NA
Chloride	520		50		mg/L	50		300.0	Total/NA
pH	6.74	HF	0.100		SU	1		SM 4500 H+ B	Total/NA

Method Summary

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0000

TestAmerica Job ID: 360-36046-1

Method	Method Description	Protocol	Laboratory
200.7 Rev 4.4	Metals (ICP)	EPA	TAL WFD
245.1	Mercury (CVAA)	EPA	TAL WFD
SM 2340B	Hardness, Calculation	SM	TAL WFD
300.0	Anions, Ion Chromatography	MCAWW	TAL WFD
SM 3500 CR D	Chromium, Hexavalent	SM	TAL WFD
SM 4500 H+ B	pH	SM	TAL WFD

Protocol References:

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SM = "Standard Methods For The Examination Of Water And Wastewater",

Laboratory References:

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

Sample Summary

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0000

TestAmerica Job ID: 360-36046-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
360-36046-1	INF 8-31-11	Water	08/31/11 12:10	08/31/11 16:00

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0000

TestAmerica Job ID: 360-36046-1

Method: 200.7 Rev 4.4 - Metals (ICP)

Client Sample ID: INF 8-31-11
Date Collected: 08/31/11 12:10
Date Received: 08/31/11 16:00

Lab Sample ID: 360-36046-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		10		ug/L		09/02/11 08:02	09/02/11 16:36	2
Cadmium	ND		2.0		ug/L		09/02/11 08:02	09/02/11 16:36	2
Antimony	ND		12		ug/L		09/02/11 08:02	09/02/11 16:36	2
Iron	**2700**		200		ug/L		09/02/11 08:02	09/02/11 16:36	2
Nickel	ND		20		ug/L		09/02/11 08:02	09/02/11 16:36	2
Arsenic	ND		20		ug/L		09/02/11 08:02	09/02/11 16:36	2
Zinc	ND		100		ug/L		09/02/11 08:02	09/02/11 16:36	2
Chromium	ND		10		ug/L		09/02/11 08:02	09/02/11 16:36	2
Copper	ND		20		ug/L		09/02/11 08:02	09/02/11 16:36	2

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0000

TestAmerica Job ID: 360-36046-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: INF 8-31-11
Date Collected: 08/31/11 12:10
Date Received: 08/31/11 16:00

Lab Sample ID: 360-36046-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		09/01/11 10:03	09/01/11 15:23	1

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0000

TestAmerica Job ID: 360-36046-1

Method: SM 2340B - Hardness, Calculation

Client Sample ID: INF 8-31-11
Date Collected: 08/31/11 12:10
Date Received: 08/31/11 16:00

Lab Sample ID: 360-36046-1
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	240		2.6		mg/L			09/02/11 16:36	1

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0000

TestAmerica Job ID: 360-36046-1

General Chemistry

Client Sample ID: INF 8-31-11
Date Collected: 08/31/11 12:10
Date Received: 08/31/11 16:00

Lab Sample ID: 360-36046-1
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**520**		50		mg/L			09/06/11 20:52	50
Chromium (hexavalent)	ND		0.0050		mg/L			09/01/11 08:56	1
pH	**6.74**	**HF**	0.100		SU			09/01/11 17:59	1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit (Dioxin)
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or method detection limit if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Metals

Prep Batch: 79355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-36046-1	INF 8-31-11	Total/NA	Water	245.1	
LCS 360-79355/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 360-79355/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	
MB 360-79355/1-A	Method Blank	Total/NA	Water	245.1	

Analysis Batch: 79391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-36046-1	INF 8-31-11	Total/NA	Water	245.1	79355
LCS 360-79355/2-A	Lab Control Sample	Total/NA	Water	245.1	79355
LCSD 360-79355/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	79355
MB 360-79355/1-A	Method Blank	Total/NA	Water	245.1	79355

Prep Batch: 79416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-36046-1	INF 8-31-11	Total/NA	Water	3010A	
LCS 360-79416/2-A	Lab Control Sample	Total/NA	Water	3010A	
LCSD 360-79416/3-A	Lab Control Sample Dup	Total/NA	Water	3010A	
MB 360-79416/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 79529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-36046-1	INF 8-31-11	Total/NA	Water	200.7 Rev 4.4	79416
LCS 360-79416/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	79416
LCSD 360-79416/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	79416
MB 360-79416/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	79416

Analysis Batch: 79560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-36046-1	INF 8-31-11	Total/NA	Water	SM 2340B	
MB 360-79560/1	Method Blank	Total/NA	Water	SM 2340B	

General Chemistry

Analysis Batch: 79331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-36046-1	INF 8-31-11	Total/NA	Water	SM 3500 CR D	
LCS 360-79331/10	Lab Control Sample	Total/NA	Water	SM 3500 CR D	
LCSD 360-79331/11	Lab Control Sample Dup	Total/NA	Water	SM 3500 CR D	
MB 360-79331/9	Method Blank	Total/NA	Water	SM 3500 CR D	

Analysis Batch: 79483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-36046-1	INF 8-31-11	Total/NA	Water	SM 4500 H+ B	
LCS 360-79483/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 79632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-36046-1	INF 8-31-11	Total/NA	Water	300.0	
LCS 360-79632/4	Lab Control Sample	Total/NA	Water	300.0	
MB 360-79632/3	Method Blank	Total/NA	Water	300.0	

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 360-79416/1-A
Matrix: Water
Analysis Batch: 79529

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 79416

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		5.0		ug/L		09/02/11 08:02	09/02/11 15:05	1
Cadmium	ND		1.0		ug/L		09/02/11 08:02	09/02/11 15:05	1
Antimony	ND		6.0		ug/L		09/02/11 08:02	09/02/11 15:05	1
Iron	ND		100		ug/L		09/02/11 08:02	09/02/11 15:05	1
Nickel	ND		10		ug/L		09/02/11 08:02	09/02/11 15:05	1
Arsenic	ND		10		ug/L		09/02/11 08:02	09/02/11 15:05	1
Zinc	ND		50		ug/L		09/02/11 08:02	09/02/11 15:05	1
Chromium	ND		5.0		ug/L		09/02/11 08:02	09/02/11 15:05	1
Copper	ND		10		ug/L		09/02/11 08:02	09/02/11 15:05	1

Lab Sample ID: LCS 360-79416/2-A
Matrix: Water
Analysis Batch: 79529

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 79416

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Silver	1000	1050		ug/L		105	85 - 115
Cadmium	1000	1020		ug/L		102	85 - 115
Antimony	1000	983		ug/L		98	85 - 115
Iron	5000	5440		ug/L		109	85 - 115
Nickel	1000	1030		ug/L		103	85 - 115
Arsenic	1000	1050		ug/L		105	85 - 115
Zinc	1000	1010		ug/L		101	85 - 115
Chromium	1000	1050		ug/L		105	85 - 115
Copper	1000	1060		ug/L		106	85 - 115

Lab Sample ID: LCSD 360-79416/3-A
Matrix: Water
Analysis Batch: 79529

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 79416

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Silver	1000	1040		ug/L		104	85 - 115	1	20
Cadmium	1000	1010		ug/L		101	85 - 115	1	20
Antimony	1000	1010		ug/L		101	85 - 115	3	20
Iron	5000	5370		ug/L		107	85 - 115	1	20
Nickel	1000	1020		ug/L		102	85 - 115	1	20
Arsenic	1000	1030		ug/L		103	85 - 115	1	20
Zinc	1000	998		ug/L		100	85 - 115	1	20
Chromium	1000	1040		ug/L		104	85 - 115	1	20
Copper	1000	1050		ug/L		105	85 - 115	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 360-79355/1-A
Matrix: Water
Analysis Batch: 79391

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 79355

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20		ug/L		09/01/11 10:03	09/01/11 14:59	1

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 360-79355/2-A
Matrix: Water
Analysis Batch: 79391

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 79355

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Mercury	5.00	4.79		ug/L		96	85 - 115

Lab Sample ID: LCSD 360-79355/3-A
Matrix: Water
Analysis Batch: 79391

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 79355

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Mercury	5.00	4.76		ug/L		95	85 - 115	1	20

Method: SM 2340B - Hardness, Calculation

Lab Sample ID: MB 360-79560/1
Matrix: Water
Analysis Batch: 79560

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.6		mg/L			09/02/11 15:05	1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 360-79632/3
Matrix: Water
Analysis Batch: 79632

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.0		mg/L			09/06/11 19:31	1

Lab Sample ID: LCS 360-79632/4
Matrix: Water
Analysis Batch: 79632

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Chloride	40.0	41.0		mg/L		103	85 - 115

Method: SM 3500 CR D - Chromium, Hexavalent

Lab Sample ID: MB 360-79331/9
Matrix: Water
Analysis Batch: 79331

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium (hexavalent)	ND		0.0050		mg/L			09/01/11 08:56	1

Lab Sample ID: LCS 360-79331/10
Matrix: Water
Analysis Batch: 79331

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Chromium (hexavalent)	0.0500	0.0520		mg/L		104	85 - 115

Method: SM 3500 CR D - Chromium, Hexavalent (Continued)

Lab Sample ID: LCSD 360-79331/11
Matrix: Water
Analysis Batch: 79331

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Chromium (hexavalent)			0.0500	0.0520		mg/L		104	85 - 115	0	20

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 360-79483/1
Matrix: Water
Analysis Batch: 79483

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
pH			6.00	5.900		SU		98	90 - 110		

Lab Chronicle

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0000

TestAmerica Job ID: 360-36046-1

Client Sample ID: INF 8-31-11
Date Collected: 08/31/11 12:10
Date Received: 08/31/11 16:00

Lab Sample ID: 360-36046-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	245.1			79355	09/01/11 10:03	OG	TAL WFD
Total/NA	Analysis	245.1		1	79391	09/01/11 15:23	EMN	TAL WFD
Total/NA	Prep	3010A			79416	09/02/11 08:02	OG	TAL WFD
Total/NA	Analysis	200.7 Rev 4.4		2	79529	09/02/11 16:36	TJS	TAL WFD
Total/NA	Analysis	SM 2340B		1	79560	09/02/11 16:36	TJS	TAL WFD
Total/NA	Analysis	SM 3500 CR D		1	79331	09/01/11 08:56	AMS	TAL WFD
Total/NA	Analysis	SM 4500 H+ B		1	79483	09/01/11 17:59	AMS	TAL WFD
Total/NA	Analysis	300.0		50	79632	09/06/11 20:52	RWE	TAL WFD

Laboratory References:
TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

Certification Summary

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0000

TestAmerica Job ID: 360-36046-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Westfield	Connecticut	State Program	1	PH-0494
TestAmerica Westfield	Maine	State Program	1	MA00014
TestAmerica Westfield	Massachusetts	State Program	1	M-MA014
TestAmerica Westfield	New Hampshire	NELAC	1	2539
TestAmerica Westfield	New York	NELAC	2	10843
TestAmerica Westfield	North Carolina	North Carolina DENR	4	647
TestAmerica Westfield	Rhode Island	State Program	1	LAO00057
TestAmerica Westfield	Vermont	State Program	1	VT-10843

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

State Accreditation Matrix

Method Name	Description	State where **Primary** Accreditation is Carried			
		New Hampshire (NELAC)	Mass	Conn	North Carolina
821-R-02-012	Toxicity, Acute (48-Hour)(list upon request)	NP			
SM 4500 Cl F	Chlorine, Residual		NP		
SM 9215E	Heterotrophic Plate Count (SimPlate)		P		
SM 9222D	Coliforms, Fecal (Membrane Filter)		P/NP		
SM 9223	Coliforms, Total, and E.Coli (Colilert-P/A)		P		
SM 9224	Coliforms, Total, and E.Coli (Enumeration)		P		
1103.1	E.coli		ambient/ source		
Enterolert	Enterococcus				
200.8 Rev 5.4	Metals (ICP/MS) (list upon request)	NP/P	NP/P		
200.7 Rev 4.4	Metals (ICP)(list upon request)	NP/P	NP/P		
6010B	Metals (ICP)(list upon request)	NP/SW			
245.1	Mercury (CVAA)	NP/P	NP		
7470A	Mercury (CVAA)	NP			
7471A	Mercury (CVAA)	SW			
SM 2340B	Total Hardness (as CaCO3) by calculation	NP/P	NP		
3005A	Preparation, Total Recoverable or Dissolved Metals	NP/P			
3010A	Preparation, Total Metals	NP/P			
3020A	Preparation, Total Metals	NP/P/SW			
3050B	Preparation, Metals	SW			
504.1	EDB, DBCP and 1,2,3-TCP (GC)	P	P		
608	Organochlorine Pest/PCBs (list upon request)	NP	NP		
625	Semivolatile Org Comp (GC/MS)(list upon request)	NP	NP		
3546	Microwave Extraction	SW			
3510C	Liquid-Liquid Extraction (Separatory Funnel)	NP			
3550B	Ultrasonic Extraction	SW			
8081A	Organochlorine Pesticides (GC)(list upon request)	NP/SW			
8082	PCBs by Gas Chromatography(list upon request)	NP/SW			
8270C	Semivolatile Comp.(GC/MS)(list upon request)	NP/SW			
CT ETPH	Conn - Ext. Total petroleum Hydrocarbons (GC)			NP/SW	
MA-EPH	Mass - Extractable Petroleum Hydrocarbons (GC)				NP/SW
524.2	Volatile Org Comp (GC/MS)(list upon request)	P	P		
524.2	Trihalomethane compounds	P	P		
624	Volatile Org Comp (GC/MS)(list upon request)	NP	NP		
5035	Closed System Purge and Trap	SW			
5030B	Purge and Trap	NP			
8260B	Volatile Org Comp. (GC/MS)(list upon request)	NP/SW			
MAVPH	Mass - Volatile Petroleum Hydrocarbons (GC)				NP/SW
180.1	Turbidity, Nephelometric	P	P		
300	Anions, Ion Chromatography	NP/P	NP/P		
410.4	COD	NP	NP		
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW			
10-107-06-2	Nitrogen, Total Kjeldahl	NP	NP		
7196A	Chromium, Hexavalent	NP/SW			
9012A	Cyanide, Total and/or Amenable	NP/SW			
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	NP			
9045C	pH	SW			
L107041C	Nitrogen, Nitrate	NP	P		
L107-06-1B	Nitrogen Ammonia	NP	NP		
L204001A CN	Cyanide, Total	P	NP/P		
L210-001A	Phenolics, Total Recoverable	NP	NP		
SM 2320B	Alkalinity	NP/P	NP/P		
SM 2510B	Conductivity, Specific Conductance	NP/P	NP/P		
SM 2540C	Solids, Total Dissolved (TDS)	NP/P	NP/P		
SM 2540D	Solids, Total Suspended (TSS)	NP	NP		
SM 3500 CR D	Chromium, Hexavalent	NP			
SM 4500 H+ B	pH	NP/P	NP/P		
SM 4500 NO2 B	Nitrogen, Nitrite	NP	P		
SM 4500 P E	Phosphorus, Orthophosphate	NP/P	NP		
SM 4500 P E	Phosphorus, Total	NP	NP		
SM 4500 S2 D	Sulfide, Total	NP			
SM 5210B	BOD, 5-Day	NP	NP		
SM 5310B	Organic Carbon, Total (TOC)	NP/P	NP		

Not all organic compounds are accreditied under NELAC
For methods with multiple compounds all compounds may not meet NELAC criteria, listing should be obtained from the laboratory
The lab carries additional accreditations with several states. This is the laboratories typcial listing but is subject to change based on the laboratories current certification standing.

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc

Job Number: 360-36046-1

Login Number: 36046

List Source: TestAmerica Westfield

List Number: 1

Creator: Beaumier, Janine E

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Form

•53 Southampton Road
Westfield, MA 01085
(P) 413-572-4000
(F) 413-572-3707
Westfield

•148 Rangeway Road
N. Billerica, MA 01862
(P) 978-667-1400
(F) 978-667-7871
Boston - Service Center

09/08/2011

Client: ARCADIS
Address: 144 FORBES RD
BRAINTREE MA
Phone: Fax:

Client Project #: HT116909.0000
Site ID & State: B04 ROSLINDALE
Reports Sent To: MIKE BAER
Email: Email Rpt:

Job# | Quote# | PO#

Shaded areas for office use
Invoice same as Report to? ☐
If Invoice contact or address different, note in Comments

Comments (Special Instructions)

Please print legibly. If the analytical requests are not clearly defined on the chain-of-custody, the turnaround time will begin after all questions have been satisfactorily answered.

Requested Turnaround Time (PLEASE SPECIFY)
STANDARD 5-DAY ☐ RUSH ☐ (Lab Approval Required)

Regulatory Programs/Presumptive Certainty/QC Forms
MADEP MCP ☐ GW1/S1 ☐ PWS DEP Forms ☐
CTDEP RCP ☐ CT RSR ☐ EDD Required ☐
QA Rpt: No QC ☐ Std QC Rpt ☐ CLP QC Rpt: ☐

500-series for drinking water
600-series for waste water, NPDES
6000-series for groundwater, soil, waste
8000-series for groundwater, soil, waste
Use comments section to further define.

Sample Type Codes: WW-Wastewater, DW-Drinking Water, SW-Surface Water, GW-Groundwater, LW Lab Water, A-Air, "Z"-Other (please specify)

Sample I.D.	Sample Type	Sampler's Initials	Date Time Collected	Grab	Comp.	# Containers	Plastic(P) or Glass(G)	Preservative: NaHSO4/MeOH	HNO3 to pH <2	H2SO4 to pH <2	HCl to pH <2	NaOH to pH >12	Na2S2O3	None / 4° C	524 / 624 / 8260	525 / 625 / 8270	PCB / Pest / Herbicide	EPH / VPH	DRO / GRO / ETPH	Metals (Please Specify)	Mercury	General Chemistry	Bacteriological	Toxicity	Hardness, pH
INF 8-31-11	GW	MB	8/31/11 12:10	X					X					X						X					X

Comments:
MetalS
Antimony, Arsenic, Cad, Chrom (total), Chromium(VI), Chloride, Iron, Hg, Nic, Silver, Zinc
NPDES

Sampled by (print): MICHAEL BAER
Signature:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	8/31/11	1320		8-31-11	1330
	8/31/11	16:00		8/31/11	16:00
	Date:	Time:		Date:	Time:

Cooler ? (Y) N
MADEP Requirement Samples Iced? (Y) N
Temp @ receipt: 1.9 °C
Preservation / pH checked? Y / N
By: Date:

WESTFIELD

Page 1 of 1

White = Lab file Yellow = Report copy Pink = Customer copy

TAL-8245(1007)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Westfield
Westfield Executive Park
53 Southampton Road
Westfield, MA 01085
Tel: (413)572-4000

TestAmerica Job ID: 360-36867-1
Client Project/Site: HT116909.0001

For:
ARCADIS U.S., Inc
194 Forbes Road
Braintree, Massachusetts 02184

Attn: Ahren Tatro

Authorized for release by:
10/17/2011 10:38:22 AM
Joe Chimi
Report Production Representative
joe.chimi@testamericainc.com

Designee for

Becky Mason
Project Manager II
becky.mason@testamericainc.com

Table of Contents

Job ID: 360-36867-1

Laboratory: TestAmerica Westfield

Narrative

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 10/10/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.1 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample EFF 9-30-11 (360-36867-1) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The sample was analyzed on 10/10/2011.

1,4-Dioxane, Acetone and Butyl alcohol, tert- failed the recovery criteria high for LCS 360-81325/3 and LCSD 360-81325/4. Refer to the QC report for details.

1,4-Dioxane, Acetone and Butyl alcohol, tert- failed the continuing calibration verification (CCV) criteria high.

No other difficulties were encountered during the VOC analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP)

Sample EFF 9-30-11 (360-36867-1) was analyzed for total metals (ICP) in accordance with EPA Method 200.7. The sample was prepared on 10/11/2011 and analyzed on 10/12/2011.

No difficulties were encountered during the metals analysis.

All quality control parameters were within the acceptance limits.

HARDNESS

Sample EFF 9-30-11 (360-36867-1) was analyzed for hardness in accordance with SM20 2340B. The sample was analyzed on 10/12/2011.

No difficulties were encountered during the hardness analysis.

All quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS

Sample EFF 9-30-11 (360-36867-1) was analyzed for total suspended solids in accordance with SM20 2540D. The sample was analyzed on 10/13/2011.

Sample EFF 9-30-11 (360-36867-1) was received and analyzed past the method holding time.

No difficulties were encountered during the TSS analysis.

All quality control parameters were within the acceptance limits.

Job ID: 360-36867-1 (Continued)

Laboratory: TestAmerica Westfield (Continued)

OIL AND GREASE (HEM)

This analysis was performed at Waste Water Environmental Management, 270 Littleton Rd., Unit 30, Westford, MA 01886.

Refer to subcontract report for details.

Detection Summary

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0001

TestAmerica Job ID: 360-36867-1

Client Sample ID: EFF 9-30-11

Lab Sample ID: 360-36867-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.5		1.0		ug/L	1		8260B	Total/NA
Isopropylbenzene	1.3		1.0		ug/L	1		8260B	Total/NA
N-Propylbenzene	1.6		1.0		ug/L	1		8260B	Total/NA
Iron	1100		100		ug/L	1		200.7 Rev 4.4	Total/NA
Lead	45		5.0		ug/L	1		200.7 Rev 4.4	Total/NA

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Hardness as calcium carbonate	19		2.6		mg/L	1		SM 2340B	Total/NA
Total Suspended Solids	12	H	5.0		mg/L	1		SM 2540D	Total/NA

Method Summary

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0001

TestAmerica Job ID: 360-36867-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL WFD
200.7 Rev 4.4	Metals (ICP)	EPA	TAL WFD
SM 2340B	Hardness, Calculation	SM	TAL WFD
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL WFD
TPH 1664	EPA 1664 Oil & grease	NONE	SC0052

Protocol References:

EPA = US Environmental Protection Agency

NONE = NONE

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

SC0052 = Waste Water Environmental Management, In, 270 Littleton Road, Unit 30, Westford, MA 01886

TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

Sample Summary

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0001

TestAmerica Job ID: 360-36867-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
360-36867-1	EFF 9-30-11	Water	09/30/11 14:30	10/10/11 10:40

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0001

TestAmerica Job ID: 360-36867-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Client Sample ID: EFF 9-30-11
Date Collected: 09/30/11 14:30
Date Received: 10/10/11 10:40

Lab Sample ID: 360-36867-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1.5**		1.0		ug/L			10/10/11 19:01	1
Toluene	ND		1.0		ug/L			10/10/11 19:01	1
Ethylbenzene	ND		1.0		ug/L			10/10/11 19:01	1
o-Xylene	ND		1.0		ug/L			10/10/11 19:01	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/10/11 19:01	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/10/11 19:01	1
Butyl alcohol, tert-	ND	*	50		ug/L			10/10/11 19:01	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/10/11 19:01	1
Carbon tetrachloride	ND		1.0		ug/L			10/10/11 19:01	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/10/11 19:01	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/10/11 19:01	1
1,1-Dichloroethane	ND		1.0		ug/L			10/10/11 19:01	1
1,1-Dichloroethene	ND		1.0		ug/L			10/10/11 19:01	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/10/11 19:01	1
1,2-Dichloroethane	ND		1.0		ug/L			10/10/11 19:01	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/10/11 19:01	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/10/11 19:01	1
1,4-Dioxane	ND	*	50		ug/L			10/10/11 19:01	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/10/11 19:01	1
Acetone	ND	*	50		ug/L			10/10/11 19:01	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/10/11 19:01	1
Methylene Chloride	ND		2.0		ug/L			10/10/11 19:01	1
Tetrachloroethene	ND		1.0		ug/L			10/10/11 19:01	1
Trichloroethene	ND		1.0		ug/L			10/10/11 19:01	1
Vinyl chloride	ND		0.50		ug/L			10/10/11 19:01	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/10/11 19:01	1
Bromoform	ND		1.0		ug/L			10/10/11 19:01	1
Chloroform	ND		1.0		ug/L			10/10/11 19:01	1
Isopropylbenzene	**1.3**		1.0		ug/L			10/10/11 19:01	1
2-Butanone (MEK)	ND		10		ug/L			10/10/11 19:01	1
n-Butylbenzene	ND		1.0		ug/L			10/10/11 19:01	1
N-Propylbenzene	**1.6**		1.0		ug/L			10/10/11 19:01	1
Naphthalene	ND		5.0		ug/L			10/10/11 19:01	1
sec-Butylbenzene	ND		1.0		ug/L			10/10/11 19:01	1
Tetrahydrofuran	ND		10		ug/L			10/10/11 19:01	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*70 - 130*		*10/10/11 19:01*	*1*
Dibromofluoromethane	*103*		*70 - 130*		*10/10/11 19:01*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*10/10/11 19:01*	*1*

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0001

TestAmerica Job ID: 360-36867-1

Method: 200.7 Rev 4.4 - Metals (ICP)

Client Sample ID: EFF 9-30-11
Date Collected: 09/30/11 14:30
Date Received: 10/10/11 10:40

Lab Sample ID: 360-36867-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	1100		100		ug/L		10/11/11 13:18	10/12/11 21:48	1
Lead	45		5.0		ug/L		10/11/11 13:18	10/12/11 21:48	1

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0001

TestAmerica Job ID: 360-36867-1

Method: SM 2340B - Hardness, Calculation

Client Sample ID: EFF 9-30-11
Date Collected: 09/30/11 14:30
Date Received: 10/10/11 10:40

Lab Sample ID: 360-36867-1
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	19		2.6		mg/L			10/12/11 21:48	1

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0001

TestAmerica Job ID: 360-36867-1

General Chemistry

Client Sample ID: EFF 9-30-11
Date Collected: 09/30/11 14:30
Date Received: 10/10/11 10:40

Lab Sample ID: 360-36867-1
Matrix: Water

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	12	H	5.0		mg/L			10/13/11 14:25	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

GC/MS VOA

Analysis Batch: 81325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-36867-1	EFF 9-30-11	Total/NA	Water	8260B	
LCS 360-81325/3	Lab Control Sample	Total/NA	Water	8260B	
LCSD 360-81325/4	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 360-81325/6	Method Blank	Total/NA	Water	8260B	

Metals

Prep Batch: 81412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-36867-1	EFF 9-30-11	Total/NA	Water	200.7	
LCS 360-81412/2-A	Lab Control Sample	Total/NA	Water	200.7	
LCSD 360-81412/3-A	Lab Control Sample Dup	Total/NA	Water	200.7	
MB 360-81412/1-A	Method Blank	Total/NA	Water	200.7	

Analysis Batch: 81543

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-36867-1	EFF 9-30-11	Total/NA	Water	200.7 Rev 4.4	81412
LCS 360-81412/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	81412
LCSD 360-81412/3-A	Lab Control Sample Dup	Total/NA	Water	200.7 Rev 4.4	81412
MB 360-81412/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	81412

Analysis Batch: 81546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-36867-1	EFF 9-30-11	Total/NA	Water	SM 2340B	
MB 360-81546/3	Method Blank	Total/NA	Water	SM 2340B	

General Chemistry

Analysis Batch: 81598

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
360-36867-1	EFF 9-30-11	Total/NA	Water	SM 2540D	
LCS 360-81598/2	Lab Control Sample	Total/NA	Water	SM 2540D	
MB 360-81598/1	Method Blank	Total/NA	Water	SM 2540D	

Surrogate Summary

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0001

TestAmerica Job ID: 360-36867-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(70-130)	(70-130)	(70-130)
360-36867-1	EFF 9-30-11	100	103	101
LCS 360-81325/3	Lab Control Sample	98	100	101
LCSD 360-81325/4	Lab Control Sample Dup	99	100	102
MB 360-81325/6	Method Blank	95	99	101

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 360-81325/6
Matrix: Water
Analysis Batch: 81325

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0		ug/L			10/10/11 11:19	1
Toluene	ND		1.0		ug/L			10/10/11 11:19	1
Ethylbenzene	ND		1.0		ug/L			10/10/11 11:19	1
o-Xylene	ND		1.0		ug/L			10/10/11 11:19	1
m-Xylene & p-Xylene	ND		2.0		ug/L			10/10/11 11:19	1
Methyl tert-butyl ether	ND		1.0		ug/L			10/10/11 11:19	1
Butyl alcohol, tert-	ND		50		ug/L			10/10/11 11:19	1
Tert-amyl methyl ether	ND		5.0		ug/L			10/10/11 11:19	1
Carbon tetrachloride	ND		1.0		ug/L			10/10/11 11:19	1
1,1,1-Trichloroethane	ND		1.0		ug/L			10/10/11 11:19	1
1,1,2-Trichloroethane	ND		1.0		ug/L			10/10/11 11:19	1
1,1-Dichloroethane	ND		1.0		ug/L			10/10/11 11:19	1
1,1-Dichloroethene	ND		1.0		ug/L			10/10/11 11:19	1
1,2-Dichlorobenzene	ND		1.0		ug/L			10/10/11 11:19	1
1,2-Dichloroethane	ND		1.0		ug/L			10/10/11 11:19	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			10/10/11 11:19	1
1,3-Dichlorobenzene	ND		1.0		ug/L			10/10/11 11:19	1
1,4-Dioxane	ND		50		ug/L			10/10/11 11:19	1
1,4-Dichlorobenzene	ND		1.0		ug/L			10/10/11 11:19	1
Acetone	ND		50		ug/L			10/10/11 11:19	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			10/10/11 11:19	1
Methylene Chloride	ND		2.0		ug/L			10/10/11 11:19	1
Tetrachloroethene	ND		1.0		ug/L			10/10/11 11:19	1
Trichloroethene	ND		1.0		ug/L			10/10/11 11:19	1
Vinyl chloride	ND		0.50		ug/L			10/10/11 11:19	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			10/10/11 11:19	1
Bromoform	ND		1.0		ug/L			10/10/11 11:19	1
Chloroform	ND		1.0		ug/L			10/10/11 11:19	1
Isopropylbenzene	ND		1.0		ug/L			10/10/11 11:19	1
2-Butanone (MEK)	ND		10		ug/L			10/10/11 11:19	1
n-Butylbenzene	ND		1.0		ug/L			10/10/11 11:19	1
N-Propylbenzene	ND		1.0		ug/L			10/10/11 11:19	1
Naphthalene	ND		5.0		ug/L			10/10/11 11:19	1
sec-Butylbenzene	ND		1.0		ug/L			10/10/11 11:19	1
Tetrahydrofuran	ND		10		ug/L			10/10/11 11:19	1

Surrogate	*MB % Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*70 - 130*		*10/10/11 11:19*	*1*
Dibromofluoromethane	*99*		*70 - 130*		*10/10/11 11:19*	*1*
Toluene-d8 (Surr)	*101*		*70 - 130*		*10/10/11 11:19*	*1*

Lab Sample ID: LCS 360-81325/3
Matrix: Water
Analysis Batch: 81325

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Benzene	20.0	20.5		ug/L		103	70 - 130
Toluene	20.0	19.9		ug/L		100	70 - 130
Ethylbenzene	20.0	20.5		ug/L		103	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 360-81325/3
Matrix: Water
Analysis Batch: 81325

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
o-Xylene	20.0	20.2		ug/L		101	70 - 130
m-Xylene & p-Xylene	40.0	40.7		ug/L		102	70 - 130
Methyl tert-butyl ether	20.0	20.6		ug/L		103	70 - 130
Butyl alcohol, tert-	200	350	*	ug/L		175	70 - 130
Tert-amyl methyl ether	20.0	20.5		ug/L		103	70 - 130
Carbon tetrachloride	20.0	18.7		ug/L		94	70 - 130
1,1,1-Trichloroethane	20.0	20.5		ug/L		103	70 - 130
1,1,2-Trichloroethane	20.0	21.5		ug/L		108	70 - 130
1,1-Dichloroethane	20.0	20.1		ug/L		101	70 - 130
1,1-Dichloroethene	20.0	19.1		ug/L		96	70 - 130
1,2-Dichlorobenzene	20.0	20.9		ug/L		105	70 - 130
1,2-Dichloroethane	20.0	20.5		ug/L		103	70 - 130
1,2,4-Trimethylbenzene	20.0	20.7		ug/L		104	70 - 130
1,3-Dichlorobenzene	20.0	20.8		ug/L		104	70 - 130
1,4-Dioxane	200	300	*	ug/L		150	70 - 130
1,4-Dichlorobenzene	20.0	20.8		ug/L		104	70 - 130
Acetone	200	278	*	ug/L		139	70 - 130
cis-1,2-Dichloroethene	20.0	20.1		ug/L		101	70 - 130
Methylene Chloride	20.0	18.8		ug/L		94	70 - 130
Tetrachloroethene	20.0	21.4		ug/L		107	70 - 130
Trichloroethene	20.0	20.3		ug/L		102	70 - 130
Vinyl chloride	20.0	20.2		ug/L		101	70 - 130
1,3,5-Trimethylbenzene	20.0	20.9		ug/L		105	70 - 130
Bromoform	20.0	19.6		ug/L		98	70 - 130
Chloroform	20.0	19.9		ug/L		100	70 - 130
Isopropylbenzene	20.0	20.4		ug/L		102	70 - 130
2-Butanone (MEK)	200	225		ug/L		112	70 - 130
n-Butylbenzene	20.0	21.1		ug/L		106	70 - 130
N-Propylbenzene	20.0	21.0		ug/L		105	70 - 130
Naphthalene	20.0	17.6		ug/L		88	70 - 130
sec-Butylbenzene	20.0	21.1		ug/L		106	70 - 130
Tetrahydrofuran	200	242		ug/L		121	70 - 130

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*70 - 130*
Dibromofluoromethane	*100*		*70 - 130*
Toluene-d8 (Surr)	*101*		*70 - 130*

Lab Sample ID: LCSD 360-81325/4
Matrix: Water
Analysis Batch: 81325

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Benzene	20.0	19.5		ug/L		98	70 - 130	5	25
Toluene	20.0	19.3		ug/L		97	70 - 130	3	25
Ethylbenzene	20.0	19.7		ug/L		99	70 - 130	4	25
o-Xylene	20.0	19.6		ug/L		98	70 - 130	3	25
m-Xylene & p-Xylene	40.0	39.3		ug/L		98	70 - 130	4	25
Methyl tert-butyl ether	20.0	20.3		ug/L		102	70 - 130	1	25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 360-81325/4
Matrix: Water
Analysis Batch: 81325

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Butyl alcohol, tert-			200	336	*	ug/L		168	70 - 130	4	25
Tert-amyl methyl ether			20.0	20.4		ug/L		102	70 - 130	0	25
Carbon tetrachloride			20.0	17.5		ug/L		88	70 - 130	7	25
1,1,1-Trichloroethane			20.0	19.4		ug/L		97	70 - 130	6	25
1,1,2-Trichloroethane			20.0	21.6		ug/L		108	70 - 130	0	25
1,1-Dichloroethane			20.0	19.2		ug/L		96	70 - 130	5	25
1,1-Dichloroethene			20.0	17.9		ug/L		90	70 - 130	6	25
1,2-Dichlorobenzene			20.0	20.3		ug/L		102	70 - 130	3	25
1,2-Dichloroethane			20.0	20.2		ug/L		101	70 - 130	1	25
1,2,4-Trimethylbenzene			20.0	20.1		ug/L		101	70 - 130	3	25
1,3-Dichlorobenzene			20.0	20.2		ug/L		101	70 - 130	3	25
1,4-Dioxane			200	316	*	ug/L		158	70 - 130	5	25
1,4-Dichlorobenzene			20.0	20.5		ug/L		103	70 - 130	1	25
Acetone			200	270	*	ug/L		135	70 - 130	3	25
cis-1,2-Dichloroethene			20.0	19.3		ug/L		97	70 - 130	4	25
Methylene Chloride			20.0	17.6		ug/L		88	70 - 130	7	25
Tetrachloroethene			20.0	20.1		ug/L		101	70 - 130	6	25
Trichloroethene			20.0	19.1		ug/L		96	70 - 130	6	25
Vinyl chloride			20.0	18.8		ug/L		94	70 - 130	7	25
1,3,5-Trimethylbenzene			20.0	20.0		ug/L		100	70 - 130	4	25
Bromoform			20.0	19.5		ug/L		98	70 - 130	1	25
Chloroform			20.0	19.0		ug/L		95	70 - 130	5	25
Isopropylbenzene			20.0	19.8		ug/L		99	70 - 130	3	25
2-Butanone (MEK)			200	220		ug/L		110	70 - 130	2	25
n-Butylbenzene			20.0	20.3		ug/L		102	70 - 130	4	25
N-Propylbenzene			20.0	20.3		ug/L		102	70 - 130	3	25
Naphthalene			20.0	17.0		ug/L		85	70 - 130	3	25
sec-Butylbenzene			20.0	20.4		ug/L		102	70 - 130	3	25
Tetrahydrofuran			200	238		ug/L		119	70 - 130	2	25

Surrogate	*LCSD % Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*70 - 130*
Dibromofluoromethane	*100*		*70 - 130*
Toluene-d8 (Surr)	*102*		*70 - 130*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 360-81412/1-A
Matrix: Water
Analysis Batch: 81543

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 81412

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		100		ug/L		10/11/11 13:18	10/12/11 21:19	1
Lead	ND		5.0		ug/L		10/11/11 13:18	10/12/11 21:19	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 360-81412/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81543 — **Prep Batch: 81412**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Iron	5000	5380		ug/L		108	85 - 115
Lead	1000	1080		ug/L		108	85 - 115

Lab Sample ID: LCSD 360-81412/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81543 — **Prep Batch: 81412**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Iron	5000	5350		ug/L		107	85 - 115	1	20
Lead	1000	1070		ug/L		107	85 - 115	1	20

Method: SM 2340B - Hardness, Calculation

Lab Sample ID: MB 360-81546/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81546

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Hardness as calcium carbonate	ND		2.6		mg/L			10/12/11 21:19	1

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 360-81598/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81598

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		2.0		mg/L			10/13/11 14:25	1

Lab Sample ID: LCS 360-81598/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 81598

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Total Suspended Solids	200	188		mg/L		94	85 - 115

Lab Chronicle

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0001

TestAmerica Job ID: 360-36867-1

Client Sample ID: EFF 9-30-11
Date Collected: 09/30/11 14:30
Date Received: 10/10/11 10:40

Lab Sample ID: 360-36867-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	81325	10/10/11 19:01	TH	TAL WFD
Total/NA	Prep	200.7			81412	10/11/11 13:18	OG	TAL WFD
Total/NA	Analysis	200.7 Rev 4.4		1	81543	10/12/11 21:48	TJS	TAL WFD
Total/NA	Analysis	SM 2340B		1	81546	10/12/11 21:48	TJS	TAL WFD
Total/NA	Analysis	SM 2540D		1	81598	10/13/11 14:25	AMS	TAL WFD

Laboratory References:
SC0052 = Waste Water Environmental Management, In, 270 Littleton Road, Unit 30, Westford, MA 01886
TAL WFD = TestAmerica Westfield, Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085, TEL (413)572-4000

SUBCONTRACTED DATA

Waste Water Environmental Management Inc.

Laboratory Analysis
Plant Management
(978) 692-8010
FAX (978) 692-8010

Mailing Address
7 Eldorado Rd.
Chelmsford, MA 01824

Laboratory Location
270 Littleton Rd. Unit 30
Westford, MA 01886

Test America
53 South Hampton Rd
Westfield, MA 01085

Test Report

Parameter	Method	Analyst	Parameter	Method	Analyst
Oil and Grease	1664	MC	Phenol	420.1	SH
Fluoride	4500 C	SH	Nitrite	4500 B	JM
pH	4500B	SH	BOD	2540B	MC
TPH	1664SGT	MC	Surfactants	5540C	SH
Report ID:	47846				

TA ID	WWEM Lab ID	Date Received	TPH mg/l	Date completed	Detection limit
360-36867-1	47846	10/11/11	<5	10/12/11	5.00mg/l

10/13/2011 16:01
page 1of 1

Stephen Badger
Laboratory Director
Massachusetts Certification #MA077

Waste Water Environmental Management Inc.

Laboratory Analysis
Plant Management
(978) 692-8010
FAX (978) 692-8010

Mailing Address
7 Eldorado Rd.
Chelmsford, MA 01824

Laboratory Location
270 Littleton Rd. Unit 30
Westford, MA 01886

Test America

Westfield, MA

QC Report

Batch : 10/12/11 **Lab I.D.:** 47846
TA: 360-36867

Parameter	Blank mg/l	Dup mg/l	Dup ID	MS % recovery	MS ID	Spike mg
TPH	<5.00	15.9/16.1	LCS	80.5, 83.5	47845 A and B	20.0

LCS recovered mg	LCS true value mg	LCS % recovery
16.1	20.0	80.5

Steven Hansen
Laboratory Supervisor
Massachusetts Certification #MA077

Page 1 of 1

TestAmerica Westfield
Westfield Executive Park 53 Southampton Road
Westfield, MA 01085
Phone (413) 572-4000 Fax (413) 572-3707

47846 10-11-11

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

10/17/2011

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Mason, Becky C	Carrier Tracking No(s):	COC No: 360-6722.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: becky.mason@testamericainc.com		Page: Page 1 of 1
Company: Waste Water Environmental Management, In				Job #: 360-36867-1
Address: ~~270 Littleton Road, Unit 30,~~	Due Date Requested: ~~10/17/2011~~			
City: Westford	TAT Requested (days):			
State, Zip: MA, 01886				
Phone:	PO #:			
Email:	WO #:			
Project Name: HT\16909.0001	Project #: 36000869			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SUBCONTRACT/ TPH 1664	Total Number of containers	Special Instructions/Note:
		Preservation Codes:							
EFF 9-30-11 (360-36867-1)	9/30/11	14:30 Eastern		Water			X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time: 10-11-11 1010	Company: WEM	Received by:	Date/Time: 10-11-11 1010	Company
Relinquished by:	Date/Time: 10-11-11 1145	Company	Received by: T.M. Carron	Date/Time: 10/11/11 1145	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Certification Summary

Client: ARCADIS U.S., Inc
Project/Site: HT116909.0001

TestAmerica Job ID: 360-36867-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Westfield	Connecticut	State Program	1	PH-0494
TestAmerica Westfield	Maine	State Program	1	MA00014
TestAmerica Westfield	Massachusetts	State Program	1	M-MA014
TestAmerica Westfield	New Hampshire	NELAC	1	2539
TestAmerica Westfield	New York	NELAC	2	10843
TestAmerica Westfield	North Carolina	North Carolina DENR	4	647
TestAmerica Westfield	Rhode Island	State Program	1	LAO00057
TestAmerica Westfield	Vermont	State Program	1	VT-10843

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

State Accreditation Matrix

Method Name	Description	State where **Primary** Accreditation is Carried			
		New Hampshire (NELAC)	Mass	Conn	North Carolina
821-R-02-012	Toxicity, Acute (48-Hour)(list upon request)	NP			
SM 4500 Cl F	Chlorine, Residual		NP		
SM 9215E	Heterotrophic Plate Count (SimPlate)		P		
SM 9222D	Coliforms, Fecal (Membrane Filter)		P/NP		
SM 9223	Coliforms, Total, and E.Coli (Colilert-P/A)		P		
SM 9224	Coliforms, Total, and E.Coli (Enumeration)		P		
1103.1	E.coli		ambient/ source		
Enterolert	Enterococcus				
200.8 Rev 5.4	Metals (ICP/MS) (list upon request)	NP/P	NP/P		
200.7 Rev 4.4	Metals (ICP)(list upon request)	NP/P	NP/P		
6010B	Metals (ICP)(list upon request)	NP/SW			
245.1	Mercury (CVAA)	NP/P	NP		
7470A	Mercury (CVAA)	NP			
7471A	Mercury (CVAA)	SW			
SM 2340B	Total Hardness (as CaCO3) by calculation	NP/P	NP		
3005A	Preparation, Total Recoverable or Dissolved Metals	NP/P			
3010A	Preparation, Total Metals	NP/P			
3020A	Preparation, Total Metals	NP/P/SW			
3050B	Preparation, Metals	SW			
504.1	EDB, DBCP and 1,2,3-TCP (GC)	P	P		
608	Organochlorine Pest/PCBs (list upon request)	NP	NP		
625	Semivolatile Org Comp (GC/MS)(list upon request)	NP	NP		
3546	Microwave Extraction	SW			
3510C	Liquid-Liquid Extraction (Separatory Funnel)	NP			
3550B	Ultrasonic Extraction	SW			
8081A	Organochlorine Pesticides (GC)(list upon request)	NP/SW			
8082	PCBs by Gas Chromatography(list upon request)	NP/SW			
8270C	Semivolatile Comp.(GC/MS)(list upon request)	NP/SW			
CT ETPH	Conn - Ext. Total petroleum Hydrocarbons (GC)			NP/SW	
MA-EPH	Mass - Extractable Petroleum Hydrocarbons (GC)				NP/SW
524.2	Volatile Org Comp (GC/MS)(list upon request)	P	P		
524.2	Trihalomethane compounds	P	P		
624	Volatile Org Comp (GC/MS)(list upon request)	NP	NP		
5035	Closed System Purge and Trap	SW			
5030B	Purge and Trap	NP			
8260B	Volatile Org Comp. (GC/MS)(list upon request)	NP/SW			
MAVPH	Mass - Volatile Petroleum Hydrocarbons (GC)				NP/SW
180.1	Turbidity, Nephelometric	P	P		
300	Anions, Ion Chromatography	NP/P	NP/P		
410.4	COD	NP	NP		
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW			
10-107-06-2	Nitrogen, Total Kjeldahl	NP	NP		
7196A	Chromium, Hexavalent	NP/SW			
9012A	Cyanide, Total and/or Amenable	NP/SW			
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	NP			
9045C	pH	SW			
L107041C	Nitrogen, Nitrate	NP	P		
L107-06-1B	Nitrogen Ammonia	NP	NP		
L204001A CN	Cyanide, Total	P	NP/P		
L210-001A	Phenolics, Total Recoverable	NP	NP		
SM 2320B	Alkalinity	NP/P	NP/P		
SM 2510B	Conductivity, Specific Conductance	NP/P	NP/P		
SM 2540C	Solids, Total Dissolved (TDS)	NP/P	NP/P		
SM 2540D	Solids, Total Suspended (TSS)	NP	NP		
SM 3500 CR D	Chromium, Hexavalent	NP			
SM 4500 H+ B	pH	NP/P	NP/P		
SM 4500 NO2 B	Nitrogen, Nitrite	NP	P		
SM 4500 P E	Phosphorus, Orthophosphate	NP/P	NP		
SM 4500 P E	Phosphorus, Total	NP	NP		
SM 4500 S2 D	Sulfide, Total	NP			
SM 5210B	BOD, 5-Day	NP	NP		
SM 5310B	Organic Carbon, Total (TOC)	NP/P	NP		

Not all organic compounds are accreditied under NELAC
For methods with multiple compounds all compounds may not meet NELAC criteria, listing should be obtained from the laboratory
The lab carries additional accreditations with several states. This is the laboratories typcial listing but is subject to change based on the laboratories current certification standing.

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc

Job Number: 360-36867-1

Login Number: 36867

List Source: TestAmerica Westfield

List Number: 1

Creator: Mason, Becky C

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	False	Refer to Job Narrative for details.
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica Westfield
Westfield Executive Park 53 Southampton Road
Westfield, MA 01085
Phone (413) 572-4000 Fax (413) 572-3707

Boston Service Center
240 Bear Hill Rd. Suite 104
Waltham, MA 02451
Phone (781) 466-6900 Fax (781) 466-6901

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information
Client Contact: MIKE GAER
Company: ARCADIS-US
Address: 194 FORBES RD
City: BRAINTREE, MA
State, Zip: 02184
Phone: 781-356-7300
Email:
Project Name/number: MTI16929.0001
Site: ROSELAND, NJ

Sampler: ATHON TATRO
Phone:
Lab PM:
E-Mail: MIKE.GAER@ARCADIS-US.COM
Carrier Tracking No(s):

COC No:
Page:
Job #:

Due Date Requested:
TAT Requested (days): 5
Quote #:
PO #:
WO #:
SSOW#:

Analysis Requested

Preservation Codes:
A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
H - Ascorbic Acid
I - Ice
J - DI Water
M - Hexane
N - None
P - Na2O4S
Q - Na2SO3
R - Na2S2SO3
S - H2SO4
Z - other (specify)

Regulatory programs:
MCP ☐ GW1/S1 ☐
RCP ☐ CT RSR ☐
DEP Form ☐ EDD Required ☐

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Sampler's Initials	Field Filtered Sample?	Perform MS/MSD?	8260	TPH-1664	TSS	METALS: Fe, Pb	HARDNESS	Total Number of containers	Special Instructions/Note:
			Preservation Code:					A	A	N	N	N		
EFF	9-30-11	1430	G	GW	AT			X	X	X	X	X	7	NPDES GW PARMS
														pH - 7.49

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		10/7/11 1445			10/7/11	
2		10/7/11 1720			10/8/11 1050	WESTFALL
3						

Custody Seals Intact: ☐ Yes ☐ No (N/A)
Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 1.1 ICE

Fedex 4258 5385 3145

WI-QA-010-rev 6 0511

ATTACHMENT D

Most Current County Endangered and Threatened Species Act (ESA) List

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Barnstable	Piping Plover	Threatened	Coastal Beaches	All Towns
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Chatham
	Sandplain gerardia	Endangered	Open areas with sandy soils.	Sandwich and Falmouth.
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Bourne (north of the Cape Cod Canal)
Berkshire	Bog Turtle	Threatened	Wetlands	Egremont and Sheffield
Bristol	Piping Plover	Threatened	Coastal Beaches	Fairhaven, Dartmouth, Westport
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Fairhaven, New Bedford, Dartmouth, Westport
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Taunton
Dukes	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Piping Plover	Threatened	Coastal Beaches	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Aquinnah and Chilmark
	Sandplain gerardia	Endangered	Open areas with sandy soils.	West Tisbury
Essex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Gloucester, Essex and Manchester
	Piping Plover	Threatened	Coastal Beaches	Gloucester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague, Warwick
	Dwarf wedgemussel	Endangered	Mill River	Whately
Hampshire	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Hadley
	Puritan tiger beetle	Threatened	Sandy beaches along the Connecticut River	Northampton and Hadley
	Dwarf wedgemussel	Endangered	Rivers and Streams.	Hadley, Hatfield, Amherst and Northampton
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
Nantucket	Piping Plover	Threatened	Coastal Beaches	Nantucket
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Nantucket
	American burying beetle	Endangered	Upland grassy meadows	Nantucket
Plymouth	Piping Plover	Threatened	Coastal Beaches	Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoisett
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, Wareham, Halifax, and Pembroke
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoisett.
Suffolk	Piping Plover	Threatened	Coastal Beaches	Winthrop
Worcester	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Leominster

-Eastern cougar and gray wolf are considered extirpated in Massachusetts.
-Endangered gray wolves are not known to be present in Massachusetts, but dispersing individuals from source populations in Canada may occur statewide.
-Critical habitat for the Northern Red-bellied Cooter is present in Plymouth County.

Revised 06/22/2009

Endangered Species Consultation

Project Review for Projects with Federal Involvement (authorizing, funding or carrying out the project)

The following information is designed to assist applicants or project sponsors in determining whether a federally-listed, proposed and/or candidate species may occur within the proposed project area and whether it is appropriate to contact our office for additional coordination or consultation. We encourage you to print out all materials used in the analyses of effects on listed, proposed or candidate species for your records or submission to the appropriate federal agency or our office.

Step 1. - Determine whether any listed, proposed, or candidate species (T/E species) are likely to occur within the proposed project **action area** based on location of the proposed project:

A. Choose your state list below and review for Towns in which federally-listed species occur:

Connecticut - 12 species (29 KB)
Massachusetts - 14 species (41 KB)
New Hampshire - 13 species (31 KB)
Rhode Island - 8 species (22 KB)
Vermont - 10 species (25 KB)

B. You should contact your state Natural Heritage Program or Endangered Species Program (see list below) for additional information on federally and state-listed species:

Rhode Island Natural Heritage Program
Connecticut Endangered Species Program
Massachusetts **Natural Heritage and Endangered Species Program**
Vermont **Non-Game and Natural Heritage**
New Hampshire **Fish and Game's Non-game and Endangered Wildlife Program**
New Hampshire Natural Heritage Bureau's **Home Page**

Please note that these agencies provide information on known occurrences; this information does not replace field surveys, especially for plants, as most project sites have not been previously surveyed specifically for listed species.

C. If the project falls within a Town where the endangered dwarf wedgemussel is known to occur, check the appropriate map to determine whether your project is in the vicinity of its known range.

Massachusetts - **Connecticut River Watershed** (912 KB)
New Hampshire/Vermont - Connecticut River Watershed
Upper Connecticut River (872 KB)
Middle Connecticut River (1.07 MB)
Lower Connecticut River (1.56 MB)
New Hampshire - **Ashuelot River Watershed** (886 KB)
Connecticut - **Connecticut River Watershed** (2.04 MB)

D. If the project falls within a Town where the endangered northern red-bellied cooter is known to occur, or if the project occurs in Plymouth County, Massachusetts, check the map to determine whether your project is in the vicinity of its known range or critical habitat. **NRBC_MAP** (59 KB)

E. If a proposed project occurs in a Town with no known listed, proposed or candidate species present, no further coordination with the Service is needed. You may download a **"no species present" letter** (158 KB) stating "no species are known to occur in the project area".

F. If the proposed project occurs in a Town with known occurrences of T/E species, proceed to Step 2.

Step 2. - Determine whether any listed or proposed New England Species are likely to occur within the proposed project area by comparing the habitat present within the proposed project action area with habitat that is suitable for the species.

A. Review the information we have provided on the species list information from the appropriate state agency, and any other sources of information available to you to determine types of habitat the species use. A description of suitable habitat for New England's federally-listed species may be found in **New England Species'** profiles and fact sheets.
B. Determine whether your proposed project action area has any potential for listed species habitat (e.g., are suitable roost trees present? - Indiana bats; are wetlands present? - bog turtles or Northeastern bulrush; will project affect a waterway? – dwarf wedgemussel). After this initial coarse review, determine whether any more detailed surveys may be appropriate (e.g., survey for dwarf wedgemussels).
C. If your state Natural Heritage Program or Endangered Species Program does not identify any listed species for the proposed project AND there is no potential habitat for any listed species within the action area, no further coordination with the Service is required. You may download a **"no species present" letter** (158 KB) stating "no species are known to occur in the project area".
D. If you have identified that potential listed species habitat is present although the species has not been documented from that specific location, further coordination with our office is recommended. Please send the results of your assessment including any habitat surveys to:

Supervisor

Concord, NH 03301

Include in your letter:
A detailed description of the proposed project, including approximate proposed project construction schedule and project activities (e.g., land clearing, utilities, stormwater management). Site plans are often helpful in our evaluation process.

- A description of the natural characteristics of the property and surrounding area (e.g., forested areas, freshwater wetlands, open waters, and soils). Photographs are often helpful in assessing the habitat. Additionally, please include a description of surrounding land use (residential, agricultural, or commercial).
- The location of the above referenced property and extent of any project related activities or discharges clearly indicated on a copy of a USGS 7.5 Minute Topographic Quadrangle (Quad) with the name of the Quad(s) and latitude/longitude clearly labeled.
- A description of conservation measures to avoid or minimize impacts to listed species.

Why does this matter?- In a case where no habitat is present, a quick and easy determination can be made that further coordination is not necessary. In a case where habitat is present, but you believe that the project activities will not impact listed species, it is important to coordinate with us to ensure that all project activities and all potential effects (direct and indirect) have been considered.

(Please allow 30 days following our receipt of your request for processing.)

Step 3. - Based on the results of the habitat survey and a description of the proposed project (including information as to whether any potential habitat may be directly or indirectly affected), the involved Federal agency may determine:

- The proposed project will result in no effect to any T/E species and no further coordination or consultation with the Service is required;
- Additional information (e.g., surveys) is required to determine whether any T/E species are likely to occur within the proposed project area; or
- The proposed project "may affect" a T/E species and consultation with the Service is required.

Endangered Species

New England Listed Species

The following federally-listed species are protected in New England. This list includes links to species information on our National Fish and Wildlife Service website including current Federal Register documents, HCPs, Recovery Plans, Life History accounts.

Vertebrates

Mammals
Eastern Cougar -**Puma (=Felis) concolor couguar**
Gray Wolf -**Canis lupus**
Indiana Bat - **Myotis sodalis**
Canada Lynx - **Lynx canadensis**

Birds
Atlantic Coast Piping Plover - **Charadrius melodus**
Birds of North America Species Account ***Piping Plover***
Atlantic Coast piping plover website ***Piping Plover***
Roseate Tern – **Sterna dougallii dougallii**
Birds of North America Species Account ***Roseate Tern***

Reptiles
Bog Turtle - **Clemmys muhlenbergii**
Northern Redbelly Cooter (Plymouth redbelly turtle) **Pseudemys rubriventris bangsii**
Northern Redbelly Cooter 5-year Review;*(pdf size 1.6MB*) May 2007*

Fish
Atlantic Salmon - **Salmo salar** (Maine only)
Maine Atlantic Salmon Atlas

Invertebrates

Insects
American Burying Beetle - **Nicrophorus americanus**
Karner Blue Butterfly - **Lycaeides melissa samuelis**
Karner Blue Butterfly ***Fact sheet***
Northeastern Beach Tiger Beetle - **Cicindela dorsalis dorsalis**
Puritan Tiger Beetle - **Cicindela puritana**
Draft Puritan Tiger Beetle; *(pdf size 2.4MB*) 5-year Review*

Mussels
Dwarf Wedgemussel - ***Alasmidonta heterodon***
Dwarf Wedgemussel 5-Year Status Review 2007 *(pdf size 1.14MB*)*

Plants
Jesup 's Milkvetch - **Astragalus robbinsii var. jesupi**
Northeastern Bulrush - **Scirpus ancistrochaetus**
Sandplain Gerardia - **Agalinis acuta**
Small Whorled Pogonia - **Isotria medeoloides**
Seabeach Amaranth - **Amaranthus pumilus** (historic)
American Chaffseed - **Schwalbea americana** (historic)
Eastern Prairie Fringed Orchid - **Platanthera leucophaea** (Maine only)
Furbish's Lousewort - **Pedicularis furbishiae** (Maine only)

Candidate species and species recently delisted are identified below, including links for additional information regarding their status.

Candidate Species

The Service has recently completed a status assessment for the following species and determined that federally listing is "warranted, but precluded", i.e. the status of the species indicates that it should be listed but the listing is superceded by higher listing actions.

While there is currently no obligation for Federal Agencies to consult with us regarding these species, coordination is encouraged to avoid project delays that may occur as a result of the species becoming federally-listed during the planning or construction phases of a given project. In addition, the Service is interested in promoting conservation actions that may result in benefits to these species that will prevent the need to list it. Information regarding our **candidate conservation** program may help you decide if you would like to become involved.

- **New England Cottontail; Sylvilagus transitionalis**
- Red Knot **Calidris canutus rufa; Red Knot Fact Sheet**

Delisted Species

NCTC Eagle Cam

This Bald Eagle image is a link to a Service website that chronicles the activities of the eagle nest located on the grounds of the USFWS National Conservation Training Center near the Potomac River in Shepherdstown, West Virginia. The nest has been active for four seasons, fledging several juvenile bald eagles.

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BOSTON	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		2003
BOSTON	Amphibian	Scaphiopus holbrookii	Eastern Spadefoot	T		1932
BOSTON	Beetle	Cicindela duodecimguttata	Twelve-spotted Tiger Beetle	SC		1910
BOSTON	Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		1928
BOSTON	Beetle	Cicindela rufiventris hentzii	Hentz's Redbelly Tiger Beetle	T		1927
BOSTON	Bird	Accipiter striatus	Sharp-shinned Hawk	SC		1898
BOSTON	Bird	Ammodramus savannarum	Grasshopper Sparrow	T		1993
BOSTON	Bird	Bartramia longicauda	Upland Sandpiper	E		1993
BOSTON	Bird	Falco peregrinus	Peregrine Falcon	E		2007
BOSTON	Bird	Gavia immer	Common Loon	SC		1824
BOSTON	Bird	Pooecetes gramineus	Vesper Sparrow	T		1985
BOSTON	Bird	Sterna hirundo	Common Tern	SC		2008
BOSTON	Bird	Sternula antillarum	Least Tern	SC		2007
BOSTON	Bird	Tyto alba	Barn Owl	SC		1989
BOSTON	Bird	Vermivora chrysoptera	Golden-winged Warbler	E		Historic
BOSTON	Butterfly/Moth	Apodrepanulatrix liberaria	New Jersey Tea Inchworm	E		Historic
BOSTON	Butterfly/Moth	Abagrotis nefascia	Coastal Heathland Cutworm	SC		2001
BOSTON	Butterfly/Moth	Metarranthis apiciaria	Barrens Metarranthis Moth	E		1934
BOSTON	Butterfly/Moth	Rhodoecia aurantiago	Orange Sallow Moth	T		1988
BOSTON	Dragonfly/Damselfly	Somatochlora linearis	Mocha Emerald	SC		2009
BOSTON	Fish	Gasterosteus aculeatus	Threespine Stickleback	T		2000
BOSTON	Mussel	Alasmidonta undulata	Triangle Floater	SC		2005
BOSTON	Mussel	Ligumia nasuta	Eastern Pondmussel	SC		1841
BOSTON	Reptile	Terrapene carolina	Eastern Box Turtle	SC		1939
BOSTON	Vascular Plant	Ageratina aromatica	Lesser Snakeroot	E		1896
BOSTON	Vascular Plant	Aristida purpurascens	Purple Needlegrass	T		1800s
BOSTON	Vascular Plant	Aristida tuberculosa	Seabeach Needlegrass	T		1877
BOSTON	Vascular Plant	Asclepias verticillata	Linear-leaved Milkweed	T		1878
BOSTON	Vascular Plant	Boechera missouriensis	Green Rock-cress	T		1930
BOSTON	Vascular Plant	Carex striata	Walter's Sedge	E		Historic
BOSTON	Vascular Plant	Desmodium cuspidatum	Large-bracted Tick-trefoil	T		1896
BOSTON	Vascular Plant	Eriophorum gracile	Slender Cottongrass	T		1885

BOSTON	Vascular Plant	Houstonia longifolia	Long-leaved Bluet	E		1918
BOSTON	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC		1933
BOSTON	Vascular Plant	Linum medium var. texanum	Rigid Flax	T		1909
BOSTON	Vascular Plant	Lycopus rubellus	Gypsywort	E		1896
BOSTON	Vascular Plant	Myriophyllum alterniflorum	Alternate-flowered Water-milfoil	E		Historic
BOSTON	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T		1884
BOSTON	Vascular Plant	Platanthera flava var. herbiola	Pale Green Orchis	T		1908
BOSTON	Vascular Plant	Ranunculus micranthus	Tiny-flowered Buttercup	E		1891
BOSTON	Vascular Plant	Rumex pallidus	Seabeach Dock	T		1984
BOSTON	Vascular Plant	Sanicula odorata	Long-styled Sanicle	T		Historic
BOSTON	Vascular Plant	Scirpus longii	Long's Bulrush	T		1907
BOSTON	Vascular Plant	Setaria parviflora	Bristly Foxtail	SC		2001
BOSTON	Vascular Plant	Suaeda calceoliformis	American Sea-blite	SC		1909
BOSTON	Vascular Plant	Viola brittoniana	Britton's Violet	T		1909

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BOURNE	Amphibian	Ambystoma opacum	Marbled Salamander	T		1936
BOURNE	Amphibian	Scaphiopus holbrookii	Eastern Spadefoot	T		2003
BOURNE	Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		1935
BOURNE	Bird	Accipiter striatus	Sharp-shinned Hawk	SC		2001
BOURNE	Bird	Ammodramus savannarum	Grasshopper Sparrow	T		2007
BOURNE	Bird	Charadrius melodus	Piping Plover	T	T	2006
BOURNE	Bird	Circus cyaneus	Northern Harrier	T		2007
BOURNE	Bird	Pooecetes gramineus	Vesper Sparrow	T		2006
BOURNE	Bird	Sterna dougallii	Roseate Tern	E	E	2008
BOURNE	Bird	Sterna hirundo	Common Tern	SC		2008
BOURNE	Bird	Sternula antillarum	Least Tern	SC		2007
BOURNE	Bird	Tyto alba	Barn Owl	SC		1974
BOURNE	Butterfly/Moth	Abagrotis nefascia	Coastal Heathland Cutworm	SC		1996
BOURNE	Butterfly/Moth	Acronicta albarufa	Barrens Daggermoth	T		1998
BOURNE	Butterfly/Moth	Bagisara rectifascia	Straight Lined Mallow Moth	SC		1998
BOURNE	Butterfly/Moth	Catocala herodias gerhardi	Gerhard's Underwing Moth	SC		1999
BOURNE	Butterfly/Moth	Cicinnus melsheimeri	Melsheimer's Sack Bearer	T		1998
BOURNE	Butterfly/Moth	Cingilia catenaria	Chain Dot Geometer	SC		2006
BOURNE	Butterfly/Moth	Hemileuca maia	Barrens Buckmoth	SC		2006
BOURNE	Butterfly/Moth	Itame sp. 1 nr. inextricata	Pine Barrens Itame	SC		1998

ARCADIS

ATTACHMENT E

National Registry of Historic Places listing for Roslindale, MA

nps.gov

National Park Service
U.S. Department of the Interior

National Register of Historic Places

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Current Record: 1 of 1 in NPS Digital Library

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For advanced viewing install **DjVu browser plugin.**

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Roslindale Congregational Church [Image]

URL:	**http://pdfhost.focus.nps.gov/docs/NRHP/Text/91000925.pdf** Link will open in a new browser window
URL:	**http://pdfhost.focus.nps.gov/docs/NRHP/Photos/91000925.pdf** Link will open in a new browser window
Publisher:	National Park Service
Published:	07/26/1991
Access:	Public access
Restrictions:	All Rights Reserved
Format/Size:	Physical document with text, photos and map
Language:	eng: English
Note:	25 Cummins Hwy., at jct. with Summer Ave.
Item No.:	91000925 *NRIS (National Register Information System)*
Subject:	EVENT
Subject:	ARCHITECTURE/ENGINEERING
Subject:	ARCHITECTURE
Subject:	COMMUNITY PLANNING AND DEVELOPMENT
Subject:	ROMANESQUE
Subject:	BUILDING
Subject:	1925-1949
Subject:	1900-1924
Subject:	1875-1899
Keywords:	Murray,James;1893
Place:	MASSACHUSETTS -- Suffolk County -- Roslindale

Record Number: 416495

Record Owner: National Register of Historic Places

ATTACHMENT F

MassDEP Transmittal Form for
Permit Application and Payment.

Enter your transmittal number → X240060 (Transmittal Number)

Your unique Transmittal Number can be accessed online: http://mass.gov/dep/service/online/trasmfrm.shtml

Massachusetts Department of Environmental Protection

Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. **Copy 2** must accompany your fee payment. **Copy 3** should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP
P.O. Box 4062
Boston, MA
02211

*** Note:**
For BWSC Permits, enter the LSP.

A. Permit Information

BRP WM 10
1. Permit Code: 7 or 8 character code from permit instructions

Permit for Construction or Foundation Dewatering

Foundation dewatering from basement sump.
3. Type of Project or Activity

B. Applicant Information – Firm or Individual

Bank of America, N.A., Corporate Workplace Environmental Risk, Mail Stop CT2-545-01-02
1. Name of Firm - Or, if party needing this approval is an individual enter name below:

2. **Last Name** of Individual | 3. **First Name** of Individual | 4. MI

200 Glastonbury Blvd.
5. Street Address

Glastonbury	CT	06033	646-556-0759	
6. City/Town	7. State	8. Zip Code	9. Telephone #	10. Ext. #

Dennis McInerney — 11. Contact Person
dennis.p.mcinerney@bankofamerica.com — 12. e-mail address (optional)

C. Facility, Site or Individual Requiring Approval

Bank of America, Bank Branch MA6-202
1. Name of Facility, Site Or Individual

29-33 Corinth Street
2. Street Address

Roslindale	MA	02131		
3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #

8. DEP Facility Number (if Known) | 9. Federal I.D. Number (if Known) | 10. BWSC Tracking # (if Known)

D. Application Prepared by (if different from Section B)*

ARCADIS U.S., Inc.
1. Name of Firm Or Individual

194 Forbes Road
2. Address

Braintree	MA	02184	781-356-7300	261
3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #

Allen Walker — 8. Contact Person
9. LSP Number (BWSC Permits only)

E. Permit - Project Coordination

1. Is this project subject to MEPA review? ☐ yes ☒ no
If yes, enter the project's EOEA file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

F. Amount Due

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

Special Provisions:

1. ☐ Fee Exempt (city, town or municipal housing authority)(state agency if fee is $100 or less).
There are no fee exemptions for BWSC permits, regardless of applicant status.
2. ☐ Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
3. ☐ Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
4. ☐ Homeowner (according to 310 CMR 4.02).

982285	$385	11/3/2011
Check Number	Dollar Amount	Date

982285

ARCADIS

630 Plaza Drive, Suite 600 • Highlands Ranch, Colorado 80129
Tel 720/344-3500 • Fax 720/344-3535

Wells Fargo Bank, N.A.
Grand Junction, CO 81501
82-91/1021

CHECK DATE

November 3, 2011

PAY

Three Hundred Eighty Five and 00/100

AMOUNT

$385.00

TO

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BOX 4062
BOSTON, MA 02211

ARCADIS

Security Check features included. Details on back.

⑈982285⑈ ⑆102100918⑆801280348⑈

EMILY BUSINESS FORMS 800.392.5018 VISION

ARCADIS
630 Plaza Drive, Suite 600 • Highlands Ranch, Colorado 80129 Tel 720/344-3500 • Fax 720/344-3535
982285

Check Date 11/3/2011

Invoice Number	Date	Voucher	Amount	Discounts	Previous Pay	Net Amount
09192011	9/19/2011	1541021	$385.00			$385.00
COMMONWEALTH OF MASSACHUSETTS		TOTAL	$385.00			$385.00
214 - A/P DISBURS AG&M	4	0065092				

BRP WM 10 Transmittal # 240060
Rosindale HT116909.0001