

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

Subject:

Notice of Intent (NOI) – Dewatering General Permit (DGP) and
MassDEP BRP WM-10 Permit for Construction or Foundation Dewatering
699 Washington Street
Norwood, Massachusetts

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 is a sump 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 a No. 2 fuel oil release at the Site. 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 sump.

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.

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

Environment

Date:
November 8, 2011

Contact:
Allen Walker

Phone:
781-356-7300

Email:
allen.walker@arcadis-us.com

Our ref:
HT116915.0001

Imagine the result

1 – General Facility Information

1 d - Topographic Map of Site and Outfall

The Site is located in the downtown area of Norwood, 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 storm water drain, which discharges to Meadow Brook located approximately 1,100 feet southeast of the Site.

1 e – Prior NPDES Permit at the Site

As noted previously, there is a sump 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 a No. 2 fuel oil release at the Site. The discharge no longer requires treatment for the former oil release and a DGP is sought to remove the water that accumulates in the basement sump. The permit No. for the RGP permit is MAG910072. 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 (influent to the treatment system), the metals analysis results were non-detectable (ND) except for copper at a concentration of 310 milligrams per liter (mg/l), iron at 14,000 mg/l and zinc at 650 mg/l. The chloride concentration was 140 mg/l and the pH was 6.28. This sampling occurred on August 31, 2011 and the laboratory report is included as Attachment C.

The hardness of the receiving water (outfall) was 95 mg/l, which was sampled on September 30, 2011 during the normal monthly sampling. A copy of the laboratory report for the outfall sample is included as Attachment C.

The iron and zinc concentration have been variable and typically historically high in the discharge water as monitored during the operation of the RGP permit. It was suspected that these results may be affected by the sump itself as the sump is metal lined and there are a number of metal pipes within the sump, many of which are rusting. Therefore, ARCADIS sampled two monitoring wells at the Site on September 30, 2011, one in an upgradient location to the on-Site building and one downgradient of the building. These wells are identified as monitoring wells MW-7 (upgradient) and MW-4 (downgradient). The well locations are indicated on a Site Plan included as Attachment D. The following are the iron and zinc results:

- MW-7: iron: 100 mg/l and zinc: ND with a detection limit of 50 mg/l.
- MW-4: iron: 230 mg/l and zinc: ND with a detection limit of 50 mg/l.

These monitoring well results support the theory that the sump water is affected by the metal within the sump chamber. The RGP treatment system includes a resin filter for metals treatment. A copy of the laboratory report for the monitoring well results is 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. A two-phase groundwater treatment system was installed to treat the water that collected in the basement sump. The petroleum-affected water from the sump was pumped to two 200-pound liquid phase activated carbon vessels in series for treatment. In 2007 a resin filter was added to the treatment system due to metal concentrations exceeding discharge limits. The treated water then flows through a cartridge filter prior to discharge.

For this DGP, the metals will continue to be treated using the existing resin filter and the carbon filters will either be removed or bypassed. Updates to the sump to remove the metal components may be conducted to remove the need to treat the water.

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 not 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 Site had a fuel oil release from a former 1,000-gallon underground storage tank (UST) located off the west corner of the building. With regards to groundwater flow, this UST was upgradient of the building. In March 2001 fuel oil was discovered in the building's basement sump that was thought to come from the fuel oil UST. The release was reported to the MassDEP on March 30, 2001 and Release Tracking Number (RTN) 4-3020547 was assigned to the release. This 1,000-gallon fuel oil UST was then removed in May 2001 and during the removal of the UST a release of fuel oil was discovered and approximately 180 tons of petroleum-affected soil was excavated for disposal. In November 2001 an additional 4.15 tons of soil were excavated from below the basement of the building between the furnace and hallway area. This excavation was limited due to refusal on apparent bedrock at 6 to 24 inches below grade.

A two-phase groundwater treatment system was installed to treat the water that collected in the basement sump. The petroleum-affected water from the sump was pumped to two 200-pound liquid phase activated carbon vessels in series for treatment. In 2007 a resin filter was added to the treatment system due to metal concentrations exceeding discharge limits. The treated water then flows through a cartridge filter prior to discharge to a nearby storm water drain, which was permitted as a RGP. A Class A-2 Response Action Outcome (RAO) was filed with the Massachusetts Department of Environmental Protection (MassDEP) to close out this release and a DGP is now requested to remove the water that accumulates in the basement sump.

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 E. 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 E.

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 at the Site or in proximity of the discharge. The National Registry of Historic Places was reviewed and the print out of the two properties that were listed is included as Attachment F.

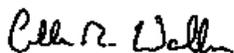
6 – Supplemental Information

The MassDEP Transmittal Form for Permit Application and Payment is included as Attachment G. 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 Reports of Discharge & Monitoring Well and Receiving Water.
- D – Site Plan Indicating the Monitoring Well Locations.
- E - Most Current County Endangered Species Act (ESA) List.
- F – National Registry of Historic Places listing for Norwood, MA.
- G - 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 MA6-288, 699 Washington Street, Norwood, MA 02062 | | Facility Location longitude: <u>71.12.07 W</u> latitude: <u>42.11.33.N</u> | Type of Business: Bank branch. Facility SIC codes: 6021 |
| c) Name of facility owner: <u>Bank of America</u> | | Owner's email: <u>dennis.p.mcinerney@bankofamerica.com</u> | |
| Owner's Tel #: <u>646-556-0759</u> | | Owner's Fax #: <u>704-804-5326</u> | |
| Address of owner (if different from facility address) Owner is (check one): 1. Federal ___ 2. State ___ 3. Tribal ___ 4. Private <input checked="" type="checkbox"/> 4. Other ___ (Describe) | | | |
| Legal name of Operator, if not owner: <u>ARCADIS U.S., Inc.</u> Operator Contact Name: <u>Allen Walker</u> Operator Tel Number: <u>(781) 356-7300</u> Fax Number: <u>(781) 356-2211</u> Operator's email: <u>allen.walker@arcadis-us.com</u> Operator Address (if different from owner) <u>Arcadis U.S., Inc., 194 Forbes Road, Braintree, MA 02184</u> | | | |
| d) Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached? <input checked="" type="checkbox"/> | | | |
| e) Check Yes or No for the following: 1. Has a prior NPDES permit been granted for the discharge? Yes <input checked="" type="checkbox"/> No ___ If Yes, Permit Number: <u>MAG910072</u> 2. Is the discharge a "new discharge" as defined by 40 CFR Section 122.22? Yes ___ No <input checked="" type="checkbox"/> 3. Is the facility covered by an individual NPDES permit? Yes ___ No <input checked="" type="checkbox"/> If Yes, Permit Number ___ 4. Is there a pending application on file with EPA for this discharge? Yes ___ No <input checked="" type="checkbox"/> 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: Meadow 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 228 GPD
Average Monthly Flow 1,140 GPD

e) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 7.87 Min pH 6.86

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? Resin filter for metals.

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 350 and the specific months of discharge All months, but some dry times. ;
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 LC₅₀ 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 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 or 3) 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 MA6-288, 699 Washington Street, Norwood, MA |
| Operator signature: <i>Allen Walker</i> |
| Title: Principal Environmental Engineer |
| Date: 11/7/11 |

Federal regulations require this application to be signed as follows:

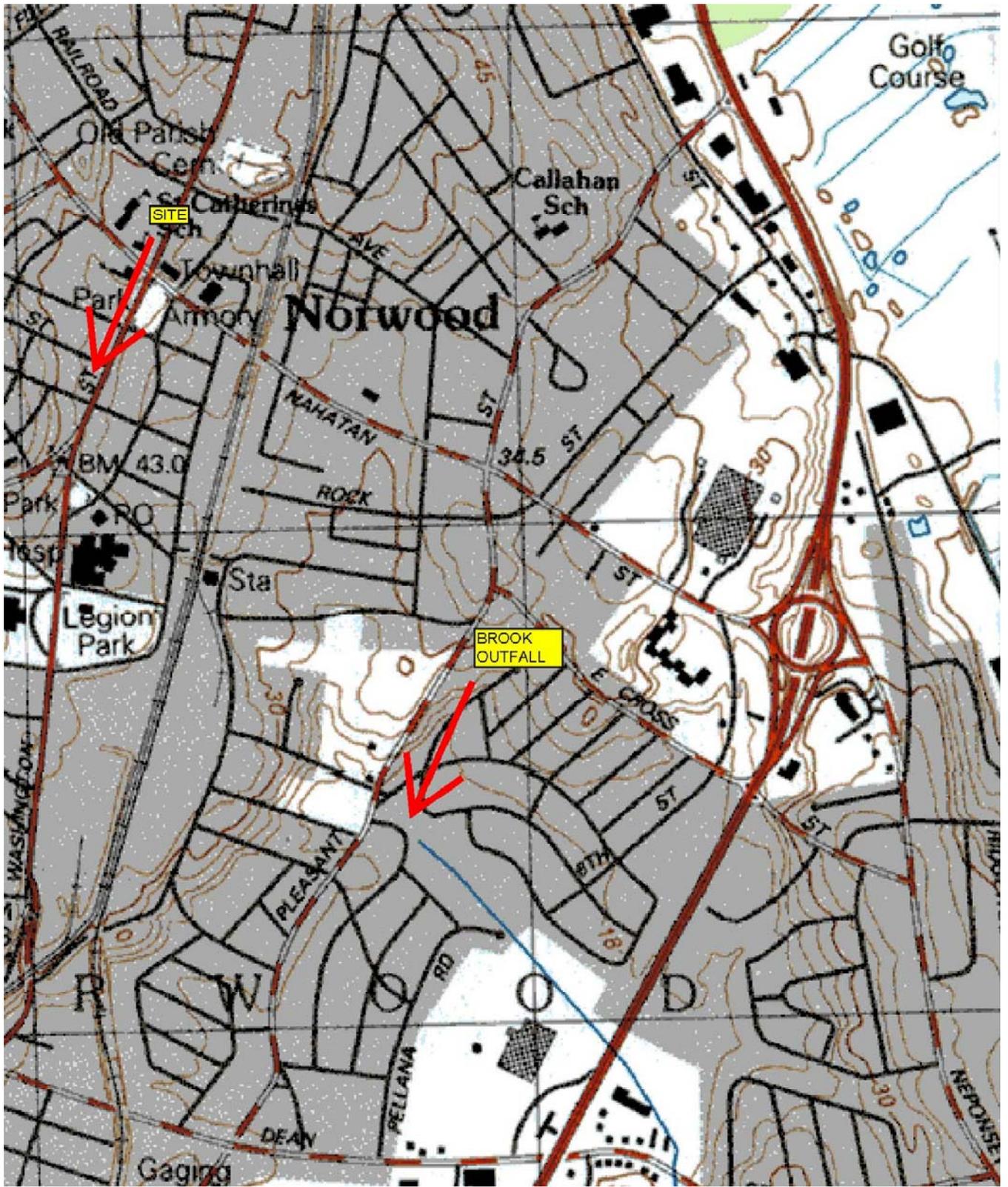
1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer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



ATTACHMENT B

Topographic Map

CITY:MANCHESTER DIV:GROUP/EN/CAD DBT:HALLIWELL PM: GREEN/CAD/Manchester/ACT/116915000/1/DWG/NORWOOD.dwg LAYOUT: 1 SAVED: 10/28/2011 11:57 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: --- PLOTTED: 10/28/2011 11:57 AM BY: HALLIWELL, TRISH



699 WASHINGTON STREET
NORWOOD, MASSACHUSETTS

SITE LOCATION MAP



FIGURE
1



ATTACHMENT C

Laboratory Reports of Discharge
& Monitoring Well 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: 360-36045-1
Client Project/Site: HT116915.0001

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

Attn: Mr. Mike Baer



Authorized for release by:
09/08/2011 11:01:46 AM

Joe Chimi
Report Production Representative
joe.chimi@testamericainc.com

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

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Case Narrative

Client: ARCADIS U.S., Inc
Project/Site: HT116915.0001

TestAmerica Job ID: 360-36045-1

Job ID: 360-36045-1

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 (ICP)

Sample INF 8-31-11 (360-36045-1) was analyzed for total metals (ICP) in accordance with EPA Method 200.7. The sample was prepared and analyzed on 09/01/2011 and 09/02/2011.

No difficulties were encountered during the metals analysis.

All quality control parameters were within the acceptance limits.

TOTAL MERCURY (CVAA)

Sample INF 8-31-11 (360-36045-1) 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 (360-36045-1) was analyzed for hardness in accordance with SM20 2340B. The sample was analyzed on 09/01/2011.

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 (360-36045-1) was analyzed for anions (28 day hold time) in accordance with EPA Method 300.0. The sample was analyzed on 09/06/2011.

Chloride failed the recovery criteria high for the MS of sample INF 8-31-11 (360-36045-1) in batch 360-79632 and exceeded the rpd limit for the MSD of sample INF 8-31-11MSD (360-36045-1) in batch 360-79632. The associated LCS recovered within control limits. Refer to the QC report for details.

Sample INF 8-31-11 (360-36045-1)[50X] required dilution prior to analysis due to high concentration. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the anions analysis.

All other quality control parameters were within the acceptance limits.

Case Narrative

Client: ARCADIS U.S., Inc
Project/Site: HT116915.0001

TestAmerica Job ID: 360-36045-1

Job ID: 360-36045-1 (Continued)

Laboratory: TestAmerica Westfield (Continued)

HEXAVALENT CHROMIUM

Sample INF 8-31-11 (360-36045-1) was analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The sample was analyzed on 09/01/2011.

Sample INF 8-31-11 (360-36045-1)[5X] required dilution prior to analysis due to matrix interference. The reporting limits have been adjusted accordingly. The sample 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 (360-36045-1) 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.

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Detection Summary

Client: ARCADIS U.S., Inc
 Project/Site: HT116915.0001

TestAmerica Job ID: 360-36045-1

Client Sample ID: INF 8-31-11

Lab Sample ID: 360-36045-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|-------------------------------|--------|-----------|-------|-----|------|---------|---|---------------|-----------|
| Iron | 14000 | | 100 | | ug/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Copper | 310 | | 10 | | ug/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Zinc | 650 | | 50 | | 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 | 89 | | 2.6 | | mg/L | 1 | | SM 2340B | Total/NA |
| Chloride | 140 | | 50 | | mg/L | 50 | | 300.0 | Total/NA |
| pH | 6.28 | HF | 0.100 | | SU | 1 | | SM 4500 H+ B | Total/NA |

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Method Summary

Client: ARCADIS U.S., Inc
Project/Site: HT116915.0001

TestAmerica Job ID: 360-36045-1

| 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 |
| 7196A | Chromium, Hexavalent | SW846 | 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",

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

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: HT116915.0001

TestAmerica Job ID: 360-36045-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 360-36045-1 | INF 8-31-11 | Water | 08/31/11 10:25 | 08/31/11 16:00 |

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Client Sample Results

Client: ARCADIS U.S., Inc
Project/Site: HT116915.0001

TestAmerica Job ID: 360-36045-1

Method: 200.7 Rev 4.4 - Metals (ICP)

Client Sample ID: INF 8-31-11
Date Collected: 08/31/11 10:25
Date Received: 08/31/11 16:00

Lab Sample ID: 360-36045-1
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------|--------------|-----------|-----|-----|------|---|----------------|----------------|---------|
| Silver | ND | | 5.0 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:59 | 1 |
| Cadmium | ND | | 1.0 | | ug/L | | 09/02/11 07:08 | 09/02/11 12:45 | 1 |
| Antimony | ND | | 6.0 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:59 | 1 |
| Iron | 14000 | | 100 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:59 | 1 |
| Nickel | ND | | 10 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:59 | 1 |
| Arsenic | ND | | 10 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:59 | 1 |
| Copper | 310 | | 10 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:59 | 1 |
| Zinc | 650 | | 50 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:59 | 1 |
| Chromium | ND | | 5.0 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:59 | 1 |

Client Sample Results

Client: ARCADIS U.S., Inc
Project/Site: HT116915.0001

TestAmerica Job ID: 360-36045-1

Method: 245.1 - Mercury (CVAA)

Client Sample ID: INF 8-31-11
Date Collected: 08/31/11 10:25
Date Received: 08/31/11 16:00

Lab Sample ID: 360-36045-1
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 15:21 | 1 |

Client Sample Results

Client: ARCADIS U.S., Inc
Project/Site: HT116915.0001

TestAmerica Job ID: 360-36045-1

Method: SM 2340B - Hardness, Calculation

Client Sample ID: INF 8-31-11
Date Collected: 08/31/11 10:25
Date Received: 08/31/11 16:00

Lab Sample ID: 360-36045-1
Matrix: Water

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------|-----------|-----|----|------|---|----------|----------------|---------|
| Hardness as calcium carbonate | 89 | | 2.6 | | mg/L | | | 09/01/11 14:59 | 1 |

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Client Sample Results

Client: ARCADIS U.S., Inc
Project/Site: HT116915.0001

TestAmerica Job ID: 360-36045-1

General Chemistry

Client Sample ID: INF 8-31-11
Date Collected: 08/31/11 10:25
Date Received: 08/31/11 16:00

Lab Sample ID: 360-36045-1
Matrix: Water

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------|--------|-----------|-------|----|------|---|----------|----------------|---------|
| Chloride | 140 | | 50 | | mg/L | | | 09/06/11 20:03 | 50 |
| Chromium, hexavalent | ND | | 0.025 | | mg/L | | | 09/01/11 08:56 | 5 |
| pH | 6.28 | HF | 0.100 | | SU | | | 09/01/11 17:55 | 1 |

Definitions/Glossary

Client: ARCADIS U.S., Inc
Project/Site: HT116915.0001

TestAmerica Job ID: 360-36045-1

Qualifiers

General Chemistry

| Qualifier | Qualifier Description |
|-----------|---|
| HF | Field parameter with a holding time of 15 minutes |
| F | MS or MSD exceeds the control limits |
| F | RPD of the MS and MSD exceeds the control limits |

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) |

QC Association Summary

Client: ARCADIS U.S., Inc
Project/Site: HT116915.0001

TestAmerica Job ID: 360-36045-1

Metals

Prep Batch: 79329

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 360-36045-1 | INF 8-31-11 | Total/NA | Water | 200.7 | |
| LCS 360-79329/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 360-79329/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| MB 360-79329/1-A | Method Blank | Total/NA | Water | 200.7 | |

Prep Batch: 79355

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 360-36045-1 | 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 |
|--------------------|------------------------|-----------|--------|--------|------------|
| 360-36045-1 | 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 |

Analysis Batch: 79399

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|---------------|------------|
| 360-36045-1 | INF 8-31-11 | Total/NA | Water | 200.7 Rev 4.4 | 79329 |
| LCS 360-79329/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 79329 |
| LCSD 360-79329/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 79329 |
| MB 360-79329/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 79329 |

Prep Batch: 79412

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 360-36045-1 | INF 8-31-11 | Total/NA | Water | 200.7 | |
| 360-36045-1 DU | INF 8-31-11 | Total/NA | Water | 200.7 | |
| 360-36045-1 MS | INF 8-31-11 | Total/NA | Water | 200.7 | |
| LCS 360-79412/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 360-79412/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| MB 360-79412/1-A | Method Blank | Total/NA | Water | 200.7 | |

Analysis Batch: 79477

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|---------------|------------|
| 360-36045-1 | INF 8-31-11 | Total/NA | Water | 200.7 Rev 4.4 | 79412 |
| 360-36045-1 DU | INF 8-31-11 | Total/NA | Water | 200.7 Rev 4.4 | 79412 |
| 360-36045-1 MS | INF 8-31-11 | Total/NA | Water | 200.7 Rev 4.4 | 79412 |
| LCS 360-79412/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 79412 |
| LCSD 360-79412/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 79412 |
| MB 360-79412/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 79412 |

Analysis Batch: 79551

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|----------|------------|
| 360-36045-1 | INF 8-31-11 | Total/NA | Water | SM 2340B | |
| MB 360-79551/5 | Method Blank | Total/NA | Water | SM 2340B | |

QC Association Summary

Client: ARCADIS U.S., Inc
Project/Site: HT116915.0001

TestAmerica Job ID: 360-36045-1

General Chemistry

Analysis Batch: 79331

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 360-36045-1 | INF 8-31-11 | Total/NA | Water | 7196A | |
| 360-36045-1 MS | INF 8-31-11 | Total/NA | Water | 7196A | |
| 360-36045-1 MSD | INF 8-31-11 | Total/NA | Water | 7196A | |
| LCS 360-79331/10 | Lab Control Sample | Total/NA | Water | 7196A | |
| LCSD 360-79331/11 | Lab Control Sample Dup | Total/NA | Water | 7196A | |
| MB 360-79331/9 | Method Blank | Total/NA | Water | 7196A | |

Analysis Batch: 79483

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|--------------------|-----------|--------|--------------|------------|
| 360-36045-1 | 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 |
|-----------------|--------------------|-----------|--------|--------|------------|
| 360-36045-1 | INF 8-31-11 | Total/NA | Water | 300.0 | |
| 360-36045-1 MS | INF 8-31-11 | Total/NA | Water | 300.0 | |
| 360-36045-1 MSD | 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 | |

QC Sample Results

Client: ARCADIS U.S., Inc
Project/Site: HT116915.0001

TestAmerica Job ID: 360-36045-1

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 360-79329/1-A
Matrix: Water
Analysis Batch: 79399

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 79329

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|-----------|--------------|-----|-----|------|---|----------------|----------------|---------|
| Silver | ND | | 5.0 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:27 | 1 |
| Antimony | ND | | 6.0 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:27 | 1 |
| Iron | ND | | 100 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:27 | 1 |
| Nickel | ND | | 10 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:27 | 1 |
| Arsenic | ND | | 10 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:27 | 1 |
| Copper | ND | | 10 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:27 | 1 |
| Zinc | ND | | 50 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:27 | 1 |
| Chromium | ND | | 5.0 | | ug/L | | 09/01/11 08:45 | 09/01/11 14:27 | 1 |

Lab Sample ID: LCS 360-79329/2-A
Matrix: Water
Analysis Batch: 79399

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 79329

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|----------|-------------|------------|---------------|------|---|-------|---------------|
| Silver | 1000 | 1040 | | ug/L | | 104 | 85 - 115 |
| Antimony | 1000 | 992 | | ug/L | | 99 | 85 - 115 |
| Iron | 5000 | 5550 | | ug/L | | 111 | 85 - 115 |
| Nickel | 1000 | 1090 | | ug/L | | 109 | 85 - 115 |
| Arsenic | 1000 | 1080 | | ug/L | | 108 | 85 - 115 |
| Copper | 1000 | 1020 | | ug/L | | 102 | 85 - 115 |
| Zinc | 1000 | 1110 | | ug/L | | 111 | 85 - 115 |
| Chromium | 1000 | 1090 | | ug/L | | 109 | 85 - 115 |

Lab Sample ID: LCSD 360-79329/3-A
Matrix: Water
Analysis Batch: 79399

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 79329

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|----------|-------------|-------------|----------------|------|---|-------|---------------|-----|-----------|
| Silver | 1000 | 1050 | | ug/L | | 105 | 85 - 115 | 1 | 20 |
| Antimony | 1000 | 1010 | | ug/L | | 101 | 85 - 115 | 1 | 20 |
| Iron | 5000 | 5650 | | ug/L | | 113 | 85 - 115 | 2 | 20 |
| Nickel | 1000 | 1110 | | ug/L | | 111 | 85 - 115 | 2 | 20 |
| Arsenic | 1000 | 1080 | | ug/L | | 108 | 85 - 115 | 1 | 20 |
| Copper | 1000 | 1050 | | ug/L | | 105 | 85 - 115 | 3 | 20 |
| Zinc | 1000 | 1130 | | ug/L | | 113 | 85 - 115 | 1 | 20 |
| Chromium | 1000 | 1100 | | ug/L | | 110 | 85 - 115 | 1 | 20 |

Lab Sample ID: MB 360-79412/1-A
Matrix: Water
Analysis Batch: 79477

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 79412

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|-----|-----|------|---|----------------|----------------|---------|
| Cadmium | ND | | 1.0 | | ug/L | | 09/02/11 07:08 | 09/02/11 12:36 | 1 |

Lab Sample ID: LCS 360-79412/2-A
Matrix: Water
Analysis Batch: 79477

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 79412

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---------|-------------|------------|---------------|------|---|-------|---------------|
| Cadmium | 1000 | 1070 | | ug/L | | 107 | 85 - 115 |

QC Sample Results

Client: ARCADIS U.S., Inc
Project/Site: HT116915.0001

TestAmerica Job ID: 360-36045-1

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

Lab Sample ID: LCSD 360-79412/3-A
Matrix: Water
Analysis Batch: 79477

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 79412

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|-------|---------------|-----|-----------|
| Cadmium | 1000 | 1040 | | ug/L | | 104 | 85 - 115 | 3 | 20 |

Lab Sample ID: 360-36045-1 MS
Matrix: Water
Analysis Batch: 79477

Client Sample ID: INF 8-31-11
Prep Type: Total/NA
Prep Batch: 79412

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---------|---------------|------------------|-------------|-----------|--------------|------|---|-------|---------------|
| Cadmium | ND | | 1000 | 982 | | ug/L | | 98 | 70 - 130 |

Lab Sample ID: 360-36045-1 DU
Matrix: Water
Analysis Batch: 79477

Client Sample ID: INF 8-31-11
Prep Type: Total/NA
Prep Batch: 79412

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|---------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Cadmium | ND | | ND | | ug/L | | NC | 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 |

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 360-79551/5
Matrix: Water
Analysis Batch: 79551

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 | | | 09/01/11 14:27 | 1 |

QC Sample Results

Client: ARCADIS U.S., Inc
Project/Site: HT116915.0001

TestAmerica Job ID: 360-36045-1

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 |

Lab Sample ID: 360-36045-1 MS

Matrix: Water

Analysis Batch: 79632

Client Sample ID: INF 8-31-11

Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|----------|---------------|------------------|-------------|-----------|--------------|------|---|-------|---------------|
| Chloride | 140 | | 500 | 813 | F | mg/L | | 134 | 75 - 125 |

Lab Sample ID: 360-36045-1 MSD

Matrix: Water

Analysis Batch: 79632

Client Sample ID: INF 8-31-11

Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | Limit |
|----------|---------------|------------------|-------------|------------|---------------|------|---|-------|---------------|-----|-------|
| Chloride | 140 | | 500 | 585 | F | mg/L | | 88 | 75 - 125 | 33 | 20 |

Method: 7196A - 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 | 80 - 120 |

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 | Limit |
|----------------------|-------------|-------------|----------------|------|---|-------|---------------|-----|-------|
| Chromium, hexavalent | 0.0500 | 0.0520 | | mg/L | | 104 | 80 - 120 | 0 | 20 |

QC Sample Results

Client: ARCADIS U.S., Inc
 Project/Site: HT116915.0001

TestAmerica Job ID: 360-36045-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 360-36045-1 MS

Matrix: Water

Analysis Batch: 79331

Client Sample ID: INF 8-31-11

Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|----------------------|---------------|------------------|-------------|-----------|--------------|------|---|-------|---------------|
| Chromium, hexavalent | ND | | 0.125 | 0.108 | | mg/L | | 86 | 75 - 125 |

Lab Sample ID: 360-36045-1 MSD

Matrix: Water

Analysis Batch: 79331

Client Sample ID: INF 8-31-11

Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|----------------------|---------------|------------------|-------------|------------|---------------|------|---|-------|---------------|-----|-----------|
| Chromium, hexavalent | ND | | 0.125 | 0.108 | | mg/L | | 86 | 75 - 125 | 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: HT116915.0001

TestAmerica Job ID: 360-36045-1

Client Sample ID: INF 8-31-11

Lab Sample ID: 360-36045-1

Date Collected: 08/31/11 10:25

Matrix: Water

Date Received: 08/31/11 16:00

| 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 15:21 | EMN | TAL WFD |
| Total/NA | Prep | 200.7 | | | 79329 | 09/01/11 08:45 | OG | TAL WFD |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 79399 | 09/01/11 14:59 | TJS | TAL WFD |
| Total/NA | Prep | 200.7 | | | 79412 | 09/02/11 07:08 | EMN | TAL WFD |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 79477 | 09/02/11 12:45 | TJS | TAL WFD |
| Total/NA | Analysis | SM 2340B | | 1 | 79551 | 09/01/11 14:59 | TJS | TAL WFD |
| Total/NA | Analysis | 7196A | | 5 | 79331 | 09/01/11 08:56 | AMS | TAL WFD |
| Total/NA | Analysis | SM 4500 H+ B | | 1 | 79483 | 09/01/11 17:55 | AMS | TAL WFD |
| Total/NA | Analysis | 300.0 | | 50 | 79632 | 09/06/11 20:03 | 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: HT116915.0001

TestAmerica Job ID: 360-36045-1

| 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 accredited 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 typical listing but is subject to change based on the laboratories current certification standing.

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc

Job Number: 360-36045-1

Login Number: 36045

List Number: 1

Creator: Beaumier, Janine E

List Source: TestAmerica Westfield

| 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

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

*148 Rungeway Road
N. Billerica, MA 01862
(P) 978-667-1400
(F) 978-667-7871

Boston - Service Center

Chain of Custody Form

Client: ARCADIS Client Project #: H7116 075.0001

Address: 194 FORBES ROAD Site ID & State: BOA-NORWA00

Reports Sent To: MIKE BAKER

Phone: BRANDEN M4 Fax: MIKE BAKER

Requested Turnaround Time (PLEASE SPECIFY): _____ Email Rpt:

STANDARD 5 DAY RUSH _____

Regulatory Programs/Presumptive Certainty/OC Forms

MADEP MCP GW/IS1 PWS DEP Forms

CTDEP RCP CT RSR EDD Required

QA Rpt: No OC Sid OC Rpt CLP OC Rpt:

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 Collected | Grab Comp. | # Containers | Plastic(P) or Glass(G) | NaHSO4/MeOH | Preservative | | | | 524 / 624 / 8260 | 525 / 625 / 8270 | PCB / Pest / Herbicide | EPH / VPH | DRO / GRO / ETPH | Metals (Please Specify) | Mercury | General Chemistry | Bacteriological | Toxicity | HARDNESS, PH | Comments |
|--------------------|-------------|--------------------|----------------------|------------|--------------|------------------------|----------------|---------------|----------------|--------------|----------------|------------------|------------------|------------------------|-----------|------------------|-------------------------|---------|-------------------|-----------------|----------|--------------|--|
| | | | | | | | | HNO3 to pH <2 | H2SO4 to pH >2 | HCl to pH <2 | NaOH to pH >12 | | | | | | | | | | | | |
| <u>INF 8-31-11</u> | <u>GW</u> | <u>MS</u> | <u>8-31-11 10:25</u> | <u>X</u> | <u>1</u> | <u>RB</u> | <u>4131111</u> | <u>Y</u> | | | | | | | | | | | | | | | <u>Metals - Arsenic, Cd, Cr, Cu, Chloride, Fe, Hg, Ni, Silver, Zinc</u> <u>Chromium Total</u> <u>Chromium (VI)</u> <u>NPDES</u> |

Signature: Michael Baker

Received by: Paula Berg Date: 8/31/11 Time: 13:30

Reinquired by: Paula Berg Date: 8/31/11 Time: 16:00

Received by: Paula Berg Date: 8/31/11 Time: 16:00

Temp @ receipt: 1.9 °C

Preservation / pH checked? Y / N

WESTFIELD

Page 1 of 1

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

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: 360-36711-1
Client Project/Site: BT1116915.0001

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

Attn: Ahren Tatro



Authorized for release by:
10/07/2011 03:54:30 PM
James Wickham
Technology Manager
jamie.wickham@testamericainc.com

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

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Case Narrative

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

Job ID: 360-36711-1

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 09/30/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.5 C.

Note: All samples that require thermal preservation are considered acceptable if the arrival temperature is within a specified method range or for general analysis, ranging from 6°C to just above the freezing temperature of water. Samples that are hand delivered, immediately following collection, may not meet these criteria; however, they will be considered acceptable according to NELAC and State standards, if there is evidence that the chilling process has begun, such as stored and transported to the laboratory on ice.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample EFF 9-30-11 (360-36711-4) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 10/05/2011.

1,4-Dioxane and Butyl alcohol, tert- failed the recovery criteria high for the MS of sample EFF 9-30-11MS (360-36711-4) in batch 360-81084. 1,4-Dioxane, Acetone and Butyl alcohol, tert- failed the recovery criteria high for the MSD of sample EFF 9-30-11MSD (360-36711-4) in batch 360-81084. Refer to the QC report for details.

No other difficulties were encountered during the VOC analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS) - LOW LEVEL

Sample EFF 9-30-11 (360-36711-4) was analyzed for semivolatile organic compounds (GC-MS) - Low Level in accordance with EPA SW-846 Method 8270C. The samples were prepared on 10/03/2011 and analyzed on 10/05/2011.

2-Fluorobiphenyl, Nitrobenzene-d5 and Terphenyl-d14 failed the surrogate recovery criteria high for EFF 9-30-11 (360-36711-4). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed. Refer to the QC report for details.

The Internal standard (ISTD) response for the following sample was outside of acceptance limits: EFF 9-30-11 (360-36711-4) for Naphthalene-d8 and 1,4-Dichlorobenzene-d4 [failing low]. The sample was not re-analyzed due to sample being reported as 'ND'.

No other difficulties were encountered during the SVOC Low Level analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP)

Samples MW-7 (360-36711-1), MW-4 (360-36711-2) and EFF 9-30-11 (360-36711-4) were analyzed for total metals (ICP) in accordance with EPA Method 200.7. The samples were prepared on 10/03/2011 and 10/04/2011 and analyzed on 10/03/2011 and 10/05/2011.

No difficulties were encountered during the metals analyses.

Case Narrative

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

Job ID: 360-36711-1 (Continued)

Laboratory: TestAmerica Westfield (Continued)

All quality control parameters were within the acceptance limits.

HARDNESS

Sample OUTFALL (360-36711-3) was analyzed for hardness in accordance with SM20 2340B. The samples were analyzed on 10/05/2011.

No difficulties were encountered during the hardness analysis.

All quality control parameters were within the acceptance limits.

HEXAVALENT CHROMIUM

Sample EFF 9-30-11 (360-36711-4) was analyzed for hexavalent chromium in accordance with EPA SW-846 Method 7196A. The samples were analyzed on 10/01/2011.

For batch 80903: The following sample required re-filtration in the laboratory to reduce matrix interferences: EFF 9-30-11 (360-36711-4). The sample presented with a cloudy or unclear appearance, most likely having a high turbidity.

No other difficulties were encountered during the hexavalent chromium analysis.

All quality control parameters were within the acceptance limits.

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Detection Summary

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

Client Sample ID: MW-7

Lab Sample ID: 360-36711-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|------|---------|---|---------------|-----------|
| Iron | 100 | | 100 | | ug/L | 1 | | 200.7 Rev 4.4 | Total/NA |

Client Sample ID: MW-4

Lab Sample ID: 360-36711-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|------|---------|---|---------------|-----------|
| Iron | 230 | | 100 | | ug/L | 1 | | 200.7 Rev 4.4 | Total/NA |

Client Sample ID: OUTFALL

Lab Sample ID: 360-36711-3

| Analyte | Result | Qualifier | RL | RL | Unit | Dil Fac | D | Method | Prep Type |
|-------------------------------|--------|-----------|-----|----|------|---------|---|----------|-----------|
| Hardness as calcium carbonate | 95 | | 2.6 | | mg/L | 1 | | SM 2340B | Total/NA |

Client Sample ID: EFF 9-30-11

Lab Sample ID: 360-36711-4

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---------|--------|-----------|-----|-----|------|---------|---|---------------|-----------|
| Iron | 220 | | 100 | | ug/L | 1 | | 200.7 Rev 4.4 | Total/NA |
| Zinc | 67 | | 50 | | ug/L | 1 | | 200.7 Rev 4.4 | Total/NA |

Method Summary

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

| Method | Method Description | Protocol | Laboratory |
|---------------|---|----------|------------|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL WFD |
| 8270C LL | Semivolatile Organic Compounds by GCMS - Low Levels | SW846 | TAL WFD |
| 200.7 Rev 4.4 | Metals (ICP) | EPA | TAL WFD |
| SM 2340B | Hardness, Calculation | SM | TAL WFD |
| 7196A | Chromium, Hexavalent | SW846 | TAL WFD |
| 1664 TPH | 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: BT1116915.0001

TestAmerica Job ID: 360-36711-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 360-36711-1 | MW-7 | Water | 09/30/11 08:25 | 09/30/11 16:10 |
| 360-36711-2 | MW-4 | Water | 09/30/11 09:20 | 09/30/11 16:10 |
| 360-36711-3 | OUTFALL | Water | 09/30/11 10:30 | 09/30/11 16:10 |
| 360-36711-4 | EFF 9-30-11 | Water | 09/30/11 09:45 | 09/30/11 16:10 |

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Client Sample Results

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

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

Client Sample ID: EFF 9-30-11

Date Collected: 09/30/11 09:45

Date Received: 09/30/11 16:10

Lab Sample ID: 360-36711-4

Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------|------------|-----------|----------|-----|------|---|----------|----------------|---------|
| Benzene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| Butyl alcohol, tert- | ND | | 50 | | ug/L | | | 10/05/11 20:00 | 1 |
| Tert-amyl methyl ether | ND | | 5.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| 1,4-Dioxane | ND | | 50 | | ug/L | | | 10/05/11 20:00 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| Acetone | ND | | 50 | | ug/L | | | 10/05/11 20:00 | 1 |
| cis-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| Methylene Chloride | ND | | 2.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| Vinyl chloride | ND | | 0.50 | | ug/L | | | 10/05/11 20:00 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 10/05/11 20:00 | 1 |
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| Naphthalene | ND | | 5.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 10/05/11 20:00 | 1 |
| Tetrahydrofuran | ND | | 10 | | ug/L | | | 10/05/11 20:00 | 1 |
| Surrogate | % Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 4-Bromofluorobenzene | 95 | | 70 - 130 | | | | | 10/05/11 20:00 | 1 |
| Dibromofluoromethane | 101 | | 70 - 130 | | | | | 10/05/11 20:00 | 1 |
| Toluene-d8 (Surr) | 100 | | 70 - 130 | | | | | 10/05/11 20:00 | 1 |

Client Sample Results

Client: ARCADIS U.S., Inc
 Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Client Sample ID: EFF 9-30-11
Date Collected: 09/30/11 09:45
Date Received: 09/30/11 16:10

Lab Sample ID: 360-36711-4
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|------------|-----------|----------|-----|------|---|----------------|----------------|---------|
| Naphthalene | ND | | 0.98 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| 2-Methylnaphthalene | ND | | 0.98 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Acenaphthylene | ND | | 0.29 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Acenaphthene | ND | | 0.98 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Fluorene | ND | | 0.98 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Phenanthrene | ND | | 0.20 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Anthracene | ND | | 0.98 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Fluoranthene | ND | | 0.98 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Benzo[a]anthracene | ND | | 0.29 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Chrysene | ND | | 0.98 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Benzo[b]fluoranthene | ND | | 0.29 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Benzo[k]fluoranthene | ND | | 0.29 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Benzo[a]pyrene | ND | | 0.20 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.49 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.49 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.49 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Pyrene | ND | | 4.9 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 2.0 | | ug/L | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Surrogate | % Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 2-Fluorobiphenyl | 140 | X | 30 - 130 | | | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Nitrobenzene-d5 | 141 | X | 30 - 130 | | | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |
| Terphenyl-d14 | 164 | X | 30 - 130 | | | | 10/03/11 13:30 | 10/05/11 01:11 | 1 |

Client Sample Results

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

Method: 200.7 Rev 4.4 - Metals (ICP)

Client Sample ID: MW-7
Date Collected: 09/30/11 08:25
Date Received: 09/30/11 16:10

Lab Sample ID: 360-36711-1
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|-----|------|---|----------------|----------------|---------|
| Iron | 100 | | 100 | | ug/L | | 10/04/11 13:29 | 10/05/11 14:40 | 1 |
| Zinc | ND | | 50 | | ug/L | | 10/04/11 13:29 | 10/05/11 14:40 | 1 |

Client Sample ID: MW-4
Date Collected: 09/30/11 09:20
Date Received: 09/30/11 16:10

Lab Sample ID: 360-36711-2
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|-----|------|---|----------------|----------------|---------|
| Iron | 230 | | 100 | | ug/L | | 10/04/11 13:29 | 10/05/11 14:44 | 1 |
| Zinc | ND | | 50 | | ug/L | | 10/04/11 13:29 | 10/05/11 14:44 | 1 |

Client Sample ID: EFF 9-30-11
Date Collected: 09/30/11 09:45
Date Received: 09/30/11 16:10

Lab Sample ID: 360-36711-4
Matrix: Water

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|-----|------|---|----------------|----------------|---------|
| Iron | 220 | | 100 | | ug/L | | 10/03/11 13:00 | 10/03/11 18:51 | 1 |
| Zinc | 67 | | 50 | | ug/L | | 10/03/11 13:00 | 10/03/11 18:51 | 1 |
| Lead | ND | | 5.0 | | ug/L | | 10/03/11 13:00 | 10/03/11 18:51 | 1 |

Client Sample Results

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

Method: SM 2340B - Hardness, Calculation

Client Sample ID: OUTFALL
Date Collected: 09/30/11 10:30
Date Received: 09/30/11 16:10

Lab Sample ID: 360-36711-3
Matrix: Water

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|-------------------------------|--------|-----------|-----|----|------|---|----------|----------------|---------|
| Hardness as calcium carbonate | 95 | | 2.6 | | mg/L | | | 10/05/11 16:16 | 1 |

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Client Sample Results

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

General Chemistry

Client Sample ID: EFF 9-30-11
Date Collected: 09/30/11 09:45
Date Received: 09/30/11 16:10

Lab Sample ID: 360-36711-4
Matrix: Water

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------|--------|-----------|--------|----|------|---|----------|----------------|---------|
| Chromium, hexavalent | ND | | 0.0050 | | mg/L | | | 10/01/11 08:52 | 1 |

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16

Definitions/Glossary

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

Qualifiers

GC/MS VOA

| Qualifier | Qualifier Description |
|-----------|--------------------------------------|
| F | MS or MSD exceeds the control limits |

GC/MS Semi VOA

| Qualifier | Qualifier Description |
|-----------|-------------------------------------|
| X | Surrogate is outside control limits |

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) |

QC Association Summary

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

GC/MS VOA

Analysis Batch: 81084

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 360-36711-4 | EFF 9-30-11 | Total/NA | Water | 8260B | |
| 360-36711-4 MS | EFF 9-30-11 | Total/NA | Water | 8260B | |
| 360-36711-4 MSD | EFF 9-30-11 | Total/NA | Water | 8260B | |
| LCS 360-81084/3 | Lab Control Sample | Total/NA | Water | 8260B | |
| LCSD 360-81084/4 | Lab Control Sample Dup | Total/NA | Water | 8260B | |
| MB 360-81084/6 | Method Blank | Total/NA | Water | 8260B | |

GC/MS Semi VOA

Prep Batch: 80980

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 360-36711-4 | EFF 9-30-11 | Total/NA | Water | 3510C | |
| LCS 360-80980/2-A | Lab Control Sample | Total/NA | Water | 3510C | |
| LCSD 360-80980/3-A | Lab Control Sample Dup | Total/NA | Water | 3510C | |
| MB 360-80980/1-A | Method Blank | Total/NA | Water | 3510C | |

Analysis Batch: 81026

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|----------|------------|
| 360-36711-4 | EFF 9-30-11 | Total/NA | Water | 8270C LL | 80980 |
| LCS 360-80980/2-A | Lab Control Sample | Total/NA | Water | 8270C LL | 80980 |
| LCSD 360-80980/3-A | Lab Control Sample Dup | Total/NA | Water | 8270C LL | 80980 |
| MB 360-80980/1-A | Method Blank | Total/NA | Water | 8270C LL | 80980 |

Metals

Prep Batch: 80952

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 360-36711-4 | EFF 9-30-11 | Total/NA | Water | 200.7 | |
| LCS 360-80952/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 360-80952/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| MB 360-80952/1-A | Method Blank | Total/NA | Water | 200.7 | |

Analysis Batch: 80999

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|---------------|------------|
| 360-36711-4 | EFF 9-30-11 | Total/NA | Water | 200.7 Rev 4.4 | 80952 |
| LCS 360-80952/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 80952 |
| LCSD 360-80952/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 80952 |
| MB 360-80952/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 80952 |

Prep Batch: 81030

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|--------|------------|
| 360-36711-1 | MW-7 | Total/NA | Water | 200.7 | |
| 360-36711-2 | MW-4 | Total/NA | Water | 200.7 | |
| LCS 360-81030/2-A | Lab Control Sample | Total/NA | Water | 200.7 | |
| LCSD 360-81030/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 | |
| MB 360-81030/1-A | Method Blank | Total/NA | Water | 200.7 | |

Analysis Batch: 81134

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|--------------------|-----------|--------|---------------|------------|
| 360-36711-1 | MW-7 | Total/NA | Water | 200.7 Rev 4.4 | 81030 |
| 360-36711-2 | MW-4 | Total/NA | Water | 200.7 Rev 4.4 | 81030 |
| LCS 360-81030/2-A | Lab Control Sample | Total/NA | Water | 200.7 Rev 4.4 | 81030 |

QC Association Summary

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

Metals (Continued)

Analysis Batch: 81134 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|-----------|--------|---------------|------------|
| LCSD 360-81030/3-A | Lab Control Sample Dup | Total/NA | Water | 200.7 Rev 4.4 | 81030 |
| MB 360-81030/1-A | Method Blank | Total/NA | Water | 200.7 Rev 4.4 | 81030 |

Analysis Batch: 81178

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------|------------------|-----------|--------|----------|------------|
| 360-36711-3 | OUTFALL | Total/NA | Water | SM 2340B | |
| 360-36711-3 DU | OUTFALL | Total/NA | Water | SM 2340B | |
| MB 360-81178/1 | Method Blank | Total/NA | Water | SM 2340B | |

General Chemistry

Analysis Batch: 80903

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-------------------|------------------------|-----------|--------|--------|------------|
| 360-36711-4 | EFF 9-30-11 | Total/NA | Water | 7196A | |
| 360-36711-4 MS | EFF 9-30-11 | Total/NA | Water | 7196A | |
| 360-36711-4 MSD | EFF 9-30-11 | Total/NA | Water | 7196A | |
| LCS 360-80903/10 | Lab Control Sample | Total/NA | Water | 7196A | |
| LCSD 360-80903/11 | Lab Control Sample Dup | Total/NA | Water | 7196A | |
| MB 360-80903/9 | Method Blank | Total/NA | Water | 7196A | |

Surrogate Summary

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

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

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | |
|------------------|------------------------|--|------------------|-----------------|
| | | BFB (70-130) | DBFM (70-130) | TOL (70-130) |
| 360-36711-4 | EFF 9-30-11 | 95 | 101 | 100 |
| 360-36711-4 MS | EFF 9-30-11 | 99 | 105 | 99 |
| 360-36711-4 MSD | EFF 9-30-11 | 100 | 104 | 100 |
| LCS 360-81084/3 | Lab Control Sample | 98 | 102 | 100 |
| LCSD 360-81084/4 | Lab Control Sample Dup | 97 | 102 | 99 |
| MB 360-81084/6 | Method Blank | 96 | 101 | 99 |

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

| Lab Sample ID | Client Sample ID | Percent Surrogate Recovery (Acceptance Limits) | | |
|--------------------|------------------------|--|-----------------|-----------------|
| | | FBP (30-130) | NBZ (30-130) | TPH (30-130) |
| 360-36711-4 | EFF 9-30-11 | 140 X | 141 X | 164 X |
| LCS 360-80980/2-A | Lab Control Sample | 97 | 109 | 124 |
| LCSD 360-80980/3-A | Lab Control Sample Dup | 101 | 107 | 121 |
| MB 360-80980/1-A | Method Blank | 60 | 67 | 84 |

Surrogate Legend

FBP = 2-Fluorobiphenyl

NBZ = Nitrobenzene-d5

TPH = Terphenyl-d14

QC Sample Results

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

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

Lab Sample ID: MB 360-81084/6

Matrix: Water

Analysis Batch: 81084

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 | | | 10/05/11 17:09 | 1 |
| Toluene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| Ethylbenzene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| o-Xylene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| m-Xylene & p-Xylene | ND | | 2.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| Methyl tert-butyl ether | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| Butyl alcohol, tert- | ND | | 50 | | ug/L | | | 10/05/11 17:09 | 1 |
| Tert-amyl methyl ether | ND | | 5.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| Carbon tetrachloride | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| 1,1,1-Trichloroethane | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| 1,1,2-Trichloroethane | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| 1,1-Dichloroethane | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| 1,1-Dichloroethene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| 1,2-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| 1,2-Dichloroethane | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| 1,2,4-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| 1,3-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| 1,4-Dioxane | ND | | 50 | | ug/L | | | 10/05/11 17:09 | 1 |
| 1,4-Dichlorobenzene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| Acetone | ND | | 50 | | ug/L | | | 10/05/11 17:09 | 1 |
| cis-1,2-Dichloroethene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| Methylene Chloride | ND | | 2.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| Tetrachloroethene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| Trichloroethene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| Vinyl chloride | ND | | 0.50 | | ug/L | | | 10/05/11 17:09 | 1 |
| 1,3,5-Trimethylbenzene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| Bromoform | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| Chloroform | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| Isopropylbenzene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| 2-Butanone (MEK) | ND | | 10 | | ug/L | | | 10/05/11 17:09 | 1 |
| n-Butylbenzene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| N-Propylbenzene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| Naphthalene | ND | | 5.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| sec-Butylbenzene | ND | | 1.0 | | ug/L | | | 10/05/11 17:09 | 1 |
| Tetrahydrofuran | ND | | 10 | | ug/L | | | 10/05/11 17:09 | 1 |

| Surrogate | MB % Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|----------------------|---------------|--------------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene | 96 | | 70 - 130 | | 10/05/11 17:09 | 1 |
| Dibromofluoromethane | 101 | | 70 - 130 | | 10/05/11 17:09 | 1 |
| Toluene-d8 (Surr) | 99 | | 70 - 130 | | 10/05/11 17:09 | 1 |

Lab Sample ID: LCS 360-81084/3

Matrix: Water

Analysis Batch: 81084

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 | 19.9 | | ug/L | | 100 | 70 - 130 |
| Toluene | 20.0 | 19.2 | | ug/L | | 96 | 70 - 130 |
| Ethylbenzene | 20.0 | 19.6 | | ug/L | | 98 | 70 - 130 |

QC Sample Results

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

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

Lab Sample ID: LCS 360-81084/3

Matrix: Water

Analysis Batch: 81084

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 | 18.9 | | ug/L | | 95 | 70 - 130 | |
| m-Xylene & p-Xylene | 40.0 | 38.8 | | ug/L | | 97 | 70 - 130 | |
| Methyl tert-butyl ether | 20.0 | 19.7 | | ug/L | | 99 | 70 - 130 | |
| Butyl alcohol, tert- | 200 | 217 | | ug/L | | 108 | 70 - 130 | |
| Tert-amyl methyl ether | 20.0 | 19.9 | | ug/L | | 100 | 70 - 130 | |
| Carbon tetrachloride | 20.0 | 19.1 | | ug/L | | 96 | 70 - 130 | |
| 1,1,1-Trichloroethane | 20.0 | 20.0 | | ug/L | | 100 | 70 - 130 | |
| 1,1,2-Trichloroethane | 20.0 | 20.2 | | ug/L | | 101 | 70 - 130 | |
| 1,1-Dichloroethane | 20.0 | 19.6 | | ug/L | | 98 | 70 - 130 | |
| 1,1-Dichloroethene | 20.0 | 20.0 | | ug/L | | 100 | 70 - 130 | |
| 1,2-Dichlorobenzene | 20.0 | 19.1 | | ug/L | | 96 | 70 - 130 | |
| 1,2-Dichloroethane | 20.0 | 19.2 | | ug/L | | 96 | 70 - 130 | |
| 1,2,4-Trimethylbenzene | 20.0 | 19.3 | | ug/L | | 97 | 70 - 130 | |
| 1,3-Dichlorobenzene | 20.0 | 19.8 | | ug/L | | 99 | 70 - 130 | |
| 1,4-Dioxane | 200 | 207 | | ug/L | | 103 | 70 - 130 | |
| 1,4-Dichlorobenzene | 20.0 | 19.5 | | ug/L | | 98 | 70 - 130 | |
| Acetone | 200 | 203 | | ug/L | | 102 | 70 - 130 | |
| cis-1,2-Dichloroethene | 20.0 | 19.3 | | ug/L | | 97 | 70 - 130 | |
| Methylene Chloride | 20.0 | 17.6 | | ug/L | | 88 | 70 - 130 | |
| Tetrachloroethene | 20.0 | 20.8 | | ug/L | | 104 | 70 - 130 | |
| Trichloroethene | 20.0 | 19.5 | | ug/L | | 98 | 70 - 130 | |
| Vinyl chloride | 20.0 | 20.9 | | ug/L | | 105 | 70 - 130 | |
| 1,3,5-Trimethylbenzene | 20.0 | 19.4 | | ug/L | | 97 | 70 - 130 | |
| Bromoform | 20.0 | 18.0 | | ug/L | | 90 | 70 - 130 | |
| Chloroform | 20.0 | 19.5 | | ug/L | | 98 | 70 - 130 | |
| Isopropylbenzene | 20.0 | 19.2 | | ug/L | | 96 | 70 - 130 | |
| 2-Butanone (MEK) | 200 | 196 | | ug/L | | 98 | 70 - 130 | |
| n-Butylbenzene | 20.0 | 19.1 | | ug/L | | 96 | 70 - 130 | |
| N-Propylbenzene | 20.0 | 19.7 | | ug/L | | 99 | 70 - 130 | |
| Naphthalene | 20.0 | 15.5 | | ug/L | | 78 | 70 - 130 | |
| sec-Butylbenzene | 20.0 | 19.3 | | ug/L | | 97 | 70 - 130 | |
| Tetrahydrofuran | 200 | 211 | | ug/L | | 106 | 70 - 130 | |

| Surrogate | LCS LCS | | Limits |
|----------------------|------------|-----------|----------|
| | % Recovery | Qualifier | |
| 4-Bromofluorobenzene | 98 | | 70 - 130 |
| Dibromofluoromethane | 102 | | 70 - 130 |
| Toluene-d8 (Surr) | 100 | | 70 - 130 |

Lab Sample ID: LCSD 360-81084/4

Matrix: Water

Analysis Batch: 81084

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. | | RPD | |
|-------------------------|-------------|-------------|----------------|------|---|-------|----------|---|-----|-------|
| | | | | | | | Limits | | RPD | Limit |
| Benzene | 20.0 | 19.1 | | ug/L | | 96 | 70 - 130 | 4 | 25 | |
| Toluene | 20.0 | 18.1 | | ug/L | | 91 | 70 - 130 | 6 | 25 | |
| Ethylbenzene | 20.0 | 18.6 | | ug/L | | 93 | 70 - 130 | 5 | 25 | |
| o-Xylene | 20.0 | 17.9 | | ug/L | | 90 | 70 - 130 | 5 | 25 | |
| m-Xylene & p-Xylene | 40.0 | 37.1 | | ug/L | | 93 | 70 - 130 | 4 | 25 | |
| Methyl tert-butyl ether | 20.0 | 19.6 | | ug/L | | 98 | 70 - 130 | 1 | 25 | |

QC Sample Results

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

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

Lab Sample ID: LCSD 360-81084/4

Matrix: Water

Analysis Batch: 81084

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. | | RPD | Limit |
|------------------------|-------------|-------------|----------------|------|---|-------|----------|-----|-----|-------|
| | | | | | | | Limits | RPD | | |
| Butyl alcohol, tert- | 200 | 204 | | ug/L | | 102 | 70 - 130 | 6 | | 25 |
| Tert-amyl methyl ether | 20.0 | 19.6 | | ug/L | | 98 | 70 - 130 | 2 | | 25 |
| Carbon tetrachloride | 20.0 | 18.5 | | ug/L | | 93 | 70 - 130 | 3 | | 25 |
| 1,1,1-Trichloroethane | 20.0 | 19.3 | | ug/L | | 97 | 70 - 130 | 4 | | 25 |
| 1,1,2-Trichloroethane | 20.0 | 20.5 | | ug/L | | 103 | 70 - 130 | 1 | | 25 |
| 1,1-Dichloroethane | 20.0 | 18.8 | | ug/L | | 94 | 70 - 130 | 4 | | 25 |
| 1,1-Dichloroethene | 20.0 | 19.3 | | ug/L | | 97 | 70 - 130 | 4 | | 25 |
| 1,2-Dichlorobenzene | 20.0 | 18.2 | | ug/L | | 91 | 70 - 130 | 5 | | 25 |
| 1,2-Dichloroethane | 20.0 | 19.0 | | ug/L | | 95 | 70 - 130 | 1 | | 25 |
| 1,2,4-Trimethylbenzene | 20.0 | 17.6 | | ug/L | | 88 | 70 - 130 | 9 | | 25 |
| 1,3-Dichlorobenzene | 20.0 | 18.9 | | ug/L | | 95 | 70 - 130 | 5 | | 25 |
| 1,4-Dioxane | 200 | 222 | | ug/L | | 111 | 70 - 130 | 7 | | 25 |
| 1,4-Dichlorobenzene | 20.0 | 18.8 | | ug/L | | 94 | 70 - 130 | 4 | | 25 |
| Acetone | 200 | 202 | | ug/L | | 101 | 70 - 130 | 0 | | 25 |
| cis-1,2-Dichloroethene | 20.0 | 18.9 | | ug/L | | 95 | 70 - 130 | 2 | | 25 |
| Methylene Chloride | 20.0 | 17.9 | | ug/L | | 90 | 70 - 130 | 2 | | 25 |
| Tetrachloroethene | 20.0 | 19.4 | | ug/L | | 97 | 70 - 130 | 7 | | 25 |
| Trichloroethene | 20.0 | 19.3 | | ug/L | | 97 | 70 - 130 | 1 | | 25 |
| Vinyl chloride | 20.0 | 20.4 | | ug/L | | 102 | 70 - 130 | 2 | | 25 |
| 1,3,5-Trimethylbenzene | 20.0 | 17.6 | | ug/L | | 88 | 70 - 130 | 10 | | 25 |
| Bromoform | 20.0 | 18.1 | | ug/L | | 91 | 70 - 130 | 1 | | 25 |
| Chloroform | 20.0 | 18.9 | | ug/L | | 95 | 70 - 130 | 3 | | 25 |
| Isopropylbenzene | 20.0 | 17.6 | | ug/L | | 88 | 70 - 130 | 9 | | 25 |
| 2-Butanone (MEK) | 200 | 196 | | ug/L | | 98 | 70 - 130 | 0 | | 25 |
| n-Butylbenzene | 20.0 | 17.5 | | ug/L | | 88 | 70 - 130 | 9 | | 25 |
| N-Propylbenzene | 20.0 | 18.3 | | ug/L | | 92 | 70 - 130 | 7 | | 25 |
| Naphthalene | 20.0 | 14.5 | | ug/L | | 73 | 70 - 130 | 7 | | 25 |
| sec-Butylbenzene | 20.0 | 17.4 | | ug/L | | 87 | 70 - 130 | 10 | | 25 |
| Tetrahydrofuran | 200 | 210 | | ug/L | | 105 | 70 - 130 | 1 | | 25 |

| Surrogate | LCSD | | Limits |
|----------------------|------------|-----------|----------|
| | % Recovery | Qualifier | |
| 4-Bromofluorobenzene | 97 | | 70 - 130 |
| Dibromofluoromethane | 102 | | 70 - 130 |
| Toluene-d8 (Surr) | 99 | | 70 - 130 |

Lab Sample ID: 360-36711-4 MS

Matrix: Water

Analysis Batch: 81084

Client Sample ID: EFF 9-30-11

Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS | | Unit | D | % Rec | % Rec. | |
|-------------------------|---------------|------------------|-------------|--------|-----------|------|---|-------|----------|-----|
| | | | | Result | Qualifier | | | | Limits | RPD |
| Benzene | ND | | 200 | 208 | | ug/L | | 104 | 70 - 130 | |
| Toluene | ND | | 200 | 192 | | ug/L | | 96 | 70 - 130 | |
| Ethylbenzene | ND | | 200 | 200 | | ug/L | | 100 | 70 - 130 | |
| o-Xylene | ND | | 200 | 196 | | ug/L | | 98 | 70 - 130 | |
| m-Xylene & p-Xylene | ND | | 400 | 397 | | ug/L | | 99 | 70 - 130 | |
| Methyl tert-butyl ether | ND | | 200 | 213 | | ug/L | | 107 | 70 - 130 | |
| Butyl alcohol, tert- | ND | | 2000 | 3330 | F | ug/L | | 166 | 70 - 130 | |
| Tert-amyl methyl ether | ND | | 200 | 213 | | ug/L | | 107 | 70 - 130 | |
| Carbon tetrachloride | ND | | 200 | 192 | | ug/L | | 96 | 70 - 130 | |

QC Sample Results

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

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

Lab Sample ID: 360-36711-4 MS

Matrix: Water

Analysis Batch: 81084

Client Sample ID: EFF 9-30-11

Prep Type: Total/NA

| Analyte | Sample | Sample | Spike | MS | MS | Unit | D | % Rec | % Rec. |
|------------------------|--------|-----------|-------|--------|-----------|------|---|-------|----------|
| | Result | Qualifier | Added | Result | Qualifier | | | | Limits |
| 1,1,1-Trichloroethane | ND | | 200 | 214 | | ug/L | | 107 | 70 - 130 |
| 1,1,2-Trichloroethane | ND | | 200 | 212 | | ug/L | | 106 | 70 - 130 |
| 1,1-Dichloroethane | ND | | 200 | 207 | | ug/L | | 104 | 70 - 130 |
| 1,1-Dichloroethene | ND | | 200 | 212 | | ug/L | | 106 | 70 - 130 |
| 1,2-Dichlorobenzene | ND | | 200 | 196 | | ug/L | | 98 | 70 - 130 |
| 1,2-Dichloroethane | ND | | 200 | 204 | | ug/L | | 102 | 70 - 130 |
| 1,2,4-Trimethylbenzene | ND | | 200 | 204 | | ug/L | | 102 | 70 - 130 |
| 1,3-Dichlorobenzene | ND | | 200 | 210 | | ug/L | | 105 | 70 - 130 |
| 1,4-Dioxane | ND | | 2000 | 2650 | F | ug/L | | 132 | 70 - 130 |
| 1,4-Dichlorobenzene | ND | | 200 | 199 | | ug/L | | 100 | 70 - 130 |
| Acetone | ND | | 2000 | 2560 | | ug/L | | 128 | 70 - 130 |
| cis-1,2-Dichloroethene | ND | | 200 | 204 | | ug/L | | 102 | 70 - 130 |
| Methylene Chloride | ND | | 200 | 206 | | ug/L | | 103 | 70 - 130 |
| Tetrachloroethene | ND | | 200 | 216 | | ug/L | | 108 | 70 - 130 |
| Trichloroethene | ND | | 200 | 204 | | ug/L | | 102 | 70 - 130 |
| Vinyl chloride | ND | | 200 | 208 | | ug/L | | 104 | 70 - 130 |
| 1,3,5-Trimethylbenzene | ND | | 200 | 203 | | ug/L | | 102 | 70 - 130 |
| Bromoform | ND | | 200 | 148 | | ug/L | | 74 | 70 - 130 |
| Chloroform | ND | | 200 | 205 | | ug/L | | 103 | 70 - 130 |
| Isopropylbenzene | ND | | 200 | 198 | | ug/L | | 99 | 70 - 130 |
| 2-Butanone (MEK) | ND | | 2000 | 2040 | | ug/L | | 102 | 70 - 130 |
| n-Butylbenzene | ND | | 200 | 188 | | ug/L | | 94 | 70 - 130 |
| N-Propylbenzene | ND | | 200 | 204 | | ug/L | | 102 | 70 - 130 |
| Naphthalene | ND | | 200 | 159 | | ug/L | | 80 | 70 - 130 |
| sec-Butylbenzene | ND | | 200 | 200 | | ug/L | | 100 | 70 - 130 |
| Tetrahydrofuran | ND | | 2000 | 2330 | | ug/L | | 117 | 70 - 130 |

| Surrogate | MS MS | | Limits |
|----------------------|------------|-----------|----------|
| | % Recovery | Qualifier | |
| 4-Bromofluorobenzene | 99 | | 70 - 130 |
| Dibromofluoromethane | 105 | | 70 - 130 |
| Toluene-d8 (Surr) | 99 | | 70 - 130 |

Lab Sample ID: 360-36711-4 MSD

Matrix: Water

Analysis Batch: 81084

Client Sample ID: EFF 9-30-11

Prep Type: Total/NA

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | % Rec | % Rec. | RPD | RPD |
|-------------------------|--------|-----------|-------|--------|-----------|------|---|-------|----------|-------|-----|
| | Result | Qualifier | Added | Result | Qualifier | | | | Limits | Limit | |
| Benzene | ND | | 200 | 201 | | ug/L | | 101 | 70 - 130 | 3 | 30 |
| Toluene | ND | | 200 | 189 | | ug/L | | 95 | 70 - 130 | 2 | 30 |
| Ethylbenzene | ND | | 200 | 194 | | ug/L | | 97 | 70 - 130 | 3 | 30 |
| o-Xylene | ND | | 200 | 196 | | ug/L | | 98 | 70 - 130 | 0 | 30 |
| m-Xylene & p-Xylene | ND | | 400 | 387 | | ug/L | | 97 | 70 - 130 | 3 | 30 |
| Methyl tert-butyl ether | ND | | 200 | 215 | | ug/L | | 108 | 70 - 130 | 1 | 30 |
| Butyl alcohol, tert- | ND | | 2000 | 3610 | F | ug/L | | 181 | 70 - 130 | 8 | 30 |
| Tert-amyl methyl ether | ND | | 200 | 216 | | ug/L | | 108 | 70 - 130 | 1 | 30 |
| Carbon tetrachloride | ND | | 200 | 187 | | ug/L | | 94 | 70 - 130 | 3 | 30 |
| 1,1,1-Trichloroethane | ND | | 200 | 207 | | ug/L | | 104 | 70 - 130 | 3 | 30 |
| 1,1,2-Trichloroethane | ND | | 200 | 213 | | ug/L | | 107 | 70 - 130 | 0 | 30 |
| 1,1-Dichloroethane | ND | | 200 | 198 | | ug/L | | 99 | 70 - 130 | 4 | 30 |

QC Sample Results

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

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

Lab Sample ID: 360-36711-4 MSD

Matrix: Water

Analysis Batch: 81084

Client Sample ID: EFF 9-30-11

Prep Type: Total/NA

| Analyte | Sample | Sample | Spike | MSD | MSD | Unit | D | % Rec | % Rec. | | RPD | Limit |
|------------------------|--------|-------------------|------------------|---------------|-----------|------|---|-------|----------|-----|-----|-------|
| | Result | Qualifier | Added | Result | Qualifier | | | | Limits | RPD | | |
| 1,1-Dichloroethene | ND | | 200 | 203 | | ug/L | | 102 | 70 - 130 | 4 | 30 | |
| 1,2-Dichlorobenzene | ND | | 200 | 199 | | ug/L | | 100 | 70 - 130 | 2 | 30 | |
| 1,2-Dichloroethane | ND | | 200 | 202 | | ug/L | | 101 | 70 - 130 | 1 | 30 | |
| 1,2,4-Trimethylbenzene | ND | | 200 | 207 | | ug/L | | 104 | 70 - 130 | 1 | 30 | |
| 1,3-Dichlorobenzene | ND | | 200 | 214 | | ug/L | | 107 | 70 - 130 | 2 | 30 | |
| 1,4-Dioxane | ND | | 2000 | 2980 | F | ug/L | | 149 | 70 - 130 | 12 | 30 | |
| 1,4-Dichlorobenzene | ND | | 200 | 196 | | ug/L | | 98 | 70 - 130 | 2 | 30 | |
| Acetone | ND | | 2000 | 2690 | F | ug/L | | 135 | 70 - 130 | 5 | 30 | |
| cis-1,2-Dichloroethene | ND | | 200 | 198 | | ug/L | | 99 | 70 - 130 | 3 | 30 | |
| Methylene Chloride | ND | | 200 | 203 | | ug/L | | 102 | 70 - 130 | 1 | 30 | |
| Tetrachloroethene | ND | | 200 | 206 | | ug/L | | 103 | 70 - 130 | 5 | 30 | |
| Trichloroethene | ND | | 200 | 198 | | ug/L | | 99 | 70 - 130 | 3 | 30 | |
| Vinyl chloride | ND | | 200 | 200 | | ug/L | | 100 | 70 - 130 | 4 | 30 | |
| 1,3,5-Trimethylbenzene | ND | | 200 | 205 | | ug/L | | 103 | 70 - 130 | 1 | 30 | |
| Bromoform | ND | | 200 | 146 | | ug/L | | 73 | 70 - 130 | 1 | 30 | |
| Chloroform | ND | | 200 | 199 | | ug/L | | 100 | 70 - 130 | 3 | 30 | |
| Isopropylbenzene | ND | | 200 | 196 | | ug/L | | 98 | 70 - 130 | 1 | 30 | |
| 2-Butanone (MEK) | ND | | 2000 | 2100 | | ug/L | | 105 | 70 - 130 | 3 | 30 | |
| n-Butylbenzene | ND | | 200 | 181 | | ug/L | | 91 | 70 - 130 | 4 | 30 | |
| N-Propylbenzene | ND | | 200 | 201 | | ug/L | | 101 | 70 - 130 | 1 | 30 | |
| Naphthalene | ND | | 200 | 168 | | ug/L | | 84 | 70 - 130 | 6 | 30 | |
| sec-Butylbenzene | ND | | 200 | 203 | | ug/L | | 102 | 70 - 130 | 1 | 30 | |
| Tetrahydrofuran | ND | | 2000 | 2370 | | ug/L | | 119 | 70 - 130 | 2 | 30 | |
| | | MSD | MSD | | | | | | | | | |
| Surrogate | | % Recovery | Qualifier | Limits | | | | | | | | |
| 4-Bromofluorobenzene | | 100 | | 70 - 130 | | | | | | | | |
| Dibromofluoromethane | | 104 | | 70 - 130 | | | | | | | | |
| Toluene-d8 (Surr) | | 100 | | 70 - 130 | | | | | | | | |

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 360-80980/1-A

Matrix: Water

Analysis Batch: 81026

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 80980

| Analyte | MB | MB | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------|--------|-----------|------|-----|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Naphthalene | ND | | 1.0 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| 2-Methylnaphthalene | ND | | 1.0 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Acenaphthylene | ND | | 0.30 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Acenaphthene | ND | | 1.0 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Fluorene | ND | | 1.0 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Phenanthrene | ND | | 0.20 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Anthracene | ND | | 1.0 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Fluoranthene | ND | | 1.0 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Benzo[a]anthracene | ND | | 0.30 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Chrysene | ND | | 1.0 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Benzo[b]fluoranthene | ND | | 0.30 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Benzo[k]fluoranthene | ND | | 0.30 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Benzo[a]pyrene | ND | | 0.20 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |

QC Sample Results

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 360-80980/1-A

Matrix: Water

Analysis Batch: 81026

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 80980

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|--------------|------|-----|------|---|----------------|----------------|---------|
| Indeno[1,2,3-cd]pyrene | ND | | 0.50 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.50 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.50 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Pyrene | ND | | 5.0 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 2.0 | | ug/L | | 10/03/11 13:30 | 10/04/11 20:28 | 1 |

| Surrogate | MB % Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------|---------------|--------------|----------|----------------|----------------|---------|
| 2-Fluorobiphenyl | 60 | | 30 - 130 | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Nitrobenzene-d5 | 67 | | 30 - 130 | 10/03/11 13:30 | 10/04/11 20:28 | 1 |
| Terphenyl-d14 | 84 | | 30 - 130 | 10/03/11 13:30 | 10/04/11 20:28 | 1 |

Lab Sample ID: LCS 360-80980/2-A

Matrix: Water

Analysis Batch: 81026

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 80980

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|-----------------------------|-------------|------------|---------------|------|---|-------|---------------|
| Naphthalene | 8.00 | 5.16 | | ug/L | | 65 | 40 - 140 |
| 2-Methylnaphthalene | 8.00 | 5.23 | | ug/L | | 65 | 40 - 140 |
| Acenaphthylene | 8.00 | 5.79 | | ug/L | | 72 | 40 - 140 |
| Acenaphthene | 8.00 | 6.76 | | ug/L | | 85 | 40 - 140 |
| Fluorene | 8.00 | 7.38 | | ug/L | | 92 | 40 - 140 |
| Phenanthrene | 8.00 | 7.56 | | ug/L | | 95 | 40 - 140 |
| Anthracene | 8.00 | 8.03 | | ug/L | | 100 | 40 - 140 |
| Fluoranthene | 8.00 | 7.35 | | ug/L | | 92 | 40 - 140 |
| Benzo[a]anthracene | 8.00 | 8.54 | | ug/L | | 107 | 40 - 140 |
| Chrysene | 8.00 | 8.55 | | ug/L | | 107 | 40 - 140 |
| Benzo[b]fluoranthene | 8.00 | 8.42 | | ug/L | | 105 | 40 - 140 |
| Benzo[k]fluoranthene | 8.00 | 10.4 | | ug/L | | 130 | 40 - 140 |
| Benzo[a]pyrene | 8.00 | 8.84 | | ug/L | | 111 | 40 - 140 |
| Indeno[1,2,3-cd]pyrene | 8.00 | 8.80 | | ug/L | | 110 | 40 - 140 |
| Dibenz(a,h)anthracene | 8.00 | 8.85 | | ug/L | | 111 | 40 - 140 |
| Benzo[g,h,i]perylene | 8.00 | 8.64 | | ug/L | | 108 | 40 - 140 |
| Pyrene | 8.00 | 8.40 | | ug/L | | 105 | 40 - 140 |
| Bis(2-ethylhexyl) phthalate | 8.00 | 8.21 | | ug/L | | 103 | 40 - 140 |

| Surrogate | LCS % Recovery | LCS Qualifier | Limits |
|------------------|----------------|---------------|----------|
| 2-Fluorobiphenyl | 97 | | 30 - 130 |
| Nitrobenzene-d5 | 109 | | 30 - 130 |
| Terphenyl-d14 | 124 | | 30 - 130 |

Lab Sample ID: LCSD 360-80980/3-A

Matrix: Water

Analysis Batch: 81026

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 80980

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | Limit |
|---------------------|-------------|-------------|----------------|------|---|-------|---------------|-----|-------|
| Naphthalene | 8.00 | 5.81 | | ug/L | | 73 | 40 - 140 | 12 | 20 |
| 2-Methylnaphthalene | 8.00 | 6.05 | | ug/L | | 76 | 40 - 140 | 15 | 20 |
| Acenaphthylene | 8.00 | 6.47 | | ug/L | | 81 | 40 - 140 | 11 | 20 |
| Acenaphthene | 8.00 | 7.79 | | ug/L | | 97 | 40 - 140 | 14 | 20 |

QC Sample Results

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCSD 360-80980/3-A

Matrix: Water

Analysis Batch: 81026

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 80980

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. | | RPD Limit |
|-----------------------------|-------------|-------------|----------------|------|---|-------|----------|-----|-----------|
| | | | | | | | Limits | RPD | |
| Fluorene | 8.00 | 8.61 | | ug/L | | 108 | 40 - 140 | 15 | 20 |
| Phenanthrene | 8.00 | 8.15 | | ug/L | | 102 | 40 - 140 | 8 | 20 |
| Anthracene | 8.00 | 8.45 | | ug/L | | 106 | 40 - 140 | 5 | 20 |
| Fluoranthene | 8.00 | 7.61 | | ug/L | | 95 | 40 - 140 | 3 | 20 |
| Benzo[a]anthracene | 8.00 | 8.61 | | ug/L | | 108 | 40 - 140 | 1 | 20 |
| Chrysene | 8.00 | 8.74 | | ug/L | | 109 | 40 - 140 | 2 | 20 |
| Benzo[b]fluoranthene | 8.00 | 7.78 | | ug/L | | 97 | 40 - 140 | 8 | 20 |
| Benzo[k]fluoranthene | 8.00 | 9.98 | | ug/L | | 125 | 40 - 140 | 4 | 20 |
| Benzo[a]pyrene | 8.00 | 8.93 | | ug/L | | 112 | 40 - 140 | 1 | 20 |
| Indeno[1,2,3-cd]pyrene | 8.00 | 8.72 | | ug/L | | 109 | 40 - 140 | 1 | 20 |
| Dibenz(a,h)anthracene | 8.00 | 8.74 | | ug/L | | 109 | 40 - 140 | 1 | 20 |
| Benzo[g,h,i]perylene | 8.00 | 8.53 | | ug/L | | 107 | 40 - 140 | 1 | 20 |
| Pyrene | 8.00 | 8.72 | | ug/L | | 109 | 40 - 140 | 4 | 20 |
| Bis(2-ethylhexyl) phthalate | 8.00 | 8.23 | | ug/L | | 103 | 40 - 140 | 0 | 20 |

| Surrogate | LCSD | | Limits |
|------------------|------------|-----------|----------|
| | % Recovery | Qualifier | |
| 2-Fluorobiphenyl | 101 | | 30 - 130 |
| Nitrobenzene-d5 | 107 | | 30 - 130 |
| Terphenyl-d14 | 121 | | 30 - 130 |

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 360-80952/1-A

Matrix: Water

Analysis Batch: 80999

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 80952

| Analyte | MB | | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|-----|-----|------|---|----------------|----------------|---------|
| | Result | Qualifier | | | | | | | |
| Iron | ND | | 100 | | ug/L | | 10/03/11 13:00 | 10/03/11 17:58 | 1 |
| Zinc | ND | | 50 | | ug/L | | 10/03/11 13:00 | 10/03/11 17:58 | 1 |
| Lead | ND | | 5.0 | | ug/L | | 10/03/11 13:00 | 10/03/11 17:58 | 1 |

Lab Sample ID: LCS 360-80952/2-A

Matrix: Water

Analysis Batch: 80999

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 80952

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. | |
|---------|-------------|------------|---------------|------|---|-------|----------|-----|
| | | | | | | | Limits | RPD |
| Iron | 5000 | 5380 | | ug/L | | 108 | 85 - 115 | |
| Zinc | 1000 | 1030 | | ug/L | | 103 | 85 - 115 | |
| Lead | 1000 | 1040 | | ug/L | | 104 | 85 - 115 | |

Lab Sample ID: LCSD 360-80952/3-A

Matrix: Water

Analysis Batch: 80999

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 80952

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. | | RPD Limit |
|---------|-------------|-------------|----------------|------|---|-------|----------|-----|-----------|
| | | | | | | | Limits | RPD | |
| Iron | 5000 | 5440 | | ug/L | | 109 | 85 - 115 | 1 | 20 |
| Zinc | 1000 | 1040 | | ug/L | | 104 | 85 - 115 | 1 | 20 |
| Lead | 1000 | 1050 | | ug/L | | 105 | 85 - 115 | 1 | 20 |

QC Sample Results

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

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

Lab Sample ID: MB 360-81030/1-A
Matrix: Water
Analysis Batch: 81134

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 81030

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|-----|-----|------|---|----------------|----------------|---------|
| Iron | ND | | 100 | | ug/L | | 10/04/11 13:29 | 10/05/11 14:14 | 1 |
| Zinc | ND | | 50 | | ug/L | | 10/04/11 13:29 | 10/05/11 14:14 | 1 |

Lab Sample ID: LCS 360-81030/2-A
Matrix: Water
Analysis Batch: 81134

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 81030

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | % Rec | % Rec. Limits |
|---------|-------------|------------|---------------|------|---|-------|---------------|
| Iron | 5000 | 5210 | | ug/L | | 104 | 85 - 115 |
| Zinc | 1000 | 985 | | ug/L | | 99 | 85 - 115 |

Lab Sample ID: LCSD 360-81030/3-A
Matrix: Water
Analysis Batch: 81134

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 81030

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|-------|---------------|-----|-----------|
| Iron | 5000 | 5280 | | ug/L | | 106 | 85 - 115 | 1 | 20 |
| Zinc | 1000 | 998 | | ug/L | | 100 | 85 - 115 | 1 | 20 |

Method: SM 2340B - Hardness, Calculation

Lab Sample ID: MB 360-81178/1
Matrix: Water
Analysis Batch: 81178

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 | | | 10/05/11 16:07 | 1 |

Lab Sample ID: 360-36711-3 DU
Matrix: Water
Analysis Batch: 81178

Client Sample ID: OUTFALL
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | DU Result | DU Qualifier | Unit | D | RPD | RPD Limit |
|-------------------------------|---------------|------------------|-----------|--------------|------|---|-----|-----------|
| Hardness as calcium carbonate | 95 | | 97.5 | | mg/L | | 2 | 20 |

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 360-80903/9
Matrix: Water
Analysis Batch: 80903

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 | | | 10/01/11 08:52 | 1 |

Lab Sample ID: LCS 360-80903/10
Matrix: Water
Analysis Batch: 80903

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 | 0.0505 | | mg/L | | 101 | 80 - 120 |

QC Sample Results

Client: ARCADIS U.S., Inc
 Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCSD 360-80903/11

Matrix: Water

Analysis Batch: 80903

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 | 0.0505 | | mg/L | | 101 | 80 - 120 | 0 | 20 |

Lab Sample ID: 360-36711-4 MS

Matrix: Water

Analysis Batch: 80903

Client Sample ID: EFF 9-30-11

Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | % Rec | % Rec. Limits |
|----------------------|---------------|------------------|-------------|-----------|--------------|------|---|-------|---------------|
| Chromium, hexavalent | ND | | 0.0250 | 0.0247 | | mg/L | | 99 | 75 - 125 |

Lab Sample ID: 360-36711-4 MSD

Matrix: Water

Analysis Batch: 80903

Client Sample ID: EFF 9-30-11

Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | % Rec | % Rec. Limits | RPD | RPD Limit |
|----------------------|---------------|------------------|-------------|------------|---------------|------|---|-------|---------------|-----|-----------|
| Chromium, hexavalent | ND | | 0.0250 | 0.0260 | | mg/L | | 104 | 75 - 125 | 5 | 20 |

Lab Chronicle

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

Client Sample ID: MW-7

Date Collected: 09/30/11 08:25

Date Received: 09/30/11 16:10

Lab Sample ID: 360-36711-1

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|-----------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 200.7 | | | 81030 | 10/04/11 13:29 | OG | TAL WFD |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 81134 | 10/05/11 14:40 | TJS | TAL WFD |

Client Sample ID: MW-4

Date Collected: 09/30/11 09:20

Date Received: 09/30/11 16:10

Lab Sample ID: 360-36711-2

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|-----------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Prep | 200.7 | | | 81030 | 10/04/11 13:29 | OG | TAL WFD |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 81134 | 10/05/11 14:44 | TJS | TAL WFD |

Client Sample ID: OUTFALL

Date Collected: 09/30/11 10:30

Date Received: 09/30/11 16:10

Lab Sample ID: 360-36711-3

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | SM 2340B | | 1 | 81178 | 10/05/11 16:16 | TJS | TAL WFD |

Client Sample ID: EFF 9-30-11

Date Collected: 09/30/11 09:45

Date Received: 09/30/11 16:10

Lab Sample ID: 360-36711-4

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Prepared Or Analyzed | Analyst | Lab |
|-----------|------------|---------------|-----|-----------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260B | | 1 | 81084 | 10/05/11 20:00 | TH | TAL WFD |
| Total/NA | Prep | 3510C | | | 80980 | 10/03/11 13:30 | TLV | TAL WFD |
| Total/NA | Analysis | 8270C LL | | 1 | 81026 | 10/05/11 01:11 | CMR | TAL WFD |
| Total/NA | Prep | 200.7 | | | 80952 | 10/03/11 13:00 | OG | TAL WFD |
| Total/NA | Analysis | 200.7 Rev 4.4 | | 1 | 80999 | 10/03/11 18:51 | TJS | TAL WFD |
| Total/NA | Analysis | 7196A | | 1 | 80903 | 10/01/11 08:52 | 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

| |
|-----------|
| 1 |
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| 14 |
| 15 |
| 16 |

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: 47799

| TA ID | WWEM Lab ID | Date Received | TPH mg/l | Date completed | Detection limit |
|-------------|-------------|---------------|----------|----------------|-----------------|
| 360-36711-4 | 47799 | 10/4/11 | <5 | 10/5/11 | 5.00mg/l |

10/6/2011 14:54
page 1 of 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

QC Report

Westfield, MA

Batch : 10/5/11
TA: 360-36711-4

Lab I.D.: 47799

| Parameter | Blank mg/l | Dup mg/l | Dup ID | MS % recovery | MS ID | Spike mg |
|-----------|------------|-----------------------------|------------------------------|---------------------------|-----------------|----------|
| TPH | <5.00 | 16.5/17.0 | LCS | 53*, 80 | 47741a*, 47752c | 20.0 |
| | | <u>LCS recovered mg</u> | <u>LCS true value mg</u> | <u>LCS % recovery</u> | | |
| | | 17.0 | 20.0 | 85.0 | | |

* The percent recovery of the matrix spike was below limits set by the method.


Steven Hansen

Laboratory Supervisor
Massachusetts Certification #MA077

Page 1 of 1

TestAmerica Westfield
 Westfield Executive Park S3 Southampton Road
 Westfield, MA 01085
 Phone (413) 572-4000 Fax (413) 572-3797

10/9/11 4799
Chain of Custody Record

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)
 Company: **Waste Water Environmental Management, Inc**
 Address: **270 Littleton Road, Unit 30, Westford**
 City: **Westford**
 State Zip: **MA 01888**
 Phone: **PO #**
 Email: **WMEI**
 Project Name: **B1116915.0001**
 Site: **SSOWR**

Sample Information
 Sample ID: **EFF-9-30-11 (360-36711-4)**
 Sample Date: **9/30/11**
 Sample Time: **09:45**
 Sample Type: **Eastern**
 Matrix: **Water**
 Field Filtered Sample (Yes or No): **X**
 Subcontract/1864 TPH: **X**

Analysis Requested
 Job #: **360-36711-1**
 Preservation Codes:
 A - HCl M - Hexane
 B - NaOH N - None
 C - Zn Acetate O - AsHClO4
 D - Nitric Acid P - NiSO4
 E - H2SO4 Q - NiSO4
 F - MeOH R - NiSO4
 G - Ammonia S - H2SO4
 H - Ascorbic Acid T - TSP Dehydrated
 I - Ice U - Acetone
 J - DI Water V - APCA
 K - EDTA W - pH 4.5
 L - EDA Z - other (specify)
 Other:

Special Instructions/Note:
B.H.C.

| Sample ID | Sample Date | Sample Time | Sample Type | Matrix | Field Filtered Sample (Yes or No) | Subcontract/1864 TPH | Total Number of Containers | Special Instructions/Note |
|---------------------------|-------------|-------------|-------------|--------|-----------------------------------|----------------------|----------------------------|---------------------------|
| EFF-9-30-11 (360-36711-4) | 9/30/11 | 09:45 | Eastern | Water | X | X | 1 | B.H.C. |

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

Deliverable Requested: I, II, III, IV, Other (Specify) _____

Empty Kit Relinquished by: _____ **Date:** _____ **Time:** _____

Relinquished by: _____ **Date/Time:** 10/3/11 17:00 **Company:** _____

Relinquished by: _____ **Date/Time:** 10-31-11 _____ **Company:** _____

Custody Seals Intact: _____ **Custody Seal No.:** _____

Cooler Temperature(s) °C and Other Remarks: _____

Certification Summary

Client: ARCADIS U.S., Inc
Project/Site: BT1116915.0001

TestAmerica Job ID: 360-36711-1

| 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 accredited 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 typical listing but is subject to change based on the laboratories current certification standing.

Login Sample Receipt Checklist

Client: ARCADIS U.S., Inc

Job Number: 360-36711-1

Login Number: 36711

List Number: 1

Creator: Ard, Vanessa L

List Source: TestAmerica Westfield

| 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. | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |



ATTACHMENT D

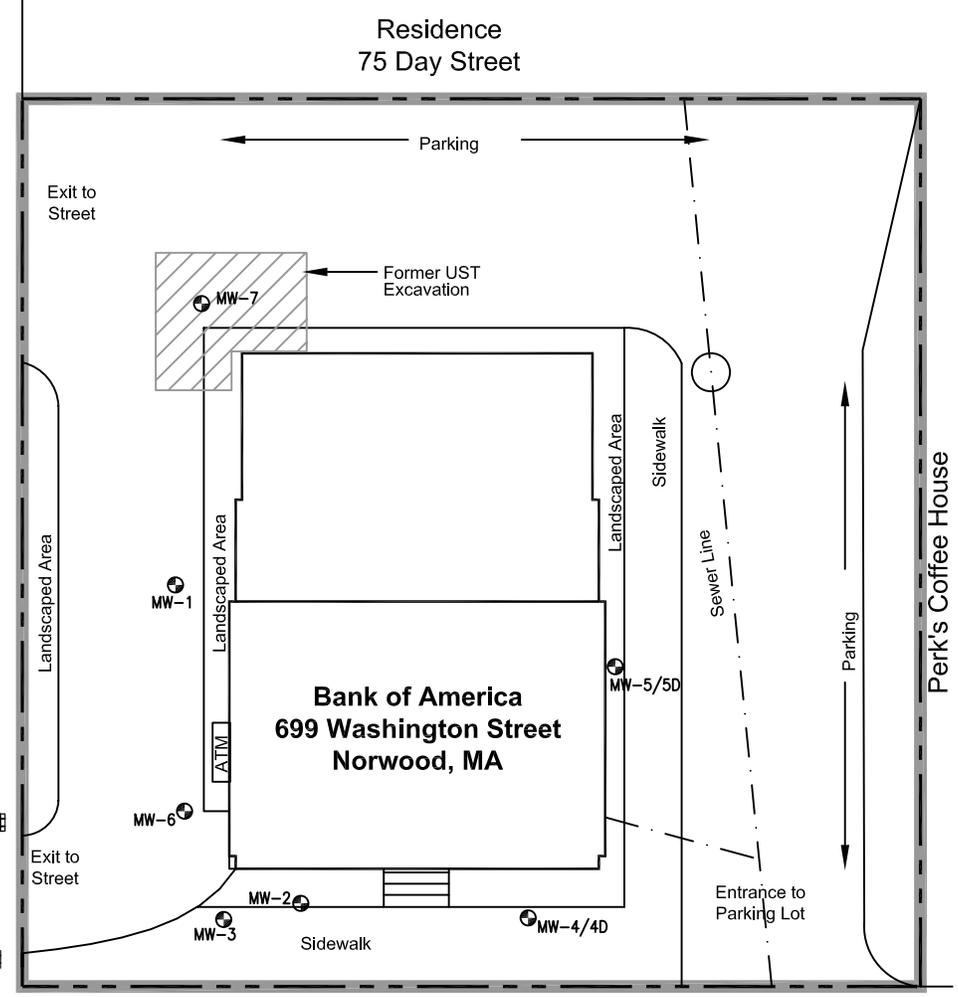
Site Plan Indicating the
Monitoring Well Locations

CITY:MANCHESTER, DIV/GROUP:ENVCAD, DB:RIT77, HALLIWELL, P:\A\WALKER, T:\M\OBI, LYR:\OPTION=OFF=REF, C:\documents and Settings\phallw\Desktop\Return to\HT118915\0000000005\Fig 2.dwg, LAYOUT: 2, SAVED: 5/27/2010 9:40 AM, ACADVER: 17.1S (LMS TECH), PAGES: 17, PLOTTED: 5/27/2010 9:40 AM, BY: HALLIWELL, TRISH

Christian Science Reading Room

Norwood Masonic Building

Day Street



NOTES:

1. THIS DRAWING IS REFERENCED FROM THE FOLLOWING:
 - A. "SITE PLAN AND DISPOSAL SITE BOUNDARY", BY ENSR AECOM, DATED: 04/2008, SCALE: 1" = 30'.

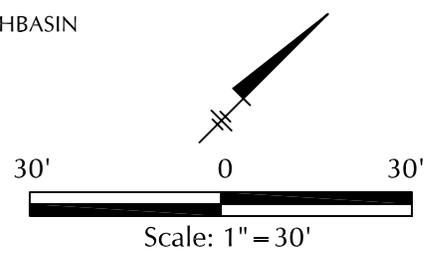
SOURCES:
 Norwood Town Assessor's Map
 ENSR Site Reconnaissance

Washington Street

| | | | | | |
|---------------|---------------|--------------------|----------------|----------------------|-----------------|
| Garber Travel | Hill Jewelers | Brenner's Children | Tanning/ Nails | Front Days Insurance | Mortgage Master |
|---------------|---------------|--------------------|----------------|----------------------|-----------------|

EXPLANATION:

- APPROXIMATE PROPERTY LINE
- LIMITS OF RAO
- MW-6 GROUNDWATER MONITORING WELL
- ☒ CATCHBASIN



699 WASHINGTON STREET
 NORWOOD, MASSACHUSETTS

SITE PLAN & DISPOSAL SITE BOUNDARY



FIGURE
2



ATTACHMENT E

Most Current County
Endangered 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* cougar
 Gray Wolf - *Canis lupus*
 Indiana Bat - *Myotis sodalis*
 Canada Lynx - *Lynx canadensis*

Birds

Atlantic Coast Piping Plover - *Charadrius melodius*
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 bangsi*
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*
 Kame Blue Butterfly - *Lycaeides melissa samuelis*
Kame 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 federal listing is "warranted, but precluded", i.e. the status of the species indicates that it should be listed but the listing is superseded 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 |
|---------|-----------------|--|---------------------|-------------|----------------|-------------------------|
| NORWOOD | Beetle | <i>Cicindela purpurea</i> | Purple Tiger Beetle | SC | | 1913 |
| NORWOOD | Bird | <i>Ammodramus henslowii</i> | Henslow's Sparrow | E | | Historic |
| NORWOOD | Bird | <i>Ixobrychus exilis</i> | Least Bittern | E | | 1985 |
| NORWOOD | Reptile | <i>Terrapene carolina</i> | Eastern Box Turtle | SC | | 1989 |
| NORWOOD | Vascular Plant | <i>Aristida purpurascens</i> | Purple Needlegrass | T | | 1894 |
| NORWOOD | Vascular Plant | <i>Houstonia longifolia</i> | Long-leaved Bluet | E | | 1910 |
| NORWOOD | Vascular Plant | <i>Nabalus serpentarius</i> | Lion's Foot | E | | 1901 |
| NORWOOD | Vascular Plant | <i>Petasites frigidus</i> var. <i>palmatum</i> | Sweet Coltsfoot | E | | 1897 |
| NORWOOD | Vascular Plant | <i>Platanthera flava</i> var. <i>herbiola</i> | Pale Green Orchis | T | | 1909 |
| NORWOOD | Vascular Plant | <i>Scirpus longii</i> | Long's Bulrush | T | | 2002 |
| NORWOOD | Vascular Plant | <i>Sphenopholis pennsylvanica</i> | Swamp Oats | T | | Historic |



ATTACHMENT F

National Registry of Historic
Places listing for Norwood, MA



- HOME
- BROWSE
- ADVANCED SEARCH
- DOWNLOAD CENTER
- ABOUT
- STATUS
- HELP

FULL RECORD DISPLAY

Current Record: 1 of 2 in NPS Digital Library

[Go back to: Title List](#) | [Revise Search](#)

[Next Record](#)



For advanced viewing install [DjVu browser plugin](#).

1. Choose the option for Autoinstallation
2. takes about 20 seconds
3. About DjVu and plugin help

Choose format:

JPG | DjVu

[Begin DjVu install](#)



For advanced viewing install [DjVu browser plugin](#).

1. Choose the option for Autoinstallation
2. takes about 20 seconds
3. About DjVu and plugin help

Choose format:

JPG | DjVu

[Begin DjVu install](#)

Day, Fred Holland, House [Image]

URL: <http://pdfhost.focus.nps.gov/docs/NRHP/Text/77000191.pdf>
Link will open in a new browser window

URL: <http://pdfhost.focus.nps.gov/docs/NRHP/Photos/77000191.pdf>
Link will open in a new browser window

Publisher: National Park Service

Published: 04/18/1977

Access: Public access

Restrictions: All Rights Reserved

Format/Size: Physical document with text, photos and map

Language: eng: English

Note: 93 Day St.

Item No.: 77000191 *NRIS (National Register Information System)*

Subject: ARCHITECTURE/ENGINEERING

Subject: PERSON

Subject: ARCHITECTURE

Subject: ART

Subject: LITERATURE

Subject: TUDOR REVIVAL

Subject: BUILDING

Subject: 1875-1899

Subject: 1850-1874

Keywords: Beal,J. Williams;Day,Fred Holland;1859;1890

Place: MASSACHUSETTS – Norfolk County -- Norwood

Record Number: 372405

Record Owner: National Register of Historic Places



National Register of Historic Places



- HOME
- BROWSE
- ADVANCED SEARCH
- DOWNLOAD CENTER
- ABOUT
- STATUS
- HELP

FULL RECORD DISPLAY

Current Record: 2 of 2 In NPS Digital Library

Go back to: [Title List](#) | [Revise Search](#)

[Previous Record](#)



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1. Choose the option for AutoInstallation
2. takes about 20 seconds
3. About DjVu and plugin help

Choose format:

JPG | DjVu

[Begin DjVu install](#)

Norwood Memorial Municipal Building [Image]

URL: <http://pdfhost.focus.nps.gov/docs/NRHP/Text/96001086.pdf>
Link will open in a new browser window

URL: <http://pdfhost.focus.nps.gov/docs/NRHP/Photos/96001086.pdf>
Link will open in a new browser window

Publisher: National Park Service

Published: 10/10/1996

Access: Public access

Restrictions: All Rights Reserved

Format/Size: Physical document with text, photos and map

Language: eng: English

Note: 566 Washington St.

Item No.: 96001086 *NRIS (National Register Information System)*

Subject: EVENT

Subject: ARCHITECTURE/ENGINEERING

Subject: ARCHITECTURE

Subject: ART

Subject: COMMUNITY PLANNING AND DEVELOPMENT

Subject: POLITICS/GOVERNMENT

Subject: LATE GOTHIC REVIVAL

Subject: BUILDING

Subject: 1925-1949

Keywords: Upham, William G.; Miner, Edward, et al.; 1927; 1928

Place: MASSACHUSETTS -- Norfolk County -- Norwood

Record Number: 425000

Record Owner: National Register of Historic Places



ATTACHMENT G

MassDEP Transmittal Form for
Permit Application and Payment



Enter your transmittal number

X240061

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

Permit for Construction or Foundation Dewatering

- 1. Permit Code: 7 or 8 character code from permit instructions
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: 200 Glastonbury Blvd.
3. First Name of Individual:
4. MI:
5. Street Address: Glastonbury
6. City/Town: CT
7. State:
8. Zip Code: 06033
9. Telephone #: 646-556-0759
10. Ext. #:
11. Contact Person: Dennis McInerney
12. e-mail address (optional): dennis.p.mcinerney@bankofamerica.com

C. Facility, Site or Individual Requiring Approval

Bank of America, Bank Branch MA6-288

1. Name of Facility, Site Or Individual

699 Washington Street

2. Street Address

Norwood

3. City/Town

MA

4. State

02062

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

3. City/Town

MA

4. State

02184

5. Zip Code

781-356-7300

6. Telephone #

261

7. Ext. #

8. Contact Person

9. LSP Number (BWSC Permits only)

E. Permit - Project Coordination

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

EOEA File Number

F. Amount Due

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).

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

982286

\$385

11/3/2011

Check Number

Dollar Amount

Date

982286



530 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

TO

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

\$385 00

ARCADIS

Debra Johnson

Secure Check features included. Details on back.

⑈ 98 2 286 ⑈ ⑆ 10 2 1009 18 ⑆ 80 1 280 34 18 ⑈



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

EMILY BUSINESS FOR HIS 800.392.5018 VISION

982286

Check Date 11/3/2011

| Invoice Number | Date | Voucher | Amount | Discounts | Previous Pay | Net Amount |
|-------------------------------------|-----------|---------|----------|-----------|--------------|------------|
| 09192011A | 9/19/2011 | 1541022 | \$385 00 | | | \$385 00 |
| COMMONWEALTH OF MASSACHUSETTS TOTAL | | | \$385 00 | | | \$385 00 |
| 214 - A/P DISBURS AG&M 5 | | 0065092 | | | | |

BRP WM 10 Transmittal # X240061
Norwood HT 116915.0001