ARCADIS U.S., Inc.
30 Braintree Hill Office Park
Suite 105
Braintree
Massachusetts 02184
Tel 781.356.7300
Fax 781.849.0189
www.arcadis-us.com

Environment

Ms. Olga Vergara
US EPA
Industrial Permits Unit
5 Post Office Square, Suite 100, OEP06
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

Date:
July 20, 2015

Contact:
Allen Walker

Phone:
781-356-7300

Email:
allen.walker@arcadis-us.com

Our ref:
HT116915.2014

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 Dewatering General Permit (DGP). The discharge water has been treated due to a No. 2 fuel oil release at the Site. The renewal of this DGP is sought to cover the removal of 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.

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 was formerly permitted as an RGP. The permit No. for the RGP permit was MAG910072. A NOT was 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 copper, iron, and zinc concentrations have been variable and typically historically high in the discharge water as monitored during the operation of the RGP permit. It was shown that these results are 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. It was shown (and submitted in the last DGP NOI) in upgradient and downgradient wells, that the groundwater does not possess elevated concentrations of these metals. Those results support the theory that the sump water is affected by the metal within the sump chamber.

Under the expiring DGP, concentrations of copper, iron, zinc, and Total Suspended Solids (TSS) were voluntarily sampled to monitor levels in the discharge water. Results were consistently below the established monthly standards, and it was concluded that the average concentrations of these metals were low enough to stop sampling. Starting in August 2014 TSS in the discharge became the only parameter to be sampled. Concentrations have always been below the 50 mg/L standard.

The source of the discharge is groundwater and as required by the DGP, the effluent 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, pH, and hardness. The sample was taken on July 8, 2015 after passing through a 20 micron cartridge filter.

For the discharge water sample labeled as: “EFFLUENT”, the metals analysis results were non-detectable (ND) except for copper at a concentration of 0.017 milligrams per liter (mg/l), iron at a concentration of 0.08 mg/l, and magnesium at a concentration of 2.3 mg/l. The chloride concentration was 151 mg/l, hardness was 86 mg/l, and the pH was 6.90.

A copy of the laboratory reports for the discharge water is included as Attachment C.

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

The groundwater accumulating in the basement sump flows through a cartridge filter prior to discharge. The 20 micron cartridge filter is designed to filter out metal components prior to the discharge of the water.

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

There are no discharges within 100 feet of the site

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 the discharge permitted under a DGP.

4 – Determination of Endangered Species Act (ESA) Eligibility

4-a: Which of the three eligibility criteria listed in Appendix IV, Criterion have you met?

The Site qualifies as Criteria A: there are no federally listed species or designated critical habitats present in the action area. The area of discharge falls into the same action area as the Site, therefore it also qualifies as Criteria A.

4-b: Please attach documentation with your NOI supporting your response

A copy of the IPaC generated preliminary determination letter indicating that no listed species or critical habitat is present within your action area is included as Attachment D.

5 – Documentation of National Historic Preservation Act Requirements

5-b: Is the property listed in the National Register of Historic Places or have prior surveys or disturbances revealed the existence of a historic property or artifacts?

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 in Norwood is included as Attachment F.

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

Sincerely,

ARCADIS U.S., Inc.

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

Attachments:

A – NOI Form.
B – Topographic Map.
C – Laboratory Report of Effluent 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.

ATTACHMENT A

NOI Form.

II. Suggested Notice of Intent (NOI) Format

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

a) Name of facility: Bank of America	**Mailing Address for the Facility:** 699 Washington St., Norwood, MA	
b) Location Address of the Facility (if different from mailing address):	**Facility Location** **longitude:** 42.192714 **latitude:** -71.202104	**Type of Business:** Bank **Facility SIC codes:** 6021

c) Name of facility owner: Bank of America **Owner's email:** _____

Owner's Tel #: _____ **Owner's Fax #:** _____

Address of owner (if different from facility address)

Owner is (check one): 1. Federal____2. State _____ 3. Private__X___ 4. Other _____(Describe)_____

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

Operator Contact Name: Allen Walker

Operator Tel Number: 781-356-7300 **Fax Number:** 781-849-0189

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

Operator Address (if different from owner)

ARCADIS U.S., Inc. 30 Braintree Hill Office Park, Suite 105, Braintree, MA 02184

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

e) Check Yes or No for the following:

1. **Has a prior NPDES permit been granted for the discharge? Yes __X__ No____ If Yes, Permit Number:** MAG910072
2. **Is the discharge a "new discharger" as defined by 40 CFR Section 122.2? Yes_____ No__X__**
3. **Is the facility covered by an individual NPDES permit? Yes_____ No__X__ If Yes, Permit Number ____**
4. **Is there a pending application on file with EPA for this discharge? Yes _____ No ___X___ 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 50 **GPD**
Average Monthly Flow 200 **GPD**

e.) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 8.3 **Min pH** 6.5

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.

g.) What treatment does the wastewater receive prior to discharge?

h.) Is the discharge continuous? Yes _____ **No** X **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)** P
If (P), number of days or months per year of the discharge 350 days **and the specific months of discharge** All months, but occasionally dry;
If (I), number of days/year there is a discharge _____
Is the discharge temporary? Yes _____ **No** X
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. 42.186610 **lat.** -71.199742**;**
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 VIII 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 __X___
If yes, provide the name of the ACEC: _____

3. Contaminant Information

a) Are any pH neutralization and/or dechlorination chemicals used in the discharge? If so, include the chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC_{50} in percent for aquatic organism(s)).

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

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

a) Which of the three eligibility criteria listed in Appendix IV, Criterion (A, B, or C) have you met? ___A_____
b) Please attach documentation with your NOI supporting your response. Please see Appendix IV for acceptable documentation

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

a) See Screening Process in Appendix III and respond to questions regarding your site and any historic properties listed or eligible for listing on the National Register of Historic Places. Question 1: Yes _____ No __X__ ; Question 2: No __X____ Yes _____

b) Have any State historic preservation officers been consulted in this determination? Yes _____ or No __X__ If yes, attach the results of the consultation(s).

c) Which of the three National Historic Preservation Act requirements listed in Appendix III, Criterion (A, B, or C) have you met? _____A_____

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

Operator signature:

Print Full Name and Title: Lori Stocker, Certified Principal-In-Charge

Date:

Federal regulations require this application to be signed as follows:

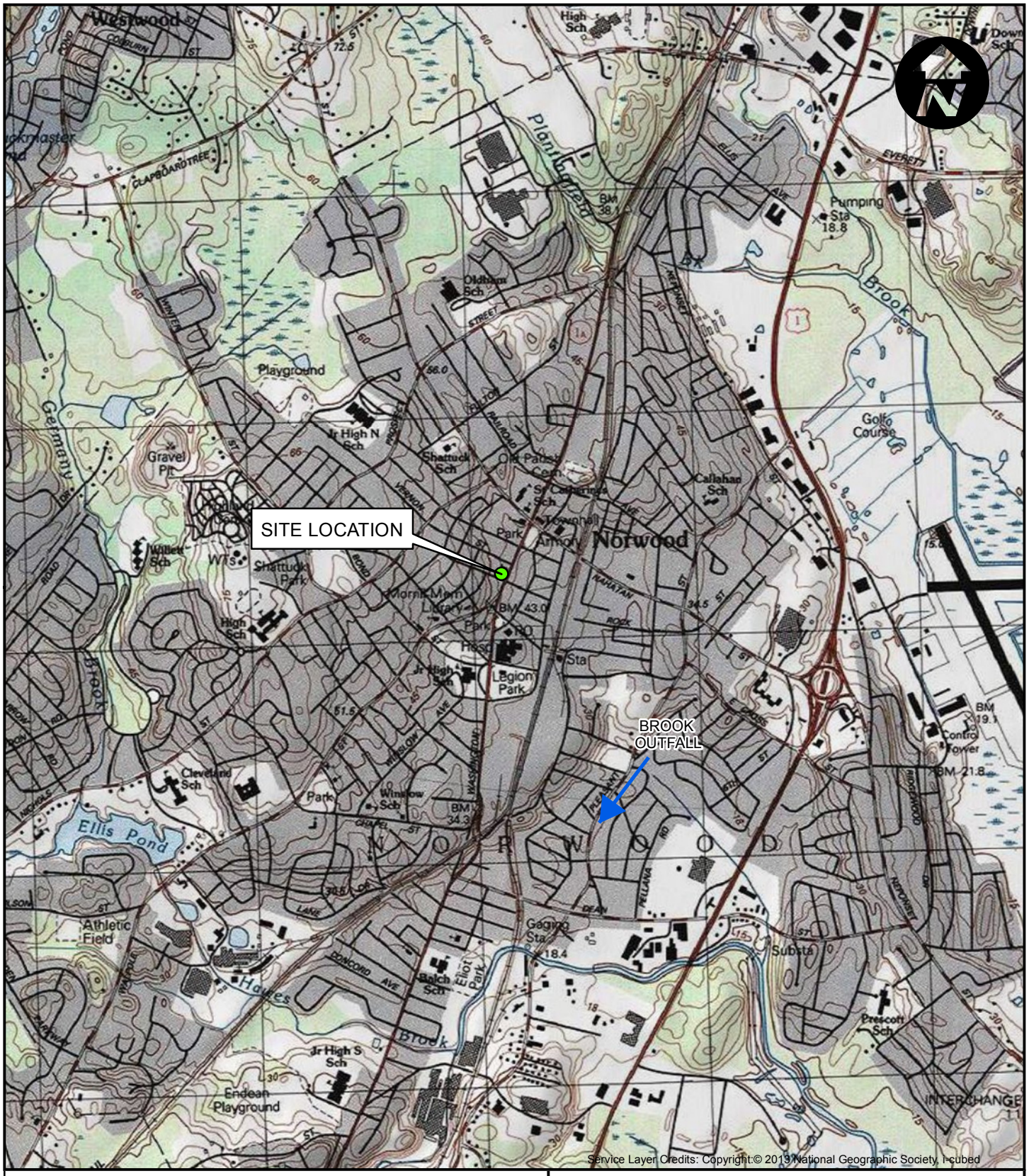
1. For a corporation, by a principal executive officer of at least the level of vice president;

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



USGS 7.5' TOPOGRAPHIC MAP AREA SHOWN NAMED "NORWOOD".

0 2,000 4,000

Feet

SITE LOCATION

MASSACHUSETTS

699 WASHINGTON STREET
NORWOOD, MASSACHUSETTS

SITE LOCATION MAP

ARCADIS

ATTACHMENT
B

CITY: LANSING DIV: ENV DB: D.AKENS PIC: PM: TM: TR: PROJECT NUMBER: COORDINATE SYSTEM: NAD 1983 StatePlane Massachusetts Mainland FIPS 2001 Feet
G:\ENVCAD\Lansing-MI\RETURN-TO\Manchester\HT116915\2014\10103\SITELOCATION.mxd PLOTTED: 3/11/2015 10:09:27 AM BY: AKENS

ATTACHMENT C

Laboratory Report of Effluent Water

ANALYTICAL REPORT

Lab Number:	L1515615
Client:	Arcadis U.S., Inc 30 Braintree Hill Office Park Suite 105 Braintree, MA 02184
ATTN:	Tyler Martin
Phone:	(781) 356-7300
Project Name:	BOA NORWOOD
Project Number:	HT116915.2014
Report Date:	07/14/15

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: BOA NORWOOD
Project Number: HT116915.2014

Lab Number: L1515615
Report Date: 07/14/15

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1515615-01	EFFLUENT	WATER	NORWOOD, MA	07/08/15 10:00	07/08/15

Project Name: BOA NORWOOD
Project Number: HT116915.2014

Lab Number: L1515615
Report Date: 07/14/15

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

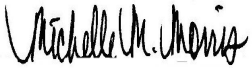
In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 07/14/15

METALS

Project Name: BOA NORWOOD
Project Number: HT116915.2014
Lab Number: L1515615
Report Date: 07/14/15

SAMPLE RESULTS

Lab ID: L1515615-01
Client ID: EFFLUENT
Sample Location: NORWOOD, MA
Matrix: Water
Date Collected: 07/08/15 10:00
Date Received: 07/08/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.050	--	1	07/09/15 06:33	07/09/15 15:40	EPA 3005A	19,200.7	TT
Arsenic, Total	ND		mg/l	0.005	--	1	07/09/15 06:33	07/09/15 15:40	EPA 3005A	19,200.7	TT
Cadmium, Total	ND		mg/l	0.005	--	1	07/09/15 06:33	07/09/15 15:40	EPA 3005A	19,200.7	TT
Chromium, Total	ND		mg/l	0.0100	--	1	07/09/15 06:33	07/09/15 15:40	EPA 3005A	19,200.7	TT
Copper, Total	0.017		mg/l	0.010	--	1	07/09/15 06:33	07/09/15 15:40	EPA 3005A	19,200.7	TT
Iron, Total	0.08		mg/l	0.05	--	1	07/09/15 06:33	07/09/15 15:40	EPA 3005A	19,200.7	TT
Lead, Total	ND		mg/l	0.010	--	1	07/09/15 06:33	07/09/15 15:40	EPA 3005A	19,200.7	TT
Magnesium, Total	2.3		mg/l	0.10	--	1	07/09/15 06:33	07/09/15 15:40	EPA 3005A	19,200.7	TT
Nickel, Total	ND		mg/l	0.025	--	1	07/09/15 06:33	07/09/15 15:40	EPA 3005A	19,200.7	TT
Silver, Total	ND		mg/l	0.007	--	1	07/09/15 06:33	07/09/15 15:40	EPA 3005A	19,200.7	TT
Zinc, Total	ND		mg/l	0.050	--	1	07/09/15 06:33	07/09/15 15:40	EPA 3005A	19,200.7	TT
Total Hardness by SM 2340B - Westborough Lab											
Hardness	86		mg/l	0.66	NA	1	07/09/15 06:33	07/09/15 15:40	EPA 3005A	19,200.7	TT

Project Name: BOA NORWOOD
Project Number: HT116915.2014
Lab Number: L1515615
Report Date: 07/14/15

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG801051-1										
Antimony, Total	ND		mg/l	0.050	--	1	07/09/15 06:33	07/09/15 13:35	19,200.7	JH
Arsenic, Total	ND		mg/l	0.005	--	1	07/09/15 06:33	07/09/15 13:35	19,200.7	JH
Cadmium, Total	ND		mg/l	0.005	--	1	07/09/15 06:33	07/09/15 13:35	19,200.7	JH
Chromium, Total	ND		mg/l	0.0100	--	1	07/09/15 06:33	07/09/15 13:35	19,200.7	JH
Copper, Total	ND		mg/l	0.010	--	1	07/09/15 06:33	07/09/15 13:35	19,200.7	JH
Iron, Total	ND		mg/l	0.05	--	1	07/09/15 06:33	07/09/15 13:35	19,200.7	JH
Lead, Total	ND		mg/l	0.010	--	1	07/09/15 06:33	07/09/15 13:35	19,200.7	JH
Magnesium, Total	ND		mg/l	0.10	--	1	07/09/15 06:33	07/09/15 16:00	19,200.7	TT
Nickel, Total	ND		mg/l	0.025	--	1	07/09/15 06:33	07/09/15 13:35	19,200.7	JH
Silver, Total	ND		mg/l	0.007	--	1	07/09/15 06:33	07/09/15 13:35	19,200.7	JH
Zinc, Total	ND		mg/l	0.050	--	1	07/09/15 06:33	07/09/15 13:35	19,200.7	JH

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness by SM 2340B - Westborough Lab for sample(s): 01 Batch: WG801051-1										
Hardness	ND		mg/l	0.66	NA	1	07/09/15 06:33	07/09/15 16:00	19,200.7	TT

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: BOA NORWOOD

Project Number: HT116915.2014

Lab Number: L1515615

Report Date: 07/14/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG801051-2								
Antimony, Total	93		-		85-115	-		
Arsenic, Total	111		-		85-115	-		
Cadmium, Total	113		-		85-115	-		
Chromium, Total	105		-		85-115	-		
Copper, Total	110		-		85-115	-		
Iron, Total	100		-		85-115	-		
Lead, Total	113		-		85-115	-		
Magnesium, Total	110		-		85-115	-		
Nickel, Total	109		-		85-115	-		
Silver, Total	109		-		85-115	-		
Zinc, Total	105		-		85-115	-		
Total Hardness by SM 2340B - Westborough Lab Associated sample(s): 01 Batch: WG801051-2								
Hardness	106		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: BOA NORWOOD
Project Number: HT116915.2014

Lab Number: L1515615
Report Date: 07/14/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG801051-4 QC Sample: L1515599-01 Client ID: MS Sample												
Antimony, Total	ND	0.5	0.477	95		-	-		75-125	-		20
Arsenic, Total	ND	0.12	0.130	108		-	-		75-125	-		20
Cadmium, Total	ND	0.051	0.057	112		-	-		75-125	-		20
Chromium, Total	ND	0.2	0.20	100		-	-		75-125	-		20
Copper, Total	0.018	0.25	0.271	101		-	-		75-125	-		20
Iron, Total	1.7	1	2.7	100		-	-		75-125	-		20
Lead, Total	ND	0.51	0.530	104		-	-		75-125	-		20
Magnesium, Total	2.0	10	11	90		-	-		75-125	-		20
Nickel, Total	ND	0.5	0.504	101		-	-		75-125	-		20
Silver, Total	ND	0.05	0.050	99		-	-		75-125	-		20
Zinc, Total	0.350	0.5	0.836	97		-	-		75-125	-		20
Total Hardness by SM 2340B - Westborough Lab Associated sample(s): 01 QC Batch ID: WG801051-4 QC Sample: L1515599-01 Client ID: MS Sample												
Hardness	24	66.2	82	88		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: BOA NORWOOD
Project Number: HT116915.2014

Lab Number: L1515615
Report Date: 07/14/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG801051-3 QC Sample: L1515599-01 Client ID: DUP Sample						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	ND	ND	mg/l	NC		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	ND	0.01	mg/l	NC		20
Copper, Total	0.018	0.019	mg/l	4		20
Lead, Total	ND	ND	mg/l	NC		20
Nickel, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.350	0.368	mg/l	5		20

INORGANICS
&
MISCELLANEOUS

Project Name: BOA NORWOOD
Project Number: HT116915.2014

Lab Number: L1515615
Report Date: 07/14/15

SAMPLE RESULTS

Lab ID: L1515615-01
Client ID: EFFLUENT
Sample Location: NORWOOD, MA
Matrix: Water

Date Collected: 07/08/15 10:00
Date Received: 07/08/15
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	07/10/15 11:45	30,2540D	DW
pH (H)	6.9		SU	-	NA	1	-	07/08/15 22:13	30,4500H+-B	AS
Chromium, Hexavalent	ND		mg/l	0.010	--	1	07/08/15 18:10	07/08/15 18:56	119,3500CR-B	AS
Anions by Ion Chromatography - Westborough Lab										
Chloride	151.		mg/l	12.5	--	25	-	07/08/15 22:29	44,300.0	AU

Project Name: BOA NORWOOD
Project Number: HT116915.2014
Lab Number: L1515615
Report Date: 07/14/15

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG800953-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	07/08/15 18:10	07/08/15 18:56	119,3500CR-B	AS
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG801033-1										
Chloride	ND		mg/l	0.500	--	1	-	07/08/15 18:17	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG801463-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	07/10/15 11:45	30,2540D	DW

Lab Control Sample Analysis

Batch Quality Control

Project Name: BOA NORWOOD

Project Number: HT116915.2014

Lab Number: L1515615

Report Date: 07/14/15

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG800953-2								
Chromium, Hexavalent	114		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG801009-1								
pH	100		-		99-101	-		5
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG801033-2								
Chloride	99		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: BOA NORWOOD
Project Number: HT116915.2014

Lab Number: L1515615
Report Date: 07/14/15

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG800953-4 QC Sample: L1515615-01 Client ID: EFFLUENT												
Chromium, Hexavalent	ND	0.1	0.111	111		-	-		85-115	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG801033-3 QC Sample: L1515406-02 Client ID: MS Sample												
Chloride	739	200	949	106		-	-		40-151	-		18

Lab Duplicate Analysis
Batch Quality Control

Project Name: BOA NORWOOD
Project Number: HT116915.2014

Lab Number: L1515615
Report Date: 07/14/15

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG800953-3 QC Sample: L1515615-01 Client ID: EFFLUENT						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG801009-2 QC Sample: L1515615-01 Client ID: EFFLUENT						
pH	6.9	6.9	SU	0		5
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG801033-4 QC Sample: L1515406-02 Client ID: DUP Sample						
Chloride	739	740	mg/l	0		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG801463-2 QC Sample: L1515500-03 Client ID: DUP Sample						
Solids, Total Suspended	8600	6700	mg/l	25		29

Project Name: BOA NORWOOD
Project Number: HT116915.2014

Lab Number: L1515615
Report Date: 07/14/15

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1515615-01A	Plastic 250ml HNO3 preserved	A	<2	3.0	Y	Absent	NI-UI(180),SB-UI(180),AG-UI(180),ZN-UI(180),FE-UI(180),HARDU(180),MG-UI(180),CD-UI(180),CR-UI(180),AS-UI(180),CU-UI(180),PB-UI(180)
L1515615-01B	Plastic 250ml unpreserved	A	8	3.0	Y	Absent	CL-300(28),HEXCR-3500(1),PH-4500(.01)
L1515615-01C	Plastic 950ml unpreserved	A	8	3.0	Y	Absent	TSS-2540(7)

*Values in parentheses indicate holding time in days

Project Name:	BOA NORWOOD	**Lab Number:**	L1515615
Project Number:	HT116915.2014	**Report Date:**	07/14/15

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

Report Format: Data Usability Report

Project Name:	BOA NORWOOD	**Lab Number:**	L1515615
Project Number:	HT116915.2014	**Report Date:**	07/14/15

Data Qualifiers

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name: BOA NORWOOD
Project Number: HT116915.2014
Lab Number: L1515615
Report Date: 07/14/15

REFERENCES

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

119 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 21st Edition.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

Last revised December 16, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY

PAGE 1 OF 1

ALPHA ANALYTICAL — World Class Chemistry

Westborough, MA
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA
TEL: 508-822-9300
FAX: 508-822-3288

Date Rec'd in Lab: 7-8-15

ALPHA Job #: L1515615

Project Information

Project Name: BOA Norwood

Project Location: Norwood, MA

Project #: HT116915.2014

Project Manager:

ALPHA Quote #:

Client Information

Client: ARCADIS

Address: 30 Braintree Hill Office Park

Suite 105, Braintree, MA 02184

Phone: 781-356-7300

Fax: 781-849-0189

Email: tyler.martin@arcadis-us.com

☐ These samples have been Previously analyzed by Alpha

Turn-Around Time

☒ Standard ☐ Rush (ONLY IF PRE-APPROVED)

Due Date: Time:

Report Information / Data Deliverables

☐ FAX ☒ EMAIL

☒ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed Program | Criteria

Other Project Specific Requirements/Comments/Detection Limits:

Total Metals include: Ag, As, Cd, Cr, Cu, Fe, Mg, Ni, Pb, Sb, Zn

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TSS	pH	Total Hardness	Chloride - EPA 300.0	Hexavalent Chromium - SM 3500	Total Metals Prep							Sample Specific Comments	TOTAL # BOTTLES
15615-01	Effluent	7/8/15	1000	W	TM	☒	☒	☒	☒	☒	☒	☐	☐	☐	☐	☐	☐		
Container Type						P	P	P	P	P	P	-	-	-	-	-	-		
Preservative						I	I	C	I	I	C	-	-	-	-	-	-		

SAMPLE HANDLING
Filtration
☐ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	7/8/15 1425	[signature] AL	7/8/15 1425
[signature]	7/8/15 1600	[signature]	7-8-15 1600

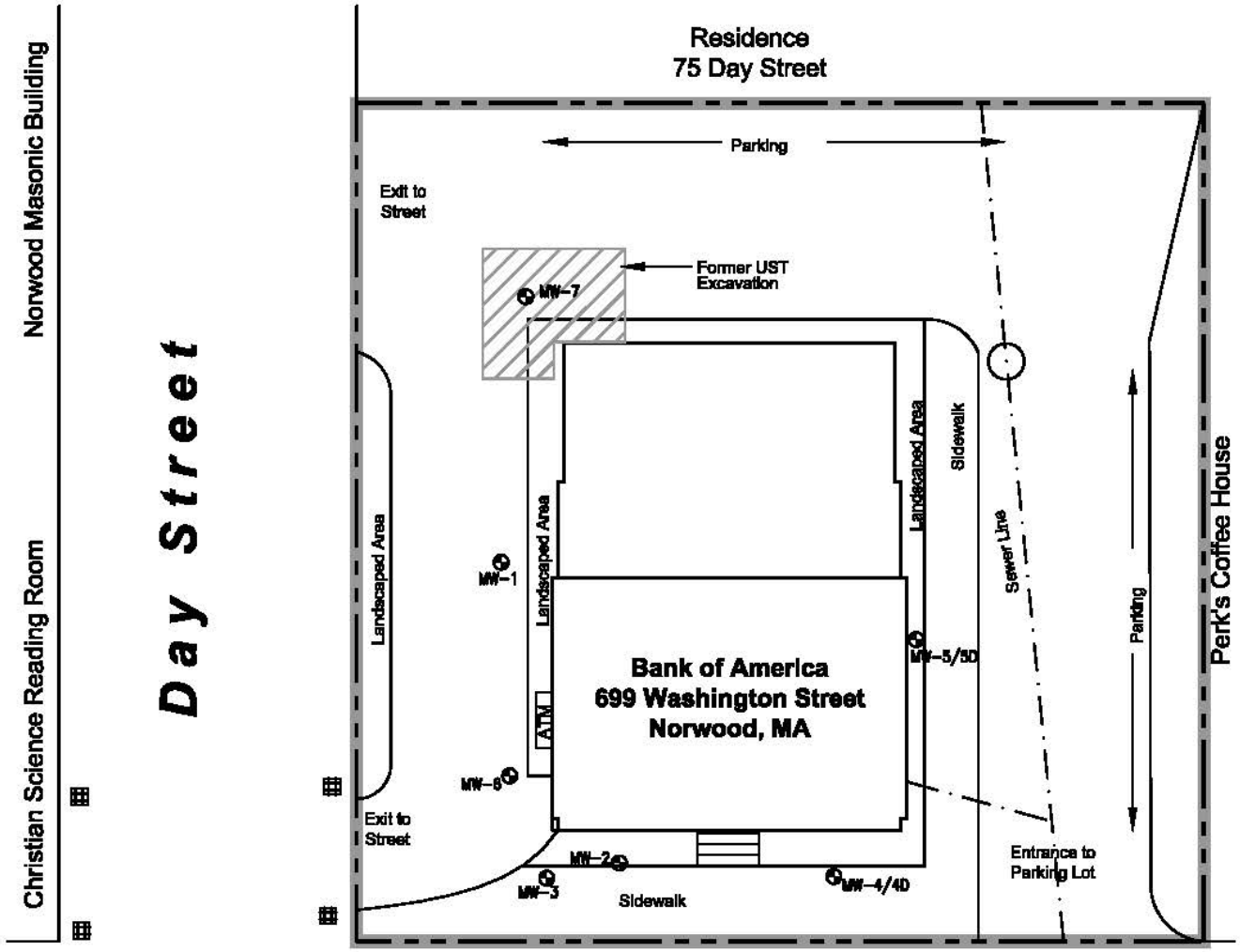
Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO: 01-01(I-NJ)
(rev. 5-JAN-12)

ARCADIS

ATTACHMENT D

Site Plan Indicating the
Monitoring Well Locations



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 Reconnaisance

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

30' 0 30'

Scale: 1" = 30'

699 WASHINGTON STREET
NORWOOD, MASSACHUSETTS

SITE PLAN & DISPOSAL SITE BOUNDARY

ARCADIS

ATTACHMENT D

ATTACHMENT E

Most Current County
Endangered Species Act (ESA)
List

U.S. Fish & Wildlife Service

699 Washington Street, Norwood, MA

IPaC Trust Resource Report

Generated July 06, 2015 08:42 AM MDT

US Fish & Wildlife Service

IPaC Trust Resource Report

Project Description

NAME

699 Washington Street, Norwood, MA

PROJECT CODE

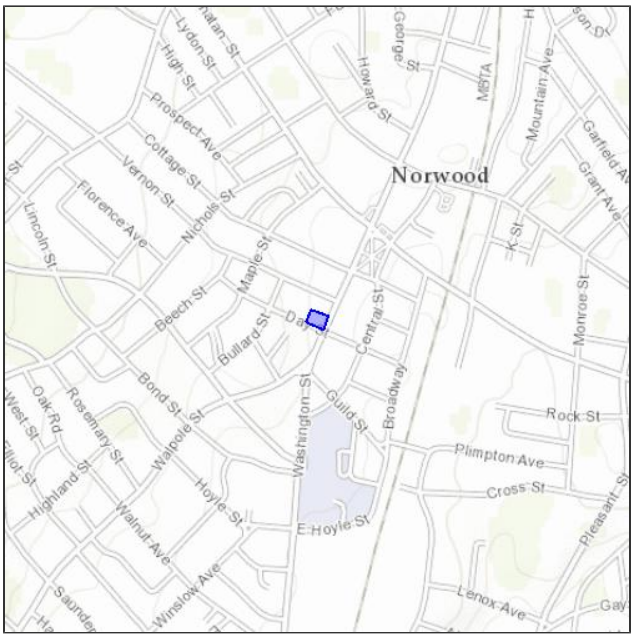
CJDAR-RRIQR-BOLIO-AKMO6-K4O74Y

LOCATION

Norfolk County, Massachusetts

DESCRIPTION

No description provided



U.S. Fish & Wildlife Contact Information

Species in this report are managed by:

New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 3301-5094
(603) 223-2541

Endangered Species

Proposed, candidate, threatened, and endangered species that are managed by the Endangered Species Program and should be considered as part of an effect analysis for this project.

This unofficial species list is for informational purposes only and does not fulfill the requirements under Section 7 of the Endangered Species Act, which states that Federal agencies are required to "request of the Secretary of Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action." This requirement applies to projects which are conducted, permitted or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can be obtained by returning to this project on the IPaC website and requesting an Official Species List from the regulatory documents section.

There are no endangered species identified for this project area

Critical Habitats

Potential effects to critical habitat(s) within the project area must be analyzed along with the endangered species themselves.

There is no critical habitat within this project area

Migratory Birds

Birds are protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.

Any activity which results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish and Wildlife Service (1). There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

You are responsible for complying with the appropriate regulations for the protection of birds as part of this project. This involves analyzing potential impacts and implementing appropriate conservation measures for all project activities.

American Oystercatcher Haematopus palliatus — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0G8

American Bittern Botaurus lentiginosus — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0F3

Bald Eagle Haliaeetus leucocephalus — **Bird of conservation concern**
Year-round
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B008

Black-billed Cuckoo Coccyzus erythropthalmus — **Bird of conservation concern**
Season: Breeding
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HI

Blue-winged Warbler Vermivora pinus — **Bird of conservation concern**
Season: Breeding

Canada Warbler Wilsonia canadensis — **Bird of conservation concern**
Season: Breeding

Hudsonian Godwit Limosa haemastica — **Bird of conservation concern**
Season: Migrating

Least Bittern Ixobrychus exilis — **Bird of conservation concern**
Season: Breeding

Pied-billed Grebe Podilymbus podiceps — **Bird of conservation concern**
Year-round

Prairie Warbler Dendroica discolor — **Bird of conservation concern**
Season: Breeding

Purple Sandpiper Calidris maritima — **Bird of conservation concern**
Season: Wintering

Seaside Sparrow Ammodramus maritimus — **Bird of conservation concern**
Season: Breeding

Short-eared Owl Asio flammeus — **Bird of conservation concern**
Season: Wintering
https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HD

Snowy Egret Egretta thula — **Bird of conservation concern**
Season: Breeding

Upland Sandpiper Bartramia longicauda **Bird of conservation concern**

Season: Breeding

https://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=B0HC

Wood Thrush Hylocichla mustelina **Bird of conservation concern**

Season: Breeding

Worm Eating Warbler Helmitheros vermivorum **Bird of conservation concern**

Season: Breeding

Refuges

Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. If your project overlaps or otherwise impacts a Refuge, please contact that Refuge to discuss the authorization process.

There are no refuges within this project area

Wetlands

Impacts to NWI wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes.

Project proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate U.S. Army Corps of Engineers District.

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

There are no wetlands identified in this project area

ARCADIS

ATTACHMENT F

National Registry of Historic Places listing for Norwood, MA

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Day, Fred Holland, House [Image]

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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

36116	85003259	MASSACHUSETTS	Norfolk	Brookline	Davis, Robert S., House	50 Stanton Rd.	19851017	Text	Photo
36117	85003260	MASSACHUSETTS	Norfolk	Brookline	Davis, Thomas Aspinwall, House	29 Linden Pl.	19851017	Text	Photo
36118	77000191	MASSACHUSETTS	Norfolk	Norwood	Day, Fred Holland, House	93 Day St.	19770418	Text	Photo
36119	75000285	MASSACHUSETTS	Norfolk	Franklin	Dean Junior College Historic District	Dean Junior College campus	19750423	Text	Photo
36120	06000785	MASSACHUSETTS	Norfolk	Dedham	Dedham Village Historic District	Roughly bounded by High, Cou	20060906	Text	Photo

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Norwood Memorial Municipal Building [Image]

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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