

July 6, 2009

Mr. Victor Alvarez
United States Environmental Protection Agency-Region 1
1 Congress Street, Suite 1100
Boston Massachusetts 02114-2023

Re: Submittal of Notice of Intent (NOI)
Construction Dewatering
North Dorchester Bay CSO Pump Station and Sewers
MADEP Project #006-1172

Dear Mr. Alvarez:

OHI Engineering Inc., (OHI) on behalf of Walsh Construction Corporation has prepared this Notice of Intent (NOI) for an application of a National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) for the proposed North Dorchester Bay CSO Pump Station and Sewers project.

The purpose of the MWRA North Dorchester Bay Combined Sewage Overflow (CSO) project is to eliminate CSO discharges to South Boston beaches during storm events by providing a pumping facility to dewater the Stormwater storage tunnel and controls to maximize the use of the storage tunnel, and a facility that will minimize the long term odor, noise, and visual impacts of the CSOs in the surrounding areas. The project elements include a 3,200-foot long, 24-inch diameter force main along William J Day Boulevard and East Broadway, with a 600-foot long, 30-inch connection to the existing South Boston Interceptor in N Street.

The project also includes the construction of a 15 million gallon-per-day (gpd) pump station located at the Conley Terminal. The pump station will have a 100-foot long, 36-inch diameter influent pipe from the tunnel shaft; a 50-foot deep wet well, three submersible waste water pumps to handle storm water flows, and a submersible dewatering pump to handle tunnel infiltration flows. The pump station will be equipped with coarse bar screens, a control gate to isolate the pump station from the tunnel, an activated carbon odor control system to treat air ventilated from the process area, an enclosed area for the process of screenings, and associated water, sewer, and electrical connections.

The installation of site-specific erosion control practices at the Conley Terminal will be in place before the construction of the pump station begins, maintenance of those erosion control practices will remain through out the construction process.

The project area encompasses two sites. (1) A force main alignment that follows Shore Road east to William J. Day Boulevard, William J. Day Boulevard southerly to East Broadway, East Broadway westerly to the intersection with N Street and a gravity sewer alignment on N Street crossing East Fifth. (2) A proposed pump station with an influent pipe connection to a Combine Sewer Overflow storage tunnel located at the Massachusetts Port Authority (Massport) Pail W. Conley Terminal (Conley Terminal) at the north end of the force main.

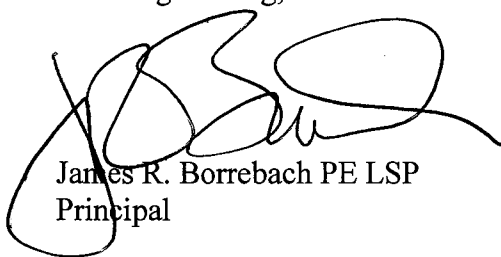
The adjacent properties to the project area will include the following; an active marine terminal, a city park and beach, residential houses, a church, a school, and small commercial businesses. The project area is within the high-density neighborhood of South Boston, and the trenching operations will be located on several major through streets (East Broadway and William J. Day Boulevard).

The RGP is being submitted for work at the Conley Terminal where past releases of oil and/or hazardous materials have been identified. The project has received a NPDES Construction General Permit (permit #MAR10D724).

If you have any question with respect to this filling please contact us at you convenience at 508-339-3929.

Thank you,

OHI Engineering, Inc.



James R. Borrebach PE LSP
Principal

Attachment: RGP NOI

Cc: Robert Bailey, Walsh Construction



U.S. ENVIRONMENTAL PROTECTION
AGENCY (EPA)
NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM (NPDES)
EPA's NOI PROCESSING CENTER



06/18/2009

Company: WALSH CONSTRUCTION CO.
ATTN: ROBERT BAILEY
2 Commercial Street
Sharon, MA 02067

Facility: NORTH DORCHESTER
BAY CSO PUMP STATION
SEWERS
1914 William J. Day Blvd
South Boston, MA 02127

Permit Number: MAR10D724

This email/letter acknowledges that you have submitted a complete Notice of Intent form to be covered under the NPDES General Permit for Stormwater Discharges for Construction General Permit Activity (Construction General Permit). Coverage under this permit begins at the conclusion of your seven-day waiting period, on 06/25/2009.

As stated above, this letter acknowledges receipt of a complete Notice of Intent. However, it is not an EPA determination of the validity of the information you provided. Your eligibility for coverage under the Permit is based on the validity of the certification you provided. Your signature on the Notice of Intent certifies that you have read, understood, and are implementing all of the applicable requirements. An important aspect of this certification requires that you correctly determine whether you are eligible for coverage under this permit.

As you know, the Construction General Permit requires you to have developed and begun implementing a Stormwater Pollution Prevention Plan (SWPPP) and outlines important inspection and record keeping requirements. You must also comply with any additional location-specific requirements applicable to your state or tribal area. A copy of the Construction General Permit must be kept with your SWPPP. An electronic copy of the Permit and additional guidance materials can be viewed and downloaded at www.epa.gov/npdes/stormwater.

For tracking purposes, the following number has been assigned to your Notice of Intent Form:
MAR10D724.

If you have general questions regarding the stormwater program or your responsibilities under the Construction General Permit, please call

EPA Region 1

Thelma Murphy (617) 918-1615

If you have questions about your Notice of Intent form, please call the EPA NOI Processing Center at 1-866-352-7755 (toll free) or send an inquiry via the online form at <http://www.epa.gov/npdes/noicontact>.

Next time, you can use the eNOI system (<[a href="http://www.epa.gov/npdes">http://www.epa.gov/npdes](http://www.epa.gov/npdes)) to apply for a Notice of Intent.

EPA NOI Processing Center
Operated by Avanti Corporation
1200 Pennsylvania Ave., NW
Mail Code: 4203M
Washington, DC 20460
1-866-352-7755

NPDES
Form



United States Environmental Protection Agency
Washington, DC 20460

**Notice of Intent (NOI) for Storm Water Discharges Associated with
Construction Activity Under an NPDES General Permit**

Submission of this Notice of Intent (NOI) constitutes notice that the party identified in Section II of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section I of this form. Submission of this NOI also constitutes notice that the party identified in Section II of this form meets the eligibility requirements of the CGP for the project identified in Section III of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Refer to the instructions at the end of this form.

I. Permit Number

MAR10D724

II. Operator Information

Name: WALSH CONSTRUCTION CO.

IRS Employer Identification Number (EIN): 36 - 2231526

Mailing Address:

Street: 2 COMMERCIAL STREET

City: SHARON State: MA Zip Code: 02067

Phone: 781 - 793 - 9988 Fax (optional): 781 - 793 - 9294

E-mail (optional): INFO@WALSHGROUP.COM

III. Project/Site Information

Project/Site Name: NORTH DORCHESTER BAY CSO PUMPS

Project Street/Location: 1914 WILLIAM J. DAY BLVD

City: SOUTH BOSTON State: MA Zip Code: 02127

County or similar government subdivision: SUFFOLK

Latitude/Longitude (Use one of three possible formats, and specify method)

Latitude 1. 42° 20' 18" N (degrees, minutes, seconds) Longitude 1. 71° 01' 16" W (degrees, minutes, seconds)
2. ° ' " N (degrees, minutes, decimal) 2. ° ' " W (degrees, minutes, decimal)
3. ° N (decimal) 3. ° W (decimal)

Method: ☐ U.S.G.S. topographic map ☐ EPA web site ☒ GPS ☐ Other:
• If you used a U.S.G.S. topographic map, what was the scale: _____

Project Located in Indian country? ☐ Yes ☒ No

If so, name of Reservation or if not part of a Reservation, put "Not Applicable": _____

Estimated Project Start Date: 06 / 15 / 2009 Estimated Project Completion Date: 06 / 04 / 2011
Month Date Year Month Date Year

Estimated Area to be Disturbed (to the nearest quarter acre): 3.50

IV. SWPPP Information

Has the SWPPP been prepared in advance of filing this NOI? ☒ Yes ☐ No

Location of SWPPP for viewing: ☒ Address in Section II ☐ Address in Section III ☐ Other

If Other:

SWPPP Street:

City:

State: Zip Code: -

SWPPP Contact Information (if different than that in Section II):

Name:

Phone: - - Fax (optional): - -

E-mail (optional):

V. Discharge Information

Identify the name(s) of waterbodies to which you discharge. DORCHESTER BAY

Is this discharge consistent with the assumptions and requirements of applicable EPA approved or established TMDL(s)?

☒ Yes ☐ No

VI. Endangered Species Information

Under which criterion of the permit have you satisfied your ESA eligibility obligations?

☐ A ☐ B ☐ C ☐ D ☒ E ☐ F

• If you select criterion F, provide permit tracking number of operator under which you are certifying eligibility:

VII. Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name: ROBERT BAILEY

Print Title:

Signature: ROBERT BAILEY

Date: 06/18/2009

Instructions for Completing EPA Form 3510-9

**Notice of Intent (NOI) for Storm Water Discharges Associated with
Construction Activity Under an NPDES General Permit**

NPDES Form

This Form Replaces Form 3510-9 (8/98)

Form Approved OMB Nos. 2040-0188 and 2040-0211

Who Must File an NOI Form

Under the provisions of the Clean Water Act, as amended (33 U.S.C. 1251 et seq.; the Act), federal law prohibits storm water discharges from certain construction activities to waters of the U.S. unless that discharge is covered under a National Pollutant Discharge Elimination System (NPDES) Permit. Operator(s) of construction sites where one or more acres are disturbed, smaller sites that are part of a larger common plan of development or sale where there is a cumulative disturbance of at least one acre, or any other site specifically designated by the Director, must submit an NOI to obtain coverage under an NPDES general permit. Each person, firm, public organization, or any other entity that meets either of the following criteria must file this form: (1) they have operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or (2) they have day-to-day operational control of those activities at the project necessary to ensure compliance with SWPPP requirements or other permit conditions. If you have questions about whether you need an NPDES storm water permit, or if you need information to determine whether EPA or your state agency is the permitting authority, refer to www.epa.gov/npdes/stormwater/cgp or telephone the Storm Water Notice Processing Center at (866) 352-7755.

Where to File NOI Form

See the applicable CGP for information on where to send your completed NOI form.

Completing the Form

Obtain and read a copy of the appropriate EPA Storm Water Construction General Permit for your area. To complete this form, type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks (abbreviate if necessary to stay within the number of characters allowed for each item). Use one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. If you have any questions on this form, refer to www.epa.gov/npdes/stormwater/cgp or telephone the Storm Water Notice Processing Center at (866) 352-7755. Please submit original document with signature in ink - do not send a photocopied signature.

Section I. Permit Number

Provide the number of the permit under which you are applying for coverage (see Appendix B of the general permit for the list of eligible permit numbers).

Section II. Operator Information

Provide the legal name of the person, firm, public organization, or any other entity that operates the project described in this

application. An operator of a project is a legal entity that controls at least a portion of site operations and is not necessarily the site manager. Provide the employer identification number (EIN from the Internal Revenue Service; IRS), also commonly referred to as your taxpayer ID. If the applicant does not have an EIN enter "NA" in the space provided. Also provide the operator's mailing address, telephone number, fax number (optional) and e-mail address (if you would like to be notified via e-mail of NOI approval when available). Correspondence for the NOI will be sent to this address.

Section III. Project/Site Information

Enter the official or legal name and complete street address, including city, state, zip code, and county or similar government subdivision of the project or site. If the project or site lacks a street address, indicate the general location of the site (e.g., Intersection of State Highways 61 and 34). Complete site information must be provided for permit coverage to be granted.

The applicant must also provide the latitude and longitude of the facility either in degrees, minutes, seconds; degrees, minutes, decimal; or decimal format. The latitude and longitude of your facility can be determined in several different ways, including through the use of global positioning system (GPS) receivers, U.S. Geological Survey (U.S.G.S.) topographic or quadrangle maps, and EPA's web-based siting tools, among others. Refer to www.epa.gov/npdes/stormwater/cgp for further guidance on the use of these methodologies. For consistency, EPA requests that measurements be taken from the approximate center of the construction site. Applicants must specify which method they used to determine latitude and longitude. If a U.S.G.S. topographic map is used, applicants are required to specify the scale of the map used.

Indicate whether the project is in Indian country, and if so, provide the name of the Reservation. If the project is in Indian Country Lands that are not part of a Reservation, indicate "not applicable" in the space provided.

Enter the estimated construction start and completion dates using four digits for the year (i.e., 05/27/1998). Enter the estimated area to be disturbed including but not limited to: grubbing, excavation, grading, and utilities and infrastructure installation. Indicate to the nearest quarter acre. Note: 1 acre = 43,560 sq. ft.

Section IV. SWPPP Information

Indicate whether or not the SWPPP was prepared in advance of filing the NOI form. Check the appropriate box for the location where the SWPPP may be viewed. Provide the name,

Instructions for Completing EPA Form 3510-9

**Notice of Intent (NOI) for Storm Water Discharges Associated with
Construction Activity Under an NPDES General Permit**

NPDES Form

This Form Replaces Form 3510-9 (8/98)

Form Approved OMB Nos. 2040-0188 and 2040-0211

fax number (optional), and e-mail address (optional) of the contact person if different than that listed in Section II of the NOI form.

Section V. Discharge Information

Enter the name(s) of receiving waterbodies to which the project's storm water will discharge. These should be the first bodies of water that the discharge will reach. (Note: If you discharge to more than one waterbody, please indicate all such waters in the space provided and attach a separate sheet if necessary.) For example, if the discharge leaves your site and travels through a roadside swale or a storm sewer and then enters a stream that flows to a river, the stream would be the receiving waterbody. Waters of the U.S. include lakes, streams, creeks, rivers, wetlands, impoundments, estuaries, bays, oceans, and other surface bodies of water within the confines of the U.S. and U.S. coastal waters. Waters of the U.S. do not include man-made structures created solely for the purpose of wastewater treatment. U.S. Geological Survey topographical maps may be used to make this determination. If the map does not provide a name, use a format such as "unnamed tributary to Cross Creek". If you discharge into a municipal separate storm sewer system (MS4), you must identify the waterbody into which that portion of the storm sewer discharges. That information should be readily available from the operator of the MS4.

Indicate whether your storm water discharges from construction activities will be consistent with the assumptions and requirements of applicable EPA approved or established TMDL(s). To answer this question, refer to www.epa.gov/npdes/stormwater/cgp for state- and regional-specific TMDL information related to the construction general permit. You may also have to contact your EPA regional office or state agency. If there are no applicable TMDLs or no related requirements, please check the "yes" box in the NOI form.

Section VI. Endangered Species Information

Indicate for which criterion (i.e., A, B, C, D, E, or F) of the permit the applicant is eligible with regard to protection of federally listed endangered and threatened species, and designated critical habitat. See Part 1.3.C.6 and Appendix C of the permit. If you select criterion F, provide the permit tracking number of the operator under which you are certifying eligibility. The permit tracking number is the number assigned to the operator by the Storm Water Notice Processing Center after EPA acceptance of a complete NOI.

Section VII. Certification Information

All applications, including NOIs, must be signed as follows:

For a corporation: By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means:

(i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or

For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

Include the name and title of the person signing the form and the date of signing. An unsigned or undated NOI form will not be considered eligible for permit coverage.

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 3.7 hours. This estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form, including any suggestions which may increase or reduce this burden to: Chief, Information Policy Branch 2136, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, D.C. 20460. Include the OMB control number on any correspondence. Do not send the completed form to this address.

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General site information. Please provide the following information about the site:

a) Name of facility/site: NORTH DORCHESTER BAY CSD		Facility/site address: SEE BELOW	
Location of facility/site: Longitude: -71° 01' 16" latitude: 42° 20' 18"	Facility SIC code(s):	Street: SHORE ROAD, WILLIAM DAY BLVD EAST BROADWAY NORTH STREET AND EAST FIFTH ST	
b) Name of facility/site owner: MASSACHUSETTS WATER RESOURCES AUTH		Town: BOSTON	
Email address of owner:		State: MA	Zip: 02127 County: SUFFOLK
Telephone no. of facility/site owner:			
Fax no. of facility/site owner:		Owner is (check one): 1. Federal _____ 2. State/Tribal _____ 3. Private ☒ 4. other, if so, describe: _____	
Address of owner (if different from site): CHARLESTOWN NAVY YARD			
Street: 100 FIRST STREET			
Town: BOSTON	State: MA	Zip: 02129	County: SUFFOLK
c) Legal name of operator: WALSH CONSTRUCTION		Operator telephone no: 781-793-9988	
		Operator fax no.: 781-793-9294	Operator email: _____
Operator contact name and title: ROBERT BAILEY PROJECT MANAGER			
Address of operator (if different from owner):		Street: 2 COMMERCIAL STREET	
Town: SHARON	State: MA	Zip: 02067	County: NORFOLK
d) Check "yes" or "no" for the following:			
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes ☐ No ☒ if "yes," number: _____			
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes ☐ No ☒ if "yes," date and tracking #: _____			
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes ☒ No ☐ _____			
4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes ☐ No ☒ _____			

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes <u>X</u> No <u> </u> If "yes," please list: <u>DEP # 006-1172</u> 1. site identification # assigned by the state of NH or MA: 2. permit or license # assigned: 3. state agency contact information: name, location, and telephone number:	f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y <u> </u> N <u>X</u>, if Y, number: 2. phase I or II construction storm water general permit? Y <u> </u> N <u>X</u>, if Y, number: 3. individual NPDES permit? Y <u> </u> N <u>X</u>, if Y, number: 4. any other water quality related permit? Y <u> </u> N <u>X</u>, if Y, number:
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2. **Discharge information.** Please provide information about the discharge, (attaching additional sheets as needed) including:

Describe the discharge activities for which the owner/applicant is seeking coverage: AS REQUIRED, UNCONTAMINATED EXCAVATION DEWATERING FOR A 4,000 FT LONG, 24" DIAMETER FORCE MAIN ALONG WILLIAM DAY BLVD, EAST BROADWAY TO EXISTING SOUTH BOSTON INTERCEPTOR IN NORTH STREET.

1) Number of discharge points: <u>1/4</u>	2) What is the maximum and average flow rate of discharge (in cubic feet per second, f3/s)? Max. flow <u>1000-1500 GALS MIN</u> Average flow <u> </u> Is maximum flow a design value? Y <u>X</u> N <u> </u> (ESTIMATED) For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.
3) Latitude and longitude of each discharge within 100 feet: pt.1: long. <u>-71-01-19</u> lat. <u>42-20-17</u>; pt.2: long. <u> </u> lat. <u> </u>; pt.3: long. <u> </u> lat. <u> </u>; pt.4: long. <u> </u> lat. <u> </u>; pt.5: long. <u> </u> lat. <u> </u>; pt.6: long. <u> </u> lat. <u> </u>; pt.7: long. <u> </u> lat. <u> </u>; pt.8: long. <u> </u> lat. <u> </u>; etc.	
4) If hydrostatic testing, total volume of the discharge (gals): <u>N/A</u>	5) Is the discharge intermittent ☒ or seasonal ☐? Is discharge ongoing Yes <u> </u> No ☒?
c) Expected dates of discharge (mm/dd/yy): start <u>6/2/2009</u> end <u>12/01/2010</u>	
d) Please attach a line drawing or flow schematic showing water flow through the facility including: <u>ATTACHED</u> 1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).	

3) SEE ATTACHED PLAN PROFILE OF PROPOSED INTERCEPTOR CORRIDOR - SITE FIGURE MWRA

DRAWING # C-16

BOH-15 STA 0+11.7

PROPOSED DEWATERING-PUMP

N 42-20-17

W -71-01-19

3. Contaminant information. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for all of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only	VOC Only	Primarily Metals	Urban Fill Sites ☒	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants ☒	Petroleum with Other Contaminants ☒	Listed Contaminated Sites ☒	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids			NS							→
2. Total Residual Chlorine			1	GRAB						
3. Total Petroleum Hydrocarbons			1		MA DEP EPH/VPH	1,000	ND	-	-	-
4. Cyanide			NS							→
5. Benzene			1			1.0	<1.0	-	<1.0	-
6. Toluene			1			1.0	<1.0	-	<1.0	-
7. Ethylbenzene			1			1.0	<1.0	-	<1.0	-
8. (m,p,o) Xylenes			1			1.0	<1.0	-	<1.0	-
9. Total BTEX ⁴	✓		1			1.0	<1.0	-	<1.0	-

PROFIE GW DATA POINT BOH-15A

⁴BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide ⁵ (1,2- Dibromo-methane)			1	GRAB	MADEP ^{EPH}	1.0	—	—	—	—
11. Methyl-tert-Butyl Ether (MTBE)			1	GRAB	MADEP ^{EPH}	1.0	<1.0	—	<1.0	—
12. tert-Butyl Alcohol (TBA)			1	—	—	—	—	—	—	—
13. tert-Amyl Methyl Ether (TAME)			1	—	—	—	—	—	—	—
14. Naphthalene			1	GRAB	MADEP ^{EPH}	2.1	<1.0	—	<1.0	—
15. Carbon Tetra-chloride			1	—	—	—	—	—	—	—
16. 1,4 Dichlorobenzene										
17. 1,2 Dichlorobenzene										
18. 1,3 Dichlorobenzene										
19. 1,1 Dichloroethane										
20. 1,2 Dichloroethane										
21. 1,1 Dichloroethylene										
22. cis-1,2 Dichloro-ethylene										
23. Dichloromethane (Methylene Chloride)										
24. Tetrachloroethylene	Y									

SEE ATTACHED DATA ON B04-15A

⁵ EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane										
26. 1,1,2 Trichloroethane										
27. Trichloroethylene										
28. Vinyl Chloride										
29. Acetone										
30. 1,4 Dioxane										
31. Total Phenols										
32. Pentachlorophenol										
33. Total Phthalates ⁶ (Phthalate esters)										
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]										
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)										
a. Benzo(a) Anthracene										
b. Benzo(a) Pyrene										
c. Benzo(b) Fluoranthene										
d. Benzo(k) Fluoranthene										
e. Chrysene										

SEE ATTACHED DATA ON BOM-15A NO DATA FOR PAGE 14

⁶The sum of individual phthalate compounds.

500-1000

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene			1	GRAB	M8270	L8B DATA	<2.1	-	<2.1	-
g. Indeno(1,2,3-cd) Pyrene			1	GRAB	M8270	"	<2.1	-	<2.1	-
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)			1	GRAB	M8270	"	ND	-	-	-
h. Acenaphthene			1	GRAB	M8270	"	<2.1	-	<2.1	-
i. Acenaphthylene			1	GRAB	M8270	"	<2.1	-	<2.1	-
j. Anthracene			1	GRAB	M8270	"	<2.1	-	<2.1	-
k. Benzo(ghi) Perylene			1	GRAB	M8270	"	<2.1	-	<2.1	-
l. Fluoranthene			1	GRAB	M8270	"	<2.1	-	<2.1	-
m. Fluorene			1	GRAB	M8270	"	<2.1	-	<2.1	-
n. Naphthalene-			1	GRAB	M8270	"	<2.1	-	<2.1	-
o. Phenanthrene			1	GRAB	M8270	"	<2.1	-	<2.1	-
p. Pyrene	✓		1	GRAB	M8270	"	<2.1	-	<2.1	-
37. Total Polychlorinated Biphenyls (PCBs)				NS						-
38. Antimony	✓			GRAB	EPA6020	5.0	<5.0	-	<5.0	-
39. Arsenic		✓		GRAB	"	1.0	1.9	-	1.9	-
40. Cadmium	✓			GRAB	EPA6010B	0.50	<2.0	-	<2.0	-
41. Chromium III	✓			GRAB	EPA6010B	2.0	<2.0	-	<2.0	-
42. Chromium VI	✓			GRAB	EPA6010B	2.0	<2.0	-	<2.0	-

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper	✓		—	—	—	—	—	—	—	—
44. Lead	✓		1	GRAB	6020A	0.50	0.50	—	0.50	—
45. Mercury	✓		—	—	—	—	—	—	—	—
46. Nickel	✓		1	GRAB	6020A	2.0	2.0	—	2.0	—
47. Selenium	✓		1	GRAB	6020A	1.1	1.1	—	1.1	—
48. Silver	✓		1	GRAB	6020A	1.0	1.0	—	1.0	—
49. Zinc	✓		1	GRAB	6020A	2.0	2.0	—	2.0	—
50. Iron	✓		—	—	—	—	—	—	—	—
Other (describe): BARIUM		✓	1	GRAB	6020A	2.5	96	—	96	—

c) For discharges where metals are believed present, please fill out the following:

Step 1: Do any of the metals in the influent have a reasonable potential to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y ☒ N ☐	If yes, which metals? BARIUM
Step 2: For any metals which have reasonable potential to exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metals: NIA NO DISCHARGE TO ANY DIRECT WATER BODY DF: NIA NO DISCHARGE TO ANY DIRECT WATER BODY	Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ☐ N ☐ If "Yes," list which metals:

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:					
b) Identify each applicable treatment unit (check all that apply):	Frac. tank ☒	Air stripper	Oil/water separator ☒	Equalization tanks	Bag filter ☒
	Chlorination	Dechlorination	Other (please describe):		
c) Proposed average and maximum flow rates (gallons per minute) for the discharge and the design flow rate(s) (gallons per minute) of the treatment system: Average flow rate of discharge <u>60</u> Maximum flow rate of treatment system <u>50</u> Design flow rate of treatment system <u>80</u>					
d) A description of chemical additives being used or planned to be used (attach MSDS sheets):					

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct ☒	Within facility ☒	Storm drain	River/brook	Wetlands	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: <u>RESERVE CHANNEL</u>						
c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: 1. For multiple discharges, number the discharges sequentially. 2. For indirect discharges, indicate the location of the discharge to the indirect conveyance and the discharge to surface water The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.						
d) Provide the state water quality classification of the receiving water <u>NIA</u> <u>RESERVE CHANNEL</u>						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water _____ cfs Please attach any calculation sheets used to support stream flow and dilution calculations.						
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes ☐ No ☐ If yes, for which pollutant(s)? Is there a TMDL? Yes ☐ No ☐ If yes, for which pollutant(s)?						

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes ☐ No ☒
 Has any consultation with the federal services been completed? Yes ☒ No ☐ or is consultation underway? Yes ☐ No ☐
 What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine 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?
 b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
 Yes ☐ No ☒ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes ☐ No ☐

7. 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.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

I certify under penalty of law that 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/Site Name:

NOETH DORCHESTER BAY CSO PUMPSTATION & SEWERS
MWRA # 6245

Operator signature:

Pat Bity

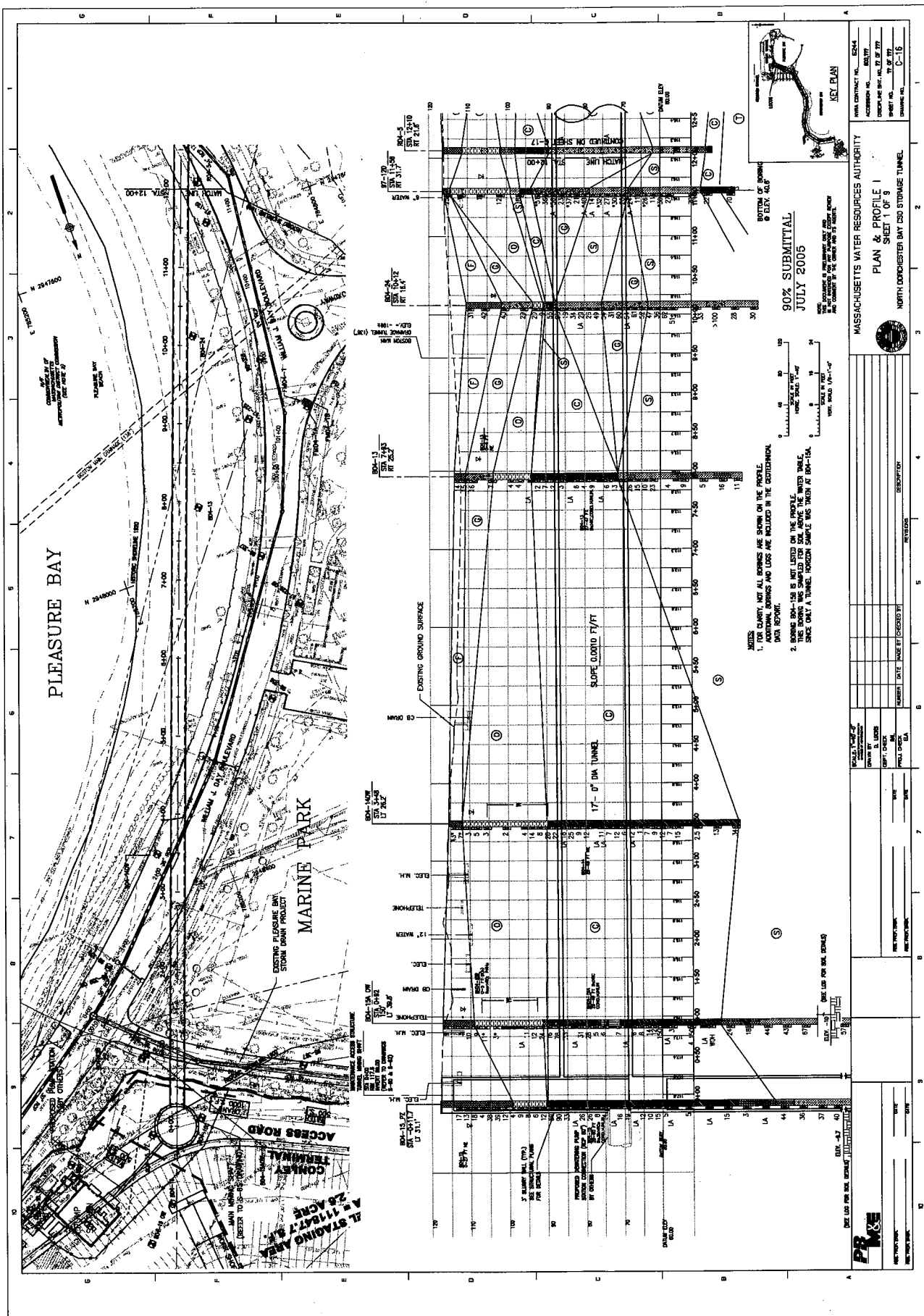
Title:

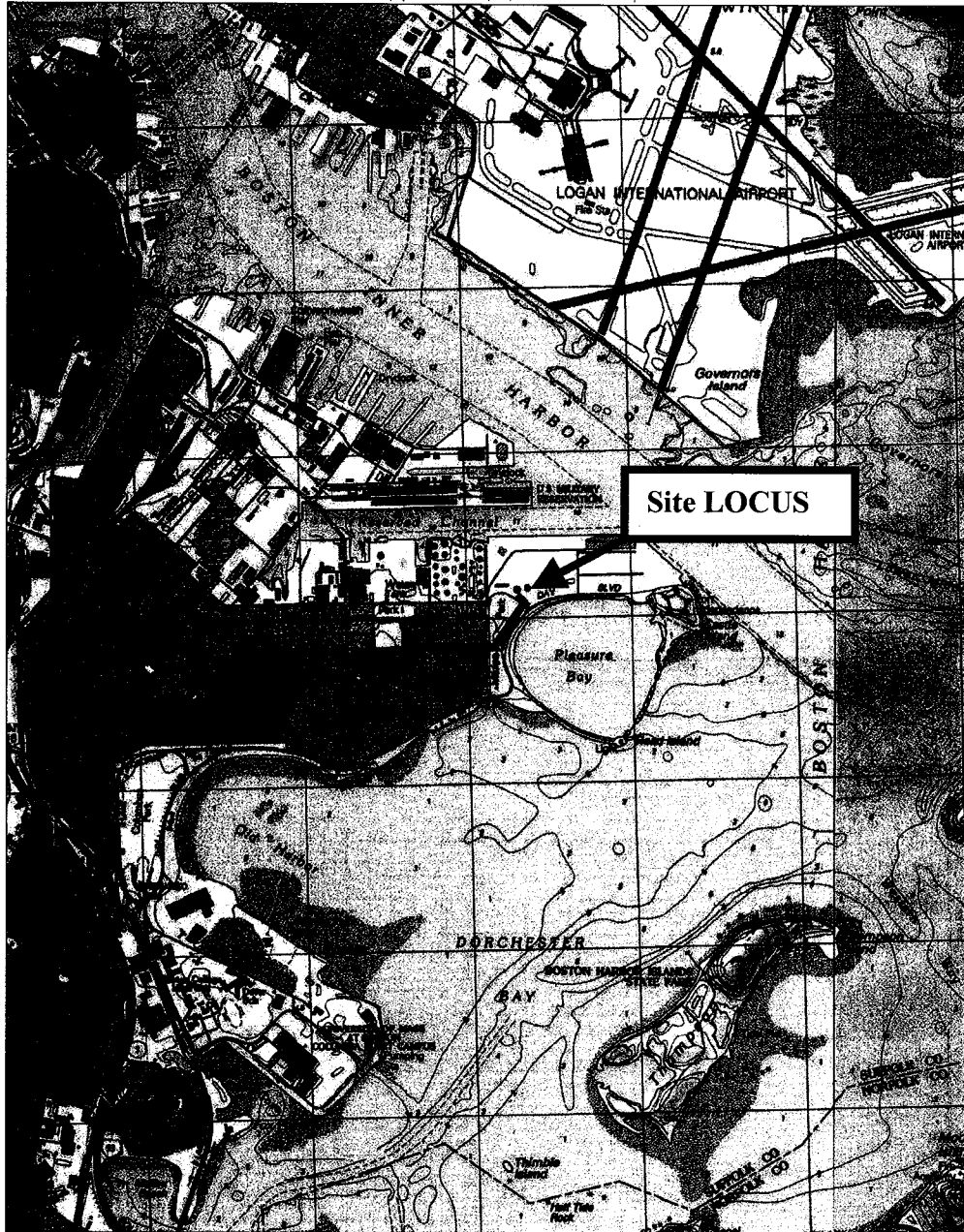
PROJECT MANAGER

Date:

6/22/09

PDF Page 931





Site LOCUS

Site Locus

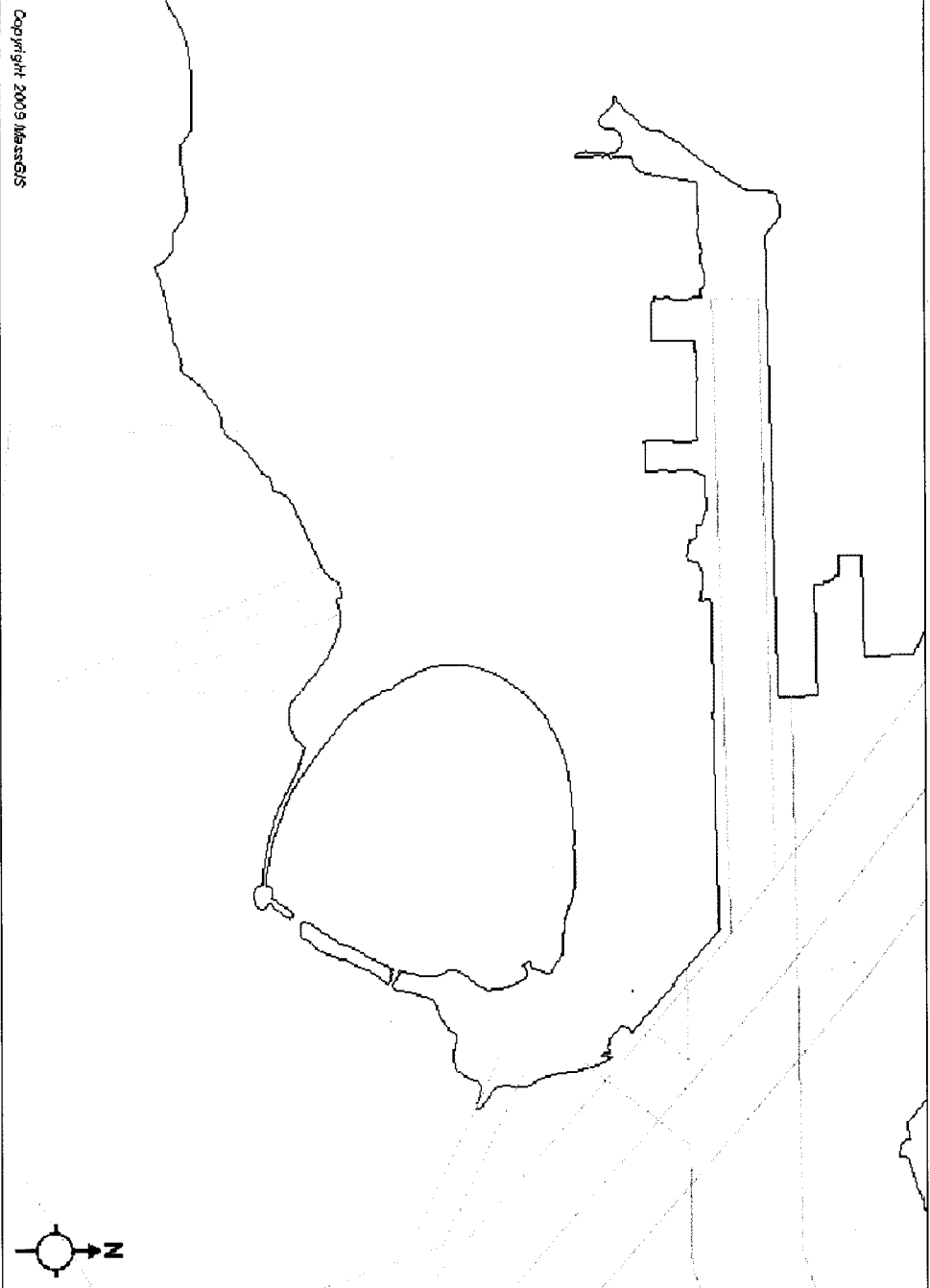
SWPPP Project Area

South Boston, MA 02127

OHI
OHI Engineering, Inc.
Engineers and Environmental Scientists
44 Wood Avenue - Mansfield, MA



CSO North Dorchester Bay Reserve Channel



Source: MassGIS (www.mass.gov/mgis). Maps and photos are for planning purposes only.

NB WATER BODY CLASSIFICATION

WARNING: This map does not meet national map accuracy standards, and cannot be used for engineering purposes. Please consult <http://www.state.ma.us/mgis/>

☒ Zone C

☐ Zone C

☒ Zone B

☐ Zone B

☒ Zone A

☐ Zone A

☒ Nautical Features

- ANCHORAGE AREA
- ANCHORAGE BERTH
- AREA TO BE AVOIDED
- COAL PRESS DEBARICATION ZONE LINE
- CABLE AREA
- CABLE LINE
- CHANNEL BOUNDARY LINE
- CHANNEL SEPARATION ZONE AREA
- DISPOSAL
- RSH TRAP AREA
- NATIONAL WILDLIFE REFUGE AREA
- PILOT BOARDING AREA
- P/P B LINE
- P/P B ME AREA
- PRECAUTIONARY AREA
- PROHIBITED ZONE
- SAFETY ZONE
- SEWER LINE
- SPOIL AREA
- TERRITORIAL SEALINE
- THREE NAUTICAL MILE LINE
- TRAFFIC LANE LINE
- TUNNEL
- UNEXPLODED ORDNANCE AREA
- UNIDENTIFIED

☒ MA Towns Survey

- Massachusetts Towns Boundaries from Survey
- Points
- TONNAGE
- INTERSTATE
- COAST

Profile

TABLE D-2C
DETECTED CONCENTRATIONS IN GROUNDWATER SAMPLES
2004/2005 SUPPLEMENTAL EXPLORATION PROGRAM, NORTH DORCHESTER BAY CSO STORAGE TUNNEL

WELL ID: WELL LOCATION: SAMPLE DELIVERY GROUP: SHEET NUMBER: BORING TYPE: SCREENED INTERVAL (FT BGS): DATE SAMPLED: MCP REPORTING CATEGORY:	REPORTABLE CONCENTRATIONS GW2 (1)	Remedial Goal at Final Effluent Limitations for Massachusetts (3)	97-102 OW Day Blvd. at C-24 Tunnel 18-33 GW2	97-115 OW Day Blvd. at C-19 Tunnel 4-19 GW2	97-115 OW Field Duplicate C-19 Tunnel 10-25 GW2	B04-14 Day Blvd. C-18 Tunnel 10-25 GW2	B04-15A Day Blvd. C-18 Tunnel 10-25 GW2
VOLATILE PETROLEUM HYDROCARBONS (µg/L) C8-C12 Aliphatics C9-C10 Aromatics Tagged VPH Analytes: Methyl-tert-butyl ether (MTBE) Benzene Toluene Ethylbenzene m,p-Xylenes o-Xylene Naphthalene TOTAL VPH (µg/L)	1,000 1,000 4,000 50,000 20,000 5,000 4,000 6,000 (8) 6,000 (8) 1,000 NL	NL NL 70.0 100 (5) 100 (5) 100 (5) 20 NL	<100 <100 <10 <10 <10 <10 <2.0 Not Detected	<100 <100 <10 <10 <10 <10 <2.0 Not Detected	<100 <100 <10 <10 <10 <10 <2.0 Not Detected	<100 <100 <10 <10 <10 <10 <2.0 Not Detected	<100 <100 <10 <10 <10 <10 <2.0 Not Detected
EXTRACTABLE PETROLEUM HYDROCARBONS (µg/L) C15-C28 Aliphatics C11-C22 Aromatics (excludes Targeted PAH Analytes) Tagged EPA PAH Analytes: Acenaphthene Anthracene Benz[a]anthracene Benz[b]pyrene Benz[e]pyrene Benz[k]fluoranthene Chrysene Dibenz[a,h]anthracene Fluoranthene Indeno[1,2,3-c,d]pyrene Naphthalene Phenanthrene Pyrene 2-Methylnaphthalene TOTAL EPA (µg/L)	1,000 20,000 50,000 5,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 3,000 1,000 NL	NL NL NL 100 (6) 100 (6) 0.0038 (7) 0.0038 (7) 100 (6) 0.0038 (7) 0.0038 (7) 100 (6) 0.0038 (7) 100 (6) 20 100 (6) NL NL NL	<100 <100 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 Not Detected Not Detected	<100 <100 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 Not Detected Not Detected	<100 <100 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 Not Detected Not Detected	<100 <100 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 Not Detected Not Detected	<100 <100 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 Not Detected Not Detected
MCP METALS (µg/L) (1) Antimony, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Mercury, dissolved Nickel, dissolved Selenium, dissolved Silver, dissolved Vanadium, dissolved Zinc, dissolved	300 400 30,000 50 10 2,000 300 30 1 80 80 7 2,000 400 500	5.6 36 NL NL 8.9 50.3 (4) 1.1 8.2 1.1 2.2 2.2 1.1 85.6	<5.0 <1.0 13 <0.50 <2.0 <2.0 <2.0 2.9 <1.1 <1.0 <2.0 <2.0 21 21	<5.0 1.0 48 <0.50 <2.0 <2.0 <2.0 5.9 <1.1 <1.0 <2.0 <2.0 48	<5.0 47 <0.50 <2.0 <2.0 <2.0 6.2 <1.1 <1.0 <2.0 <2.0 86	<5.0 1.9 180 <0.50 <2.0 <2.0 <2.0 2.4 <1.1 <1.0 <2.0 <2.0 86	<5.0 1.9 180 <0.50 <2.0 <2.0 <2.0 2.4 <1.1 <1.0 <2.0 <2.0 86
SULFATE (mg/L)	NL	NL	72	1,200	1,300	<50	<50



111 Herrick Street, Merrimack, NH 03054
TEL: (603) 424-2022 · FAX: (603) 429-8496

June 27, 2005

ANALYTICAL TEST RESULTS

Cindy Castleberry
Metcalf & Eddy, Inc.
701 Edgewater Drive
P.O. Box 4071
Wakefield, MA 01880
TEL: (781) 224-6350
FAX: (781) 224-6293

Subject: NDB/CSO South Boston

Workorder No.: 0506077

Dear Cindy Castleberry:

AMRO Environmental Laboratories Corp. received 10 samples on 6/8/05 for the analyses presented in the following report.

AMRO operates a Quality Assurance Program which meets or exceeds National Environmental Laboratory Accreditation Conference (NELAC), state, and EPA requirements.

The enclosed Sample Receipt Checklist details the condition of your sample(s) upon receipt. Please be advised that any unused sample volume and sample extracts will be stored for a period of 60 days from sample receipt date (90 days for samples from New York). After this time, AMRO will properly dispose of the remaining sample(s). If you require further analysis, or need the samples held for a longer period, please contact us immediately.

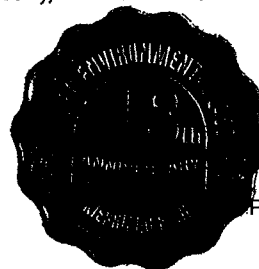
This report consists of a total of 71 pages. This letter is an integral part of your data report. All results in this project relate only to the sample(s) as received by the laboratory and documented in the Chain-of-Custody. This report shall not be reproduced except in full, without the written approval of the laboratory. If you have any questions regarding this project in the future, please refer to the Workorder Number above.

Sincerely,

Nancy Stewart
Vice President

State Certifications: NH (NELAC): 1001, MA: M-NH012, CT: PH-0758, NY: 11278 (NELAC), ME: NH012 and 1001, NJ: NH125, RI: 00105, U.S. Army Corps of Engineers (USACE), Naval Facilities Engineering Service Center (NFESC).

Hard copy of the State Certification is available upon request.



AMRO Environmental Laboratories Corp.

Date: 23-Jun-05

CLIENT: Metcalf & Eddy, Inc.
Project: NDB/CSO South Boston
Lab Order: 0506077
Date Received: 6/8/05

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date	Collection Time
0506077-01A	97-115 OW	6/7/05	3:15 PM
0506077-01B	97-115 OW	6/7/05	3:15 PM
0506077-01C	97-115 OW	6/7/05	3:15 PM
0506077-01D	97-115 OW	6/7/05	3:15 PM
0506077-02A	97-102 OW	6/7/05	10:10 AM
0506077-02B	97-102 OW	6/7/05	10:10 AM
0506077-02C	97-102 OW	6/7/05	10:10 AM
0506077-02D	97-102 OW	6/7/05	10:10 AM
0506077-03A	97-CS-115 OW	6/7/05	4:00 PM
0506077-03B	97-CS-115 OW	6/7/05	4:00 PM
0506077-03C	97-CS-115 OW	6/7/05	4:00 PM
0506077-03D	97-CS-115 OW	6/7/05	4:00 PM
0506077-04A	97-110 OW	6/7/05	11:00 AM
0506077-04B	97-110 OW	6/7/05	11:00 AM
0506077-04C	97-110 OW	6/7/05	11:00 AM
0506077-04D	97-110 OW	6/7/05	11:00 AM
0506077-05A	B04-14	6/7/05	2:30 PM
0506077-05B	B04-14	6/7/05	2:30 PM
0506077-05C	B04-14	6/7/05	2:30 PM
0506077-05D	B04-14	6/7/05	2:30 PM
0506077-06A	B04-18	6/8/05	11:20 AM
0506077-06B	B04-18	6/8/05	11:20 AM
0506077-06C	B04-18	6/8/05	11:20 AM
0506077-06D	B04-18	6/8/05	11:20 AM
0506077-07A	B04-17	6/8/05	10:40 AM
0506077-07B	B04-17	6/8/05	10:40 AM
0506077-07C	B04-17	6/8/05	10:40 AM
0506077-07D	B04-17	6/8/05	10:40 AM
0506077-08A	B04-15A	6/8/05	2:40 PM
0506077-08B	B04-15A	6/8/05	2:40 PM
0506077-08C	B04-15A	6/8/05	2:40 PM
0506077-08D	B04-15A	6/8/05	2:40 PM
0506077-09A	B04-19	6/8/05	3:35 PM
0506077-09B	B04-19	6/8/05	3:35 PM
0506077-09C	B04-19	6/8/05	3:35 PM

CLIENT: Metcalf & Eddy, Inc.
Project: NDB/CSO South Boston
Lab Order: 0506077
Date Received: 6/8/05

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date	Collection Time
0506077-09D	B04-19	6/8/05	3:35 PM
0506077-10A	GW-TB-01	6/8/05	1:45 PM

DATES REPORT

Lab Order: 0506077
 Client: Metcalf & Eddy, Inc.
 Project: NDB/CSO South Boston

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name	Preparatory Test Name	Prep Date	Batch ID	Analysis Date	TCLP Date
0506077-01A	97-115 OW	6/7/05 3:15:00 PM	Groundwater	Volatile Petroleum Hydrocarbons I.I		6/8/05	6/9/05	R28582	
0506077-01B				Ion Chromatography, EPA 300			6/22/05	R28789	
0506077-01C				EPA 6010B ICP METALS, DISSOLVED			6/14/05		
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA		6/10/05	14116		
				EPA 7041 ANTIMONY, Dissolved			6/17/05	R28752	
				EPA 7060 ARSENIC, Dissolved			6/17/05		
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA		6/10/05	14116		
				EPA 7421 LEAD, Dissolved			6/20/05		
						6/10/05	14116		
				EPA 7470 MERCURY, Dissolved			6/15/05		
				MERCURY PREP: EPA 245.1/7040		6/14/05	14146		
				EPA 7740 SELENIUM, Dissolved			6/17/05		
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA		6/10/05	14116		
				EPA 7841 THALLIUM, Dissolved			6/17/05		
						6/10/05	14116		
0506077-01D				EPH I.I, Water, Full List			6/21/05		
				AQPREP SEP FUNNEL: EPH		6/10/05	14123		
				EPH I.I, Water, Full List			6/21/05		
						6/10/05	14123		
0506077-02A	97-102 OW	6/7/05 10:10:00 AM		Volatile Petroleum Hydrocarbons I.I			6/9/05	R28582	

DATES REPORT

Lab Order: 0506077

Client: Metcalf &

Project: NDB/CSC

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name Preparatory Test Name	Prep Date	Batch ID	Analysis Date TCLP Date
0506077-02B	97-102 OW	6/7/05 10:10:00 AM	Groundwater	Ion Chromatography, EPA 300		6/23/05 R28810	
0506077-02C				EPA 6010B ICP METALS, DISSOLVED		6/14/05	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116	
				EPA 7041 ANTIMONY, Dissolved		6/17/05 R28752	
				EPA 7060 ARSENIC, Dissolved		6/17/05	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116	
				EPA 7421 LEAD, Dissolved		6/20/05 14116	
				EPA 7470 MERCURY, Dissolved		6/15/05	
				MERCURY PREP: EPA 245.1/7040	6/14/05	14146	
				EPA 7740 SELENIUM, Dissolved		6/17/05	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116	
				EPA 7841 THALLIUM, Dissolved		6/17/05 14116	
0506077-02D				EPH 1.1, Water, Full List		6/21/05	
				AQPREP SEP FUNNEL: EPH	6/10/05	14123	
				EPH 1.1, Water, Full List		6/21/05	
					6/10/05	14123	
0506077-03A	97-CS-115 OW	6/7/05 4:00:00 PM		Volatile Petroleum Hydrocarbons 1.1		6/9/05 R28582	
0506077-03B				Ion Chromatography, EPA 300		6/23/05 R28810	

DATES REPORT

Lab Order: 0506077
 Client: Metcalf & Eddy, Inc.
 Project: NDB/CSO South Boston

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name Preparatory Test Name	Prep Date	Analysis Date Batch ID	TCLP Date
0506077-03C	97-CS-115 OW	6/7/05 4:00:00 PM	Groundwater	EPA 6010B ICP METALS, DISSOLVED	6/14/05	6/14/05	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116	
				EPA 7041 ANTIMONY, Dissolved	6/17/05	6/17/05	
						R28752	
				EPA 7060 ARSENIC, Dissolved	6/17/05	6/17/05	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116	
				EPA 7421 LEAD, Dissolved	6/20/05	6/20/05	
					6/10/05	14116	
				EPA 7470 MERCURY, Dissolved	6/15/05	6/15/05	
				MERCURY PREP: EPA 245.1/7040	6/14/05	14146	
				EPA 7740 SELENIUM, Dissolved	6/17/05	6/17/05	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116	
				EPA 7841 THALLIUM, Dissolved	6/17/05	6/17/05	
					6/10/05	14116	
				EPH 1.1, Water, Full List	6/21/05	6/21/05	
				AQPREP SEP FUNNEL: EPH	6/10/05	14123	
0506077-03D				EPH 1.1, Water, Full List	6/21/05	6/21/05	
					6/10/05	14123	
				Volatile Petroleum Hydrocarbons 1.1	6/9/05	6/9/05	
					6/8/05	R28582	
0506077-04A	97-110 OW	6/7/05 11:00:00 AM		Ion Chromatography, EPA 300	6/23/05	6/23/05	
						R28810	
				EPA 6010B ICP METALS, DISSOLVED	6/17/05	6/17/05	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116	
0506077-04B							
0506077-04C							

DATES REPORT

Lab Order: 0506077

Client: Metcalf & Eddy, Inc.

Project: NDB/CSO South Boston

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name	Prep Date	Batch ID	Analysis Date	TCLP Date
0506077-04C	97-110 OW	6/7/05 11:00:00 AM	Groundwater	EPA 6010B ICP METALS, DISSOLVED			6/14/05	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05		14116	
				EPA 7041 ANTIMONY, Dissolved			6/17/05	
							R28752	
				EPA 7060 ARSENIC, Dissolved			6/17/05	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05		14116	
				EPA 7421 LEAD, Dissolved			6/20/05	
					6/10/05		14116	
				EPA 7470 MERCURY, Dissolved			6/15/05	
				MERCURY PREP: EPA 245.1/7040	6/14/05		14146	
				EPA 7740 SELENIUM, Dissolved			6/17/05	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05		14116	
				EPA 7841 THALLIUM, Dissolved			6/17/05	
					6/10/05		14116	
				EPH 1.1, Water, Full List			6/21/05	
				AQPREP SEP FUNNEL: EPH	6/10/05		14123	
0506077-04D				EPH 1.1, Water, Full List			6/21/05	
					6/10/05		14123	
				Volatile Petroleum Hydrocarbons 1.1			6/9/05	
					6/8/05		R28582	
0506077-05A	B04-14	6/7/05 2:30:00 PM		Ion Chromatography, EPA 300			6/23/05	
							R28810	
				EPA 6010B ICP METALS, DISSOLVED			6/14/05	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05		14116	

DATES REPORT

Lab Order: 0506077

Client: Metcalf & Eddy, Inc.

Project: NDB/CSO South Boston

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name	Prep Date	Batch ID	Analysis Date	TCLP Date
0506077-05C	B04-14	6/7/05 2:30:00 PM	Groundwater	EPA 7041 ANTIMONY, Dissolved		6/17/05 R28752		
				EPA 7060 ARSENIC, Dissolved		6/17/05		
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116		
				EPA 7421 LEAD, Dissolved		6/20/05 14116		
				EPA 7470 MERCURY, Dissolved		6/15/05		
				MERCURY PREP: EPA 245.1/7040	6/14/05	14146		
				EPA 7740 SELENIUM, Dissolved		6/17/05		
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116		
				EPA 7841 THALLIUM, Dissolved		6/17/05 14116		
0506077-05D				EPH 1.1, Water, Full List		6/21/05		
				AQPREP SEP FUNNEL: EPH	6/10/05	14123		
				EPH 1.1, Water, Full List		6/21/05 14123		
0506077-06A	B04-18	6/8/05 11:20:00 AM		Volatile Petroleum Hydrocarbons 1.1		6/9/05		
					6/8/05	R28582		
0506077-06B				Ion Chromatography, EPA 300		6/23/05 R28810		
0506077-06C				EPA 6010B ICP METALS, DISSOLVED		6/14/05		
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116		
				EPA 6010B ICP METALS, DISSOLVED		6/17/05 14116		

DATES REPORT

Lab Order: 0506077
 Client: Metcalf & Eddy, Inc.
 Project: NDB/CSO South Boston

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name Preparatory Test Name	Prep Date	Batch ID	Analysis Date TCLP Date
0506077-06C	B04-18	6/8/05 11:20:00 AM	Groundwater	EPA 7041 ANTIMONY, Dissolved	6/17/05	R28752	
				EPA 7060 ARSENIC, Dissolved	6/17/05		
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116	
				EPA 7421 LEAD, Dissolved	6/20/05		
					6/10/05	14116	
				EPA 7470 MERCURY, Dissolved	6/15/05		
				MERCURY PREP: EPA 245.1/7040	6/14/05	14146	
				EPA 7740 SELENIUM, Dissolved	6/17/05		
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116	
				EPA 7841 THALLIUM, Dissolved	6/17/05		
					6/10/05	14116	
0506077-06D				EPH 1.1, Water, Full List	6/23/05		
				AQPREP SEP FUNNEL: EPH	6/10/05	14123	
				EPH 1.1, Water, Full List	6/23/05		
					6/10/05	14123	
0506077-07A	B04-17	6/8/05 10:40:00 AM		Volatile Petroleum Hydrocarbons 1.1	6/9/05		
					6/8/05	R28582	
0506077-07B				Ion Chromatography, EPA 300	6/22/05		
						R28789	
0506077-07C				EPA 6010B ICP METALS, DISSOLVED	6/17/05		
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116	
				EPA 6010B ICP METALS, DISSOLVED	6/14/05		
					6/10/05	14116	

DATES REPORT

Lab Order: 0506077
 Client: Metcalf & Eddy, Inc.
 Project: NDB/CSO South Boston

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name	Preparatory Test Name	Prep Date	Batch ID	Analysis Date	TCLP Date
0506077-07C	B04-17	6/8/05 10:40:00 AM	Groundwater	EPA 7041 ANTIMONY, Dissolved				6/17/05	
				EPA 7060 ARSENIC, Dissolved				R28752	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA		6/10/05	14116		
				EPA 7421 LEAD, Dissolved				6/20/05	
						6/10/05	14116		
				EPA 7470 MERCURY, Dissolved				6/15/05	
				MERCURY PREP: EPA 245.1/7040		6/14/05	14146		
				EPA 7740 SELENIUM, Dissolved				6/17/05	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA		6/10/05	14116		
				EPA 7841 THALLIUM, Dissolved				6/17/05	
						6/10/05	14116		
0506077-07D				EPH 1.1, Water, Full List				6/23/05	
				AQPREP SEP FUNNEL: EPH		6/10/05	14123		
				EPH 1.1, Water, Full List				6/23/05	
						6/10/05	14123		
0506077-08A	B04-15A	6/8/05 2:40:00 PM		Volatile Petroleum Hydrocarbons 1.1				6/10/05	
						6/8/05	R28582		
0506077-08B				Ion Chromatography, EPA 300				6/23/05	
							R28810		
0506077-08C				EPA 6010B ICP METALS, DISSOLVED				6/17/05	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA		6/10/05	14116		
				EPA 6010B ICP METALS, DISSOLVED				6/14/05	
						6/10/05	14116		

DATES REPORT

Lab Order: 0506077
 Client: Metcalf & Eddy, Inc.
 Project: NDB/CSO South Boston

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name Preparatory Test Name	Prep Date	Batch ID	Analysis Date	TCLP Date
0506077-08C	B04-15A	6/8/05 2:40:00 PM	Groundwater	EPA 7041 ANTIMONY, Dissolved		6/17/05 R28752		
				EPA 7060 ARSENIC, Dissolved		6/17/05		
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116		
				EPA 7421 LEAD, Dissolved		6/20/05 14116		
				EPA 7470 MERCURY, Dissolved		6/15/05		
				MERCURY PREP: EPA 245.1/7040	6/14/05	14146		
				EPA 7740 SELENIUM, Dissolved		6/17/05		
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116		
				EPA 7841 THALLIUM, Dissolved		6/17/05 14116		
0506077-08D				EPH 1.1, Water, Full List		6/23/05		
				AQPREP SEP FUNNEL: EPH	6/10/05	14123		
				EPH 1.1, Water, Full List		6/23/05 14123		
0506077-09A	B04-19	6/8/05 3:35:00 PM		Volatile Petroleum Hydrocarbons 1.1		6/10/05		
					6/8/05	R28582		
0506077-09B				Ion Chromatography, EPA 300		6/22/05 R28789		
0506077-09C				EPA 6010B ICP METALS, DISSOLVED		6/17/05		
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116		
				EPA 6010B ICP METALS, DISSOLVED		6/14/05 14116		

DATES REPORT

Lab Order: 0506077
 Client: Metcalf & Eddy, Inc.
 Project: NDB/CSO South Boston

Sample ID	Client Sample ID	Collection Date	Matrix	Analytical Test Name Preparatory Test Name	Prep Date	Analysis Date Batch ID	TCLP Date
0506077-09C	B04-19	6/8/05 3:35:00 PM	Groundwater	EPA 7041 ANTIMONY, Dissolved		6/17/05 R28752	
				EPA 7060 ARSENIC, Dissolved		6/17/05	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116	
				EPA 7421 LEAD, Dissolved		6/20/05	
					6/10/05	14116	
				EPA 7470 MERCURY, Dissolved		6/15/05	
				MERCURY PREP: EPA 245.1/7040	6/14/05	14146	
				EPA 7740 SELENIUM, Dissolved		6/17/05	
				EPA 3010 AQPREP TOTAL METALS: ICP/GFAA	6/10/05	14116	
				EPA 7841 THALLIUM, Dissolved		6/17/05	
					6/10/05	14116	
0506077-09D				EPH 1.1, Water, Full List		6/23/05	
				AQPREP SEP FUNNEL: EPH	6/10/05	14123	
				EPH 1.1, Water, Full List		6/23/05	
					6/10/05	14123	
0506077-10A	GW-TB-01	6/8/05 1:45:00 PM	Trip Blank	Volatile Petroleum Hydrocarbons 1.1		6/9/05	
					6/8/05	R28582	

Project No.:	Project Name: <u>NDP/3011-125</u>	Project State: <u>MA</u>	Project Manager: <u>G. Heath</u>	Samplers (Signature): <u>[Signature]</u>	AMRO Project No.: <u>0506017</u>
P.O.#:	Results Needed by: <u>10/15/11</u>	Matrix	Total # of Cont. & Size	Comp.	Grab
QUOTE #:	Seal Intact? Yes No N/A	Date/Time Sampled			
Sample ID.:					
97-1150W	6/7/05 15:15	GW	7	X	X
97-1020W	6/7/05 12:10	GW	7	X	X
97-05-1150W	6/7/05 16:30	GW	7	X	X
97-47-110.0W	6/7/05 11:30	GW	7	X	X
97-114	6/7/05 14:30	GW	7	X	X
97-118	6/7/05 11:30	GW	7	X	X
97-117	6/7/05 10:40	GW	7	X	X
97-15A	6/7/05 11:40	GW	7	X	X
97-119	6/7/05 15:35	GW	7	X	X
Preservative: <u>Cl-HCl, MeOH, N-HN03, S-H2SO4, Na-NaOH, O-Other</u>					
Send Results To: <u>201 Cedar Street Dr. W. Merrimack, NH 03054</u>					
E-mail: <u>971-224-6427</u>					
PHONE #:	FAX #:	PRIORITY TURNAROUND TIME AUTHORIZATION			
		Before submitting samples for expedited TAT, you must have a coded AUTHORIZATION NUMBER			
		AUTHORIZATION No.: BY:			
		MCP Presumptive Certainty Required? YES ☒ NO ☐			
		MCP Methods Needed: YES ☒ NO ☐			
		AMRO report package level needed: YES ☒ NO ☐			
		EDD required: YES ☒ NO ☐			
		Required Reporting Limits: S-1 ☐ GW-1 ☐ S-2 ☐ GW-2 ☐ S-3 ☐ GW-3 ☐ Other: ☐			
Relinquished By: <u>[Signature]</u>		Received By: <u>[Signature]</u>			
Date/Time: <u>6/10/05 17:15</u>		Date/Time: <u>6/10/05 16:35</u>			
Samples arriving after 12:00 noon will be packed and billed as received on the following day.		Samples arriving after 12:00 noon will be packed and billed as received on the following day.			
White: Lab Copy		Yellow: Accompanies Report		Pink: Client Copy	
SHEET		OF		AMROCC2004 Rev.3 08/18/04	

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SAMPLE RECEIPT CHECKLIST

111 Herrick Street
Merrimack, NH 03054
(603) 424-2022

Client: METCALF & Eddy
Project Name: NSB/SOUTH BOSTON
Ship via: (circle one) Fed Ex., UPS, AMRO Courier,
Hand Del., Other Courier, Other:

AMRO ID: 0506077
Date Rec.: 6-8-05
Date Due: 6-15-05

Items to be Checked Upon Receipt

1. Army Samples received in individual plastic bags?
2. Custody Seals present?
3. Custody Seals Intact?
4. Air Bill included in folder if received?
5. Is COC included with samples?
6. Is COC signed and dated by client?
7. Laboratory receipt temperature. TEMP = 30
Samples rec. with ice ☒ ice packs ☐ neither ☐
8. Were samples received the same day they were sampled?
Is client temperature $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$?
If no obtain authorization from the client for the analyses.
Client authorization from: _____ Date: _____ Obtained by: _____
9. Is the COC filled out correctly and completely?
10. Does the info on the COC match the samples?
11. Were samples rec. within holding time?
12. Were all samples properly labeled?
13. Were all samples properly preserved?
14. Were proper sample containers used?
15. Were all samples received intact? (none broken or leaking)
16. Were VOA vials rec. with no air bubbles?
17. Were the sample volumes sufficient for requested analysis?
18. Were all samples received?

Yes	No	NA	Comments
☒			
☒			
☒			
		☒	
☒			
☒			
☒	☒		Sampled 6-7/8-05
☒			
☒			
☒			
☒			
☒			
☒			
☒			
☒	☒		Serial w/air bubble
☒			
☒			

19. VPH and VOA Soils only:

Sampling Method VPH (circle one): M=Methanol, E=EnCore (air-tight container)

Sampling Method VOA (circle one): M=Methanol, SB=Sodium Bisulfate, E=EnCore, B=Bulk

If M or SB:

Does preservative cover the soil?

If NO then client must be faxed.

Does preservation level come close to the fill line on the vial?

If NO then client must be faxed.

Were vials provided by AMRO?

If NO then weights MUST be obtained from client

Was dry weight aliquot provided?

If NO then fax client and inform the VOA lab ASAP.

20. Subcontracted Samples:

What samples sent:

Where sent:

Date:

Analysis:

TAT:

		☒	

21. Information entered into:

Internal Tracking Log?

Dry Weight Log?

Client Log?

Composite Log?

Filtration Log?

☒			
		☒	
		☒	
		☒	
		☒	

Received By: MG Date: 6-8-05
Labeled By: EG-T Date: 6-9-05

Logged in By: CC Date: 6-9-05
Checked By: MG Date: 6-10-05

NA= Not Applicable

111 Herrick Street
Merrimack, NH 03054
(603) 424-2022

Sample= Waste

AMRO ID: 0506077

pH Checked By: EG-T

Date:
6-9-05

pH adjusted By: CO Date: 6-9-05

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AMRO Environmental Laboratories Corp.

Date: 27-Jun-05

CLIENT: Metcalf & Eddy, Inc.
Project: NDB/CSO South Boston
Lab Order: 0506077

CASE NARRATIVE

MADEP VPH 1.1:

1. The following samples had pH >2: 97-102 OW (0506077-02) , B04-14 (0506077-05A) and B05-15A (0506077-08A).
2. A Laboratory Control Sample (LCS-06/09/05) and Laboratory Control Duplicate Sample (LCSD-06/09/05) were performed. N-Pentane recovered in the LCS at 132% above the control limits (70-130%).

MADEP EPH 1.1:

1. AMRO Laboratory analyzed EPH using the GC/MS option as indicated in the MA-DEP EPH Rev.1.1, Sec.9,10 May 2004.
1. The following samples needed pH adjustment on both bottles: 97-102-OW (0506077-02D), B04-14 (0506077- 05D), B04-18 (0506077- 06D) and B04-15A (0506077- 08D). Data flagged.
2. The result for the C19-C36 Aliphatic range in sample 97-102 OW (0506077-02D) is attributable to a non-hydrocarbon compound.
3. 1-Chlorooctadecane surrogate spike recovered outside the laboratory control limits (40-140%) in the following samples: 97-102 OW (0506077-02D), 97-CS-115 OW (05065077-03D), B04-14 9 (0506066-05D), B04-15A (0506077-08D).
4. A Laboratory Control Sample and Laboratory Control Duplicate Sample were performed on Batch ID: 14123.
- 4.1 %REC's for n-Decane, n-Dodecane, and n-Nonane were outside the laboratory control limits (30-140%) in both LCS and LCSD.
- 4.2 %RPD between the LCS and LCSD for n-Decane was 28.1% outside the laboratory control limits (25%).
- 4.3 %REC's for Naphthalene and 2-Methylnaphthalene were outside the laboratory control limits (40-140%) in both LCS and LCSD.

TRACE METALS

CLIENT: Metcalf & Eddy, Inc.
Project: NDB/CSO South Boston
Lab Order: 0506077

CASE NARRATIVE

1. Samples B04-18 (0506077-06C) and B04-15A (0506077-08C) had pH adjusted to <2.0 for Dissolved metals analyses upon the laboratory receipt.
2. All samples analyzed by ICP and GFA with the exception of sample 97-110 OW (050677-04) were analyzed at higher dilution due to the high concentration of Zinc and other elements in these samples.
3. A Laboratory Control Sample (LCS) for Antimony was performed on Batch ID: 14116. %REC was 122% outside the laboratory control limits (80-120%).

WET CHEMISTRY:

1. A Matrix Spike (MS) for sulfate was performed on sample 97-115 OW (0506077-01B). %REC was 112% outside the laboratory control limits (90-110%).

MADEP MCP Analytical Method Report Certification Form						
Laboratory Name: AMRO Environmental Laboratories, Inc.			Project Number: 0506077			
Project Location: NDB/CSO South Boston			MADEP RTN 1			
0506077-01 0506077-08	0506077-02 0506077-09	0506077-03 0506077-10	0506077-04	0506077-05	0506077-06	0506077-07
Sample Matrices:		Ground Water ☒ Soil / Sediment ☐ Drinking Water ☐ Other Matrix ☐				
MCP SW-846 Methods Used	8260B ☐	8151A ☐	8330 ☐	6010B ☒	7470A/1A ☒	
	8270C ☐	8081A ☐	VPH ☒	6020 ☐	9014M ² ☐	
As specified in MADEP Compendium of Analytical Methods	8082 ☐	8021B ☐	EPH ☒	7000S ³ ☒	Other ☒	
1 List Release Tracking Number (RTN) if known. 2 M - SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method 3 S - SW-846 Methods 7000 Series List individual method analyzed. (check all that apply)						

A	Were all samples received by the laboratory in a condition consistent with that described on the Chain of Custody documentation for the data set?	☐ Yes ☒ No ¹
B	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guide lines?	☒ Yes ☐ No ¹
C	Does the analytical data included in this report meet all the requirements for Presumptive Certainty, as described in Section 2.0 of the MADEP document CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?	☒ Yes ☐ No ¹
D	<u>VPH and EPH methods only:</u> Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	☒ Yes ☐ No ¹

E	Were all QC performance standards and recommendations for the specified methods achieved?	☐ Yes ☒ No	1
F	Were results for all analyte-list compounds / elements for the specified method(s) reported?	☒ Yes ☐ No	1

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

Signature: Samir A. Naqvi Position: QA Manager
Printed Name: Samir A. Naqvi Date: 06/27/05

DATA COMMENT PAGE

Organic Data Qualifiers

ND	Indicates compound was analyzed for, but not detected at or above the reporting limit.
J	Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than the method detection limit.
H	Method prescribed holding time exceeded.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
B	This flag is used when the analyte is found in the associated blank as well as in the sample.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
#	See Case Narrative

Micro Data Qualifiers

TNTC	Too numerous to count
------	-----------------------

Inorganic Data Qualifiers

ND or U	Indicates element was analyzed for, but not detected at or above the reporting limit.
J	Indicates a value greater than or equal to the method detection limit, but less than the quantitation limit.
H	Indicates analytical holding time exceedance.
B	Indicates that the analyte is found in the associated blank, as well as in the sample.
MSA	Indicates value determined by the Method of Standard Addition
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.
R	RPD outside accepted recovery limits
RL	Reporting limit; defined as the lowest concentration the laboratory can accurately quantitate.
S	Spike Recovery outside accepted recovery limits.
W	Post-digestion spike for Furnace AA analysis is out of control limits (85-115), while sample absorbance is less than 50% of spike absorbance.
*	Duplicate analysis not within control limits.
+	Indicates the correlation coefficient for the Method of Standard Addition is less than 0.995
#	See Case Narrative

Report Comments:

1. Soil, sediment and sludge sample results are reported on a "dry weight" basis.
2. Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

AMRO Environmental Laboratories Corp.

Date: 23-Jun-05

CLIENT:	Metcalf & Eddy, Inc.	Client Sample ID:	B04-15A
Lab Order:	0506077	Collection Date:	6/8/05 2:40:00 PM
Project:	NDB/CSO South Boston	Collection Time:	
Lab ID:	0506077-08A	Matrix:	GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MADEP VPH REVISION 1.1		MAVPH1.1			Analyst: SK	
*** Sample receipt problems were observed for this test method. See Case Narrative for details. ***						
C5-C8 Aliphatic Hydrocarbons	ND	100		µg/L	1	6/10/05 12:31:00 AM
C9-C12 Aliphatic Hydrocarbons	ND	100		µg/L	1	6/10/05 12:31:00 AM
C9-C10 Aromatic Hydrocarbons	ND	100		µg/L	1	6/10/05 12:31:00 AM
Benzene	ND	1.0		µg/L	1	6/10/05 12:31:00 AM
Ethylbenzene	ND	1.0		µg/L	1	6/10/05 12:31:00 AM
Methyl tert-butyl ether	ND	1.0		µg/L	1	6/10/05 12:31:00 AM
Naphthalene	ND	2.0		µg/L	1	6/10/05 12:31:00 AM
Toluene	ND	1.0		µg/L	1	6/10/05 12:31:00 AM
m,p-Xylene	ND	1.0		µg/L	1	6/10/05 12:31:00 AM
o-Xylene	ND	1.0		µg/L	1	6/10/05 12:31:00 AM
Surr: 2,5-Dibromotoluene-PID	110	70-130		%REC	1	6/10/05 12:31:00 AM
Surr: 2,5-Dibromotoluene-FID	127	70-130		%REC	1	6/10/05 12:31:00 AM

AMRO Environmental Laboratories Corp.

Date: 23-Jun-05

CLIENT: Metcalf & Eddy, Inc.
Lab Order: 0506077
Project: NDB/CSO South Boston
Lab ID: 0506077-08D

Client Sample ID: B04-15A
Collection Date: 6/8/05 2:40:00 PM
Collection Time:
Matrix: GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MADEP EPH REVISION 1.1		MAEPH				Analyst: RKK
*** Sample receipt problems were observed for this test method. See Case Narrative for details. ***						
C9-C18 Aliphatic Hydrocarbons	ND	100		µg/L	1	6/23/05 5:23:00 AM
C19-C36 Aliphatic Hydrocarbons	ND	100		µg/L	1	6/23/05 5:23:00 AM
C11-C22 Aromatic Hydrocarbons	ND	100		µg/L	1	6/23/05 5:57:00 AM
Naphthalene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
2-Methylnaphthalene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Acenaphthylene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Acenaphthene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Fluorene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Phenanthrene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Anthracene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Fluoranthene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Pyrene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Benz(a)anthracene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Chrysene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Benzo(b)fluoranthene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Benzo(k)fluoranthene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Benzo(a)pyrene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Dibenz(a,h)anthracene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Indeno(1,2,3-cd)pyrene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Benzo(g,h,i)perylene	ND	2.1		µg/L	1	6/23/05 5:57:00 AM
Surr: 1-Chlorooctadecane	38.0	40-140	S	%REC	1	6/23/05 5:23:00 AM
Surr: 2-Bromonaphthalene	89.2	40-140		%REC	1	6/23/05 5:57:00 AM
Surr: 2-Fluorobiphenyl	97.5	40-140		%REC	1	6/23/05 5:57:00 AM
Surr: o-Terphenyl	85.2	40-140		%REC	1	6/23/05 5:57:00 AM

AMRO Environmental Laboratories Corp.

Date: 23-Jun-05

CLIENT: Metcalf & Eddy, Inc.
Project: NDB/CSO South Boston**Lab Order:** 0506077**Lab ID:** 0506077-08**Collection Date:** 6/8/05 2:40:00 PM**Collection Time:****Client Sample ID:** B04-15A**Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
ICP METALS DISSOLVED SW-846		SW6010B		Analyst: AT		
Barium	ND	2,000		µg/L	10	6/14/05 6:31:09 PM
Beryllium	ND	40.0		µg/L	10	6/14/05 6:31:09 PM
Cadmium	ND	50.0		µg/L	10	6/14/05 6:31:09 PM
Chromium	ND	100		µg/L	10	6/14/05 6:31:09 PM
Nickel	ND	400		µg/L	10	6/14/05 6:31:09 PM
Silver	ND	70.0		µg/L	10	6/14/05 6:31:09 PM
Vanadium	ND	500		µg/L	10	6/14/05 6:31:09 PM
Zinc	5,520	1,000		µg/L	50	6/17/05 11:45:46 AM
ARSENIC, DISSOLVED		SW7060A		Analyst: RK		
Arsenic	ND	120		µg/L	25	6/17/05 9:52:16 PM
MERCURY, DISSOLVED		SW7470A		Analyst: LA		
Mercury	ND	0.200		µg/L	1	6/15/05 5:15:23 PM
LEAD, DISSOLVED		SW7421		Analyst: RK		
Lead	ND	120		µg/L	25	6/20/05 2:29:10 PM
ANTIMONY, DISSOLVED		SW7041		Analyst: RK		
Antimony	ND	150		µg/L	25	6/17/05 10:43:29 PM
SELENIUM, DISSOLVED		SW7740		Analyst: RK		
Selenium	ND	120		µg/L	25	6/17/05 9:52:16 PM
THALLIUM, DISSOLVED		SW7841		Analyst: RK		
Thallium	ND	50		µg/L	25	6/17/05 9:52:16 PM



KC d EAD
9/2/05

#2

ANALYTICAL REPORT

Prepared for:
Metcalf & Eddy
701 Edgewater Drive
Wakefield, MA 01880

Project: NDB/CSO South Boston
ETR: 0508060
Report Date: August 29, 2005

Certifications and Accreditations

Massachusetts MA030
Connecticut PH-0141
New Hampshire 220602
Rhode Island 64
New Jersey MA015
Maine MA030
New York 11627
Louisiana 03090
Army Corps of Engineers
Department of the Navy
Florida E87814

This report shall not be reproduced except in full, without written approval from the laboratory.



MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Alpha Woods Hole Lab

Project Number: 0508060

Project Location: _____ MCP RTN #¹: _____

This Form provides certifications for the following data set: [Laboratory Sample ID Number(s)]:

0508060-01 - -09

Sample Matrices: ☒ Groundwater ☐ Soil/Sediment ☐ Drinking Water ☐ Other: _____

MCP SW-846 Methods used (as specified in MADEP Compendium of Analytical Methods)

Check all that apply:

8260B ()	8151A ()	8330 ()	6010B ()	7470A/1A ()
8270C ()	8081A ()	VPH ()	6020 (☒)	9014M ² ()
8082 ()	8021B ()	EPH ()	7000 S ³ ()	Other: _____

¹ – List Release Tracking Number (RTN), if known.

²M – SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method.

³S – SW-846 Methods 7000 Series. List individual method and analyte.

An affirmative response to question A, B, C and D is required for “Presumptive Certainty” status.

A	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of-Custody documentation for the data set?	☒ Yes	No ¹
B	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	☒ Yes	No ¹
C	Does the data included in this report meet all the analytical requirements for “Presumptive Certainty”, as described in Section 2.0 (a), (b), (c) and (d) of the MADEP document CAM VII A, “Quality Assurance and Quality Control Guidelines for Acquisition and Reporting of Analytical Data”?	☒ Yes	No ¹
D	VPH and EPH methods only: Was the VPH or EPH method conducted without significant modifications (see Section 11.3 of respective Methods)?	Yes	No ¹

A response to questions E and F below is required for “Presumptive Certainty” status.

E	Were all analytical QC performance standards and recommendations for the specified methods achieved?	☒ Yes	No ¹
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	Yes	☒ No ¹

¹ All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

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

Signature: Gerard R. Zschau Position: Senior Project Manager

Printed Name: Gerard R. Zschau Date: 08/29/05

CASE NARRATIVE

Alpha Woods Hole Lab

ETR: 0508060

Project: NDB/CSO South Boston

All analyses were performed according to Alpha Woods Hole Lab quality assurance program and documented Standard Operating Procedures (SOPs). The analytical results contained in this report meet all applicable agency and/or NELAC standards, were performed within holding time, and with appropriate quality control measures, except where noted. Blank correction of results is not performed in the laboratory for any parameter. Soil/sediment samples are reported on a dry weight basis unless otherwise noted. Tissue and sediment samples are not certifiable under the NELAC accreditation.

The enclosed results of analyses are representative of the samples as received by the laboratory. Alpha Woods Hole Lab makes no representations or certifications as to the method of sample collection, sample identification, or transporting/handling procedures used prior to the receipt of samples by Alpha Woods Hole Lab. To the best of my knowledge, the information contained in this report is accurate and complete.

Approved by: Shirley R. Zuckerman Title: Sr. Project Manager Date: 08-29-05

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Sample ID Cross Reference



Client: Metcalf & Eddy
Project: NDB/CSO South Boston

Lab Code: MA00030
ETR: 0508060

Lab Sample ID	Client Sample ID
0508060-01	97-115 OW
0508060-02	97-102 OW
0508060-03	97-CS-115 OW
0508060-04	97-110 OW
0508060-05	B04-14
0508060-06	B04-18
0508060-07	B04-17
0508060-08	B04-15A
0508060-09	B04-19

Form I Total Metals



Client: Metcalf & Eddy
Project: NDB/CSO South Boston
Case: N/A SDG: N/A
Client ID: B04-15A
Matrix: Water

Lab Code: MA00030
ETR: 0508060
Lab ID: 0508060-08
Concentration Units: µg/L
Date Collected: 06/08/05
Date Received: 08/16/05

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Antimony	5.0	U	5.0	5	08/22/05	08/19/05	6020A	CAF
Arsenic	1.9		1.0	1	08/24/05	08/23/05	Hydride Gen.	CAF
Barium	96		2.5	5	08/22/05	08/19/05	6020A	CAF
Beryllium	0.50	U	0.50	5	08/22/05	08/19/05	6020A	CAF
Cadmium	0.50	U	0.50	5	08/25/05	08/25/05	6020A	LCP
Chromium	20	U	20	20	08/22/05	08/19/05	6020A	CAF
Lead	0.50	U	0.50	5	08/25/05	08/25/05	6020A	LCP
Nickel	2.0	U	2.0	5	08/25/05	08/25/05	6020A	LCP
Selenium	1.1	U	1.1	1	08/24/05	08/23/05	Hydride Gen.	CAF
Silver	1.0	U	1.0	5	08/25/05	08/25/05	6020A	LCP
Thallium	2.0	U	2.0	5	08/22/05	08/19/05	6020A	CAF
Vanadium	100	U	100	50	08/29/05	08/25/05	6020A	LMR
Zinc	20	U	20	5	08/25/05	08/25/05	6020A	LCP

N/A - Not Applicable

U - The analyte was analyzed for but not detected at the sample specific level reported.

CHAIN OF CUSTODY RECORD

[illegible]

White: 1 ab conv

Yellow: Accompanies report

Pink: Client conv