



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

**5 Post Office Square, Suite 100
BOSTON, MA 02109-3912**

CERTIFIED MAIL RETURN RECEIPT REQUESTED

APR 09 2015

Richard Moore, Acting Director
Naval History and Heritage Command Detachment Boston
Building #24, Charlestown Navy Yard
Charlestown, MA 02129

Re: Authorization to discharge under the Remediation General Permit (RGP) –
MAG910000; Boston National Historic Park in Charlestown, MA in Suffolk County;
Authorization # MAG910674

Dear Mr. Moore:

Based on the review of a Notice of Intent (NOI) you submitted for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

The checklist enclosed with this RGP authorization indicates the pollutants which you are required to monitor. Also indicated on the checklist are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the checklist does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, and record keeping and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See the complete RGP and other information at: <http://www.epa.gov/region1/npdes/mass.html#dgp>.

Please note the enclosed checklist includes parameters that exceeded Appendix III limits. The checklist also includes other parameters for which data was not provided or for which your laboratory reports indicated there was insufficient sensitivity to detect these parameters at the minimum levels (ML) established in Appendix VI of the RGP.

Based on the NOI submitted, the following limits apply: arsenic of 36 ug/L, copper of 3.7 ug/l, zinc of 85.6 ug/l, iron of 1,000 ug/L, Total Suspended Solids (TSS) of 30 mg/l and pH range of 6.5 – 8.5 standard units (s.u.).

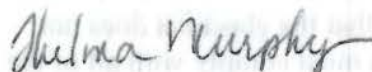
The metals limits are based on saltwater criteria as shown in Appendix III of the RGP. The parameter of total zinc was not detected for the sampling conducted for the NOI. However, since the reporting limit (RL) used by the testing laboratory was 200 ug/l and is higher than the RGP's zinc limit of 85.6 ug/l and minimum level (ML) of 15 ug/l, the effluent limit of 85.6 ug/l has been established. The laboratory results did not detect TSS in the NOI sampling. However, the TSS limit was established because once the project begins, there are expected to be activities occurring which could introduce solids into the effluent which were not ongoing during the time of NOI sampling.

Finally, please note the checklist of pollutants attached to this authorization is subject to a recertification if the operations at the site result in a discharge lasting longer than six months. A recertification can be submitted to EPA within six (6) to twelve (12) months of operations in accordance with the 2010 RGP.

This EPA general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project is expected to terminate on September 30, 2017. Please be aware you will be required to reapply for coverage after the expired RGP has been reissued. The reissuance date as well as the instructions for reapplying will be posted on the EPA website at that time. Also, regardless of your project termination date, you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within thirty (30) days of project completion.

Thank you in advance for your cooperation in this matter. Please contact George Papadopoulos at 617-918-1579 or Papadopoulos.George@epa.gov, if you have any questions.

Sincerely,



Thelma Murphy, Chief
Storm Water and Construction
Permits Section

Enclosure

cc: Robert Kubit, MassDEP
Rose Fennell, National Park Service
Stephen Shea, BWSC

**2010 Remediation General Permit
Summary of Monitoring Parameters**

NPDES Authorization Number:	MAG910674
Authorization Issued:	April 2015
Facility/Site Name:	Boston National Historic Park
Facility/Site Address:	Charlestown, MA
	Email address of owner: rose_fennell@nps.gov Phone: (617) 242-3358
Legal Name of Operator:	Naval History and Heritage Command Detachment Boston
Operator contact name, title, and Address:	Richard Moore, Acting Director, Building #24, Charlestown Navy Yard, Charlestown, MA 02129
	Email: richard.c.moore5@navy.mil
Estimated date of The Project Completion:	September 30, 2017
Category and Sub-Category:	Contaminated Construction Dewatering. Activity Sub-category A. General Urban Fill Sites
RGP Termination Date:	September 9, 2015
Receiving Water:	Boston Inner Harbor – Class SB

Monitoring & Limits are applicable if checked. All samples are to be collected as grab samples

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
✓	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, Me#160.2/ML5ug/L
	2. Total Residual Chlorine (TRC) ¹	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
	4. Cyanide (CN) ^{2, 3}	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 10ug/L
	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ML 2ug/L
	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ML 2ug/L
	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ML 2ug/L

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) ⁴	100 ug/L/ Me#8260C/ ML 2ug/L
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l/Me#8260C/ML 10ug/L
	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	13. tert-Amyl Methyl Ether (TAME)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	14. Naphthalene ⁵	20 ug/L /Me#8260C/ML 2ug/L
	15. Carbon Tetrachloride	4.4 ug/L /Me#8260C/ ML 5ug/L
	16. 1,2 Dichlorobenzene (o-DCB)	600 ug/L /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m-DCB)	320 ug/L /Me#8260C/ ML 5ug/L
	18. 1,4 Dichlorobenzene (p-DCB)	5.0 ug/L /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/L - NH only /Me#8260C/ ML 5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
	29. Acetone	Monitor Only(ug/L)/Me#8260C/ML 50ug/L
	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML 5ug/L,Me#604 &625/ML 10ug/L
	33. Total Phthalates (Phthalate esters) ⁶	3.0 ug/L ** /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L& Me#625/ML 5ug/L
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/L /Me#8270D/ML 5ug/L,Me#606/ML 10ug/L & Me#625/ML 5ug/L

	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L
	a. Benzo(a) Anthracene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	b. Benzo(a) Pyrene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	c. Benzo(b)Fluoranthene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	d. Benzo(k)Fluoranthene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	e. Chrysene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	f. Dibenzo(a,h)anthracene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	g. Indeno(1,2,3-cd) Pyrene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
	h. Acenaphthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	i. Acenaphthylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	j. Anthracene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	l. Fluoranthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	m. Fluorene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	n. Naphthalene ⁵	20 ug/L / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	o. Phenanthrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	p. Pyrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) ^{8, 9}	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
	38. Chloride	Monitor only/Me# 300.0/ ML 100 ug/L

	Metal Parameters	Total Recoverable Metal Limit $H^{10} = 50 \text{ mg/l CaCO}_3$, Units = ug/l	Minimum level=ML¹¹
		Saltwater Limits	
	39. Antimony	5.6	10
✓	40. Arsenic **	36	20
	41. Cadmium **	8.9	10
	42. Chromium III (trivalent) **	100	15
	43. Chromium VI (hexavalent) **	50.3	10
✓	44. Copper **	3.7	15
	45. Lead **	8.5	20
	46. Mercury **	1.1	02
	47. Nickel **	8.2	20
	48. Selenium **	71	20
	49. Silver	2.2	10
✓	50. Zinc **	85.6	15
✓	51. Iron	1,000	20

	Other Parameters	Limit
✓	52. Instantaneous Flow	Site specific in CFS
✓	53. Total Flow	Site specific in CFS
	54. pH Range for Class A & Class B Waters in MA	6.5-8.3; 1/Month/Grab ¹²
✓	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.5; 1/Month/Grab ¹²
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab ¹²
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab ¹³
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab ¹³
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab ¹³
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab ¹³
	61. Maximum Change in Temperature in MA - Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab ¹³
	62. Maximum Change in Temperature in MA - Any Class SA water body - Coastal	1.5°F; 1/Month/Grab ¹³
	63. Maximum Change in Temperature in MA - Any Class SB water body - July to September	1.5°F; 1/Month/Grab ¹³
	64. Maximum Change in Temperature in MA -Any Class SB water body - October to June	4°F; 1/Month/Grab ¹³

Footnotes:

¹ Although the maximum values for TRC are 11 ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).

² Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.

³ Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).

⁴ BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.

⁵ Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.

⁶ The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

⁷ Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

⁸ In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses."Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

⁹Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).

¹⁰ Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

¹¹ Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).

¹² pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.

¹³ Temperature sampling per Method 170.1

**REMEDATION GENERAL PERMIT
FOR
USS CONSTITUTION RESTORATION WORK
DRY DOCK 1
BOSTON NATIONAL HISTORIC PARK
MARCH 2015**

- **NOTICE OF INTENT FORM**
- **LOCUS PLAN**
- **LINE DRAWING**
- **LABORATORY RESULTS**
- **FEDERALLY LISTED AND ENDANGERED SPECIES IN MA**

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

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

a) Name of facility/site: Boston National Historic Park		Facility/site mailing address:	
Location of facility/site:	Facility SIC code(s):	Street: Rose Fennell, Acting Superintendent National Park Service 1 1st Ave	
longitude: 71.060	799951		
latitude: 42.371			
b) Name of facility/site owner:		Town: Charlestown	
Email address of facility/site owner:		State:	Zip:
rose_fennell@nps.gov		MA	02129
Telephone no. of facility/site owner: 617-242-3358		County: Suffolk	
Fax no. of facility/site owner: 617-242-6006		Owner is (check one): 1. Federal <input checked="" type="radio"/> 2. State/Tribal <input type="radio"/>	
Address of owner (if different from site):		3. Private <input type="radio"/> 4. Other <input type="radio"/> if so, describe:	
Street:			
Town:	State:	Zip:	County:
c) Legal name of operator:	Operator telephone no: 617-337-2396		
Naval History and Heritage Command Det Boston	Operator fax no.: 617-241-5232	Operator email: richard.c.moore5@navy.mil	
Operator contact name and title: Richard Moore, Acting Director, Naval History and Heritage Command Detachment Boston			
Address of operator (if different from owner):		Street: B.N.H.P., Building #24 Charlestown Navy Yard	
Town: Charlestown	State: MA	Zip: 02129	County: Suffolk

d) Check Y for "yes" or N for "no" for the following:

1. Has a prior NPDES permit exclusion been granted for the discharge? Y ☐ N ☒, if Y, number:

2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Y ☐ N ☒, if Y, date and tracking #:

3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y ☒ N ☐

4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y ☐ N ☒

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y ☐ N ☒
If Y, please list:
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 General Permit? Y ☐ N ☒, if Y, number:
2. Final Dewatering General Permit? Y ☐ N ☒, if Y, number:
3. EPA Construction General Permit? Y ☐ N ☒, if Y, number:
4. Individual NPDES permit? Y ☐ N ☒, if Y, number:
5. any other water quality related individual or general permit? Y ☐ N ☒, if Y, number:

g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y ☐ N ☒

h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.

Activity Category	Activity Sub-Category
I - Petroleum Related Site Remediation	A. Gasoline Only Sites <input type="checkbox"/> B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) <input type="checkbox"/> C. Petroleum Sites with Additional Contamination <input type="checkbox"/>
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites <input type="checkbox"/> B. VOC Sites with Additional Contamination <input type="checkbox"/> C. Primarily Heavy Metal Sites <input type="checkbox"/>
III - Contaminated Construction Dewatering	A. General Urban Fill Sites <input checked="" type="checkbox"/> B. Known Contaminated Sites <input type="checkbox"/>

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites <input type="checkbox"/> B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites <input type="checkbox"/> C. Hydrostatic Testing of Pipelines and Tanks <input type="checkbox"/> D. Long-Term Remediation of Contaminated Sumps and Dikes <input type="checkbox"/> E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) <input type="checkbox"/>
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2. Discharge information. Please provide information about the discharge, (attaching additional sheets as necessary) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:	
Surface water discharge from Dry Dock floor via sump pump discharges into Boston Harbor	
b) Provide the following information about each discharge:	
1) Number of discharge points: 1	2) What is the <u>maximum</u> and <u>average flow rate</u> of discharge (in cubic feet per second, ft ³ /s)? Max. flow <u>0.010 (6500 GPD)</u> Is <u>maximum flow</u> a <u>design value</u> ? Y <input type="radio"/> N <input checked="" type="radio"/> Average flow (include units) <u>0.007 (4800 GPD)</u> Is average flow a design value or estimate? <u>estimate</u>
3) Latitude and longitude of each discharge within 100 feet:	
pt.1: lat <u>42.372</u> long <u>-71.054</u>	pt.2: lat <u> </u> long <u> </u> ;
pt.3: lat <u> </u> long <u> </u>	pt.4: lat <u> </u> long <u> </u> ;
pt.5: lat <u> </u> long <u> </u>	pt.6: lat <u> </u> long <u> </u> ;
pt.7: lat <u> </u> long <u> </u>	pt.8: lat <u> </u> long <u> </u> ; etc.
4) If hydrostatic testing, total volume of the discharge (gals) <u> </u>	5) Is the discharge intermittent <input checked="" type="radio"/> or seasonal <input type="radio"/> ? Is discharge ongoing? Y <input checked="" type="radio"/> N <input type="radio"/> Discharge during work on USS Constitution only.
c) Expected dates of discharge (mm/dd/yy): start <u>May 20, 2015</u> end <u>Sep 30, 2017</u>	
d) Please attach a line drawing or flow schematic showing water flow through the facility including:	
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s). <u>See attached Figure 1 - discharge is from dewatering of dry dock during refurbishment of USS Constitution. Water source is precipitation and groundwater infiltration.</u>	

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
1. Total Suspended Solids (TSS)		<input checked="" type="checkbox"/>	<input type="checkbox"/>								
2. Total Residual Chlorine (TRC)		<input checked="" type="checkbox"/>	<input type="checkbox"/>								
3. Total Petroleum Hydrocarbons (TPH)		<input checked="" type="checkbox"/>	<input type="checkbox"/>								
4. Cyanide (CN)	57125	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
5. Benzene (B)	71432	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
6. Toluene (T)	108883	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
7. Ethylbenzene (E)	100414	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
9. Total BTEX ²	n/a	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) ³	106934	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
11. Methyl-tert-Butyl Ether (MtBE)	1634044	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	<input checked="" type="checkbox"/>	<input type="checkbox"/>								

* Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

² BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

³ EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
13. tert-Amyl Methyl Ether (TAME)	9940508	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
14. Naphthalene	91203	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
15. Carbon Tetrachloride	56235	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
16. 1,2 Dichlorobenzene (o-DCB)	95501	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
17. 1,3 Dichlorobenzene (m-DCB)	541731	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
18. 1,4 Dichlorobenzene (p-DCB)	106467	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
18a. Total dichlorobenzene		<input checked="" type="checkbox"/>	<input type="checkbox"/>								
19. 1,1 Dichloroethane (DCA)	75343	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
20. 1,2 Dichloroethane (DCA)	107062	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
21. 1,1 Dichloroethene (DCE)	75354	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
22. cis-1,2 Dichloroethene (DCE)	156592	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
23. Methylene Chloride	75092	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
24. Tetrachloroethene (PCE)	127184	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
25. 1,1,1 Trichloro-ethane (TCA)	71556	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
26. 1,1,2 Trichloro-ethane (TCA)	79005	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
27. Trichloroethene (TCE)	79016	<input checked="" type="checkbox"/>	<input type="checkbox"/>								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
28. Vinyl Chloride (Chloroethene)	75014	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
29. Acetone	67641	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
30. 1,4 Dioxane	123911	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
31. Total Phenols	108952	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
32. Pentachlorophenol (PCP)	87865	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
33. Total Phthalates (Phthalate esters) ⁴		<input checked="" type="checkbox"/>	<input type="checkbox"/>								
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		<input checked="" type="checkbox"/>	<input type="checkbox"/>								
a. Benzo(a) Anthracene	56553	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
b. Benzo(a) Pyrene	50328	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
c. Benzo(b)Fluoranthene	205992	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
d. Benzo(k)Fluoranthene	207089	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
e. Chrysene	21801	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
f. Dibenzo(a,h)anthracene	53703	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
g. Indeno(1,2,3-cd) Pyrene	193395	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		<input checked="" type="checkbox"/>	<input type="checkbox"/>								

⁴The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l) as noted	mass (kg)	concentration (ug/l) as noted	mass (kg)
h. Acenaphthene	83329	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
i. Acenaphthylene	208968	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
j. Anthracene	120127	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
k. Benzo(ghi) Perylene	191242	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
l. Fluoranthene	206440	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
m. Fluorene	86737	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
n. Naphthalene	91203	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
o. Phenanthrene	85018	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
p. Pyrene	129000	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
38. Chloride	16887006	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	grab	L-10-117-07-1-B	200 mg/L	9080 mg/L	492	9080 mg/L	363
39. Antimony	7440360	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
40. Arsenic	7440382	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	grab	ICP-E200.7	0.100 mg/L	0.112 mg/L	0.00607	0.112 mg/L	0.00448
41. Cadmium	7440439	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
42. Chromium III (trivalent)	16065831	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
43. Chromium VI (hexavalent)	18540299	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
44. Copper	7440508	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	grab	ICP-E200.7	0.0400 mg/L	0.0530 mg/L	0.00287	0.0530 mg/L	0.00212
45. Lead	7439921	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
46. Mercury	7439976	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
47. Nickel	7440020	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
48. Selenium	7782492	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
49. Silver	7440224	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
50. Zinc	7440666	<input checked="" type="checkbox"/>	<input type="checkbox"/>								
51. Iron	7439896	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	grab	ICP-E200.7	0.120 mg/L	0.278 mg/L	0.0151	0.278 mg/L	0.0111
Other (describe):		<input checked="" type="checkbox"/>	<input type="checkbox"/>								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
		<input type="checkbox"/>	<input type="checkbox"/>								
		<input type="checkbox"/>	<input type="checkbox"/>								

b) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

Step 1: Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y <input type="radio"/> N <input checked="" type="radio"/>		If yes, which metals?
Step 2: For any metals which 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?		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 <input type="radio"/> N <input type="radio"/> If Y, list which metals:
Metal:	DF:	
Metal:	DF:	
Metal:	DF:	
Metal:	DF:	
Etc.		

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:						
Daily cleaning of dry dock floor, dispose of all wood particles and materials that are used for USS Constitution. Prevent any materials from entering sump area.						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank <input type="checkbox"/>	Air stripper <input type="checkbox"/>	Oil/water separator <input type="checkbox"/>	Equalization tanks <input type="checkbox"/>	Bag filter <input type="checkbox"/>	GAC filter <input type="checkbox"/>
	Chlorination <input type="checkbox"/>	De-chlorination <input type="checkbox"/>	Other (please describe):	cleaning, sweeping, removing from dry dock floor via lift/dump platforms		

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 N/A gpm Maximum flow rate of treatment system N/A gpm
Design flow rate of treatment system N/A gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

N/A

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

a) Identify the discharge pathway:

Direct to receiving water ☒

Within facility (sewer) ☐

Storm drain ☐

Wetlands ☐

Other (describe):

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:

Discharge is direct into Boston Harbor

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 dischargers, 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 SB, Marine Water

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water N/A 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? Y ☐ N ☒ If yes, for which pollutant(s)?

Is there a final TMDL? Y ☐ N ☒ If yes, for which pollutant(s)?

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

- a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?
A ☒ B ☐ C ☐ D ☐ E ☐ F ☐
- b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ☐ N ☐ Underway ☐
- c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received? Y ☐ N ☒
- d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.
- e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?
1 ☒ 2 ☐ 3 ☐
- f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.


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.

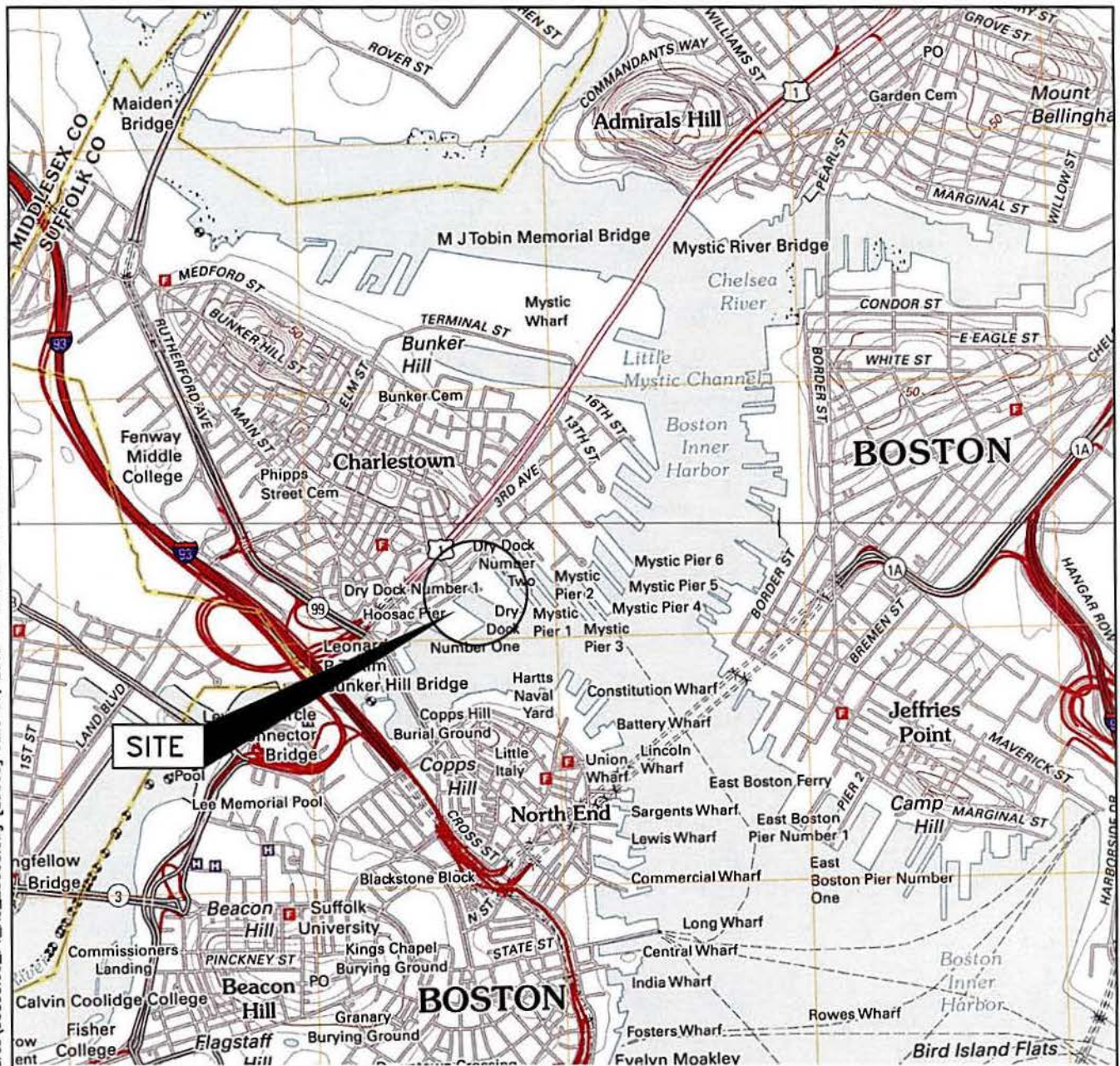
GeoLabs Analytical Report #1503004 is attached

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:	Naval History and Heritage Command Detachment Boston performing work at Charlestown Navy Yard in Dry Dock
Operator signature:	
Printed Name & Title:	Richard Moore, Director, Naval History and Heritage Command Detachment Boston
Date:	March 25, 2015

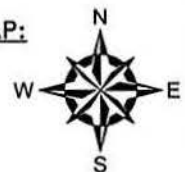
LOCUS PLAN



0 1000' 2000' 4000'
APPROXIMATE SCALE IN FEET: 1" = 2000'



SOURCE:
BASE MAP FROM THE FOLLOWING USGS QUADRANGLE MAP:
BOSTON NORTH, MASSACHUSETTS (2012)
BOSTON SOUTH, MASSACHUSETTS (2012)
DIGITAL TOPOGRAPHIC MAPS PROVIDED BY USGSSTORE.GOV.
CONTOUR ELEVATIONS REFERENCE NAVD 88,
CONTOURS ARE SHOWN IN FEET AT 10 INTERVALS



DRY DOCK #1 REPAIRS
BOSTON NATIONAL HISTORIC PARK
CHARLESTOWN, MASSACHUSETTS

PREPARED BY:
GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
OAK POINT ASSOCIATES
231 MAIN STREET
BIDDEFORD, ME 04005

LOCUS PLAN

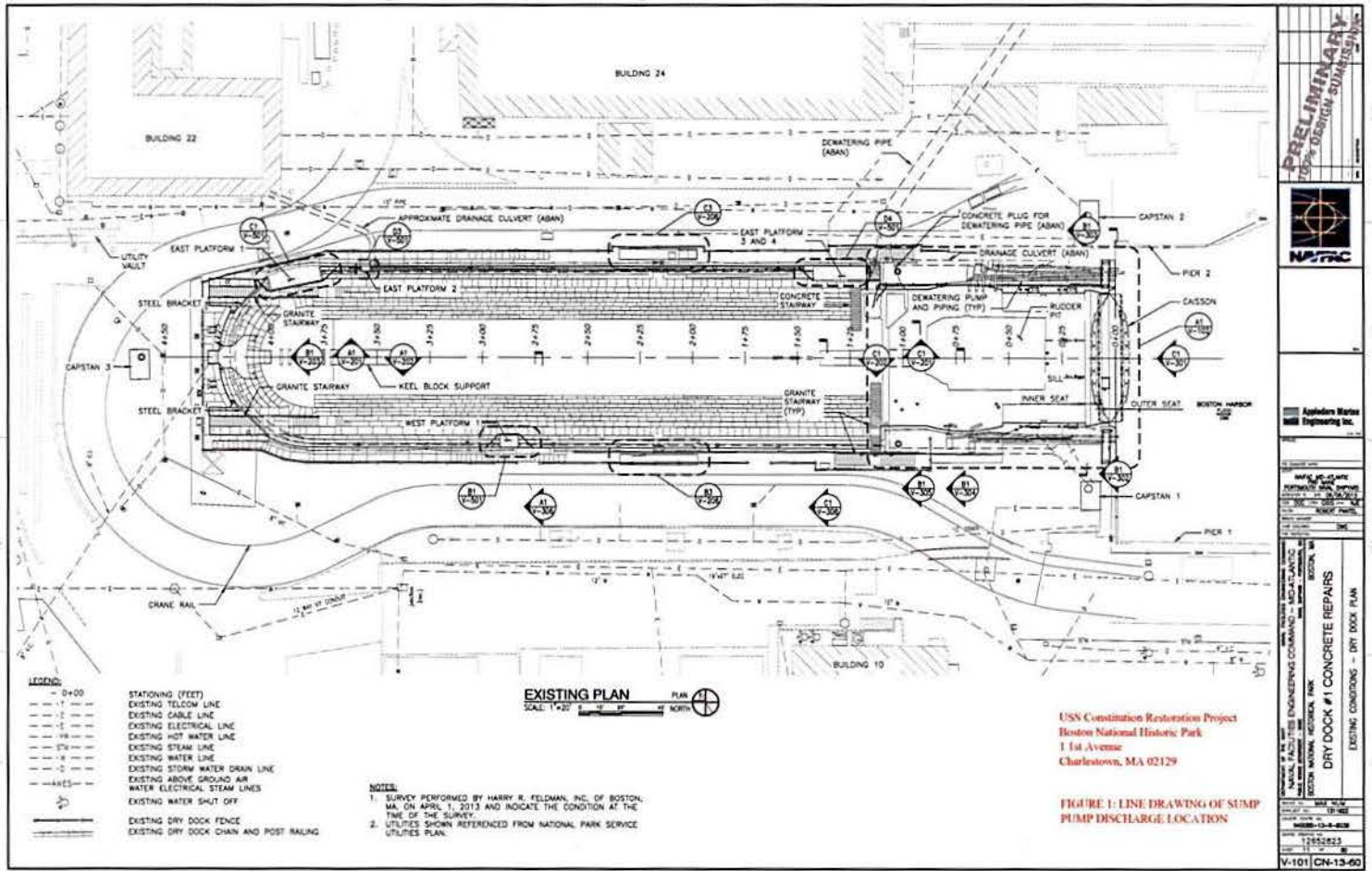
PROJ MGR: DVB
DESIGNED BY: PAS
DATE: MAY 2013

REVIEWED BY:
DRAWN BY: MBL
PROJECT NO. 33898.00

CHECKED BY: CKD
SCALE: AS SHOWN
REVISION NO. 0

FIG
1
SHEET NO. 1 OF 2

**LINE DRAWING
OF
PUMP DISCHARGE LOCATION**



LABORATORY RESULTS

ANALYTICAL REPORT



Tuesday, March 10, 2015

Richard Moore
Naval History & Heritage Command
USS Constitution Repair Facility
Boston, MA

GeoLabs, Inc.
45 Johnson Lane
Braintree MA 02184
Tele: 781 848 7844
Fax: 781 848 7811

TEL: (617) 337-2396
FAX: (617) 241-5232

Project: Env. Permitting for Upcoming Dry Dock
Location:

Order No.: 1503004

Dear Richard Moore:

GeoLabs, Inc. received 1 sample(s) on 3/2/2015 for the analyses presented in the following report.

The laboratory results in this report relate only to samples submitted.

All data for associated QC met method or laboratory specifications, except when noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in dark ink, appearing to read "David Mick", is written over a light blue horizontal line.

David Mick
Laboratory Director

For current certifications, please visit our website at www.geolabs.com

Certifications:

CT (PH-0148) - MA (M-MA015) - NH (2508) - RI (LA000252)

Date: 10-Mar-15

CLIENT: Naval History & Heritage Command
Project: Env. Permitting for Upcoming Dry Dock
Lab Order: 1503004

CASE NARRATIVE

Physical Condition of Samples

The project was received by the laboratory in satisfactory condition. The sample(s) were received undamaged, in appropriate containers with the correct preservation.

Project Documentation

The project was accompanied by satisfactory Chain of Custody documentation.

Analysis of Sample(s)

All extractable samples were extracted and analyzed and any Volatile samples were analyzed within method specified holding times and according to GeoLabs documented Standard Operating Procedure. No analytical anomalies or non-conformances were noted by the laboratory during the processing of these samples.

SIGNATURE:



LAB DIRECTOR

PRINTED NAME: David Mick

DATE: 03/10/15

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

ANALYTICAL REPORT

Reported Date: 10-Mar-15

CLIENT: Naval History & Heritage Command
 Lab Order: 1503004
 Project: Env. Permitting for Upcoming Dry Dock
 Lab ID: 1503004-001

Client Sample ID: Sample
 Collection Date: 3/2/2015 11:30:00 AM
 Date Received: 3/2/2015
 Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TOTAL SUSPENDED SOLIDS - SM2540D						Analyst: CR

Prep Method:

Prep Date:

Total Suspended Solids	ND	5.00		mg/L	1	3/3/2015
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POLYCHLORINATED BIPHENYLS - SW8082

Analyst: KG

Prep Method: (SW3510B)

Prep Date: 3/5/2015 9:40:20 AM

Aroclor 1016	ND	0.272		µg/L	1	3/5/2015
Aroclor 1221	ND	0.272		µg/L	1	3/5/2015
Aroclor 1232	ND	0.272		µg/L	1	3/5/2015
Aroclor 1242	ND	0.272		µg/L	1	3/5/2015
Aroclor 1248	ND	0.272		µg/L	1	3/5/2015
Aroclor 1254	ND	0.272		µg/L	1	3/5/2015
Aroclor 1260	ND	0.272		µg/L	1	3/5/2015

TOTAL PETROLEUM HYDROCARBONS - 8100M

Analyst: KG

Prep Method: (8100M)

Prep Date: 3/5/2015 9:34:59 AM

Total Petroleum Hydrocarbons	ND	0.170		mg/L	1	3/5/2015
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TOTAL METALS BY ICP - E200.7

Analyst: QS

Prep Method: (200.7)

Prep Date: 3/3/2015 10:25:29 AM

Antimony	ND	0.200		mg/L	2	3/3/2005
Arsenic	0.112	0.100		mg/L	2	3/3/2005
Cadmium	ND	0.00400		mg/L	2	3/3/2005
Chromium	ND	0.100		mg/L	2	3/3/2005
Copper	0.0530	0.0400		mg/L	2	3/3/2005
Iron	0.278	0.120		mg/L	2	3/3/2005
Lead	ND	0.0200		mg/L	2	3/3/2005
Nickel	ND	0.0200		mg/L	2	3/3/2005
Selenium	ND	0.100		mg/L	2	3/3/2005
Silver	ND	0.0200		mg/L	2	3/3/2005
Zinc	ND	0.200		mg/L	2	3/3/2005

Qualifiers: B Analyte detected in the associated Method Blank
 E Value above quantitation range
 J Analyte detected below quantitation limits
 RL Reporting Limit

BRL Below Reporting Limit
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 S Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

ANALYTICAL REPORT

Reported Date: 10-Mar-15

CLIENT: Naval History & Heritage Command
 Lab Order: 1503004
 Project: Env. Permitting for Upcoming Dry Dock
 Lab ID: 1503004-001

Client Sample ID: Sample
 Collection Date: 3/2/2015 11:30:00 AM
 Date Received: 3/2/2015
 Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TOTAL MERCURY - E245.1						Analyst: EC

Prep Method: (SW7470A/E245.1)

Prep Date: 3/3/2015 3:25:35 PM

Mercury	ND	0.0005		mg/L	1	3/3/2015
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SEMIVOLATILE ORGANICS - SW8270C

Analyst: ZYZ

Prep Method: (SW3510)

Prep Date: 3/4/2015 9:07:55 AM

1,2,4-Trichlorobenzene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
1,2-Dichlorobenzene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
1,2-Dinitrobenzene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
1,3-Dichlorobenzene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
1,3-Dinitrobenzene	ND	3.47		µg/L	1	3/4/2015 3:08:00 PM
1,4-Dichlorobenzene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
1,4-Dinitrobenzene	ND	34.7		µg/L	1	3/4/2015 3:08:00 PM
2,3,4,6-Tetrachlorophenol	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
2,4,5-Trichlorophenol	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
2,4,6-Trichlorophenol	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
2,4-Dichlorophenol	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
2,4-Dimethylphenol	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
2,4-Dinitrophenol	ND	34.7		µg/L	1	3/4/2015 3:08:00 PM
2,4-Dinitrotoluene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
2,6-Dinitrotoluene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
2-Chloronaphthalene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
2-Chlorophenol	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
2-Methylnaphthalene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
2-Methylphenol	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
2-Nitroaniline	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
2-Nitrophenol	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
3,3'-Dichlorobenzidine	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
3-Methylphenol/4-Methylphenol	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
3-Nitroaniline	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
4,6-Dinitro-2-Methylphenol	ND	34.7		µg/L	1	3/4/2015 3:08:00 PM
4-Bromophenyl Phenyl Ether	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
4-Chloro-3-Methylphenol	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
4-Chloroaniline	ND	3.47		µg/L	1	3/4/2015 3:08:00 PM
4-Chlorophenyl Phenyl Ether	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
4-Nitroaniline	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM

Qualifiers: B Analyte detected in the associated Method Blank
 E Value above quantitation range
 J Analyte detected below quantitation limits
 RL Reporting Limit

BRL Below Reporting Limit
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 S Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

ANALYTICAL REPORT

Reported Date: 10-Mar-15

CLIENT: Naval History & Heritage Command
 Lab Order: 1503004
 Project: Env. Permitting for Upcoming Dry Dock
 Lab ID: 1503004-001

Client Sample ID: Sample
 Collection Date: 3/2/2015 11:30:00 AM
 Date Received: 3/2/2015
 Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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SEMIVOLATILE ORGANICS - SW8270C

Analyst: ZYZ

Prep Method: (SW3510)

Prep Date: 3/4/2015 9:07:55 AM

4-Nitrophenol	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Acenaphthene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Acenaphthylene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Acetophenone	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Aniline	ND	6.94		µg/L	1	3/4/2015 3:08:00 PM
Anthracene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Azobenzene	ND	6.94		µg/L	1	3/4/2015 3:08:00 PM
Benz(a)Anthracene	ND	0.139		µg/L	1	3/4/2015 3:08:00 PM
Benzidine	ND	34.7		µg/L	1	3/4/2015 3:08:00 PM
Benzo(a)Pyrene	ND	0.139		µg/L	1	3/4/2015 3:08:00 PM
Benzo(b)Fluoranthene	ND	0.139		µg/L	1	3/4/2015 3:08:00 PM
Benzo(g,h,i)Perylene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Benzo(k)Fluoranthene	ND	0.139		µg/L	1	3/4/2015 3:08:00 PM
Benzyl Alcohol	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Bis(2-Chloroethoxy)Methane	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Bis(2-Chloroethyl)Ether	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Bis(2-Chloroisopropyl)Ether	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Bis(2-Ethylhexyl)Phthalate	ND	34.7		µg/L	1	3/4/2015 3:08:00 PM
Butyl Benzyl Phthalate	ND	34.7		µg/L	1	3/4/2015 3:08:00 PM
Carbazole	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Chrysene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Dibenz(a,h)Anthracene	ND	0.139		µg/L	1	3/4/2015 3:08:00 PM
Dibenzofuran	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Diethyl Phthalate	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Dimethyl Phthalate	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Di-n-Butyl Phthalate	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Di-n-Octyl Phthalate	ND	34.7		µg/L	1	3/4/2015 3:08:00 PM
Fluoranthene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Fluorene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Hexachlorobenzene	ND	3.47		µg/L	1	3/4/2015 3:08:00 PM
Hexachlorobutadiene	ND	3.47		µg/L	1	3/4/2015 3:08:00 PM
Hexachloroethane	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Indeno(1,2,3-cd)Pyrene	ND	0.139		µg/L	1	3/4/2015 3:08:00 PM
Isophorone	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Naphthalene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Nitrobenzene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM

Qualifiers: B Analyte detected in the associated Method Blank
 E Value above quantitation range
 J Analyte detected below quantitation limits
 RL Reporting Limit

BRL Below Reporting Limit
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 S Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

ANALYTICAL REPORT

Reported Date: 10-Mar-15

CLIENT: Naval History & Heritage Command
 Lab Order: 1503004
 Project: Env. Permitting for Upcoming Dry Dock
 Lab ID: 1503004-001

Client Sample ID: Sample
 Collection Date: 3/2/2015 11:30:00 AM
 Date Received: 3/2/2015
 Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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SEMIVOLATILE ORGANICS - SW8270C

Analyst: ZYZ

Prep Method: (SW3510)

Prep Date: 3/4/2015 9:07:55 AM

N-Nitrosodimethylamine	ND	6.94		µg/L	1	3/4/2015 3:08:00 PM
N-Nitrosodi-n-Propylamine	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
N-Nitrosodiphenylamine	ND	6.94		µg/L	1	3/4/2015 3:08:00 PM
Pentachlorophenol	ND	34.7		µg/L	1	3/4/2015 3:08:00 PM
Phenanthrene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Phenol	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Pyrene	ND	1.39		µg/L	1	3/4/2015 3:08:00 PM
Pyridine	ND	6.94		µg/L	1	3/4/2015 3:08:00 PM

VOLATILE ORGANIC COMPOUNDS - SW8260B

Analyst: Admin

Prep Method:

Prep Date:

1,1,1,2-Tetrachloroethane	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,1,1-Trichloroethane	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,1,2,2-Tetrachloroethane	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,1,2-Trichloroethane	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,1-Dichloroethane	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,1-Dichloroethene	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,1-Dichloropropene	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,2,3-Trichlorobenzene	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,2,3-Trichloropropane	ND	5.00		µg/L	1	3/3/2015 1:44:00 AM
1,2,4-Trichlorobenzene	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,2,4-Trimethylbenzene	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,2-Dibromo-3-Chloropropane	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,2-Dibromoethane	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,2-Dichlorobenzene	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,2-Dichloroethane	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,2-Dichloropropane	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,3,5-Trimethylbenzene	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,3-Dichlorobenzene	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,3-Dichloropropane	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
1,4-Dichlorobenzene	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
2,2-Dichloropropane	ND	2.00		µg/L	1	3/3/2015 1:44:00 AM
2-Butanone	ND	10.0		µg/L	1	3/3/2015 1:44:00 AM
2-Chloroethyl Vinyl Ether	ND	5.00		µg/L	1	3/3/2015 1:44:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

ANALYTICAL REPORT

Reported Date: 10-Mar-15

CLIENT: Naval History & Heritage Command
 Lab Order: 1503004
 Project: Env. Permitting for Upcoming Dry Dock
 Lab ID: 1503004-001

Client Sample ID: Sample
 Collection Date: 3/2/2015 11:30:00 AM
 Date Received: 3/2/2015
 Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - SW8260B						

Analyst: Admin

Prep Method:	Prep Date:				
2-Chlorotoluene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
2-Hexanone	ND	10.0	µg/L	1	3/3/2015 1:44:00 AM
4-Chlorotoluene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
4-Isopropyltoluene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
4-Methyl-2-Pentanone	ND	5.00	µg/L	1	3/3/2015 1:44:00 AM
Acetone	ND	50.0	µg/L	1	3/3/2015 1:44:00 AM
Acrolein	ND	50.0	µg/L	1	3/3/2015 1:44:00 AM
Acrylonitrile	ND	50.0	µg/L	1	3/3/2015 1:44:00 AM
Benzene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Bromobenzene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Bromochloromethane	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Bromodichloromethane	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Bromoform	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Bromomethane	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Carbon Disulfide	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Carbon Tetrachloride	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Chlorobenzene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Chloroethane	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Chloroform	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Chloromethane	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
cis-1,2-Dichloroethene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
cis-1,3-Dichloropropene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Dibromochloromethane	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Dibromomethane	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Dichlorodifluoromethane	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Ethylbenzene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Hexachlorobutadiene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Isopropylbenzene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Methyl Tert-Butyl Ether	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Methylene Chloride	ND	5.00	µg/L	1	3/3/2015 1:44:00 AM
Naphthalene	ND	10.0	µg/L	1	3/3/2015 1:44:00 AM
n-Butylbenzene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
n-Propylbenzene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
sec-Butylbenzene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
Styrene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM
tert-Butylbenzene	ND	2.00	µg/L	1	3/3/2015 1:44:00 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

ANALYTICAL REPORT

Reported Date: 10-Mar-15

CLIENT: Naval History & Heritage Command
 Lab Order: 1503004
 Project: Env. Permitting for Upcoming Dry Dock
 Lab ID: 1503004-001

Client Sample ID: Sample
 Collection Date: 3/2/2015 11:30:00 AM
 Date Received: 3/2/2015
 Matrix: WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS - SW8260B						

Analyst: Admin

Prep Method:	Prep Date:
Tetrachloroethene	ND
Toluene	ND
trans-1,2-Dichloroethene	ND
trans-1,3-Dichloropropene	ND
Trichloroethene	ND
Trichlorofluoromethane	ND
Vinyl Chloride	ND
Xylenes, Total	ND

CHLORIDE - L-10-117-07-1-B

Analyst: RP

Prep Method:	Prep Date:
Chloride	9080

CYANIDE, TOTAL - SM4500-CN-C,E

Analyst: RP

Prep Method:	Prep Date:
Cyanide, Total	ND

TRIVALENT CHROMIUM IN WATER - 6010C&3500

Analyst: RP

Prep Method:	Prep Date:
Trivalent Chromium,Cr3+	ND

HEXAVALENT CHROMIUM - SW 846 7196A

Analyst: RP

Prep Method:	Prep Date:
Hexavalent Chromium	ND

TOTAL RESIDUAL CHLORINE - HACH 8167

Analyst: RP

Prep Method:	Prep Date:

Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

ANALYTICAL REPORT

Reported Date: 10-Mar-15

CLIENT:	Naval History & Heritage Command	Client Sample ID:	Sample
Lab Order:	1503004	Collection Date:	3/2/2015 11:30:00 AM
Project:	Env. Permitting for Upcoming Dry Dock	Date Received:	3/2/2015
Lab ID:	1503004-001	Matrix:	WATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
TOTAL RESIDUAL CHLORINE - HACH 8167						Analyst: RP

Prep Method:

Prep Date:

Total Residual Chlorine	ND	0.200	H	mg/L	1	3/2/2015 1:00:00 PM
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Qualifiers:	B	Analyte detected in the associated Method Blank	BRL	Below Reporting Limit
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	RL	Reporting Limit	S	Spike Recovery outside recovery limits

GeoLabs, Inc.

45 Johnson Lane ~ Braintree MA 02184 ~ 781 848 7844 ~ 781 848 7811

**FEDERALLY LISTED ENDANGERED AND THREATENED
SPECIES IN MASSACHUSETTS**

**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES
IN MASSACHUSETTS**

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

-Eastern cougar and gray wolf are considered extirpated in Massachusetts.

-Endangered gray wolves are not known to be present in Massachusetts, but dispersing individuals from source populations in Canada may occur statewide.

-Critical habitat for the Northern Red-bellied cooter is present in Plymouth County.

7/31/2008