

Balaraju, Panjini (ECY)

From: Mirna Fritz <mirnaf@harborhistorymuseum.org>
Sent: Thursday, December 08, 2016 10:29 AM
To: Balaraju, Panjini (ECY)
Cc: Katharine Hensler
Subject: Sample testing Q4 for Harbor History Museum
Attachments: QTR 4 lab data.pdf; Response letter Qtr 4 2016 - Harbor History Museum.docx

Dear Mr. Balaraju,

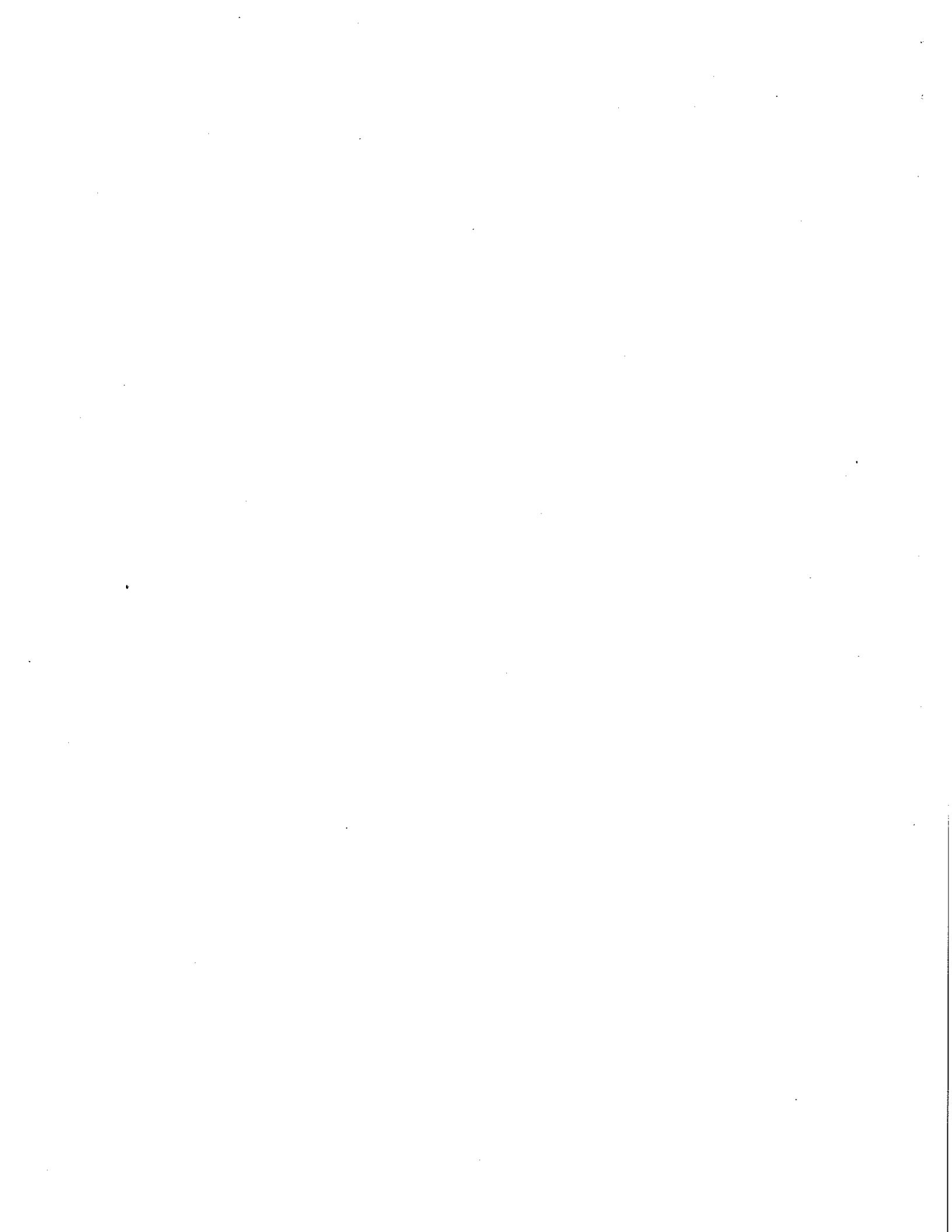
Please find attached quarter 4 sampling results for the two wells at Harbor History Museum.

Regards,

Mirna Fritz | Office Manager & Accountant



HARBOR HISTORY MUSEUM
mirnaf@harborhistorymuseum.org
4121 Harborview Drive
Gig Harbor, WA 98335
253-858-6722 ext. 4





HARBOR HISTORY MUSEUM

December 2, 2016

Mr. Panjini Balaraju
Toxics Cleanup Program
Southwest Regional Office
Department of Ecology

Dear Mr. Balaraju,

As you are aware, the Harbor History Museum have a desire to obtain a No Further Action (NFA) letter from the Department of Ecology in regards to the property located at 4121 Harborview Dr. Gig Harbor, WA 98332. Our objective under the Voluntary Cleanup Program (VCP) is to obtain groundwater monitoring data for four consecutive quarters showing no detectable amounts of chemicals of concern. Listed below are the laboratory results from the latest sampling and analysis.

2016 QTR 4 Data analysis- sample

Two groundwater monitoring wells (MW-05 and MW-07) were sampled on 11/3/2016 using the proper low flow sampling techniques with the samples being sent to Spectra Laboratories in Tacoma Washington for Volatile Organic Analysis (VOA). The results from reported for these samples showed non-detects for all chemicals of concern from well MW7 and well MW5.

Included in this letter are:

- Copy of the raw laboratory data and associated QA/QC.
- The field data showing the typical field reporting results.
- Copy of the chain of custody.

Field Data

Well number	MW-5	MW-7
Date	11/3/16	11/3/16
Time	1300 hrs	1330 hrs
Depth to top of water	3'2"	5'2"
Depth to bottom of well	15'5"	15'4"
Water depth	12'3"	10'2"
Purge volume	5 gallons	5 gallons
Beginning Conductivity	100	330
Beginning pH	7.0	6.8
Ending Conductivity	100	330
Ending pH	7.0	6.8

Mirna Fritz
Harbor History Museum
Email: mirnaf@harborhistorymuseum.org



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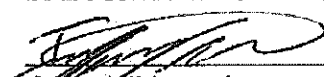
Harbor History Museum
4121 Harborview Dr.
Gig Harbor, WA 98332

Client ID: MW5
Sample Matrix: Water
Date Sampled: 11/03/2016
Date Received: 11/03/2016
Spectra Project: 2016110151
Spectra Number: 1

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,1,1,2-Tetrachloroethane	<1	µg/L	SW846 8260C	1,4-Dichlorobenzene	<1	µg/L	SW846 8260C
1,1,1-Trichloroethane	<1	µg/L	SW846 8260C	2,2-Dichloropropane	<1	µg/L	SW846 8260C
1,1,2,2-Tetrachloroethane	<1	µg/L	SW846 8260C	2-Butanone (MEK)	<10	µg/L	SW846 8260C
1,1,2-Trichloroethane	<1	µg/L	SW846 8260C	2-Chloroethylvinyl Ether	<10	µg/L	SW846 8260C
1,1-Dichloroethane	<1	µg/L	SW846 8260C	2-Chlorotoluene	<1	µg/L	SW846 8260C
1,1-Dichloroethene	<1	µg/L	SW846 8260C	2-Hexanone (MBK)	<10	µg/L	SW846 8260C
1,1-Dichloropropene	<1	µg/L	SW846 8260C	4-Chlorotoluene	<1	µg/L	SW846 8260C
1,2,3-Trichlorobenzene	<1	µg/L	SW846 8260C	4-Isopropyltoluene	<1	µg/L	SW846 8260C
1,2,3-Trichloropropane	<1	µg/L	SW846 8260C	4-methyl-2-pentanone (MIBK)	<10	µg/L	SW846 8260C
1,2,4-Trichlorobenzene	<1	µg/L	SW846 8260C	Acetone	<10	µg/L	SW846 8260C
1,2,4-Trimethylbenzene	<1	µg/L	SW846 8260C	Acetonitrile	<10	µg/L	SW846 8260C
1,2-Dibromo3Chloropropane	<10	µg/L	SW846 8260C	Acrolein	<10	µg/L	SW846 8260C
1,2-Dibromoethane (EDB)	<1	µg/L	SW846 8260C	Acrylonitrile	<10	µg/L	SW846 8260C
1,2-Dichlorobenzene	<1	µg/L	SW846 8260C	Benzene	<1	µg/L	SW846 8260C
1,2-Dichloroethane	<1	µg/L	SW846 8260C	Bromobenzene	<1	µg/L	SW846 8260C
1,2-Dichloropropane	<1	µg/L	SW846 8260C	Bromochloromethane	<1	µg/L	SW846 8260C
1,3,5-Trimethylbenzene	<1	µg/L	SW846 8260C	Bromodichloromethane	<1	µg/L	SW846 8260C
1,3-Dichlorobenzene	<1	µg/L	SW846 8260C	Bromoform	<1	µg/L	SW846 8260C
1,3-Dichloropropane	<1	µg/L	SW846 8260C	Bromomethane	<1	µg/L	SW846 8260C

Surrogate	Recovery	Method
Dibromofluoromethane	130	SW846 8260C
1,2-Dichloroethane-d4	126	SW846 8260C
Toluene-d8	75	SW846 8260C
4-Bromofluorobenzene	103	SW846 8260C

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Steve Hibbs, Laboratory Manager
sl4exsur/jac



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4121 Harborview Dr.
Gig Harbor, WA 98332

Client ID: MW5
Sample Matrix: Water
Date Sampled: 11/03/2016
Date Received: 11/03/2016
Spectra Project: 2016110151
Spectra Number: 1

Analyte	Result	Units	Method	Analyte	Result	Units	Method
Carbon Disulfide	<10	µg/L	SW846 8260C	Trichloroethene	<1	µg/L	SW846 8260C
Carbon Tetrachloride	<1	µg/L	SW846 8260C	Trichlorofluoromethane	<1	µg/L	SW846 8260C
Chlorobenzene	<1	µg/L	SW846 8260C	Vinyl Acetate	<10	µg/L	SW846 8260C
Chlorodibromomethane	<1	µg/L	SW846 8260C	Vinyl chloride	<0.2	µg/L	SW846 8260C
Chloroethane	<1	µg/L	SW846 8260C	cis-1,2-Dichloroethene	<1	µg/L	SW846 8260C
Chloroform	<1	µg/L	SW846 8260C	cis-1,3-Dichloropropene	<1	µg/L	SW846 8260C
Chloromethane	<1	µg/L	SW846 8260C	n-Butylbenzene	<1	µg/L	SW846 8260C
Dibromomethane	<1	µg/L	SW846 8260C	n-Propylbenzene	<1	µg/L	SW846 8260C
Dichlorodifluoromethane	<1	µg/L	SW846 8260C	sec-Butylbenzene	<1	µg/L	SW846 8260C
Ethylbenzene	<1	µg/L	SW846 8260C	tert-Butylbenzene	<1	µg/L	SW846 8260C
Hexachlorobutadiene	<1	µg/L	SW846 8260C	trans-1,2-Dichloroethene	<1	µg/L	SW846 8260C
Iodomethane	<10	µg/L	SW846 8260C	trans-1,3-Dichloropropene	<1	µg/L	SW846 8260C
Isopropylbenzene	<1	µg/L	SW846 8260C				
Methyl-tert-Butyl Ether	<10	µg/L	SW846 8260C				
Methylene chloride	<5	µg/L	SW846 8260C				
Styrene	<1	µg/L	SW846 8260C				
Tetrachloroethene	<1	µg/L	SW846 8260C				
Toluene	<1	µg/L	SW846 8260C				
Total Xylenes	<2	µg/L	SW846 8260C				

Surrogate	Recovery	Method
Dibromofluoromethane	130	SW846 8260C
1,2-Dichloroethane-d4	126	SW846 8260C
Toluene-d8	75	SW846 8260C
4-Bromofluorobenzene	103	SW846 8260C

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Harbor History Museum
4121 Harborview Dr.
Gig Harbor, WA 98332

Client ID: MW7
Sample Matrix: Water
Date Sampled: 11/03/2016
Date Received: 11/03/2016
Spectra Project: 2016110151
Spectra Number: 2

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,1,1,2-Tetrachloroethane	<1	µg/L	SW846 8260C	1,4-Dichlorobenzene	<1	µg/L	SW846 8260C
1,1,1-Trichloroethane	<1	µg/L	SW846 8260C	2,2-Dichloropropane	<1	µg/L	SW846 8260C
1,1,2,2-Tetrachloroethane	<1	µg/L	SW846 8260C	2-Butanone (MEK)	<10	µg/L	SW846 8260C
1,1,2-Trichloroethane	<1	µg/L	SW846 8260C	2-Chloroethylvinyl Ether	<10	µg/L	SW846 8260C
1,1-Dichloroethane	<1	µg/L	SW846 8260C	2-Chlorotoluene	<1	µg/L	SW846 8260C
1,1-Dichloroethene	<1	µg/L	SW846 8260C	2-Hexanone (MBK)	<10	µg/L	SW846 8260C
1,1-Dichloropropene	<1	µg/L	SW846 8260C	4-Chlorotoluene	<1	µg/L	SW846 8260C
1,2,3-Trichlorobenzene	<1	µg/L	SW846 8260C	4-Isopropyltoluene	<1	µg/L	SW846 8260C
1,2,3-Trichloropropane	<1	µg/L	SW846 8260C	4-methyl-2-pentanone (MIBK)	<10	µg/L	SW846 8260C
1,2,4-Trichlorobenzene	<1	µg/L	SW846 8260C	Acetone	<10	µg/L	SW846 8260C
1,2,4-Trimethylbenzene	<1	µg/L	SW846 8260C	Acetonitrile	<10	µg/L	SW846 8260C
1,2-Dibromo3Chloropropane	<10	µg/L	SW846 8260C	Acrolein	<10	µg/L	SW846 8260C
1,2-Dibromoethane (EDB)	<1	µg/L	SW846 8260C	Acrylonitrile	<10	µg/L	SW846 8260C
1,2-Dichlorobenzene	<1	µg/L	SW846 8260C	Benzene	<1	µg/L	SW846 8260C
1,2-Dichloroethane	<1	µg/L	SW846 8260C	Bromobenzene	<1	µg/L	SW846 8260C
1,2-Dichloropropane	<1	µg/L	SW846 8260C	Bromochloromethane	<1	µg/L	SW846 8260C
1,3,5-Trimethylbenzene	<1	µg/L	SW846 8260C	Bromodichloromethane	<1	µg/L	SW846 8260C
1,3-Dichlorobenzene	<1	µg/L	SW846 8260C	Bromoform	<1	µg/L	SW846 8260C
1,3-Dichloropropane	<1	µg/L	SW846 8260C	Bromomethane	<1	µg/L	SW846 8260C

Surrogate	Recovery	Method
Dibromofluoromethane	130	SW846 8260C
1,2-Dichloroethane-d4	126	SW846 8260C
Toluene-d8	75	SW846 8260C
4-Bromofluorobenzene	103	SW846 8260C

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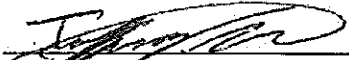
Harbor History Museum
4121 Harborview Dr.
Gig Harbor, WA 98332

Client ID: MW7
Sample Matrix: Water
Date Sampled: 11/03/2016
Date Received: 11/03/2016
Spectra Project: 2016110151
Spectra Number: 2

Analyte	Result	Units	Method	Analyte	Result	Units	Method
Carbon Disulfide	<10	µg/L	SW846 8260C	Trichloroethene	<1	µg/L	SW846 8260C
Carbon Tetrachloride	<1	µg/L	SW846 8260C	Trichlorofluoromethane	<1	µg/L	SW846 8260C
Chlorobenzene	<1	µg/L	SW846 8260C	Vinyl Acetate	<10	µg/L	SW846 8260C
Chlorodibromomethane	<1	µg/L	SW846 8260C	Vinyl chloride	<0.2	µg/L	SW846 8260C
Chloroethane	<1	µg/L	SW846 8260C	cis-1,2-Dichloroethene	<1	µg/L	SW846 8260C
Chloroform	<1	µg/L	SW846 8260C	cis-1,3-Dichloropropene	<1	µg/L	SW846 8260C
Chloromethane	<1	µg/L	SW846 8260C	n-Butylbenzene	<1	µg/L	SW846 8260C
Dibromomethane	<1	µg/L	SW846 8260C	n-Propylbenzene	<1	µg/L	SW846 8260C
Dichlorodifluoromethane	<1	µg/L	SW846 8260C	sec-Butylbenzene	<1	µg/L	SW846 8260C
Ethylbenzene	<1	µg/L	SW846 8260C	tert-Butylbenzene	<1	µg/L	SW846 8260C
Hexachlorobutadiene	<1	µg/L	SW846 8260C	trans-1,2-Dichloroethene	<1	µg/L	SW846 8260C
Iodomethane	<10	µg/L	SW846 8260C	trans-1,3-Dichloropropene	<1	µg/L	SW846 8260C
Isopropylbenzene	<1	µg/L	SW846 8260C				
Methyl-tert-Butyl Ether	<10	µg/L	SW846 8260C				
Methylene chloride	<5	µg/L	SW846 8260C				
Styrene	<1	µg/L	SW846 8260C				
Tetrachloroethene	<1	µg/L	SW846 8260C				
Toluene	<1	µg/L	SW846 8260C				
Total Xylenes	<2	µg/L	SW846 8260C				

Surrogate	Recovery	Method
Dibromofluoromethane	130	SW846 8260C
1,2-Dichloroethane-d4	126	SW846 8260C
Toluene-d8	75	SW846 8260C
4-Bromofluorobenzene	103	SW846 8260C

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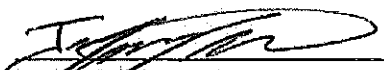
Harbor History Museum
4121 Harborview Dr.
Gig Harbor, WA 98332

Client ID: Tripblank
Sample Matrix: Water
Date Sampled: 11/03/2016
Date Received: 11/03/2016
Spectra Project: 2016110151
Spectra Number: 3

Analyte	Result	Units	Method	Analyte	Result	Units	Method
1,1,1,2-Tetrachloroethane	<1	µg/L	SW846 8260C	1,4-Dichlorobenzene	<1	µg/L	SW846 8260C
1,1,1-Trichloroethane	<1	µg/L	SW846 8260C	2,2-Dichloropropane	<1	µg/L	SW846 8260C
1,1,2,2-Tetrachloroethane	<1	µg/L	SW846 8260C	2-Butanone (MEK)	<10	µg/L	SW846 8260C
1,1,2-Trichloroethane	<1	µg/L	SW846 8260C	2-Chloroethylvinyl Ether	<10	µg/L	SW846 8260C
1,1-Dichloroethane	<1	µg/L	SW846 8260C	2-Chlorotoluene	<1	µg/L	SW846 8260C
1,1-Dichloroethene	<1	µg/L	SW846 8260C	2-Hexanone (MBK)	<10	µg/L	SW846 8260C
1,1-Dichloropropene	<1	µg/L	SW846 8260C	4-Chlorotoluene	<1	µg/L	SW846 8260C
1,2,3-Trichlorobenzene	<1	µg/L	SW846 8260C	4-Isopropyltoluene	<1	µg/L	SW846 8260C
1,2,3-Trichloropropane	<1	µg/L	SW846 8260C	4-methyl-2-pentanone (MIBK)	<10	µg/L	SW846 8260C
1,2,4-Trichlorobenzene	<1	µg/L	SW846 8260C	Acetone	<10	µg/L	SW846 8260C
1,2,4-Trimethylbenzene	<1	µg/L	SW846 8260C	Acetonitrile	<10	µg/L	SW846 8260C
1,2-Dibromo3Chloropropane	<10	µg/L	SW846 8260C	Acrolein	<10	µg/L	SW846 8260C
1,2-Dibromoethane (EDB)	<1	µg/L	SW846 8260C	Acrylonitrile	<10	µg/L	SW846 8260C
1,2-Dichlorobenzene	<1	µg/L	SW846 8260C	Benzene	<1	µg/L	SW846 8260C
1,2-Dichloroethane	<1	µg/L	SW846 8260C	Bromobenzene	<1	µg/L	SW846 8260C
1,2-Dichloropropane	<1	µg/L	SW846 8260C	Bromochloromethane	<1	µg/L	SW846 8260C
1,3,5-Trimethylbenzene	<1	µg/L	SW846 8260C	Bromodichloromethane	<1	µg/L	SW846 8260C
1,3-Dichlorobenzene	<1	µg/L	SW846 8260C	Bromoform	<1	µg/L	SW846 8260C
1,3-Dichloropropane	<1	µg/L	SW846 8260C	Bromomethane	<1	µg/L	SW846 8260C

Surrogate	Recovery	Method
Dibromofluoromethane	127	SW846 8260C
1,2-Dichloroethane-d4	127	SW846 8260C
Toluene-d8	75	SW846 8260C
4-Bromofluorobenzene	110	SW846 8260C

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Steve Hibbs, Laboratory Manager
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Harbor History Museum
4121 Harborview Dr.
Gig Harbor, WA 98332

Client ID: Tripblank
Sample Matrix: Water
Date Sampled: 11/03/2016
Date Received: 11/03/2016
Spectra Project: 2016110151
Spectra Number: 3

Analyte	Result	Units	Method	Analyte	Result	Units	Method
Carbon Disulfide	<10	µg/L	SW846 8260C	Trichloroethene	<1	µg/L	SW846 8260C
Carbon Tetrachloride	<1	µg/L	SW846 8260C	Trichlorofluoromethane	<1	µg/L	SW846 8260C
Chlorobenzene	<1	µg/L	SW846 8260C	Vinyl Acetate	<10	µg/L	SW846 8260C
Chlorodibromomethane	<1	µg/L	SW846 8260C	Vinyl chloride	<0.2	µg/L	SW846 8260C
Chloroethane	<1	µg/L	SW846 8260C	cis-1,2-Dichloroethene	<1	µg/L	SW846 8260C
Chloroform	<1	µg/L	SW846 8260C	cis-1,3-Dichloropropene	<1	µg/L	SW846 8260C
Chloromethane	<1	µg/L	SW846 8260C	n-Butylbenzene	<1	µg/L	SW846 8260C
Dibromomethane	<1	µg/L	SW846 8260C	n-Propylbenzene	<1	µg/L	SW846 8260C
Dichlorodifluoromethane	<1	µg/L	SW846 8260C	sec-Butylbenzene	<1	µg/L	SW846 8260C
Ethylbenzene	<1	µg/L	SW846 8260C	tert-Butylbenzene	<1	µg/L	SW846 8260C
Hexachlorobutadiene	<1	µg/L	SW846 8260C	trans-1,2-Dichloroethene	<1	µg/L	SW846 8260C
Iodomethane	<10	µg/L	SW846 8260C	trans-1,3-Dichloropropene	<1	µg/L	SW846 8260C
Isopropylbenzene	<1	µg/L	SW846 8260C				
Methyl-tert-Butyl Ether	<10	µg/L	SW846 8260C				
Methylene chloride	<5	µg/L	SW846 8260C				
Styrene	<1	µg/L	SW846 8260C				
Tetrachloroethene	<1	µg/L	SW846 8260C				
Toluene	<1	µg/L	SW846 8260C				
Total Xylenes	<2	µg/L	SW846 8260C				

Surrogate	Recovery	Method
Dibromofluoromethane	127	SW846 8260C
1,2-Dichloroethane-d4	127	SW846 8260C
Toluene-d8	75	SW846 8260C
4-Bromofluorobenzene	110	SW846 8260C

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Steve Hibbs, Laboratory Manager
a14exsur/jac

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 www.spectra-lab.com info@spectra-lab.com

CHAIN OF CUSTODY

SPECTRA PROJECT #

201411015

Return Samples: Y N Page 1 of 1 STANDARD RUSH

CLIENT: Huber History Muz ADDRESS: _____ ADDRESS CHANGE

PROJECT: _____
 CONTACT: Rick Fuller
 SAMPLED BY: Rick Fuller
 PHONE: _____ FAX: _____
 e-MAIL: rfuller@stgmail.com Prefer FAX or e-MAIL
 PURCHASE ORDER # _____

SAMPLE ID	DATE SAMPLED	TIME SAMPLED	MATRIX	NUMBER OF CONTAINERS																
				HYDROCARBONS	ORGANICS	METALS	OTHER	TURBIDITY	FLASH POINT	BOD	SOLIDS (SPECIFY)	TX/TOX/EOX	PH 9040/9045							
MW5	11-3-16	1300w	water	X																
MW7	11-3-16	1330w	water	X																
Tripletank				X																

Handwritten notes:
 11-3-16
 MW5-7
 Tripletank
 8082/608 PCB
 8270 PAH/PNA
 8270-625 SEMI VOA
 8260 CHLOR SOLVENTS
 8260/624 VOA + 020 PCB VC
 1664 HEM (FOG)
 1664 SGT-HEM (TPH)
 NWTPH-DX
 NWTPH-G
 BTEX/NWTPH-G
 BTEX
 NWTPH-ACID

LAB USE ONLY

SIGNATURE: Rick Fuller PRINTED NAME: Rick Fuller COMPANY: Spectra DATE: 11-3-16 TIME: 1506

RELINQUISHED BY: _____ RECEIVED BY: Jessica Holt

RELINQUISHED BY: _____ RECEIVED BY: _____

Payment Terms: Net 30 days. Past due accounts subject to 1 1/2% per month interest. Customer agrees to pay all costs of collection including reasonable attorney's fees and all other costs of collection regardless of whether suit is filed in Pierce Co., WA venue. Spectra Laboratories, LLC

