JACOBS™		Document Control Number: ACE-J23-35BG0707-P1-0003
Client, Project and Location **USACE New Bedford Resident Office** **New Bedford Harbor Superfund Site** **New Bedford, Massachusetts** **USACE Contract Number** **DACW33-03-D-0006**	**Project Note** **Note No.:**	Delivery Order/Task Order **TO 0007** Project No. **35-BG07-07**

Confirmation of:		Date Held	
☒	Project note-P1	Location	
☐	Client Meeting-P4	Date Issued:	2/6/13
☐	Other	Recorded By:	Carl Wilson
Subject:		Issued By:	Steve Fox
Air Sample Results for the Lower Harbor CAD Cell Construction – Phase I		S.E. Fox	

Item	Remarks	Action Required By
1	**PURPOSE**	
	The purpose of the Project Note is to provide a summary of actions taken and data collected pursuant to the *Final Plan for the Sampling of Ambient Air PCB Concentrations During Lower Harbor CAD Cell (LHCC) Construction (LHCC Air Plan), New Bedford Harbor Superfund Site, New Bedford, Massachusetts, October 2013*, DCN: ACE-J23-35BG0708-M17-0016.	
2	**METHODS AND RESOURCES**	
	• Coordinated with the City of New Bedford's dredging contractor (Mr. Pyne Tripp) to access the dredging barge via a work boat. • Air samples were collected from four locations by the method described in the LHCC Air Plan. The samples were collected by Cashins and Associates, Waltham, MA. • Likewise, the samples collected over four biweekly events were analyzed by Test America Laboratory in Knoxville, TN using the analytical method detailed in the LHCC Air Plan.	
3	**DISCUSSION**	
	The EPA CAD Cell Phase 1 is being constructed to accommodate low level PCB impacted sediments from other areas of the Acushnet River and New Bedford Harbor. The top two feet of sediment from the cell footprint is contaminated with PCBs and as such is being dredged first to segregate the impacted sediment from the non-impacted sediment below the top two feet. Figure 1 shows the locations of the air sample stations in relation to the area of the CAD Cell. The following four tables present the Total PCB Homologue air sample results and the relationship with the cumulative exposure budget value. The established budgets are 220 ng/m3 and 344 ng/m3 for residential and commercial receptors, respectively.	

Item	Remarks	Action Required By

Table 1 Air Monitoring Station #44 - Taber

Sample Date	Analyte	Sample Result (ng/m3)	Budget Value (ng/m3)	Exceeds Budget?
26-Mar- 2013	PCB total	1.1	220	No
20-Nov 2013	PCB total	2.17	220	No
4-Dec-2013	PCB total	3.31/3.0d	220	No
19-Dec-2013	PCB total	2.32	220	No

ng/m3 = nanograms per cubic meter of air
d = duplicate sample

Table 2 Air Monitoring Station #45 - Pilgrim

Sample Date	Analyte	Sample Result (ng/m3)	Budget Value (ng/m3)	Exceeds Budget?
26-Mar- 2013	PCB total	1.8/1.8d	220	No
20-Nov 2013	PCB total	1.68/2d	220	No
4-Dec-2013	PCB total	2.16	220	No
19-Dec-2013	PCB total	3.13	220	No

ng/m3 = nanograms per cubic meter of air
d = duplicate sample

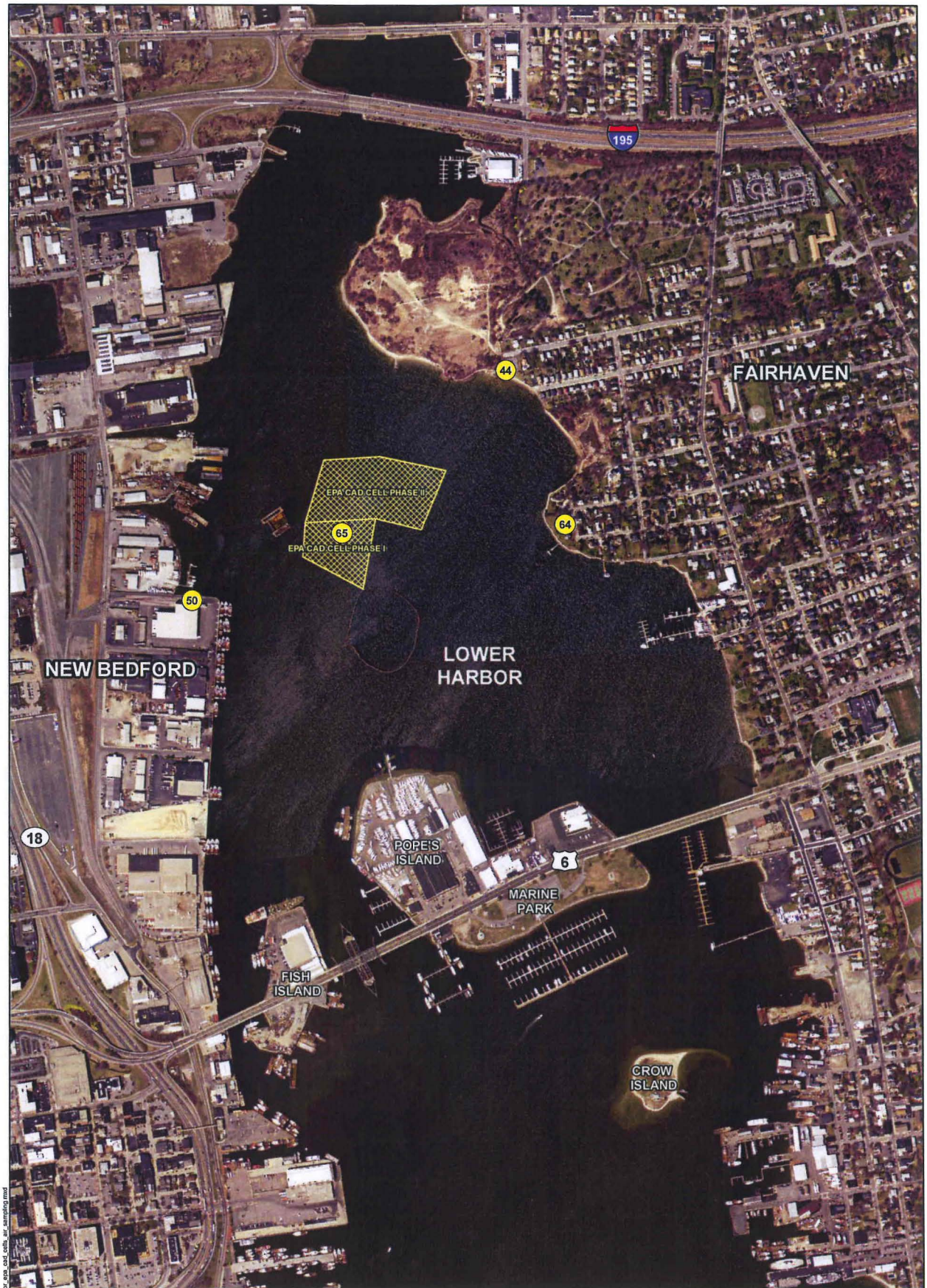
Table 3 Air Monitoring Station #50 - Area D

Sample Date	Analyte	Sample Result (ng/m3)	Budget Value (ng/m3))	Exceeds Budget?
26-Mar- 2013	PCB total	0.49	344	No
20-Nov 2013	PCB total	3.55	344	No
4-Dec-2013	PCB total	0.643	344	No
19-Dec-2013	PCB total	3.5/3.02d	344	No

ng/m3 = nanograms per cubic meter of air
d = duplicate sample

Item	Remarks	Action Required By
	Table 4 Air Monitoring Station #65 - Tripp Dredge ng/m3 = nanograms per cubic meter of air d = duplicate sample On or about January 22, 2014, direction was given by the EPA to include the post-dredge air sampling round as part of the 2014 pre-dredge sampling round that is anticipated to be the first week of March, 2014. The meteorological data collected during the four sampling periods is included in the attached Table 5 – Meteorological Data for LHCC Sample Rounds.	completed
4	**CONCLUSION**	
	All of the air sampling equipment functioned properly even in the cold weather. The laboratory analyses were completed without issue and the data validated without any discrepancies. None of the air results exceeded the cumulative exposure budget value. The measured data is quite low when compared to the respective budgets. The maximum being 1.8% of the commercial budget and 1.5% of the residential budget.	

Sample Date	Analyte	Sample Result (ng/m3)	Budget Value (ng/m3)	Exceeds Budget?
26-Mar- 2013	PCB total	Not sampled	344	No
20-Nov 2013	PCB total	6.21	344	No
4-Dec-2013	PCB total	3.57	344	No
19-Dec-2013	PCB total	0.890	344	No



Legend

- Ambient Air Sampling Station Location
- EPA CAD Cell

DRAFT

N

0 300 600 Feet

1:7,200

Aerial Photography MASSGIS 2009

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Lower Harbor EPA CAD Cells and PCB Ambient Air Sampling Station Locations

New Bedford Harbor Superfund Site

NAME: jpiccuto Date: 1/28/2014

Figure 1

Path: Y:\NBHP\Projects\3585\07\0\20140129\ArcGIS\lower_harbor_epa_cad_cells_air_sampling.mxd

Table 5
Meteorological Data/Tide Data Summary,
New Bedford Harbor Superfund Site - Lower Harbor Top of CAD Cell Dredging - 2013 Season

Date	Avg Wind Speed (mph)	Wind Direction	Min Temp (°F)	Max Temp (°F)	Min Humidity (%)	Max Humidity (%)	Barometric Pressure (in Hg)	Avg Radiation (watts/m^2)	Max Radiation (watts/m^2)	Tide Min (ft msl)	Tide Min Time(1)	Tide Max (ft msl)	Tide Max Time(1)
26-Mar-2013	10	WNW	33	49	39	100	29.53	197	793	-0.5	1330	4.3	2012
21-Nov-2013	6	SW	29	47	34	79	30.40	125	534	0.2	232	3.8	953
5-Dec-2013	5	SSW	33	50	59	100	29.95	52	446	-0.6	222	4.9	919
20-Dec-2013	8	SSW	29	52	62	100	29.94	95	441	0	212	3.8	927

Notes:
(1) The tide data are based upon the tides at the New Bedford, Harmonic Station (41 ^{0}38N 70^{0}55W) as predicted by the National Oceanic and Atmospheric Administration (NOAA).
^{0}F = degrees Fahrenheit
% = percent
ft msl = feet mean sea level
in Hg = inches of mercury
mph = miles per hour
watts/m^2 = watts per square meter.