Weekly Field Report Week: 01-26-14 through 02-01-14 New Bedford Harbor Lower Harbor CAD Cell (LHCC)

This Weekly Field Report was prepared to serve as a summary of field activities conducted throughout the week for Phase I dredging of the New Bedford Harbor Lower Harbor CAD Cell (LHCC) in New Bedford, Massachusetts.

1. Introduction:

The weekly field report describes the activities carried out by the Contractor (Cashman/Tripp Marine), the Owner's Representative (Apex Companies, LLC), and any subcontractors completing work within the scope of the project requirements.

This Weekly Field Report represents the thirteenth Report associated with Phase I dredging of the LHCC in New Bedford Harbor, and the associated handling and disposal of dredged materials at CAD cells within the Harbor, and at designated open-water disposal sites approved for this Project.

This 13th Report for the LHCC dredging activities includes:

- Daily Inspection Reports from the dredging oversight performed during the week of January 26th through February 1st, 2014. Daily contractor activities are included in the form of Daily Inspection Reports noting equipment observed on site and a summary of contractor activities. (See Attachment 1);
- Water Quality Monitoring Forms completed for the week of January 26th through February 1st, 2014 are attached (See Attachment 2). Included with the attached forms is Figure 1 Lower Harbor CAD Cell Phase I Water Quality Monitoring Plan, which shows the locations of the water quality monitoring events conducted during this reporting period. Per the approved Water Quality Monitoring Plan and associated performance standards for the dredging efforts being conducted during this reporting period, Apex has:
 - Conducted water quality monitoring a minimum of one day per week, with the intent of monitoring the first three days of construction activities.
 - Performed visual inspections of dredged materials in the disposal scow for any visible debris or other items that could potential become a hazard to navigation prior to scow's departure for the offshore disposal site.

Summary:

The Contractor through its subcontractor, Tripp Marine conducted dredging at the LHCC on January 27th and 31st, and February 1st. Dredging operations continued to focus on the strategic removal of Phase I Bottom of CAD Cell sediments to open up a 125-foot wide deep water channel entering in from the southwest corner of the LHCC to facilitate the access of larger barge mounted dredge equipment expected on site. During this reporting period dredging operations were conducted using a conventional digging bucket, with dredged materials being disposed offshore at the Rhode Island Sound Disposal Site (RISDS). Tripp Marine was observed conducting these activities during the authorized operational window of 7AM until sunset, utilizing a single dredge plant; the tug *Sand Pebble*; a 900 cubic yard dump scow – *TMC 140*; and two small utility boats. With time of year restrictions now in place (January 15th through June 15th) all dredging activities were conducted within a silt curtained perimeter surrounding the LHCC.

2. Operational Notes:

Dredging:

Dredging of LHCC Phase I Bottom of CAD sediments continued during the week. Dredging operations focused on the strategic removal of sediments to open up a 125-foot wide deep water access channel. Apex conducted two days of water quality monitoring, on January 27th and 31st, while dredging was being performed to ensure that these activities did not result in an exceedance of any project-specific water quality standards.

Offshore Disposal:

Offshore disposal for LHCC Phase I Bottom of CAD sediments is scheduled and permitted for the Rhode Island Sound Disposal Site. Two offshore disposal events, using the dump scow TMC-140, were recorded during the week and occurred on January 30th and January 31st. Adverse weather and sea conditions offshore limited dredging and disposal activities during the week.

Table 1 – Cumulative Dredging Progress

Period of Activity	Volume (cy)
Approximate Top of CAD Volume Dredged to Date*	24,890
Approximate Bottom of CAD Volume Dredged this Reporting Period	1,600
Approximate Bottom of CAD Volume Dredged to Date*	2,200

^{*} Dredge volume quantities are estimated based on observed scow draft marks and an assumed density of the materials dredged. Given the uncertainty in the density of a composite mix of sediments being dredged, all volumes are confirmed and adjusted as necessary using bathymetric survey data.

3. Monitoring Summary

There were no water quality exceedances observed during this reporting period related to dredging operations. No water quality samples were collected.

Prepared by:

Apex Companies, LLC

John B. McAllister, P.E. Senior Project Engineer

Don Boyé Senior Project Manager

Attachment 1 Daily Inspection Reports



					peci	tion Keport					
Inspector:	Chris Stillm	nan				_	-	Date	20 January	y 2014	
Contractor:	Tripp Mari	ine				_Foreman/Supt	t:	7	Tripp Pyne		
Weather	AM: PM:	Clear Cloudy				_ Temperature		AM: PM:	30 45		
Tides	High Low		1012 321	<u> </u>	_AM _AM		_PM _PM				
Manpower O	nsite					Equipment O	nsite				
Other: Contractor Ac 0530 Apex on sit	Foreman Operators Laborers Drivers ctivities: (Att	0 0 tach Add	@ @ @ litional S	0 0 Sheets	_ Hrs _ Hrs Hrs Hrs	Description: Posterion	oush bo	Dredg Scow oat Sa Sup Scov	y TMC 140 and Pebble pport boat w SEI 2000	Hrs0_	
Problems/Issu	ues or Action	n Items:									
Visitors:											
Signature: Title: Copy to:	K Ryan							Page	e: <u>20 January</u> e:1of_ e: DIR_LHCC	1	
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				1113	speci	ion Report						
Inspector:	C Stillman							Date	: 21 Januar	y 2014		
Contractor:	Tripp Marine	e				Foreman/Supt	::		Pyne Tripp			
Weather	AM: PM:		Clear Cloudy	'		Temperature		AM: PM:	14 29			
Tides	High _ Low _		1054 0400		_AM _AM	2329 1616	_PM _PM					
Manpower O	nsite					Equipment O						
Other:	_	0 0	_ @	0 0	Hrs Hrs Hrs	Description:		Scov boat Sa Su	y TMC 140 and Pebble pport boat w SEI 2000	Hrs Hrs Hrs	00 0 0 0	
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Problems/Issu	ies or Action	Items:										
Visitors:												
Signature: Title: Copy to:	K Ryan file							Page	21 January ::1of_ :: _DIR_LHCC	_1		



			spec	tion Report					
Inspector:	K Ryan			_	Date	e: 22 January	y 2014		
Contractor:	Tripp Marine	<u> </u>		_Foreman/Supt	::	Pyne Tripp			
Weather	AM:	Overcast Clear		Temperature	AM:	7 17			
Tides	High	1143	AM	-	PM				
	Low	0442	AM	_	PM				
Manpower O	nsite			Equipment O	nsite				
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	Operators	o@ 0 @	0 1113 0 Hrs	•		w TMC 140	Hrs.		-
	Laborers	0@				and Pebble	Hrs.		-
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Other:			Hrs			w SEI 2000	Hrs		_
Contractor Ac	ctivities: (Attacl	h Additional S	heets as N	ecessary)					
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Inspector:	C Stillman				-		Date	: 23 January	y 2014		
Contractor:	Tripp Marine				_Foreman/Supt	t:		Pyne Tripp			
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Inspector:	C Stillman							Date	e: 24 Janı	uary	2014		
Contractor:	Tripp Marir	ne				Foreman/Sup	t:		Pyne Trip	р			
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0505 Apex on sit dropping curtain 1230 dredging is 3.5'. 1438 Tripp of finished for the o	, no dredgir occurring ir continues to	ng at this In the mid	time. dle of	1202 P silt cu	yne bertaine	egins dredging d area. 1320 th	into ne TM	the TI 1C - 14	MC-140 ir I0 is draft	nside ing	e the s at: bov	ilt curta v 3' and	ain. d stern
Problems/Issu	ies or Actior	n Items:											
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Inspector:	K Ryan, J Tl	nomson		_	Date	e: 25 January	y 2014
Contractor:	Tripp Marin	ne		_Foreman/Sup	t:	Pyne Tripp	
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Manpower Oı	nsite			Equipment O	nsite		
Other:	Foreman Operators Laborers Drivers	1@ 1@ 1@ 	1 Hrs 1 Hrs Hrs	Description:	Sco Push boat S Su	ge Tripp 47 w TMC 140 and Pebble upport boat bw SEI 2000	Hrs1 Hrs1 Hrs1 Hrs0
Contractor Ac	tivities: (Att	ach Additiona	l Sheets as N	ecessary)			
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Problems/Issu	ies or Actior	ı Items:					
1328 talked with that they will no permitted to disp	t be able to	perform their	disposal unti	il 01/28/2014 d	ue to incle	ment weathe	ids. He also added er. They are
Visitors:							
Signature: Title:	K Ryan					e: <u>25 January</u> e: <u>1</u> of_	
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Attachment 2 Water Quality Monitoring Forms

PROJECT:	New Bedford Harbor	Lower Harbor CA	AD Cell				
JOB NUMBER:	6724						
SURVEY DATE:	24 January 2014						
MONITORS:	M. Martinho						
WEATHER CONDITIONS:	Sunny / Clear	Low:	11	High:	15		
WIND CONDITIONS:	Speed:	: 5-10k	Direction: NW				
PRIOR STORM EVENTS:	N/A						
DREDGE / SCOW Position:	Northing/Easting:						
TYPE OF WATER QUALITY	Y MONITORING EVENT	T: TOP CAD Dre	edging / BTM CAI	D Dredging	/ Disposal		
TIDE INFORMATION:	High:	: 0104/1325	Low: 0639/	1847			
WAS WATER OUALITY SA	MDI INC DEDECEMEN	2 (VES/NO).	N IEVE	C ATTACL	L COC EODING		



WIND CONDITIONS:		5-1UK	Direction:					_	
PRIOR STORM EVENTS: DREDGE / SCOW Position									
TYPE OF WATER QUALIT		. TOD CAD	Dradeine / BT	M CAD Drade	ing / Dianaga			AF	
TIDE INFORMATION:		0104/1325		0639/1847	ing / Dispusa	'		- /-\ -	
WAS WATER QUALITY S					ACH COC FOR	Me		/ \1	
GENERAL NOTES:	Dredging begins at 12							-	
02.112.13.12.110.120.	Drouging Dogino at 12	02.0. 20	0. 07.2 0.009						
					UP-CURRE	:N I			
Monitoring ID #	NORTHING / EASTING	TIME	TOTAL WATER	SAMPLE	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	RELATIVE POSITION OF MEASUREMENT	NUMBER OF HOURS DREDGING
			DEPTH (ft)	DEPTH (ft)	(NTUS)			OF MEASUREMENT	DREDGING
012414-00-1-1		1200		1	2.6				
012414-00-1-4	2696535 / 815046	1202	8.6	4	4	1	Flooding tide	200' S of Dredge	0
012414-00-1-8		1204		8	4.5				
			AVERAGE 1	TURBIDITY:	3.70				
012414-02-1-1		1400		1	3.3				_
012414-02-1-3	2697050 / 815113	1402	6.3	3	3.9	4	Ebbing	200' N of Dredge	2
012414-02-1-6		1404		6	3.8				
			AVERAGE 1	UKBIDITY:	3.67	J			
012414 04 1 4		1600		4	2.4	1			
012414-04-1-1 012414-04-1-2.5	2697025 / 814980	1600 1602	5.8	2.5	3.4	1	Ebbing	200' N of Dredge	4
012414-04-1-2.5	200.0207014000	1604	5.6	5	3.2	1	Lobing	200 of blodge	7
012414 04 1 0		1004	AVERAGE 1		3.30				
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			AVERAGE 1	TURBIDITY:					
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	-		-		1	-			
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			AVENAGE	OKDIDITT.		_1			
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					Down-Curr	rent			
		1			Down-Curr	<u>ent</u>			
Monitoring ID #	NORTHING / EASTING	TIME	TOTAL WATER	SAMPLE	TURBIDITY		TIDAL STAGE	DISTANCE FROM	NUMBER OF HOURS
Monitoring ID #	NORTHING / EASTING	TIME	TOTAL WATER DEPTH (ft)		TURBIDITY (NTUs)	ent GPS FILE NAME	TIDAL STAGE	DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
012414-00-9-1		1210	DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)			LOCATION	DREDGING
012414-00-9-1 012414-00-9-2.5	NORTHING / EASTING 2697051 / 815065	1210 1212		SAMPLE DEPTH (ft) 1 2.5	TURBIDITY (NTUs) 3.5 4.2		TIDAL STAGE Flooding tide		
012414-00-9-1		1210	DEPTH (ft)	SAMPLE DEPTH (ft) 1 2.5 5	3.5 4.2 4.6			LOCATION	DREDGING
012414-00-9-1 012414-00-9-2.5		1210 1212	6 AVERAGE 1	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY:	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10			LOCATION	DREDGING
012414-00-9-1 012414-00-9-2.5		1210 1212	DEPTH (ft)	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY:	3.5 4.2 4.6			LOCATION	DREDGING
012414-00-9-1 012414-00-9-2.5 012414-00-9-5		1210 1212 1214	6 AVERAGE 1	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10 0.40			LOCATION	DREDGING
012414-00-9-1 012414-00-9-2.5		1210 1212	6 AVERAGE 1	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY:	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10			LOCATION	DREDGING
012414-00-9-1 012414-00-9-2-5 012414-00-9-5 012414-02-9-1	2697051 / 815065	1210 1212 1214 1214	AVERAGE 1 TURBIDITY	SAMPLE DEPTH (#) 1 2.5 5 FURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10 0.40		Flooding tide	LOCATION 200' N of Dredge	DREDGING 0
012414-00-9-1 012414-00-9-2.5 012414-00-9-5 012414-02-9-1 012414-02-9-3	2697051 / 815065	1210 1212 1214 1214 1410 1412	AVERAGE 1 TURBIDITY	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY: INCREASE: 1 3 5.5	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10 0.40 4.2 4.4		Flooding tide	LOCATION 200' N of Dredge	DREDGING 0
012414-00-9-1 012414-00-9-2.5 012414-00-9-5 012414-02-9-1 012414-02-9-3	2697051 / 815065	1210 1212 1214 1214 1410 1412	6 AVERAGE TURBIDITY	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY: INCREASE: 1 3 5.5	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10 0.40 4.2 4.4 4.4		Flooding tide	LOCATION 200' N of Dredge	DREDGING 0
012414-00-9-1 012414-00-9-5 012414-00-9-5 012414-02-9-1 012414-02-9-3 012414-02-9-5-5	2697051 / 815065	1210 1212 1214 1214 1410 1412 1414	6 AVERAGE TURBIDITY 6.1 AVERAGE 1	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY: INCREASE: 1 3 5.5 FURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10 0.40 4.2 4.4 4.4 4.33 0.67		Flooding tide	LOCATION 200' N of Dredge	DREDGING 0
012414-00-9-1 012414-00-9-2.5 012414-00-9-5 012414-02-9-1 012414-02-9-3 012414-02-9-5.5	2697051 / 815065 2696487 / 815217	1210 1212 1214 1214 1410 1412 1414	DEPTH (ft) 6 AVERAGE 1 TURBIDITY 6.1 AVERAGE 1 TURBIDITY	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY: INCREASE: 1 3 5.5 FURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10 0.40 4.2 4.4 4.4 4.33 0.67		Flooding tide Ebbing	200' N of Dredge 200' S of Dredge	DREDGING 0
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012414-00-9-1 012414-00-9-2.5 012414-00-9-5 012414-02-9-1 012414-02-9-3 012414-02-9-5.5	2697051 / 815065 2696487 / 815217	1210 1212 1214 1214 1410 1412 1414 1610 1612	AVERAGE 1 TURBIDITY 6.1 AVERAGE 1 TURBIDITY 13.2	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY: INCREASE: 1 3 5.5 FURBIDITY: INCREASE: 1 6 12 FURBIDITY:	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10 0.40 4.2 4.4 4.4 4.33 0.67 5.4 5.5 5.3		Flooding tide Ebbing	200' N of Dredge 200' S of Dredge	DREDGING 0
012414-00-9-1 012414-00-9-2.5 012414-00-9-5 012414-02-9-1 012414-02-9-3 012414-02-9-5.5	2697051 / 815065 2696487 / 815217	1210 1212 1214 1214 1410 1412 1414 1610 1612	DEPTH (ft) 6 AVERAGE 1 TURBIDITY 6.1 AVERAGE 1 TURBIDITY 13.2 AVERAGE 1	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY: INCREASE: 1 3 5.5 FURBIDITY: INCREASE: 1 6 12 FURBIDITY:	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10 0.40 4.2 4.4 4.4 4.5 5.4 5.5 5.3 5.40		Flooding tide Ebbing	200' N of Dredge 200' S of Dredge	DREDGING 0
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012414-00-9-1 012414-00-9-2.5 012414-00-9-5 012414-02-9-1 012414-02-9-3 012414-02-9-5.5	2697051 / 815065 2696487 / 815217	1210 1212 1214 1214 1410 1412 1414 1610 1612	AVERAGE TURBIDITY 13.2 AVERAGE TURBIDITY AVERAGE TURBIDITY AVERAGE TURBIDITY	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY: INCREASE: 1 3 5.5 5 FURBIDITY: INCREASE: 1 6 12 FURBIDITY: INCREASE: 1 TURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10 0.40 4.2 4.4 4.4 4.5 5.4 5.5 5.3 5.40		Flooding tide Ebbing	200' N of Dredge 200' S of Dredge	DREDGING 0
012414-00-9-1 012414-00-9-2.5 012414-00-9-5 012414-02-9-1 012414-02-9-3 012414-02-9-5.5	2697051 / 815065 2696487 / 815217	1210 1212 1214 1214 1410 1412 1414 1610 1612	DEPTH (ft) 6 AVERAGE 1 TURBIDITY 6.1 AVERAGE 1 TURBIDITY 13.2 AVERAGE 1 TURBIDITY	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY: INCREASE: 1 3 5.5 5 FURBIDITY: INCREASE: 1 6 12 FURBIDITY: INCREASE: 1 TURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10 0.40 4.2 4.4 4.4 4.5 5.4 5.5 5.3 5.40		Flooding tide Ebbing	200' N of Dredge 200' S of Dredge	DREDGING 0
012414-00-9-1 012414-00-9-2.5 012414-00-9-5 012414-02-9-1 012414-02-9-3 012414-02-9-5.5	2697051 / 815065 2696487 / 815217	1210 1212 1214 1214 1410 1412 1414 1610 1612	AVERAGE TURBIDITY 13.2 AVERAGE TURBIDITY AVERAGE TURBIDITY AVERAGE TURBIDITY	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY: INCREASE: 1 3 5.5 5 FURBIDITY: INCREASE: 1 6 12 FURBIDITY: INCREASE: 1 TURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10 0.40 4.2 4.4 4.4 4.5 5.4 5.5 5.3 5.40		Flooding tide Ebbing	200' N of Dredge 200' S of Dredge	DREDGING 0
012414-00-9-1 012414-00-9-2.5 012414-00-9-5 012414-02-9-1 012414-02-9-3 012414-02-9-5.5	2697051 / 815065 2696487 / 815217	1210 1212 1214 1214 1410 1412 1414 1610 1612	AVERAGE TURBIDITY 13.2 AVERAGE TURBIDITY AVERAGE TURBIDITY AVERAGE TURBIDITY	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY: INCREASE: 1 3 5.5 5 FURBIDITY: INCREASE: 1 6 12 FURBIDITY: INCREASE: 1 TURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10 0.40 4.2 4.4 4.4 4.5 5.4 5.5 5.3 5.40		Flooding tide Ebbing	200' N of Dredge 200' S of Dredge	DREDGING 0
012414-00-9-1 012414-00-9-2.5 012414-00-9-5 012414-02-9-1 012414-02-9-3 012414-02-9-5.5	2697051 / 815065 2696487 / 815217	1210 1212 1214 1214 1410 1412 1414 1610 1612	AVERAGE TURBIDITY 13.2 AVERAGE TURBIDITY AVERAGE TURBIDITY AVERAGE TURBIDITY	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY: INCREASE: 1 3 5.5 5 FURBIDITY: INCREASE: 1 6 12 FURBIDITY: INCREASE: 1 TURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10 0.40 4.2 4.4 4.4 4.5 5.4 5.5 5.3 5.40		Flooding tide Ebbing	200' N of Dredge 200' S of Dredge	DREDGING 0
012414-00-9-1 012414-00-9-2.5 012414-00-9-5 012414-02-9-1 012414-02-9-3 012414-02-9-5.5	2697051 / 815065 2696487 / 815217	1210 1212 1214 1214 1410 1412 1414 1610 1612	AVERAGE TURBIDITY 13.2 AVERAGE TURBIDITY AVERAGE TURBIDITY AVERAGE TURBIDITY AVERAGE TURBIDITY	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY: INCREASE: 1 3 5.5 FURBIDITY: INCREASE: 1 6 12 FURBIDITY: INCREASE: 1 TURBIDITY: INCREASE: 1 TURBIDITY: INCREASE: 1 TURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10 0.40 4.2 4.4 4.4 4.5 5.4 5.5 5.3 5.40		Flooding tide Ebbing	200' N of Dredge 200' S of Dredge	DREDGING 0
012414-00-9-1 012414-00-9-2.5 012414-00-9-5 012414-02-9-1 012414-02-9-3 012414-02-9-5.5	2697051 / 815065 2696487 / 815217	1210 1212 1214 1214 1410 1412 1414 1610 1612	AVERAGE TURBIDITY 13.2 AVERAGE TURBIDITY AVERAGE TURBIDITY AVERAGE TURBIDITY	SAMPLE DEPTH (ft) 1 2.5 5 FURBIDITY: INCREASE: 1 3 5.5 FURBIDITY: INCREASE: 1 6 12 FURBIDITY: INCREASE: FURBIDITY: INCREASE: FURBIDITY: INCREASE: FURBIDITY: INCREASE:	TURBIDITY (NTUs) 3.5 4.2 4.6 4.10 0.40 4.2 4.4 4.4 4.5 5.4 5.5 5.3 5.40		Flooding tide Ebbing	200' N of Dredge 200' S of Dredge	DREDGING 0

* Turbidity Increase = Down-Current Average Turbidity - Up-Current Average Turbidity

PROJECT:	New Bedford Harbor L	ower Harbo	r CAD Cell						
JOB NUMBER:	6724								
SURVEY DATE:	25 January 2014								
MONITORS:	K. Ryan, J. Thompson							100	
WEATHER CONDITIONS:	Rain/Snow Mix	Low:	12	High:	39				EX
WIND CONDITIONS:	Speed:	15-20k	Direction:						
PRIOR STORM EVENTS:	N/A								
DREDGE / SCOW Position:	Northing/Easting:								
TYPE OF WATER QUALITY	Y MONITORING EVENT	: TOP CAD	Dredging / BT	M CAD Dredg	ing / Disposa	I		/A I_	/I— X
TIDE INFORMATION:	High:	0200/1425	Low:	0758/1956				/\\I-	
WAS WATER QUALITY SA	MPLING PERFORMED?	? (YES/NO):	: N	IF YES, ATTA	ACH COC FOR	MS			
GENERAL NOTES:	Dredging begins at 12	15 for Bottor	n of CAD dredgi	ing, which cor	ntinued until 12	52, after which a	activities stopped due to high wind co	onditions.	
					UP-CURRE	NT			
		7							
			TOTAL WATER	044515	TURRIDITY			DEL ATIVE DOCUTION	NUMBER OF HOURS
Monitoring ID #	NORTHING / EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	RELATIVE POSITION OF MEASUREMENT	NUMBER OF HOURS DREDGING
			D2(ii)	22()	(11.00)			OI MEROOREMENT	DILLDONIO
012514-00-1-1		1235		1	4.5				
012514-00-1-4	2696511 / 815138	1237	8.4	4	4.2		Flooding tide	200' S of Dredge	0
012514-00-1-4		1239	0.4	8	7	-			
0.2011.001.0	1	1200	AVERAGE 1		5.23		<u>I</u>		
			AVENAGE	. UNDIDIT I.	0.20	_			
	1		1			1			
	1		1			1			
		!	AVERAGE 1	TURBINITY:		1			
			AVENAGE	TORBIDIT I.	ı	1			
			1		I				
	1		1		†				
						1			
	1	<u> </u>	AVERAGE 1	TI IDBIDITY:					
			AVENAGE	TORBIDIT I.	ı	1			
			1		I				
						1			
	1		1		†				
	1	L	AVERAGE 1	TURRIDITY:			<u>I</u>		
			AVERAGE	I UKBIDIT T.	I.	1			
			1		I				
						1			
	1	<u> </u>	AVERAGE 1	I IDBIDITY:				<u>l</u>	
			AVERAGE	I UKBIDIT T.	I.	1			
					Down-Curr	<u>ent</u>			
		1	TOTAL WATER	SAMPLE	TUDDIDITY			DISTANCE FROM	NUMBER OF HOURS
Monitoring ID #	NORTHING / EASTING	TIME	DEPTH (ft)	DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	LOCATION	DREDGING
							ı		
012514-00-9-1	2007422 / 045207	1245		1	4.9	4	Flooding tide	200! N. of Drodge	0
012514-00-9-3	2697133 / 815207	1247	6.4	3	7.8	4	Flooding tide	200' N of Dredge	0
012514-00-9-6		1249		6	6.6				
			AVERAGE 1		6.43	_			
			TURBIDITY	INCREASE:	1.20	_			
	1	T	1		1	1	Γ	ı	
	1					1			
	1	-	1		1	1			
	1	<u> </u>	AVERAGE 1	TUDDIDITY.					
			TURBIDITY			-			
			TURBIUTT	INCREASE:		1			
					1	1			
	1		1			1			
			1			-			
			AVERAGE 1	FI IDDIDITY:					
			TURBIDITY			-			
			TOKBIDITT	INCREASE.	I.				
		ī			I	1		I	
	1		1			1			
	1		1			1			
	1		AVERAGE 1	I IRRIDITV					
			TURBIDITY			1			
			TOKBIDITT	HONLAGE.	L	_			
			1		1	1		1	
	1		1			1			
	1		1		†	1			
			AVERAGE 1	TURBINITY:					
			TURBIDITY			1			
l			. JINDIDITI	L/ \UL.					

* Turbidity Increase = Down-Current Average Turbidity - Up-Current Average Turbidity

Figure 1 Lower Harbor CAD Cell Phase I – Water Quality Monitoring

