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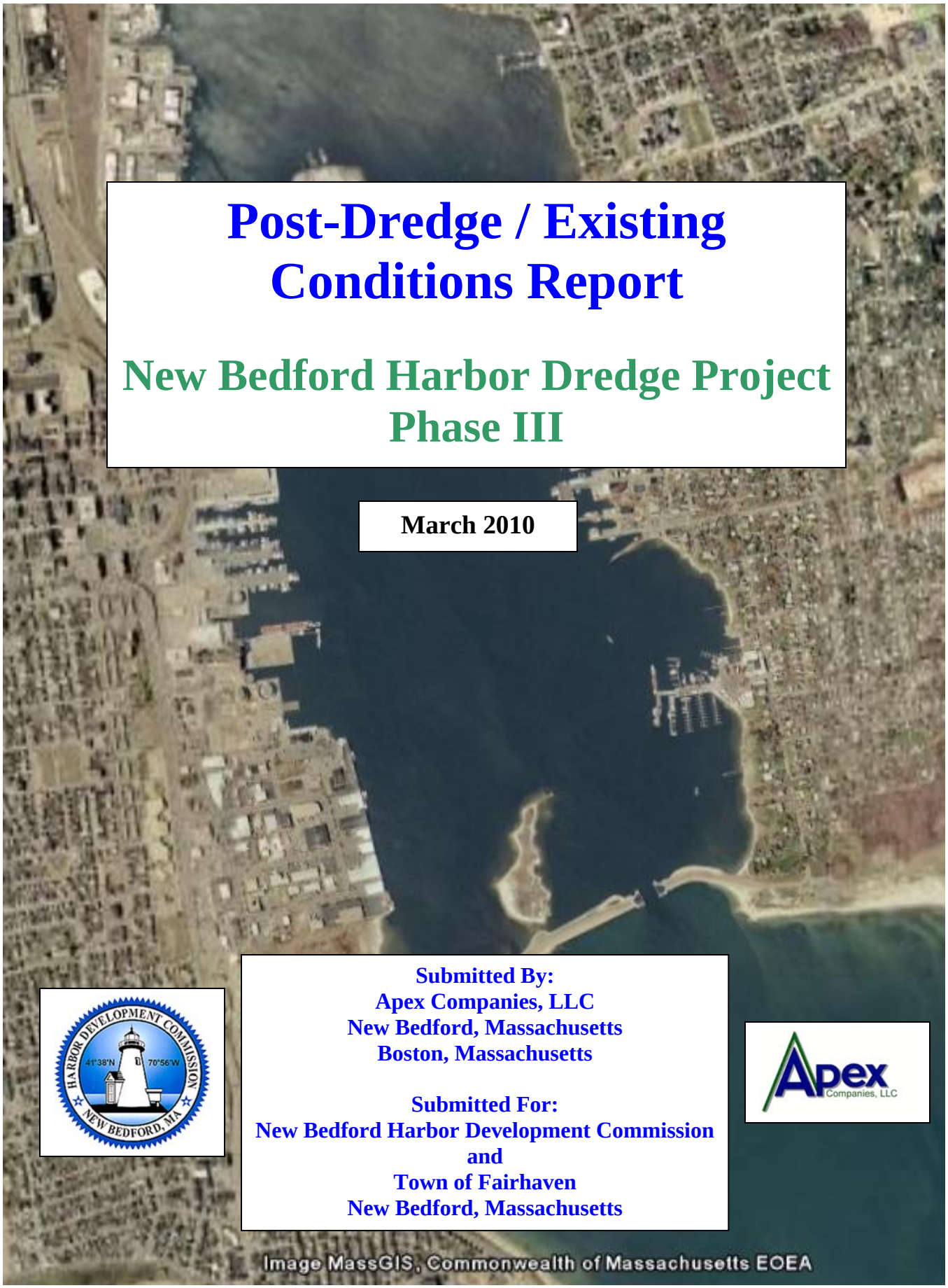

Post-Dredge / Existing Conditions Report

New Bedford Harbor Dredge Project Phase III

March 2010

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Submitted For:
New Bedford Harbor Development Commission
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Post-Dredge / Existing Conditions Report
New Bedford Harbor Dredge Project – Phase III
February 2010

1.0 Introduction

This Report of Existing Conditions has been prepared by Apex Companies, LLC for the New Bedford Harbor Development Commission (NBHDC) upon completion of the New Bedford Phase III Dredge Project. The New Bedford Harbor Dredge Project – Phase III included construction of CAD Cell #2 in two phases (Top of CAD and Bottom of CAD) and the maintenance dredging of portions of the New Bedford Rowing Facility boat basin, Packer Marine, Tonnesson Park, South Terminal, Gifford Street Boat Ramp, Niemiec Marine in New Bedford, Massachusetts and Linberg Marine, Olde North Wharf Fisheries, Fairhaven Shipyard, Steamship Authority, Union Wharf, Warren Alexander (South) in Fairhaven, Massachusetts. Work for NBHDC was completed under contract numbers HDC-FY08-006, HDC-FY08-007, HDC-FY09-001A and HDC-FY09-001B (Steamship Authority dredging was contracted privately).

2.0 Background

The City of New Bedford and the Town of Fairhaven are located on the south coast of Massachusetts between Cape Cod and Fall River, Massachusetts. New Bedford Harbor is an approximately mile-long, narrow, protected embayment that stretches from the mouth of the Acushnet River (at the north), to a large hurricane dyke and flood control structure at the entrance to Buzzards Bay (on the south). Historically, New Bedford Harbor was one of the dominant shipping ports on the east coast. During the 19th Century, textile mills and manufacturing facilities were built on the edge of the Harbor to take advantage of the access to the working waterfront. Electrical transformer manufacturing industries moved into the New Bedford Harbor waterfront area and operated from the 1940's to 1970's. With this electronic component manufacturing came new types of waste discharge into the Harbor. Polychlorinated Biphenyl (PCB) contaminated oils and byproducts made their way into the Harbor through sewer lines and other outfalls, contaminating the sediments on the bottom of the Harbor. By the 1970s, sediment sampling and testing conducted by environmental officials revealed that significant concentrations of metals and PCBs existed in the Harbor bottom sediments.

From the 1970s to the 1990s, the U.S. Environmental Protection Agency (USEPA) and the Massachusetts Department of Environmental Protection (MassDEP) studied the nature and extent of the contamination in the harbor, collecting the information required to develop a remedy for the problem. In 1998, the USEPA signed the Record of Decision (ROD) for the New Bedford Harbor Superfund Site, which prescribed that the remedy for the Harbor would be focused on the removal of contaminated sediments with PCB concentrations in excess of cleanup standards set for various locations within the Harbor. The cleanup standards varied depending upon the location of the contamination: 50 parts per million (ppm or mg/kg) was designated for deeper water areas, where direct contact was not likely; 10 ppm was designated for mudflat and shallow water areas accessible at low tide; 25 ppm was designated for beach combing shoreline areas; and 1 ppm was designated for residential shoreline areas. This designation effectively split the Harbor into two categories: those areas with sediments exceeding the cleanup standards where contaminated sediments would be removed by the USEPA; and those sediments with PCB concentrations below the cleanup standards that would be left in place. This remedy was presented in the ROD (see Section 2.3 below).

Because of the presence of contaminants in most of the sediments from the bottom of New Bedford Harbor, and the high cost and uncertainty of dealing with those contaminated sediments, maintenance dredging of Harbor areas for navigation has not occurred for over 40 years. As a result, sediment has collected in many critical areas within the Harbor: from the Federal Navigational Channel, to the slips and berthings at the piers, to the fairways and driveways of the Harbor wharf areas. As a result, many of the businesses that utilize the pier and wharf areas have experienced a decrease in the amount and type of vessels that can be accommodated. In order to maintain their existing maritime uses, and offer opportunities for growth and development, the City of New Bedford, the Town of Fairhaven, and the New Bedford Harbor Development Commission (NBHDC) have made maintenance dredging of critical Harbor areas a priority for the new millennium.

2.1 New Bedford Harbor Dredge – Phase I

The first phase of the New Bedford Harbor dredge project began with the deepening of the slip on the south side of the New Bedford State Pier in New Bedford Harbor, and the fairway and a portion of the channel leading up to the Pier. This project was identified by the City of New Bedford as a critical element in the revitalization of the working waterfront, as the City was actively trying to attract new and larger vessels to the City. Sediment build-up at the State Pier had precluded the use of the pier by some of the larger deep draft vessels the City was attempting to attract. Work on Phase I began in 2001, and dredging of the project area was completed by the end of 2002. For this project, approximately 75,000 yards of contaminated sediment was dredged from the area to the south of the State Pier and the fairways leading there-to. The material was dewatered and stabilized with a lime and cement mixture, and was placed on the CSX Rail Site next to New Bedford Harbor. The placed material was utilized to cap areas of the rail-yard site that contained levels of PCB contamination greater than the dredged sediments, utilizing the "anti-degradation" provision (310 CMR 40.0030) in the Massachusetts Contingency Plan. The dredged material was placed into berms around the edge of the rail-yard site, covered with topsoil and seeded with grass. The first phase of the dredging was done without the use of the State Enhanced Remedy (see Section 2.3).

2.2 New Bedford Harbor Dredge - Phase II

The New Bedford Harbor Dredge Project – Phase II included the maintenance dredging of portions of Maritime Terminal, Norpel Terminal, Whites Terminal, South-of-Route 6 Bridge, and Niemiec Marine in New Bedford, Massachusetts, and the Warren Alexander Property, D.N. Kelley & Son, Linberg Marine, and Pease Park properties, in Fairhaven, Massachusetts. These properties were included in the Phase II Dredge Project because of their need for dredging to remove shoaled sediment, and the economic benefit the area would receive form the increase in commerce. Bathymetric soundings of the areas of interest had been collected by Apex, and that information was compared with bathymetric charts and other data previously collected by the U.S. Army Corps of Engineers (USACE) and the US Environmental Protection Agency (USEPA). The data indicated that the conditions in the noted dredge areas represented a safety issue for certain types of vessels that visit those piers and wharfs. In order to address this situation, the New Bedford Harbor Development Commission and the Town of Fairhaven (through the NBHDC), decided to undertake the New Bedford Harbor Dredge Project – Phase II to deepen the aforementioned areas.

One of the most challenging aspects of the Phase II Dredge Project was identifying a suitable disposal alternative for the dredged contaminated sediments. During the late 1990's and into 2003, MACZM had undertaken a State-wide Dredge Materials Management Plan (DMMP) in order to address the issue of the disposal of contaminated dredge materials, which many of the Cities and Towns within the Commonwealth were wrestling with. As part of the State-wide DMMP study, MACZM evaluated the placement of Confined Aqueous Disposal (CAD) Cells in several harbors, including New Bedford

Harbor. After evaluation, MACZM determined that CAD Cells represented a viable sediment disposal alternative for New Bedford Harbor. After completion of a feasibility study and a siting analysis that evaluated several potential CAD Cell locations within the Harbor, MACZM determined that the most advantageous location for CAD Cells in New Bedford Harbor was the area to the north of Popes Island in the middle portion of New Bedford Harbor. A permitting program was undertaken by MACZM that involved all relevant resource and regulatory agencies, and resulted in the area to the north of Popes Island in New Bedford Harbor being permitted for CAD Cells for maintenance dredge materials.

Upon review of the viable sediment disposal options for maintenance dredge material, the New Bedford Harbor Dredge Project – Phase II project team determined that CAD Cells within New Bedford Harbor represented the most viable option for disposal of the maintenance dredge material from the Phase III Dredge Project. Design of CAD Cell #1 was completed by Apex, and the disposal of maintenance dredge materials from the Phase II Dredge project dredge areas was allowed for disposal in the newly designed CAD Cells.

The Phase II Dredge Project included the design and construction of a transitional Confined Aquatic Disposal (CAD) Cell located within the Borrow Pit as well as the design and construction of CAD Cell #1, located adjacent to the Borrow Pit. Clean sediment generated during construction of CAD Cell #1 was used to cap portions of OU-3, located immediately outside of the Hurricane Barrier. The New Bedford Harbor Phase II Dredge Project began in January 2005 and was completed in two parts: the initial area of dredging occurred on the north side of Fish Island in New Bedford Harbor; the second part involved dredging at the remainder of the North Terminal area and other Fairhaven areas. The NBHDC completed Phase II harbor maintenance dredging in January 2006, removing more than 156,000 cubic yards (cy) of material from sites in New Bedford and Fairhaven.

2.3 Permitting – State Enhanced Remedy (SER)

Because contaminated sediments exist over much of the bottom of New Bedford Harbor, the usual navigational dredging process would simply not work. Upland disposal of the million or so total cubic yards of material that will ultimately need to be removed from the Harbor to keep it fully functional was not an option, both from a cost standpoint (costs for upland disposal would have been prohibitive), and from a logistics standpoint (there simply was not a local disposal site that could accommodate the volumes). Also, because of the PCB contamination, the USEPA signed a Record of Decision (ROD) for the remediation of the New Bedford Harbor Superfund Site in 1998. The ROD included a provision called the State Enhanced Remedy (SER) [see 40CFR300.515(f)], which allowed for certain maintenance dredging to fall within the Superfund process. The MassDEP requested that the SER be included in the ROD and was endorsed by the City of New Bedford, Massachusetts Executive Office of Environmental Affairs (EOEA), and the local state representatives. The SER provision allowed for maintenance dredging to occur without following the full permitting process usually required for maintenance dredge projects. This streamlining of the approval process for individual dredge projects, and the adoption of a programmatic approach to maintenance dredging in New Bedford Harbor has allowed maintenance dredging to move forward, and allowed the New Bedford Harbor Dredge Project – Phase III to be completed.

The State Enhanced Remedy (SER) under the New Bedford Harbor Superfund Site requires oversight management by MassDEP, with coordination with a number of Federal, State and Local authorities including MassDEP, USACE, USEPA, the National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Division of Marine Fisheries (DMF), Massachusetts Coastal Zone Management (MACZM), EOEA, and the Coalition for Buzzards Bay. The SER process requires the completion of As-Built Plans and the submission of After-Action Submittals after the completion of dredge projects completed under the SER.

Under the SER, NBHDC and Apex discuss project plans and performance standards with the Resource Agencies mentioned above. Project plans and performance standards were reviewed and updated after receiving comments from the Resource Agencies. The NBHDC and Apex attended meetings between Resource Agencies and prepared and submitted planning and information documents for use by Resource Agencies.

The NBHDC and Apex prepared and submitted planning and information documents for applicable Resource Agencies under the SER. These documents included a Project Work Plan, a Sampling and Analysis Plan, project plans and proposed dredge footprints, and a specifications package. Prior to completion of planning documents, Apex discussed project plans with the Town of Fairhaven, the NBHDC and Resource Agencies to determine any requirements and/or concerns that needed to be covered under the information documents. The NBHDC and Apex worked closely with the MassDEP Project Manager to expedite conversations between agencies. The NBHDC and Apex addressed any comments made by agencies and revised documents as necessary.

The NBHDC and Apex conducted the necessary regulatory interface with MassDEP during the course of this work. Regulatory interface was required to ensure that the SER process was followed and that the sampling and analysis activities conducted were consistent with the enhanced remedy. The MassDEP Project Manager was the regulatory point-of-contact for the NBHDC and Apex, and interacted with USEPA and the other State resource agencies as appropriate to ensure that all agencies were afforded appropriate review of SER submittals (i.e. SAP) and input regarding project planning. As part of the regulatory interface the MassDEP field oversight during the dredging.

2.4 Dredge Area Engineering

The New Bedford Harbor Phase III Dredge Project began in September 2006 and was completed in four parts: the removal of the top of CAD Cell #2 (with the placement of the material within CAD Cell #1), the dredging of clean sediment from within CAD Cell #2 (with disposal of some material at the Cape Cod Bay Disposal Site and some material used as a pilot cap for the Borrow Pit CAD Cell), the dredging of areas north of the Coggeshall Street Bridge (Phase III Navigational Dredge – Part B), and the dredging of areas south of the Coggeshall Street Bridge (Phase III Navigational Dredge – Part A).

The navigational dredging portion of the project, totaled sixteen separate dredge footprints at eleven separate properties (See also Figure 1), including:

- Packer Marine – 2,288 cy
- Niemiec Marine – 2,312 cy
- South Terminal – 2,691 cy
- Gifford Street Boat Ramp – 10,880 cy
- New Bedford Rowing Facility – 4,190 cy
- Tonnesson Park – 1,266 cy
- Olde North Wharf Fisheries – 1,403 cy
- Fairhaven Shipyard – 344 cy
- Union Wharf – 1,109 cy
- Linberg Marine – 1,773 cy
- Warren Alexander (South) – 2,142 cy
- Steamship Authority – 22,381 cy
- Summary Total Phase III Navigational Dredging: 52,779 cy

As part of the dredging project, CAD Cell #2 was constructed. CAD Cell #2 was sited immediately to the north of the Borrow Pit CAD Cell and CAD Cell #1, north and northwest of Pope's Island. The construction of the CAD Cell proceeded as two separate projects, with 34,210 cy of material presumed to be impacted with PCBs excavated from the top of the CAD Cell and placed within CAD Cell #1. Subsequent to the removal of the Top of CAD Cell material, 120,060 cy of material was excavated and transported to the Cape Cod Bay Disposal Site to finish creation of CAD Cell #2. CAD Cell #2 received sediment from the Phase III dredge sites in New Bedford and Fairhaven, with some additional capacity reserved for future use. The dredging for Phase III was completed in September of 2009, when the last of the Phase III dredging at South Terminal and Gifford Street Boat Ramp were completed.

Under this contract and Dredge Project, Apex has submitted the following documents to the New Bedford Harbor Development Commission:

- Pre-Design Investigations Work Plan: August 2006
- Pre-Design Investigations Sampling and Analysis Plan: August 2006
- Pre-Design Investigations Site Specific Health and Safety Plan: August 2006
- CAD Cell Siting and Pre-Design Investigations Work Plan: April, 2007
- CAD Cell Siting and Pre-Design Investigations Sampling and Analysis Plan: June, 2007
- Top of CAD Cell Subsurface Data Conditions Report: May 2008
- Top of CAD Cell, Plans and Specifications: May 2008
- Top of CAD Contractor Oversight Plan (COP): May 2008
- Top of CAD Water Quality Monitoring Plan: May 2008
- Top of CAD Site Specific Health and Safety Plan: May 2008
- Steamship Authority, Plans and Specifications: May 2008
- Bottom of CAD Cell Subsurface Data Conditions Report: June 2008
- Bottom of CAD Cell, Plans and Specifications: June 2008
- Steamship Authority Contractor Oversight Plan (COP): July 2008
- Steamship Authority Water Quality Monitoring Plan: July 2008
- Steamship Authority Site Specific Health and Safety Plan: July 2008
- Bottom of CAD Contractor Oversight Plan (COP): August 2008
- Bottom of CAD Water Quality Monitoring Plan: August 2008
- Bottom of CAD Site Specific Health and Safety Plan: August 2008
- Navigational Dredging Subsurface Data Conditions Report for New Bedford Harbor Dredge – Phase III: January 2009
- New Bedford Harbor Navigational Dredge Phase III – Part A, Plans and Specifications – January 2009
- New Bedford Harbor Navigational Dredge Phase III – Part B, Plans and Specifications – January 2009
- Navigational Dredging Contractor Oversight Plan: February 2009
- Navigational Dredging Site Specific Health and Safety Plan: February 2009
- Navigational Dredging Water Quality Monitoring Plan: February 2009

2.5 Monitoring and Oversight

Throughout the Dredge Project, Apex made sure the work was monitored order to ensure that work progressed smoothly and as safely as possible, in line with the Healthy and Safety Plan. A member of Apex personnel was at the site and directly involved with overseeing the project.

In order to monitor the success and progress of the work itself, bathymetric surveys were conducted in excavation and placement areas. The scow location during placement and dewatering of the scows were also closely monitored. Apex personnel used a Global Positioning System (GPS) to double check that scows were placed in the correct locations.

Additionally, as a means of monitoring the sediment of the maintenance material, several methods of examination were used on a regular basis. Sediment probes were utilized in order to measure the thickness of the maintenance material. Vibracores were used as a way of surveying the benthic organisms present in the sediment. Furthermore, chemical analyses were performed before and after dredging events to monitor the levels of various chemicals that may have been present before and after dredging.

3.0 Construction

The NBHDC managed and oversaw the construction activities. Construction operations were performed in such a manner as to comply with the specific performance criteria established during the design phase of the project. Where possible, the intent was to allow the contractor to determine appropriate means and methods of construction, subject to the controls and performance criteria contained in the project specifications. Proposed means and methods and adherence to design and performance criteria were evaluated using the pre-construction submittal review process. A control plan to ensure conformance to performance criteria was a Contractor submittal requirement.

3.1 Construction Oversight – CAD Cells

CAD Cell construction as well as CAD Cell filling operations were subject to operational controls developed during Phase II project design and updated and continued for utilization during Phase III. Project-specific water quality criteria developed by MassDEP with the assistance of other Resource Agencies that participate in the State Enhanced Remedy applied to CAD Cell construction, filling operations, as well as dredging and other operations (such as sediment dewatering). Means and methods for discharge of materials into CAD Cell were developed to ensure compliance with water quality criteria. The discussions between MassDEP, and USACE and USEPA (as part of the design process) regarding previous projects were valuable relative to evaluating discharge requirements. Methods evaluated included use of split hull barges, as well as placement of sediment into the cell using clamshell equipment. Some combination of operational controls were required during filling operations, such as use of silt curtains down-gradient or around the active CAD cell or dredge area, use of oil-absorbent booms, discharge at depth vs. at surface, etc. Details were determined during the design process, and were modified as necessary during construction operations.

3.1.1 CAD Cell Construction

The project involved the construction of CAD Cell #2, a 92,000 cubic yard CAD cell north and northwest of Pope's Island in New Bedford Harbor. CAD Cell #2 was located to the north of the Borrow Pit CAD Cell as well as CAD Cell #1. Dredging of the top of CAD Cell #2 and placement of material in CAD Cell #1 began in June 2008, operating 24 hours a day, and was completed in July of 2008. Dredging of the bottom of CAD Cell #2 and placement of material as a pilot cap on the Borrow Pit CAD Cell or disposal of material at the Cape Cod Bay Disposal site began in August of 2008 and was completed in October of 2008. The material removed during Bottom of CAD had been tested for standard offshore disposal chemical parameters, and the material had been designated as acceptable offshore disposal at the Cape Cod Bay Disposal Site by the USACE. The construction of the CAD cell was an important aspect of the project because PCB contaminated material located throughout the harbor were removed as part of the New Bedford Harbor Dredge Project – Phase III and disposed of in the CAD cell.

During the dredging, Apex provided resident engineering services and acted as Owner's Representative for construction oversight and Quality Control of the project to ensure all phases were performed expeditiously and in accordance with the plans and specifications. The initial scope of work for this project included pre-engineering studies, design, and implementation of the sampling and analysis program.

Apex performed a preliminary engineering evaluation during the planning phase of the project. These activities included; establishing preliminary dredge limits with associated volume estimates for the construction of the CAD cell, research and evaluation of disposal options including off-shore disposal in the USACE Cape Cod Bay Disposal Site (CCBDS) and/or the placement of the material as a cap over the Borrow Pit, upland disposal, use of the material as beach nourishment, use of the material for capping at OU-3, and the preparation of a preliminary conceptual methodology for the project.

Apex conducted a sediment sampling and analysis program of the proposed dredge area in addition to completing multiple bathymetric surveys, detailed sediment characterization, and cultural and hazard identification survey utilizing a complimentary suite of marine geophysical techniques, including side-scan sonar, sub-bottom profiling, and marine magnetics.

3.2 Construction Oversight – Dredge Areas

3.2.1 Dredge Area Introduction

Establishment of performance standards, including water quality criteria, mandated dredging operations. Dredge methods were selected to achieve water quality standards. Dredging of material required implementation of controls such as use of an environmental (sealed) bucket, silt curtains, oil absorbent booms, reduced cycle times, etc. Specifications and requirement details were determined through the design process. In accordance with the New Bedford Harbor Development Commission – Phase III work plan, Apex completed navigational dredging at locations (listed below) within New Bedford Harbor.

3.2.2 Dredge Area Descriptions

The New Bedford Harbor Dredge Project – Phase III included construction of CAD Cell #2 in two phases (Top of CAD and Bottom of CAD) and the maintenance dredging of portions of the New Bedford Rowing Facility boat basin, Packer Marine, Tonnesson Park, South Terminal, Gifford Street Boat Ramp, Niemiec Marine in New Bedford, Massachusetts and Linberg Marine, Olde North Wharf Fisheries, Fairhaven Shipyard, Union Wharf, Steamship Authority, and Warren Alexander (South) in Fairhaven, Massachusetts. The work performed is described below:

<u>Top of CAD Cell #2</u>
Soft organic maintenance-type material was removed from the surface of the New Bedford CAD Cell #2. The initial excavation at the (removal of contaminated organics) CAD cell was dredged from an average elevation of between -4 MLLW and -7 MLLW to an average depth of between -6 and -9 MLLW. Dredged material from CAD Cell #2 was placed into CAD Cell #1, a CAD Cell created during the New Bedford Harbor Dredge Project – Phase II, but had not been completely filled during that project. It was intended that the remaining space within CAD Cell #1 be reserved for the top of CAD Cell #2. Similarly, space within CAD Cell #2 will be reserved for the top of a future CAD Cell. Approximately 34,210 cy of material was excavated and disposed of within CAD Cell #1 as part of this portion of the project. The Top of CAD Cell project began on June 13, 2008 and was completed on July 13, 2008. Top of CAD Cell Drawings are attached as Figures 1 through 4.

Steamship Authority

The first navigational dredging project completed during Phase III was the dredging of the Steamship Authority Terminal in Fairhaven, Massachusetts. The Steamship Authority pier is located on the southern end of the Designated Port Area of Fairhaven, Massachusetts. It is a filled pier that has docking on both the northern and southern sides of the pier. The work at the facility was part of a larger project that involved rehabilitation of the facility, installation of sheet piling and a new storage and office facility. Dredging at Steamship Authority began on July 31, 2008 and ended on September 11, 2008. At the time that Steamship Authority dredging commenced, CAD Cell #2 was not complete; however, there was sufficient space within CAD Cell #1 (after placement of the Top of CAD Cell #2) for the dredge material from Steamship Authority. Therefore, the dredge spoils from Steamship Authority were placed within CAD Cell #2. Both the northern and southern footprints were dredged to -15 MLLW. Steamship Authority Drawings are attached as Figures 5 through 6.

Bottom of CAD Cell #2

On August 26, 2008, dredging to complete the excavation of CAD Cell #2 to its full capacity began. 120,060 cubic yards of clean material was excavated from within the CAD footprint to create the desired disposal volume space, and the clean material removed from the CAD footprint was either barged to the Cape Cod Bay Disposal Site (CCBDS) or to the Borrow Pit, where it was placed over a portion of the CAD Cell as a pilot cap. The excavation and disposal/capping was completed on October 9, 2008. Bottom of CAD Cell Drawings are attached as Figures 7 through 10.

Navigational Dredge – Part B

On March 20, 2009, work began on Part B of the Phase III Navigational Dredge Project. The Navigational Dredge Project was broken into two parts that were bid separately due to logistical issues associated with Part B that required a separate set of equipment from that within Part A. Specifically, the work within Part B was to take place north of the Route 195 and Coggeshall Street Bridges, within the Upper New Bedford Harbor. The clearance under these bridges is extremely low, and required specific modifications to equipment (including ballasting scows to lower their elevation) in order to complete the work. It was anticipated that Part A of Navigational Dredging would require more conventional techniques, and therefore it seemed prudent to bid the work out separately. The only dredge footprint that was completed during Part B of Navigational Dredging was the New Bedford Rowing Facility footprint. That footprint was dredged to -5 MLLW, and 4,190 cubic yards of material were removed and placed within CAD Cell #2. Part B of Navigational Dredging was completed on April 14, 2009.

Navigational Dredge – Part A

Part A of the Phase III Navigational Dredge Project included the remaining navigational dredging properties, including Packer Marine, Tonnesson Park, South Terminal, Gifford Street Boat Ramp, and Niemiec Marine in New Bedford and Linberg Marine, Olde North Wharf Fisheries, Fairhaven Shipyard, Union Wharf, and Warren Alexander (South) in Fairhaven. The selected contractor for Part A chose to move from dredge footprint to dredge footprint frequently. As a result, it is difficult to list start and end dates for individual footprints; however, Part A as a whole began on April 20, 2009 and was completed on September 24, 2009. For dredge volumes and target dredge depths, please see the table within the next section.

Summary

The following is a table outlining the target dredge depths and volumes dredged for Top of CAD, Steamship Authority, and both Part A and Part B of the Navigational Dredge:

Dredge Area	Dredge Volume (cy)	Target Dredge Depth(s) (MLLW)
Top of CAD Cell 2	34,210	-6 to -9
Bottom of CAD Cell 2	120,060	-40
Total CAD Cell 2	154,270	N/A
Steamship Authority	22,381	-15
New Bedford Rowing Facility	4,190	-5
Gifford Street Boat Ramp	10,880	-7 and -9
South Terminal	2,691	-20
Tonnesson Park	1,266	-6, -8, and -15
Niemiec Marine	2,312	-10
Packer Marine	2,288	-14
Linberg Marine	1,773	-10
Olde North Wharf Fisheries	1,403	-6, -10 and -12
Fairhaven Shipyard	344	-17 and -18
Union Wharf	1,109	-8 and -16
Warren Alexander (South)	2,142	-13 and -15
Phase III Navigational Dredging:	52,779	N/A
Total Phase III Dredging:	207,049	N/A
Total Phase II Dredging:	156,000	N/A
Total Phase I Dredging:	75,000	N/A
Totals of Phase I, Phase II, and Phase III:	438,409	N/A

4.0 Post-Dredge Conditions

Following the completion of the Dredge Project, further monitoring was conducted as a means of examining the conditions of the dredge areas post-construction. Re-sampling and surveying were completed to verify that sustainable conditions were present in the Harbor. Samples of sediment were collected and analyzed for the presence of PCBs. Bathymetric surveys were conducted by Apex, in an effort to confirm Apex's findings. Conditions necessary to resolve contract issues were met and satisfied in order to come to project closure.

4.1 Sediment Chemistry: Pre- and Post-Dredge

The following sections describe sampling and analysis activities that were conducted prior to dredging of the Phase III dredge areas and sampling and analysis that occurred after the dredging in order to document post-dredge conditions.

4.1.1 Pre-Dredge Sediment Chemistry

Prior to the start of dredging, sediment samples were collected in order to characterize background conditions of sediment chemistry within the proposed dredge footprints. The samples were analyzed for PCBs, via the 21 NOAA congeners. The 18 NOAA Congeners were selected from the 21 analyzed congeners, were added and multiplied by 2.6 (a factor identified by USEPA as a good correlation between the 18 congeners and a "total PCBs" number) in order to calculate total PCBs in sediment. Seventeen pre-dredge samples were collected from the various footprints within Part A and Part B of Navigational Dredging. Some data collected by USEPA (during its investigation into the New Bedford Superfund Site) was utilized to characterize the dredge material within the New Bedford Rowing Facility footprint.

In addition to PCBs, some samples were also collected and analyzed for the following constituents: MassDEP EPH, RCRA 8 Metals, and reactive sulfide. Of all the pre-dredge PCB levels recorded, the highest value was 370 ppm (within a sample collected by USEPA within the New Bedford Rowing Facility Footprint). South of the Coggeshall Street Bridge, the highest concentration was 61.3 ppm (collected within the Packer Marine footprint). The range of PCB levels that was recorded was 0.2 ppm to 370 ppm. Pre-Dredge analytical data is summarized within Tables 1 through 5. Pre-Dredge analytical data reports are attached within Appendix A. Pre-Dredge sample locations are indicated on Figures 33 through 41.

4.1.2 Post-Dredge Sediment Chemistry

In an effort to compare Post-Dredge sediment PCB impacts with Pre-Dredge conditions, and evaluate the improvement of particular areas, Apex sampled the sediment after dredging was complete and recorded the remaining conditions. After dredging was complete, eight sediment samples were collected, all being tested for PCBs. Again, NOAA Congener reporting was used, which is consistent with the pre-dredge method, and the summation of the 18 NOAA congeners was calculated in accordance with USEPA's methodology (via summation and multiplication by a factor of 2.6) to generate a Total PCB result. Therefore, comparison of PCB levels provides an accurate representation of the Pre- and Post- dredge difference. Each Post-Dredge sediment sample collected indicated a decrease (or no change) in PCB concentrations in sediment. The highest reported value of PCBs recorded from the post-dredge samples was 37.1 ppm, from a sample taken in the New Bedford Rowing Facility area (north of the Coggeshall Street Bridge). The Pre-Dredge sample results from this location ranged from 4.3 ppm to 370 ppm. The overall range of PCB levels among the Post-Dredge samples was found to be 0.03 ppm to 37.1 ppm. Post-Dredge analytical data is summarized within Table 6. Post-Dredge analytical data reports are attached within Appendix A. Post-Dredge sample locations are indicated on Figures 33 through 41.

The following table outlines the Pre-Dredge sampling results and compares them to the Post-Dredge Sampling results:

PRE-DREDGE AND POST DREDGE SAMPLE RESULTS

Location	Pre-Dredge PCB Result (ppm)			Post-Dredge PCB Result (ppm)		
	Sample ID	Date	Result	Sample ID	Date	Result
Gifford Street Boat Basin	VC-05-08	11/13/2008	7.7	POST_012010_G1	1/20/2010	2.1
	VC-16-08 (0-1.5')	11/21/2008	7.0			
Tonnesson Park	VC-07C-08	11/17/2008	22.1	POST_012010_TP2	1/20/2010	0.03
Union Wharf	325 0-1	10/25/2006	17.0	POST_012010_UW1	1/20/2010	5.0
	321 0-1	10/25/2006	4.6			
Packer Marine	VC_24-08 (0-1')	11/24/2008	61.3	POST_012010_PACK1	1/20/2010	0.1
New Bedford Rowing Facility	S-3613-2.1-2.6	8/20/2001	370	POST_012010_BHB1	1/20/2010	37.1
	S-3613-2.6-3.1	8/20/2001	4.3			
	S-205316	None Listed	83			
Olde North Wharf Fisheries	309 0-1	10/24/2006	4.4	POST_012010_ONWF1	1/20/2010	1.8
	310 0-1	10/24/2006	13.2			
	311 0-1	10/24/2006	5.3			
Steamship Authority	329 0-1	10/23/2006	7.2	Steamship Composite 1	8/5/2009	3.4
	330 0-1	10/23/2006	18.0			
	331 0-1	10/25/2006	0.2	POST_012010_SA1	1/20/2010	0.2
	332A 0-1	10/23/2006	0.2			

4.1.3 PCB Mass Removal Calculations

In order to attempt to quantify the mass of PCBs that has been removed during Steamship Authority, Part A and Part B of Phase III Navigational Dredging several sets of calculations were completed. PCB mass is a relatively qualitative measure for determining the environmental benefit created during sediment removal and therefore, there is no one specific methodology for calculating the mass removed. Several methodologies were considered before utilizing the methodology outlined below. The Pre-Dredge concentrations were averaged over the area of a footprint. For the New Bedford Rowing Facility, data was available from USEPA along a vertical profile (instead of multiple locations at the surface). Due to relatively high concentrations at this location, and its relative influence over the total mass removed, it was determined to average over the vertical profile of the pre-dredge samples, rather than to average the shallowest sample with the post-dredge sample; as a result, instead of averaging the pre- and post-dredge analytical data, the data was subtracted instead. It was assumed (for the purposes of this exercise) that the difference between the two concentrations would be representative of the concentration of the dredged sediment, since an average over the vertical profile had already been included within the calculations for the New Bedford Rowing Facility. The difference was then multiplied by the final dredge volume, which was assumed to have a density of 1.5 tons per cubic yard. The final mass was calculated in pounds of PCBs removed.

Sample Calculation: 5.3 mg/kg PCBs X 2.2 kg/lb / 1,000,000 mg/kg / 2.2 kg/lb X 2,691 cy X 1.5 tons/cy X 2000 lbs/ton = approx. 42.78 lbs PCBs removed.

The following chart shows the calculated masses and the total estimated mass removed.

Estimate of PCB Mass Removed (Phase III Navigational Dredging)

Dredge Area	Final Volume (CY)	Pre-Dredge Conc. (mg/kg)	Post (mg/kg)	Difference (mg/kg)	Mass Removed (lbs)
South Terminal	2,691	7.35	2.1	5.3	43
Union Wharf	1,109	10.8	5	5.8	19
Tonnesson Park	1,266	22.1	0.03	22.1	84
Gifford Street Boat Ramp	10,880	7.35	2.1	5.3	173
Olde North Wharf Fisheries (North)	1,295	8.8	1.8	7.0	27
Warren Alexander (South)	2,142	12.6	3.4	9.2	59
Olde North Wharf Fisheries (South)	108	5.3	1.8	3.5	1.1
Niemiec Marine	2,312	1.2	N/A	N/A	N/A
Fairhaven Shipyard	344	N/A	N/A	N/A	N/A
Linberg Marine	1,773	N/A	N/A	N/A	N/A
Packer Marine	2,288	61.3	0.1	61.2	420
New Bedford Rowing Facility	4,190	152.4	37.1	115.3	1449
Steamship Authority North	5,686	12.6	3.4	9.2	157
Steamship Authority South	16,695	0.222	0.206	0.02	1
				Total Mass Removed:	**2,433**

5.0 Monitoring Results

The water quality was monitored during CAD Cell construction, and during the dredging and material placement operations for the New Bedford Harbor Dredge – Phase III from June 13, 2008 through August 25, 2009. Water quality monitoring was performed in accordance with the following Water Quality Monitoring Plans (WQMP):

- Top of CAD Water Quality Monitoring Plan: May 2008
- Steamship Authority Water Quality Monitoring Plan: July 2008
- Bottom of CAD Water Quality Monitoring Plan: August 2008
- Navigational Dredging Water Quality Monitoring Plan: February 2009

Following the guidelines of the respective WQMP, monitoring locations for water turbidity recorded an average turbidity over various water depths, up and down-current from the dredge or material placement operations, depending on tide. The values recorded as the Reference Site Turbidity were taken from up-current monitoring locations, or from monitoring events which occurred before dredge or material placement operations began. The Reference Turbidity Value was then compared to down-current turbidity values measured at regular time intervals after operations had begun.

The monitoring results were broken up into 5 periods of dredging and material placement that Apex oversaw in New Bedford Harbor during Phase III of the State Enhanced Remedy Dredge Project (Top of CAD, Steamship Authority, Bottom of CAD, Part B of Navigational Dredging and Part A of Navigational

Dredging). At each monitoring location, various samples around the area were taken in order to get a thorough indication of water quality.

The Top of CAD project took place between June 13, 2008 and July 13, 2008 and included approximately 34,210 cubic yards of material being dredged from the area in which CAD Cell #2 was to be constructed, and placed into CAD Cell #1. In monitoring the water quality, no exceedances of the WQMP turbidity guidelines were detected for either dredging or disposal operations.

The Steamship Authority navigational dredge project took place between July 31, 2008 and September 11, 2008 and involved the dredging areas north and south of the Steamship Authority pier and placement of that material within CAD Cell #1. This portion of the project involved dredging 22,381 cubic yards of material. In monitoring the water quality for the dredging, no exceedances of the WQMP turbidity guidelines were detected for either dredging or disposal operations. On 8/26/08, turbidity measurements at the Steamship Authority down-current location [18.47 NTU] were 18.17 NTU higher than the measurements at the up-current location [0.3 NTU]. This event represented the greatest difference between up-current and down-current turbidity monitoring detected during Phase III dredging; however, the difference was not greater than the WQMP turbidity guidelines [which stipulates that if the reference site turbidity is less than 10 NTU, that the permissible turbidity increase is no more than the reference plus 20 NTU].

The Bottom of CAD project took place between August 26, 2008 and October 9, 2008 and involved the excavation of clean material from CAD Cell #2, and the use of that material either during the placement of a pilot cap at the Borrow Pit or the transportation and disposal of the material at the Cape Cod Bay Disposal Site (CCBDS). In monitoring the water quality, no exceedances of the WQMP turbidity guidelines was detected for Bottom of CAD operations.

The Navigational Dredge – Part B project took place between March 20, 2009 and April 14, 2009 and involved the dredging of 4,190 cubic yards from the New Bedford Rowing Facility area and the placement of that material within CAD Cell #2. In monitoring the water quality, exceedances of the WQMP turbidity guidelines were not detected for the Navigational Dredge – Part B operations.

The Navigational Dredge – Part A project took place between April 20, 2009 and September 24, 2009 and involved the dredging of 26,208 cubic yards from Packer Marine, Tonnesson Park, South Terminal, Gifford Street Boat Ramp, and Niemiec Marine in New Bedford and Linberg Marine, Olde North Wharf Fisheries, Fairhaven Shipyard, Union Wharf, and Warren Alexander (South) in Fairhaven and the placement of that material within CAD Cell #2. In monitoring the water quality, exceedances of the WQMP turbidity guidelines were not detected for the Navigational Dredge – Part A operations.

Copies of the water quality monitoring sheets completed in the field are attached as Appendix B. Water quality monitoring data is summarized within Table 7.

TABLES

Table 1:
Analytical Data: Linberg Marine
Phase III Harbor Maintenance Dredge Program
New Bedford, Massachusetts

		Extractable Petroleum Hydrocarbons (μg/kg)																				
Sample Name	Collection Date	C9-C18 Aliphatics	C19-C36 Aliphatics	C11-C22 Aromatics	Unadjusted C11-C22 Aroma	Naphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene
307A 0-1	10/23/2006	300000	1300000	310000	320000	830	830	830	830	830	830	830	1000	2000	990	890	1300	830	920	1700	1700	830
308 0-1	10/23/2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

		Metals (mg/kg)							
Sample Name	Collection Date	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver	Mercury
307A 0-1	10/23/2006	5.9	32	4.4	260	190	1.4	1.8	0.94
308 0-1	10/23/2006	NS	NS	NS	NS	NS	NS	NS	NS

		PCB Congeners (μg/kg)																							
Sample Name	Collection Date	Cl2-BZ#5/#8	Cl3-BZ#18	Cl3-BZ#28/#31	Cl4-BZ#44	Cl4-BZ#52	Cl4-BZ#43/#49	Cl4-BZ#66	Cl5-BZ#101/#84	Cl5-BZ#87	Cl7-BZ#184	Cl5-BZ#105	Cl5-BZ#118	Cl7-BZ#183	Cl6-BZ#167/#128	Cl6-BZ#138/#163	Cl6-BZ#153	Cl7-BZ#170/#190	Cl7-BZ#180	Cl7-BZ#182/#187	Cl8-BZ#195	Cl9-BZ#206	Cl10-BZ#209	Summation of Congeners (mg/kg) [NOAA 18]	Reactive Sulfide (mg/kg)
307A 0-1	10/23/2006	87	300	1500	370	570	620	740	920	270	0.31	290	760	29	130	540	460	54	100	66	9.2	19	3.8	18.0	150
308 0-1	10/23/2006	14	33	190	39	84	94	84	120	32	0.24	36	110	4.1	20	80	80	8.3	12	9.6	1.1	1.6	1.1	2.4	NS

Notes:
U = Concentration is below the laboratory's method detection limit.
NS = Not sampled.

Table 2:
Analytical Data: Olde North Wharf Fisheries
Phase III Harbor Maintenance Dredge Program
New Bedford, Massachusetts

		Extractable Petroleum Hydrocarbons (μg/kg)																				
Sample Name	Collection Date	C9-C18 Aliphatics	C19-C36 Aliphatics	C11-C22 Aromatics	Unadjusted C11-C22 Aroma	Naphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene
309 0-1	10/24/2006	48000	300000	100000	110000	650	650	650	650	650	650	650	860	1800	650	650	650	650	650	1300	1300	650
310 0-1	10/24/2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
311 0-1	10/24/2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

		Metals (mg/kg)							
Sample Name	Collection Date	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver	Mercury
309 0-1	10/24/2006	6	160	1	56	360	1	1	0
310 0-1	10/24/2006	NS	NS	NS	NS	NS	NS	NS	NS
311 0-1	10/24/2006	NS	NS	NS	NS	NS	NS	NS	NS

		PCB Congeners (μg/kg)																								
Sample Name	Collection Date	Cl2-BZ#5/#8	Cl3-BZ#18	Cl3-BZ#28/#31	Cl4-BZ#44	Cl4-BZ#52	Cl4-BZ#43/#49	Cl4-BZ#66	Cl5-BZ#101/#84	Cl5-BZ#87	Cl7-BZ#184	Cl5-BZ#105	Cl5-BZ#118	Cl7-BZ#183	Cl6-BZ#167/#128	Cl6-BZ#138/#163	Cl6-BZ#153	Cl7-BZ#170/#190	Cl7-BZ#180	Cl7-BZ#182/#187	Cl8-BZ#195	Cl9-BZ#206	Cl10-BZ#209	Summation of Congeners (mg/kg) [NOAA 18]	Reactive Sulfide (mg/kg)
309 0-1	10/24/2006	26	57	330	73	160	180	140	240	61	0	65	200	7	36	150	140	15	24	16	2	3	2	4.4	190
310 0-1	10/24/2006	85	260	1100	280	420	420	460	700	220	0	210	530	19	98	420	350	42	65	46	6	5	3	13.2	NS
311 0-1	10/24/2006	29	65	390	95	170	200	190	300	78	0	81	240	9	43	180	160	20	32	21	3	3	1	5.3	NS

Notes:
U = Concentration is below the laboratory's method detection limit.
NS = Not sampled.

Table 3:
Analytical Data: Union Wharf
Phase III Harbor Maintenance Dredge Program
New Bedford, Massachusetts

		Extractable Petroleum Hydrocarbons (µg/kg)																				
Sample Name	Collection Date	C9-C18 Aliphatics	C19-C36 Aliphatics	C11-C22 Aromatics	Unadjusted C11-C22 Aroma	Naphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene
321 0-1	10/25/2006	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
325 0-1	10/25/2006	880000	2200000	1000000	1100000	1000	1000	1000	1000	1000	2400	1200	8500	10000	5700	5200	5600	2400	4100	3700	3700	2800

		Metals (mg/kg)							
Sample Name	Collection Date	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver	Mercury
321 0-1	10/25/2006	NS	NS	NS	NS	NS	NS	NS	NS
325 0-1	10/25/2006	20	330	5.1	200	3000	3.0	1.2	7.3

		PCB Congeners (µg/kg)																							
Sample Name	Collection Date	Cl2-BZ#5/#8	Cl3-BZ#18	Cl3-BZ#28/#31	Cl4-BZ#44	Cl4-BZ#52	Cl4-BZ#43/#49	Cl4-BZ#66	Cl5-BZ#101/#84	Cl5-BZ#87	Cl7-BZ#184	Cl5-BZ#105	Cl5-BZ#118	Cl7-BZ#183	Cl6-BZ#167/#128	Cl6-BZ#138/#163	Cl6-BZ#153	Cl7-BZ#170/#190	Cl7-BZ#180	Cl7-BZ#182/#187	Cl8-BZ#195	Cl9-BZ#206	Cl10-BZ#209	Summation of Congeners (mg/kg) [NOAA 18]	Reactive Sulfide (mg/kg)
321 0-1	10/25/2006	24	68	270	82	120	110	140	170	45	0.28	46	97	43	22	180	180	77	170	96	18	8.8	0.36	4.6	NS
325 0-1	10/25/2006	73	150	720	220	370	320	350	940	280	0.37	250	620	120	150	810	870	210	440	300	42	33	9.4	17.0	79

Notes:
U = Concentration is below the laboratory's method detection limit.
NS = Not sampled.

Table 4:
Analytical Data: Steamship Authority Pre-Dredge Locations
Phase III Harbor Maintenance Dredge Program
New Bedford, Massachusetts

		PCB Congeners (μg/kg)																					
Sample Name	Collection Date	Cl2-BZ#5/#8	Cl3-BZ#18	Cl3-BZ#28/#31	Cl4-BZ#44	Cl4-BZ#52	Cl4-BZ#43/#49	Cl4-BZ#66	Cl5-BZ#101/#84	Cl5-BZ#87	Cl7-BZ#184	Cl5-BZ#105	Cl5-BZ#118	Cl7-BZ#183	Cl6-BZ#167/#128	Cl6-BZ#138/#163	Cl6-BZ#153	Cl7-BZ#170/#190	Cl7-BZ#180	Cl7-BZ#182/#187	Cl8-BZ#195	Cl9-BZ#206	Cl10-BZ#209
329 0-1	10/23/2006	48	87	540	120	260	290	220	370	90	0.7 U	97	310	18	57	240	260	37	69	46	7.3	7.3	1.7
330 0-1	10/23/2006	140	260	1300	340	600	620	600	930	260	2.4 U	250	680	56	140	580	570	110	210	140	26.0	22.0	6.3
331 0-1	10/25/2006	2	3	14	4	8	9	6	12	2	0.33 U	3	9	2	3	8	10	2	4	3	0.33 U	0.33 U	0.33 U
332A 0-1	10/23/2006	2	3	14	4	7	8	5	11	3	0.19 U	3	8	1	2	7	8	1	3	2	0.7	0.19 U	0.3

Summation of Congeners (mg/kg) [NOAA 18]
7.2
18.0
0.234
0.210

Notes:
U = Concentration is below the laboratory's method detection limit.
NS = Not sampled.

Table 5:
Analytical Data: Additional Pre-Dredge Locations
Phase III Harbor Maintenance Dredge Program
New Bedford, Massachusetts

		Extractable Petroleum Hydrocarbons (µg/kg)																				
Sample Name	Collection Date	C9-C18 Aliphatics	C19-C36 Aliphatics	C11-C22 Aromatics	Unadjusted C11-C22 Aromatics	Naphthalene	2-Methylnaphthalene	Acenaphthylene	Acenaphthene	Fluorene	Phenanthrene	Anthracene	Fluoranthene	Pyrene	Benzo(a)anthracene	Chrysene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene	Dibenzo(a,h)anthracene	Benzo(g,h,i)perylene
VC-07G-08	11/17/2008	25000	213000	152000	185000	803 U	803 U	803 U	803 U	803 U	3790	803	6330	5250	2920	3180	2740	2470	2520	2040	803	1880
VC-21-08 (0-1')	11/24/2008	116000	919000	499000	517000	926 U	926 U	926 U	926 U	926 U	1290	926 U	2740	2890	1400	1670	1640	1660	1890	1330	926 U	1330

		Metals (mg/kg)							
Sample Name	Collection Date	Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver	Mercury
VC-05-08	11/13/2008	4.58	20	1.59	82.7	64.4	0.729	0.793	0.283
VC-07C-08	11/17/2008	6.6	87.2	8.01	86.5	547	0.744	11.9	0.803
VC-16-08	11/21/2008	8.22	44.4	0.948	57.7	107	1.2	0.524	0.641
VC-19-08	11/24/2008	9.39	83.5	5.31	707	265	1.57	3.74	0.907
VC-23-08	11/24/2008	1.98	4.54	0.128	16.1	15.3	0.269	0.146	0.0345
VC-24-08	11/24/2008	13.6	92.1	6.27	442	508	1.94	2.67	1.4

		PCB Congeners (µg/kg)																						
Sample Name	Collection Date	Cl2-BZ#5/#8	Cl3-BZ#18	Cl3-BZ#28/#31	Cl4-BZ#44	Cl4-BZ#52	Cl4-BZ#43/#49	Cl4-BZ#66	Cl5-BZ#101/#84	Cl5-BZ#87	Cl7-BZ#184	Cl5-BZ#105	Cl5-BZ#118	Cl7-BZ#183	Cl6-BZ#167/#128	Cl6-BZ#138/#163	Cl6-BZ#153	Cl7-BZ#170/#190	Cl7-BZ#180	Cl7-BZ#182/#187	Cl8-BZ#195	Cl9-BZ#206	Cl10-BZ#209	Summation of Congeners (mg/kg) [NOAA 18]
VC-05-08	11/13/2008	39.7	166	529	156	296	209	184	359	127	1.13 U	127	386	10.8	72.5	320	224	29.9	38.3	23.8	2.47	3.49	1.35	7.7
VC-07C-08	11/17/2008	576	1490	2150	656	1240	620	285	504	174	1.03 U	143	390	23.2	97.3	400	309	57	90.9	66.9	9.52	16.5	2.77	22.1
VC-16-08 (0-1.5')	11/21/2008	17.2	95.9	153	145	340	132	96.9	207	207	1.22 U	163	478	13.8	108	464	300	41.8	50.1	27.2	1.22 U	6.62	3.85	7.0
VC-19-08 (0-1')	11/24/2008	205	1430	4830	1340	2530	1860	1880	2520	704	1.22 U	677	2420	77.6	407	1800	1390	196	260	154	15.3	20.9	6.53	57.4
VC-23-08 (0-2')	11/24/2008	3.83	27.7	96.4	29.0	71.1	58.2	31.0	49.3	7.96	0.871 U	9.31	49.4	1.73	9.29	37.3	38.4	5.97	6.52	4.20	6.65	0.871 U	0.871 U	1.2
VC_24-08 (0-1')	11/24/2008	307	1890	4890	1980	3620	2440	1340	2410	499	16.5 U	452	2230	80	417	1780	1500	210	294	200	18.8	39.2	16.5	61.3

Notes:
U = Concentration is below the laboratory's method detection limit.
NS = Not sampled.

Table 6:
Analytical Data: Post-Dredge Sample Results
Phase III Harbor Maintenance Dredge Program
New Bedford, Massachusetts

		PCB Congeners (µg/kg)																					
Sample Name	Collection Date	Cl2-BZ#5/#8	Cl3-BZ#18	Cl3-BZ#28/#31	Cl4-BZ#44	Cl4-BZ#52	Cl4-BZ#43/#49	Cl4-BZ#66	Cl5-BZ#101/#84	Cl5-BZ#87	Cl7-BZ#184	Cl5-BZ#105	Cl5-BZ#118	Cl7-BZ#183	Cl6-BZ#167/#128	Cl6-BZ#138/#163	Cl6-BZ#153	Cl7-BZ#170/#190	Cl7-BZ#180	Cl7-BZ#182/#187	Cl8-BZ#195	Cl9-BZ#206	Cl10-BZ#209
POST_012010_G1	1/20/2010	20.4	64.8	204	58.5	129	70.3	25.0	75.7	0.954 U	0.954 U	25.3	76.9	0.954 U	10.4	66.7	30.4	7.11	7.56	4.11	0.954 U	0.954 U	0.954 U
POST_012010_TP2	1/20/2010	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U	1.08 U
POST_012010_UW1	1/20/2010	30.1	192	397	112	218	92.1	42.4	158	2.10 U	2.10 U	70.3	170	9.25	41.0	209	102	45.5	67.9	54.1	2.10 U	2.10 U	2.10 U
POST_012010_PACK1	1/20/2010	0.923 U	1.74	8.85	1.98	5.71	4.04	4.04	4.46	0.923 U	0.923 U	0.923 U	2.96	0.923 U	0.923 U	2.58	2.48	0.923 U	0.923 U	0.923 U	0.923 U	0.923 U	0.923 U
POST_012010_BHB1	1/20/2010	568	1780	4900	1590	2530	1620	466	756	0.988 U	0.988 U	140	631	6.06	39.4	413	356	31.8	30.3	28.7	0.988 U	4.35	1.74
POST_012010_ONWF1	1/20/2010	8.68	47.0	143	49.3	92.8	50.7	17.6	72.8	0.965 U	0.965 U	21.2	77.2	0.965 U	19.7	80.4	37.0	4.90	11.3	6.66	0.965 U	0.965 U	0.965 U
POST_012010_SA1	1/20/2010	0.925 U	0.925 U	18.4	0.925 U	15.2	6.46	2.28	8.49	0.925 U	0.925 U	0.925 U	10.8	0.925 U	0.925 U	10.4	8.73	0.925 U	0.925 U	0.925 U	0.925 U	0.925 U	0.925 U
Steamship Composite 1	8/5/2009	1.49 U	1.49 U	1.49 U	1.49 U	173	84.2	55.5	60.9	59.8	1.49 U	98.1	189	17.3	76.4	313	144	42	81.9	45.7	11.8	7.7	2.31

Summation of Congeners (mg/kg) [NOAA 18]
2.1
0.03
5.0
0.1
37.1
1.8
0.206
3.4

Notes:
U = Concentration is below the laboratory's method detection limit.
NS = Not sampled.
1). When a compound is below the laboratory's method detection limit, 1/2 of the method detection limit is utilized in calcluating the Summation of Congeners.

TABLE 7 - NEW BEDFORD HARBOR DREDGE - PHASE III

Water Quality Monitoring - Turbidity Measurements

June 12, 2008 -- August 25, 2009

Date	Time of Up Current	Average of Up Current	Time of Down Current	Average of Down Current	Difference (Down Current - Up Current)	Time of Disposal Location	Average of Disposal Location	Project Title	Project and/or Location
06/13/08	11:15	0.00	10:45	0.00	0.00	-	-	TOP of CAD II	TOP of CAD II
06/14/08	7:20	0.00	8:25	0.23	0.23	-	-	TOP of CAD II	TOP of CAD II
06/14/08	10:15	0.90	10:35	2.00	1.10	-	-	TOP of CAD II	TOP of CAD II
06/14/08	12:40	0.00	12:50	1.00	1.00	-	-	TOP of CAD II	TOP of CAD II
06/14/08	16:30	2.03	16:55	1.17	-0.87	-	-	TOP of CAD II	TOP of CAD II
06/16/08	16:45	14.63	16:30	0.00	-14.63	17:00	1.29	TOP of CAD II	CAD I (Disposal Only)
06/19/08	8:00	6.07	8:30	2.17	-3.90	-	-	TOP of CAD II	TOP of CAD II
06/19/08	12:00	23.43	12:30	4.23	-19.20	12:05	1.77	TOP of CAD II	CAD I (Disposal Only)
06/24/08	7:50	0.07	8:00	0.20	0.13	-	-	TOP of CAD II	TOP of CAD II
06/24/08	10:00	0.57	10:10	0.23	-0.33	-	-	TOP of CAD II	TOP of CAD II
06/26/08	10:05	1.67	10:10	0.47	-1.20	-	-	TOP of CAD II	TOP of CAD II
06/26/08	11:50	0.67	11:55	3.17	2.50	-	-	TOP of CAD II	TOP of CAD II
06/26/08	18:00	0.00	18:05	6.60	6.60	-	-	TOP of CAD II	TOP of CAD II
06/26/08	16:00	0.00	16:07	5.10	5.10	-	-	TOP of CAD II	TOP of CAD II
06/30/08	7:00	0.00	7:10	0.27	0.27	-	-	TOP of CAD II	TOP of CAD II
06/30/08	16:10	4.33	16:05	0.23	-4.10	-	-	TOP of CAD II	TOP of CAD II
06/30/08	14:25	2.87	14:20	2.73	-0.13	-	-	TOP of CAD II	TOP of CAD II
06/30/08	12:15	6.87	12:20	2.10	-4.77	-	-	TOP of CAD II	TOP of CAD II
06/30/08	10:00	0.63	10:04	1.70	1.07	-	-	TOP of CAD II	TOP of CAD II
07/03/08	15:40	4.17	15:55	6.13	1.97	-	-	TOP of CAD II	TOP of CAD II
07/03/08	13:30	5.50	13:35	4.93	-0.57	-	-	TOP of CAD II	TOP of CAD II
07/03/08	12:20	1.77	12:40	3.60	1.83	12:30	20.97	TOP of CAD II	CAD I (Disposal Only)
07/03/08	10:40	0.00	10:45	4.50	4.50	-	-	TOP of CAD II	TOP of CAD II
07/03/08	8:40	15.03	8:45	6.00	-9.03	-	-	TOP of CAD II	TOP of CAD II
07/03/08	6:46	0.83	6:55	0.97	0.13	6:50	6.77	TOP of CAD II	CAD I (Disposal Only)
07/08/08	12:00	0.30	12:10	1.53	1.23	12:25	7.17	TOP of CAD II	CAD I (Disposal Only)
07/08/08	10:05	14.33	10:23	7.60	-6.73	-	-	TOP of CAD II	TOP of CAD II
07/08/08	7:40	0.93	7:45	0.87	-0.07	-	-	TOP of CAD II	TOP of CAD II
07/08/08	7:05	3.10	7:25	2.10	-1.00	7:32	19.13	TOP of CAD II	CAD I (Disposal Only)
07/31/08	7:10	0.40	7:20	0.20	-0.20	-	-	Steamship	Steamship
07/31/08	9:10	8.86	9:25	0.10	-8.76	-	-	Steamship	Steamship
07/31/08	11:10	1.15	11:17	0.00	-1.15	-	-	Steamship	Steamship
07/31/08	14:18	0.30	14:25	5.26	4.96	-	-	Steamship	Steamship
07/31/08	16:45	2.43	16:35	0.43	-2.00	-	-	Steamship	Steamship
08/04/08	12:00	2.53	12:35	0.53	-2.00	12:25	-	Steamship	CAD I (Disposal Only)
08/05/08	7:40	0.26	7:50	0.00	-0.26	-	-	Steamship	Steamship
08/05/08	9:40	1.33	9:50	1.63	0.30	-	-	Steamship	Steamship

TABLE 7 - NEW BEDFORD HARBOR DREDGE - PHASE III

Water Quality Monitoring - Turbidity Measurements

June 12, 2008 -- August 25, 2009

Date	Time of Up Current	Average of Up Current	Time of Down Current	Average of Down Current	Difference (Down Current - Up Current)	Time of Disposal Location	Average of Disposal Location	Project Title	Project and/or Location
08/05/08	12:00	22.40	12:10	2.53	-19.87	-	-	Steamship	Steamship
08/05/08	14:05	1.17	14:20	16.20	15.03	-	-	Steamship	Steamship
08/05/08	16:46	2.53	16:55	0.66	-1.87	16:45	-	Steamship	CAD I (Disposal Only)
08/07/08	10:00	0.00	10:30	0.00	0.00	-	-	Steamship	Steamship
08/07/08	11:45	0.03	12:00	0.83	0.80	-	-	Steamship	Steamship
08/07/08	14:20	0.00	14:30	0.93	0.93	-	-	Steamship	Steamship
08/07/08	15:30	0.00	15:55	6.70	6.70	0.65	-	Steamship	CAD I (Disposal Only)
08/07/08	17:15	0.00	17:25	0.00	0.00	-	-	Steamship	Steamship
08/08/08	7:15	0.00	7:25	0.00	0.00	-	-	Steamship	Steamship
08/08/08	13:30	0.16	13:40	11.07	10.91	-	-	Steamship	Steamship
08/08/08	15:45	0.30	16:01	0.93	0.63		-	Steamship	Steamship
08/11/08	8:50	4.00	8:40	0.00	-4.00	-	-	Steamship	Steamship
08/11/08	16:30	1.23	16:50	2.00	0.77	-	-	Steamship	Steamship
08/12/08	11:20	0.00	11:30	1.40	1.40	-	-	Steamship	Steamship
08/12/08	13:40	0.00	13:30	2.93	2.93	-	-	Steamship	Steamship
08/12/08	15:30	0.00	15:40	4.26	4.26	-	-	Steamship	Steamship
08/18/08	8:30	0.00	8:40	0.96	0.96	-	-	Steamship	Steamship
08/18/08	10:30	8.53	10:44	0.00	-8.53			Steamship	Steamship
08/18/08	12:30	5.93	12:40	2.97	-2.96	-	-	Steamship	Steamship
08/18/08	15:28	5.90	15:32	2.70	-3.20			Steamship	Steamship
08/18/08	17:34	0.83	17:40	2.97	2.14		-	Steamship	Steamship
08/21/08	9:50	1.03	10:15	0.13	-0.90	-	-	Steamship	Steamship
08/21/08	12:45	3.90	12:50	0.00	-3.90	-	-	Steamship	Steamship
08/21/08	14:59	5.53	14:50	0.63	-4.90	-	-	Steamship	Steamship
08/21/08	17:22	5.60	17:26	0.83	-4.77	-	-	Steamship	Steamship
08/21/08	16:04	2.20	17:04	2.86	0.66	16:00	-	Steamship	CAD I (Disposal Only)
08/26/08	7:00	4.10	7:10	0.50	-3.60	-	-	Steamship	Steamship
08/26/08	8:55	0.30	9:02	18.47	18.17	-	-	Steamship	Steamship
08/26/08	11:05	4.97	11:15	5.43	0.46	-	-	Steamship	Steamship
08/26/08	13:00	2.77	13:12	9.73	6.96	-	-	Steamship	Steamship
08/28/08	7:30	3.77	7:40	3.37	-0.40	-	-	Steamship	Steamship
08/28/08	9:30	5.10	9:35	6.30	1.20	-	-	Steamship	Steamship
08/28/08	11:40	2.67	11:35	6.27	3.60	-	-	Steamship	Steamship
08/28/08	15:35	10.10	15:28	6.50	-3.60	-	-	Steamship	Steamship
08/28/08	8:50	24.10	8:57	9.63	-14.47	-	-	Steamship	Steamship
09/03/08	9:00	1.03	9:11	6.57	5.54	-	-	Steamship	Steamship
09/03/08	11:25	1.00	11:32	16.13	15.13	-	-	Steamship	Steamship

TABLE 7 - NEW BEDFORD HARBOR DREDGE - PHASE III

Water Quality Monitoring - Turbidity Measurements

June 12, 2008 -- August 25, 2009

Date	Time of Up Current	Average of Up Current	Time of Down Current	Average of Down Current	Difference (Down Current - Up Current)	Time of Disposal Location	Average of Disposal Location	Project Title	Project and/or Location
09/03/08	13:52	1.47	13:44	1.27	-0.20	-	-	Steamship	Steamship
08/27/08	13:47	2.83	13:40	8.57	5.74	N/A*[2]	N/A*[2]	BOC II	BOC II
08/27/08	15:42	2.10	15:35	4.23	2.13	N/A*[2]	N/A*[2]	BOC II	BOC II
08/27/08	17:30	2.23	17:42	3.16	0.93	N/A*[2]	N/A*[2]	BOC II	BOC II
08/28/08	8:00	1.90	8:10	1.53	-0.37	N/A*[2]	N/A*[2]	BOC II	BOC II
08/28/08	10:30	4.23	10:24	3.17	-1.06	N/A*[2]	N/A*[2]	BOC II	BOC II
08/28/08	12:22	3.73	12:27	2.23	-1.50	N/A*[2]	N/A*[2]	BOC II	BOC II
08/28/08	14:45	9.00	14:50	1.83	-7.17	N/A*[2]	N/A*[2]	BOC II	BOC II
08/28/08	16:40	1.60	16:50	4.13	2.53	N/A*[2]	N/A*[2]	BOC II	BOC II
09/03/08	8:10	3.33	8:05	19.23	15.90	N/A*[2]	N/A*[2]	BOC II	BOC II
09/03/08	10:54	4.10	11:02	1.93	-2.17	N/A*[2]	N/A*[2]	BOC II	BOC II
09/03/08	13:05	1.63	13:17	9.13	7.50	N/A*[2]	N/A*[2]	BOC II	BOC II
09/11/08	8:22	1.63	8:49	4.67	3.04	N/A*[2]	N/A*[2]	BOC II	BOC II
09/11/08	10:40	1.67	10:32	1.63	-0.04	N/A*[2]	N/A*[2]	BOC II	BOC II
09/11/08	13:00	1.30	13:05	1.73	0.43	N/A*[2]	N/A*[2]	BOC II	BOC II
09/11/08	16:42	2.33	17:00	3.80	1.47	N/A*[2]	N/A*[2]	BOC II	BOC II
09/16/08	9:50	1.50	10:00	2.37	0.87	N/A*[2]	N/A*[2]	BOC II	BOC II
09/16/08	11:50	3.50	11:56	1.67	-1.83	N/A*[2]	N/A*[2]	BOC II	BOC II
09/16/08	14:41	10.20	14:30	3.60	-6.60	N/A*[2]	N/A*[2]	BOC II	BOC II
09/16/08	16:20	5.33	16:16	4.73	-0.60	N/A*[2]	N/A*[2]	BOC II	BOC II
09/18/08	11:40	1.13	11:50	2.10	0.97	N/A*[2]	N/A*[2]	BOC II	BOC II
09/18/08	15:36	3.20	15:45	3.57	0.37	N/A*[2]	N/A*[2]	BOC II	BOC II
03/23/09	*[1]	1.45	*[1]	1.85	0.40	-	N/A*[3]	PH III PART B	NBRF
03/25/09	11:25	1.10	12:25	3.59	2.49	12:15	N/A*[3]	PH III PART B	NBRF (Disposal Only)
03/27/09	12:20	0.40	12:30	0.30	-0.10	12:14	N/A*[3]	PH III PART B	NBRF (Disposal Only)
04/05/09	11:40	1.55	13:00	1.73	0.18	11:55	N/A*[3]	PH III PART B	NBRF (Disposal Only)
04/08/09	13:20	2.94	13:35	2.43	-0.51	13:25	N/A*[3]	PH III PART B	NBRF (Disposal Only)
04/10/09	14:15	1.10	14:50	1.33	0.23	14:25	N/A*[3]	PH III PART B	NBRF (Disposal Only)
04/13/09	14:20	1.04	14:45	1.75	0.71	-	N/A*[3]	PH III PART B	NBRF
04/14/09	17:00	3.63	17:30	2.39	-1.24	17:15	N/A*[3]	PH III PART B	NBRF (Disposal Only)
04/21/09	10:14	2.21	11:00	5.05	2.84	10:50	N/A*[3]	PH III PART A	Gifford St.
04/22/09	8:15	1.70	8:28	4.07	2.37	8:20	N/A*[3]	PH III PART A	Gifford St.
04/22/09	13:50	1.60	14:10	2.17	0.57	-	N/A*[3]	PH III PART A	Gifford St.

TABLE 7 - NEW BEDFORD HARBOR DREDGE - PHASE III

Water Quality Monitoring - Turbidity Measurements

June 12, 2008 -- August 25, 2009

Date	Time of Up Current	Average of Up Current	Time of Down Current	Average of Down Current	Difference (Down Current - Up Current)	Time of Disposal Location	Average of Disposal Location	Project Title	Project and/or Location
04/23/09	* [1]	1.83	* [1]	2.00	0.17	7:35	N/A*[3]	PH III PART A	Gifford St., South Terminal
04/24/09	8:35	1.43	9:35	1.73	0.30	9:25	N/A*[3]	PH III PART A	CAD II (Disposal only)
04/26/09	12:25	0.85	13:05	1.37	0.52	12:45	N/A*[3]	PH III PART A	Gifford St., South Terminal
05/04/09	11:30	3.02	* [1]	1.22	-1.80	11:45	N/A*[3]	PH III PART A	CAD II (Disposal only)
05/06/09	11:45	1.70	12:00	1.80	0.10	11:50	N/A*[3]	PH III PART A	CAD II (Disposal only)
05/06/09	16:45	2.50	16:58	14.30	11.80	-	N/A*[3]	PH III PART A	Gifford St.
05/07/09	15:00	13.00	15:20	2.73	-10.27	-	N/A*[3]	PH III PART A	South Terminal
05/13/09	13:30	1.37	13:50	1.47	0.10	13:36	N/A*[3]	PH III PART A	CAD II (Disposal only)
05/14/09	8:20	0.60	8:45	2.27	1.67	8:35	N/A*[3]	PH III PART A	CAD II (Disposal only)
05/16/09	12:30	2.09	13:25	0.61	-1.48	-	N/A*[3]	PH III PART A	Union Wharf
05/20/09	14:00	21.60	14:20	3.19	-18.41	-	N/A*[3]	PH III PART A	Gifford St.
05/22/09	8:00	0.81	8:15	0.29	-0.52	8:05	N/A*[3]	PH III PART A	CAD II (Disposal only)
05/28/09	10:13	1.09	10:25	1.85	0.76	-	N/A*[3]	PH III PART A	Linberg Marine
05/28/09	14:00	1.06	14:45	1.71	0.65	14:20	N/A*[3]	PH III PART A	CAD II (Disposal only)
06/04/09	14:35	1.60	14:52	3.53	1.93	-	N/A*[3]	PH III PART A	Linberg Marine
06/04/09	16:20	1.90	16:55	3.13	1.23	16:35	N/A*[3]	PH III PART A	CAD II (Disposal only)
06/06/09	14:05	1.47	14:30	3.76	2.29	-	N/A*[3]	PH III PART A	Linberg Marine
06/14/09	8:40	3.07	9:15	3.17	0.10	8:50	N/A*[3]	PH III PART A	CAD II (Disposal only)
06/17/09	15:25	2.99	15:40	4.05	1.06	-	N/A*[3]	PH III PART A	WA-S
06/18/09	8:30	0.87	9:00	1.30	0.43	8:45	N/A*[3]	PH III PART A	CAD II (Disposal only)
06/22/09	11:15	1.66	11:35	1.04	-0.62	-	N/A*[3]	PH III PART A	ONWF
06/24/09	10:10	4.54	10:25	0.46	-4.08	-	N/A*[3]	PH III PART A	Gifford St.
07/01/09	14:40	2.88	15:17	3.83	0.95	-	N/A*[3]	PH III PART A	Gifford St.
07/02/09	16:45	2.28	17:15	5.23	2.95	-	N/A*[3]	PH III PART A	Gifford St.
07/08/09	11:55	1.93	12:15	1.83	-0.10	-	N/A*[3]	PH III PART A	NL
07/08/09	14:33	3.60	14:40	18.00	14.40	14:35	N/A*[3]	PH III PART A	CAD II (Disposal only)
07/10/09	9:30	0.73	10:15	1.05	0.32	-	N/A*[3]	PH III PART A	Packer Marine

TABLE 7 - NEW BEDFORD HARBOR DREDGE - PHASE III

Water Quality Monitoring - Turbidity Measurements

June 12, 2008 -- August 25, 2009

Date	Time of Up Current	Average of Up Current	Time of Down Current	Average of Down Current	Difference (Down Current - Up Current)	Time of Disposal Location	Average of Disposal Location	Project Title	Project and/or Location
07/15/09	13:58	1.97	14:05	5.57	3.60	-	N/A*[3]	PH III PART A	Gifford St.
07/17/09	13:48	2.13	14:05	1.59	-0.54	-	N/A*[3]	PH III PART A	WA-S
07/22/09	13:35	2.59	14:00	3.63	1.04	-	N/A*[3]	PH III PART A	South Terminal
07/23/09	15:30	4.22	15:40	2.70	-1.52	-	N/A*[3]	PH III PART A	South Terminal
07/28/09	8:55	4.62	9:10	4.35	-0.27	-	N/A*[3]	PH III PART A	South Terminal
08/12/09	13:40	2.90	14:10	4.51	1.61	-	N/A*[3]	PH III PART A	Gifford St.
08/13/09	17:48	1.90	18:05	2.60	0.70	-	N/A*[3]	PH III PART A	South Terminal
08/17/09	10:10	0.77	10:25	2.07	1.30	-	N/A*[3]	PH III PART A	Packer Marine
08/20/09	14:25	2.28	14:45	2.79	0.51	-	N/A*[3]	PH III PART A	Packer Marine
08/25/09	16:46	5.62	17:00	3.23	-2.39	-	N/A*[3]	PH III PART A	South Terminal

Comments:

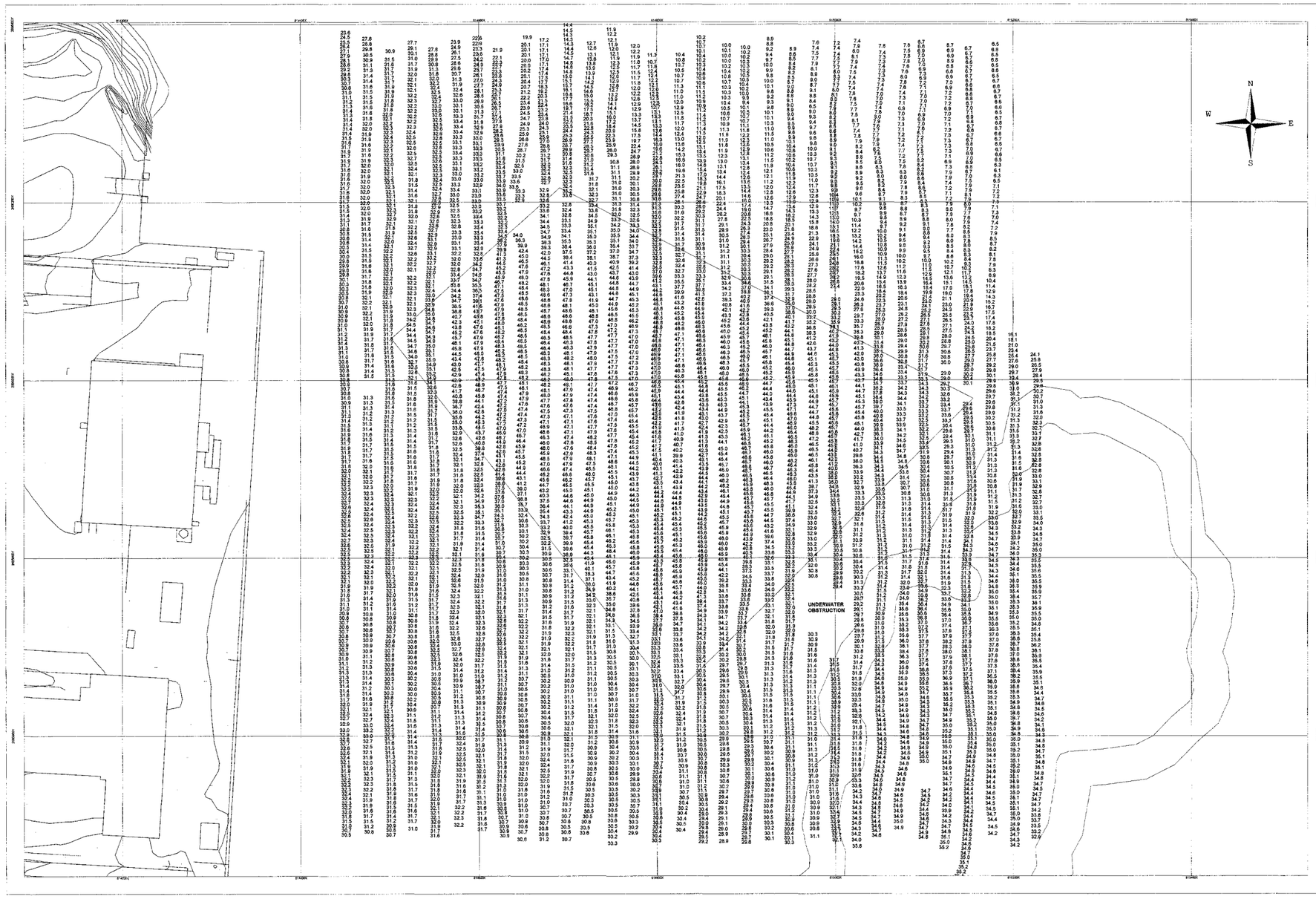
- Denotes a non-disposal event

*[1] Time field left blank on original field sheet/log-book

*[2] Bottom of CAD disposal events were off shore and water quality montitoring was not completed

*[3] PH III Part A and Part B Dredging were completed with a silt curtain around CAD II therefore no disposal location readings were taken (up-current and down-current measurements were taken outside the silt curtain.

FIGURES



NO.	DESCRIPTION	DATE	APPROVED
	REVISIONS		

NOTES

1. THE SOUNDING INFORMATION PRESENTED ON THIS PLAN REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY COLER & COLANTONIO, INC. ON JUNE 16, 2008 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY THE CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACCURED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO COLER & COLANTONIO, INC.
2. EUROPE REBEL POSITIONING SYSTEM TIDE MONITORING WAS BY REAL-TIME KINEMATIC (RTK) GPS.
3. THE DEPTHS SHOWN ON THIS PLAN ARE EXPRESSED IN FEET AND TENTHS AND ARE REFERENCED TO THE MEAN LOWER LOW WATER (MLLW) TIDAL DATUM. THE BENCHMARK FOR THIS PROJECT IS NATIONAL OCEAN SERVICE (NOS) TIDAL BENCHMARK 7564 JODY 1971 LOCATED IN NEW BEDFORD HARBOR, NEW BEDFORD, MASSACHUSETTS.
4. OTHER THAN SOUNDINGS ANY BARE PLAIN DETAIL, INCLUDING THE SHORELINE, HARBOR INFRASTRUCTURE, DREDGE AND CHANNEL LIMITS, WAS PROVIDED BY APEX COMPANIES, LLC.
5. UNLESS OTHERWISE INDICATED ON THIS PLAN UTILITIES OR OBSTRUCTIONS LOCATED ON OR BENEATH THE SEABED ARE UNKNOWN AT THIS TIME.
6. NOT TO BE USED FOR NAVIGATION.

GEODETIC DATUM INFORMATION

HORIZONTAL DATUM
NORTH AMERICAN DATUM 1983 (NAD 83)
MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, ZONE 2001

VERTICAL DATUM
BASE PLAN CETAIL VERTICAL DATUM UNKNOWN

SOUNDING DATUM
MEAN LOWER LOW WATER (MLLW)
TIDAL EPOCH 1960 - 1978 (NATIONAL OCEAN SERVICE)

SCALE: 1" = 40'

40 0 40 80 120

CHECK GRAPHIC SCALE BEFORE USING

NEW BEDFORD HARBOR – CAD CELL 1 DISPOSAL AREA

NEW BEDFORD, MASSACHUSETTS

EXISTING CONDITIONS HYDROGRAPHIC SURVEY

CAD CELL 1

SHEET 1 OF 1

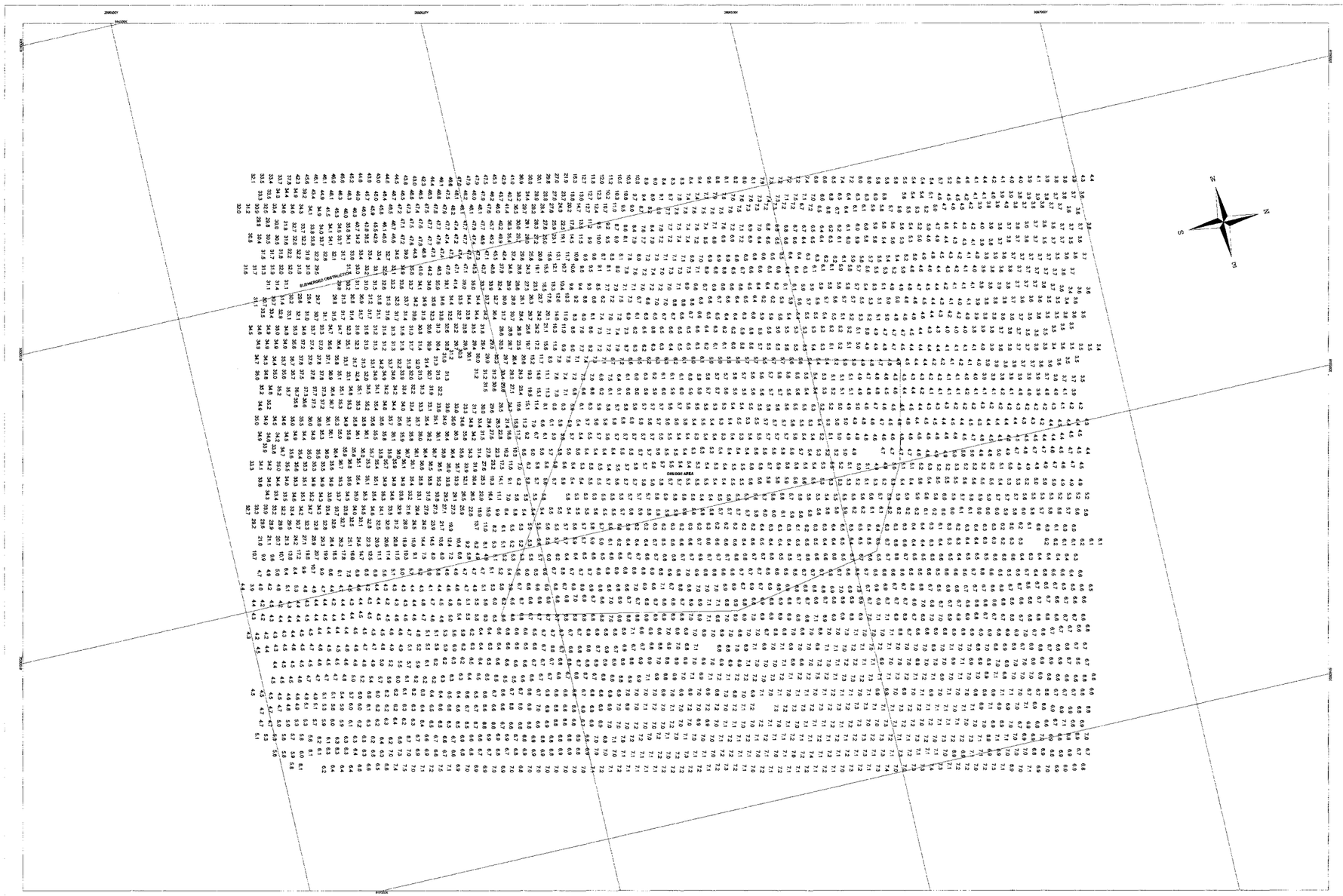
PREPARED FOR:

APEX COMPANIES, LLC.
115 BROAD STREET, SUITE 200
BOSTON, MASSACHUSETTS 02110

PROJECT MANAGER:	COMPUTED BY:	DRAWN BY:	REVIEWED BY:
MARK W. ROHDE	MARK W. ROHDE	MARK W. ROHDE	ERIC J. POREDA
PROJECT NO.:	DATE:	DRAWING NO.:	DRAWING SIZE:
21-06008.01	JUNE 19, 2008	EC_40.PLT	ANSI F

COLER & COLANTONIO, INC.
101 ACCORD PARK DRIVE
NORWELL, MA 02061-1665
TEL: (781) 982-5400
FAX: (781) 982-5490

COLER & COLANTONIO INC
ENGINEERS AND SURVEYORS



NO.	DESCRIPTION	DATE	APPROVED

REVISIONS

NOTES

1. THE SOUNDING INFORMATION PRESENTED ON THIS PLAN REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY COLER & COLANTONIO, INC. ON JUNE 3, 2008 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY THE CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO COLER & COLANTONIO, INC.
2. SURVEY VESSEL POSITIONING AND TIDE MONITORING WAS BY REAL-TIME KINEMATIC (RTK) GPS.
3. THE DEPTHS SHOWN ON THIS PLAN ARE EXPRESSED IN FEET AND TENTHS AND ARE REFERENCED TO THE MEAN LOWER LOW WATER (MLLW) TIDAL DATUM. THE BENCHMARK FOR THIS PROJECT IS NATIONAL OCEAN SERVICE (NOS) TIDAL BENCHMARK 7344 JCDT 1977 LOCATED IN NEW BEDFORD HARBOR, NEW BEDFORD, MASSACHUSETTS.
4. OTHER THAN SOUNDINGS ANY BASE PLAN DETAIL, INCLUDING THE SHORELINE, HARBOR INFRASTRUCTURE, DREDGE AND CHANNEL LIMITS, WAS PROVIDED BY APEX COMPANIES, LLC.
5. UNLESS OTHERWISE INDICATED ON THIS PLAN UTILITIES OR OBSTRUCTIONS LOCATED ON OR BENEATH THE SEABED ARE UNKNOWN AT THIS TIME.
6. NOT TO BE USED FOR NAVIGATION.

GEODETIC DATUM INFORMATION

HORIZONTAL DATUM
NORTH AMERICAN DATUM 1983 (NAD 83)
MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, ZONE 2001

VERTICAL DATUM
BASE PLAN DETAIL VERTICAL DATUM UNKNOWN

SOUNDING DATUM
MEAN LOWER LOW WATER (MLLW)
TIDAL EPOCH 1983 - 1978 (NATIONAL OCEAN SERVICE)

SCALE: 1" = 60'

60 0 60 120 180

CHECK GRAPHIC SCALE BEFORE USING

NEW BEDFORD HARBOR – CAD CELL 2

NEW BEDFORD, MASSACHUSETTS

PRE-DREDGE HYDROGRAPHIC SURVEY
TOP OF CAD CELL

SHEET 1 OF 1

PREPARED FOR:

APEX COMPANIES, LLC.
115 BROAD STREET, SUITE 200
BOSTON, MASSACHUSETTS 02110

PROJECT MANAGER:	COMPUTED BY:	DRAWN BY:	REVIEWED BY:
MARK W. ROHDE	MARK W. ROHDE	MARK W. ROHDE	ERIC J. PORSDA
PROJECT NO.:	DATE:	DRAWING NO.:	DRAWING SIZE:
31-00005.00	JUNE 5, 2008	PR_02.PLT	ANSI F

COLER & COLANTONIO, INC.
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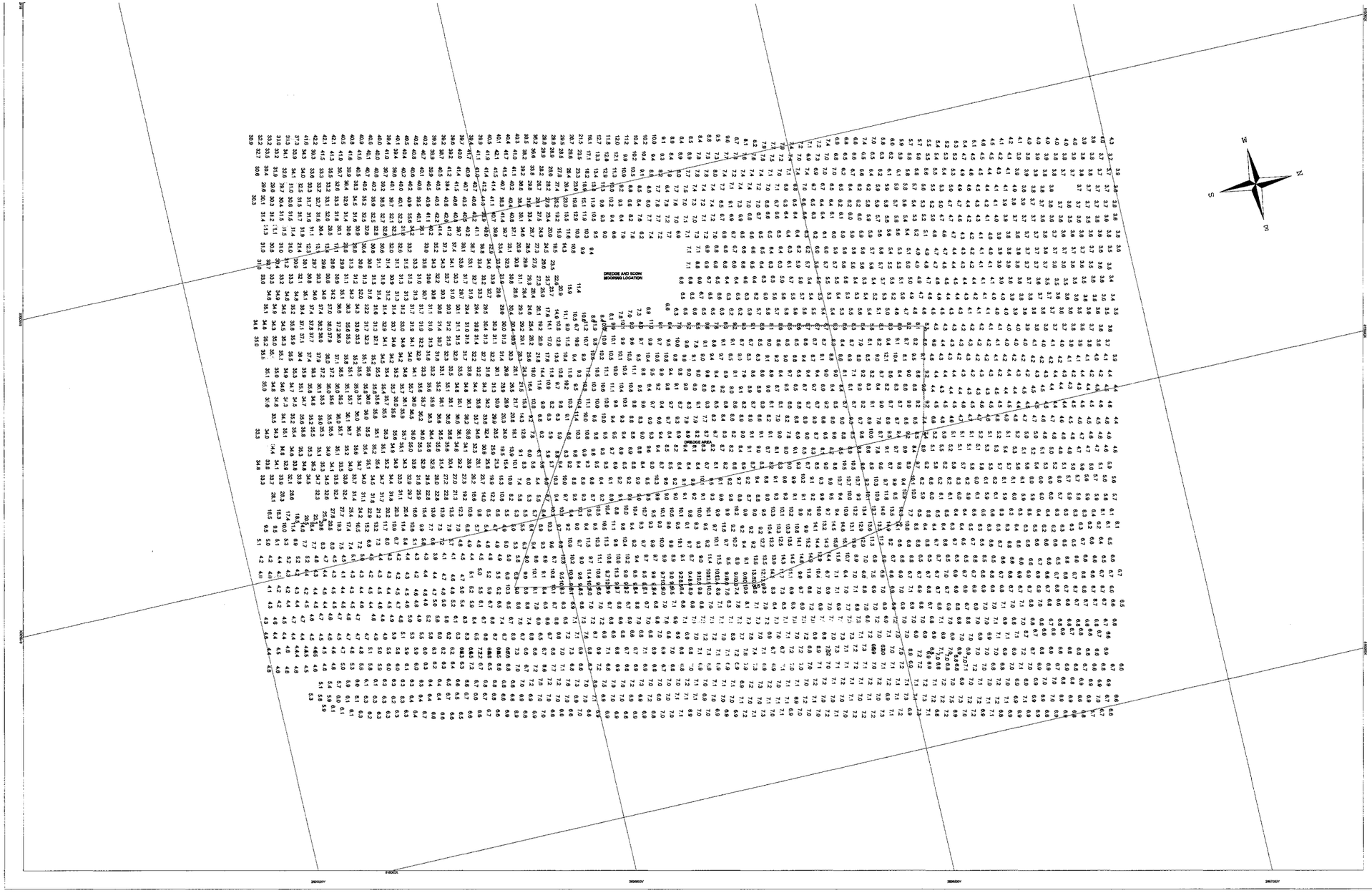
NORWELL, MA 02061-1695
TEL: (781) 982-9400
FAX: (781) 982-9401

COLER & COLANTONIO, INC.
ENGINEERS AND SURVEYORS



NO.	DESCRIPTION	DATE	APPROVED

REVISIONS

NOTES

1. THE SOUNDING INFORMATION PRESENTED ON THIS PLAN REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY COLER & COLANTONIO, INC. ON JULY 17, 2008 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY THE CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO COLER & COLANTONIO, INC.
2. SURVEY VESSEL POSITIONING AND TIDE MONITORING WAS BY REAL-TIME KINEMATIC (RTK) GPS.
3. THE DEPTHS SHOWN ON THIS PLAN ARE EXPRESSED IN FEET AND TENTHS AND ARE REFERENCED TO THE MEAN LOWER LOW WATER (MLLW) TIDAL DATUM. THE BENCHMARK FOR THIS PROJECT IS NATIONAL OCEAN SERVICE (NOS) TIDAL BENCHMARK TS84 JOD1 1977 LOCATED IN NEW BEDFORD HARBOR, NEW BEDFORD, MASSACHUSETTS.
4. OTHER THAN SOUNDINGS ANY BASE PLAN DETAIL, INCLUDES THE SHORELINE, HARBOR INFRASTRUCTURE, DREDGE AND CHANNEL LIMITS, WAS PROVIDED BY APEX COMPANIES, LLC.
5. UNLESS OTHERWISE INDICATED ON THIS PLAN UTILITIES OR OBSTRUCTIONS LOCATED ON OR BENEATH THE SEABED ARE UNKNOWN AT THIS TIME.
6. NOT TO BE USED FOR NAVIGATION.

GEODETIC DATUM INFORMATION

HORIZONTAL DATUM
NORTH AMERICAN DATUM 1983 (NAD 83)
MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, ZONE 2001

VERTICAL DATUM
BASE PLAN DETAIL VERTICAL DATUM UNKNOWN

SOUNDING DATUM
MEAN LOWER LOW WATER (MLLW)
TIDAL EPOCH 1983 - 1978 (NATIONAL OCEAN SERVICE)

SCALE: 1" = 60'

60 0 60 120 180

CHECK GRAPHIC SCALE BEFORE USING

NEW BEDFORD HARBOR – CAD CELL 2

NEW BEDFORD, MASSACHUSETTS

POST-DREDGE HYDROGRAPHIC SURVEY

TOP OF CAD CELL

SHEET 1 OF 1

PREPARED FOR:

APEX COMPANIES, LLC.
115 BROAD STREET, SUITE 200
BOSTON, MASSACHUSETTS 02110

PROJECT MANAGER:	COMPUTED BY:	DRAWN BY:	REVIEWED BY:
MARK W. ROHDE	MARK W. ROHDE	MARK W. ROHDE	ERIC J. POREDA
PROJECT NO.:	DATE:	DRAWING NO.:	DRAWING SIZE:
21-06009.00	JULY 31, 2008	PO_80.PLT	ANSI F

COLER & COLANTONIO, INC.
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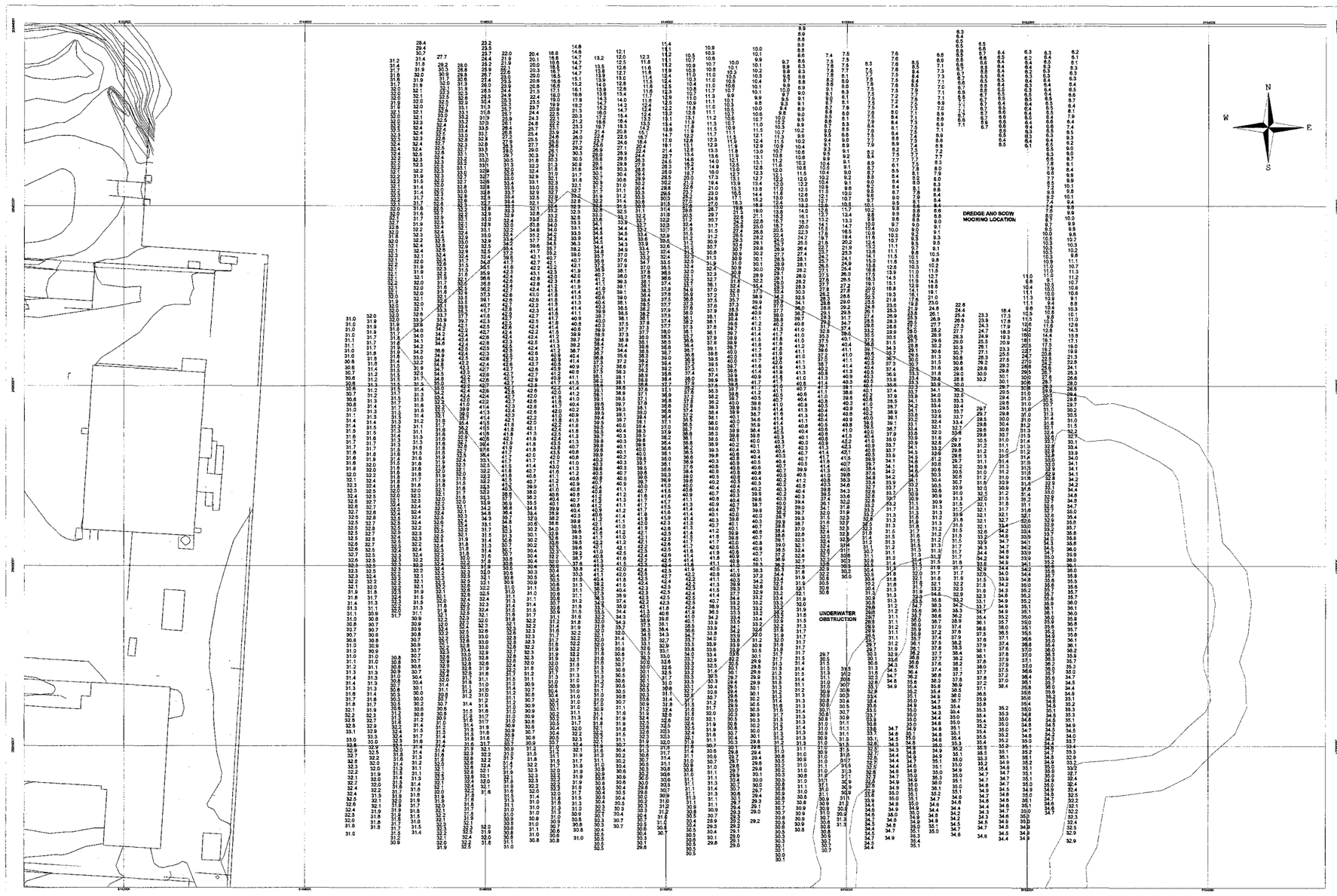
TEL: (781) 982-6400
FAX: (781) 982-5480

COLER & COLANTONIO, INC.
ENGINEERS AND SURVEYORS



NO.	DESCRIPTION	DATE	APPROVED

REVISIONS

NOTES

1. THE SOUNDING INFORMATION PRESENTED ON THIS PLAN REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY COLER & COLANTONIO, INC. ON JULY 25, 2008 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY THE CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO COLER & COLANTONIO, INC.
2. SURVEY VESSEL POSITIONING AND TIDE MONITORING WAS BY REAL-TIME KINEMATIC (RTK) GPS.
3. THE DEPTHS SHOWN ON THIS PLAN ARE EXPRESSED IN FEET AND TENTHS AND ARE REFERENCED TO THE MEAN LOWER LOW WATER (MLLW) TIDAL DATUM. THE BENCHMARK FOR THIS PROJECT IS NATIONAL OCEAN SERVICE (NOS) TIDAL BENCHMARK 7394 JOBY 1977 LOCATED IN NEW BEDFORD HARBOR, NEW BEDFORD, MASSACHUSETTS.
4. OTHER THAN SOUNDINGS ANY PLAN DETAIL, INCLUDING THE SHORELINE, HARBOR INFRASTRUCTURE, DREDGE AND CHANNEL LIMITS, WAS PROVIDED BY APEX COMPANIES, LLC.
5. UNLESS OTHERWISE INDICATED ON THIS PLAN UTILITIES OR OBSTRUCTIONS LOCATED ON OR BENEATH THE SEABED ARE UNKNOWN AT THIS TIME.
6. NOT TO BE USED FOR NAVIGATION.

GEODETIC DATUM INFORMATION

HORIZONTAL DATUM
NORTH AMERICAN DATUM 1983 (NAD 83)
MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, ZONE 2001

VERTICAL DATUM
BASE PLAN DETAIL VERTICAL DATUM UNKNOWN

SOUNDING DATUM
MEAN LOWER LOW WATER (MLLW)
TIDAL EPOCH 1960 - 1978 (NATIONAL OCEAN SERVICE)

SCALE: 1" = 40'

40 0 40 80 120

CHECK GRAPHIC SCALE BEFORE USING

NEW BEDFORD HARBOR – CAD CELL 1 DISPOSAL AREA

NEW BEDFORD, MASSACHUSETTS

EXISTING CONDITIONS HYDROGRAPHIC SURVEY

CAD CELL 1

SHEET 1 OF 1

PREPARED FOR:

APEX COMPANIES, LLC.
115 BROAD STREET, SUITE 200
BOSTON, MASSACHUSETTS 02110

PROJECT MANAGER:	COMPUTED BY:	DRAWN BY:	REVIEWED BY:
MARK W. ROHDE	MARK W. ROHDE	MARK W. ROHDE	ERIC J. POSEDA
PROJECT NO.:	DATE:	DRAWING NO.:	DRAWING SIZE:
214600.03	JULY 27, 2008	EC_40.PLT	ANSI F

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101 ACCORD PARK DRIVE
NORWELL, MA 02061-1655
TEL: (781) 982-5400
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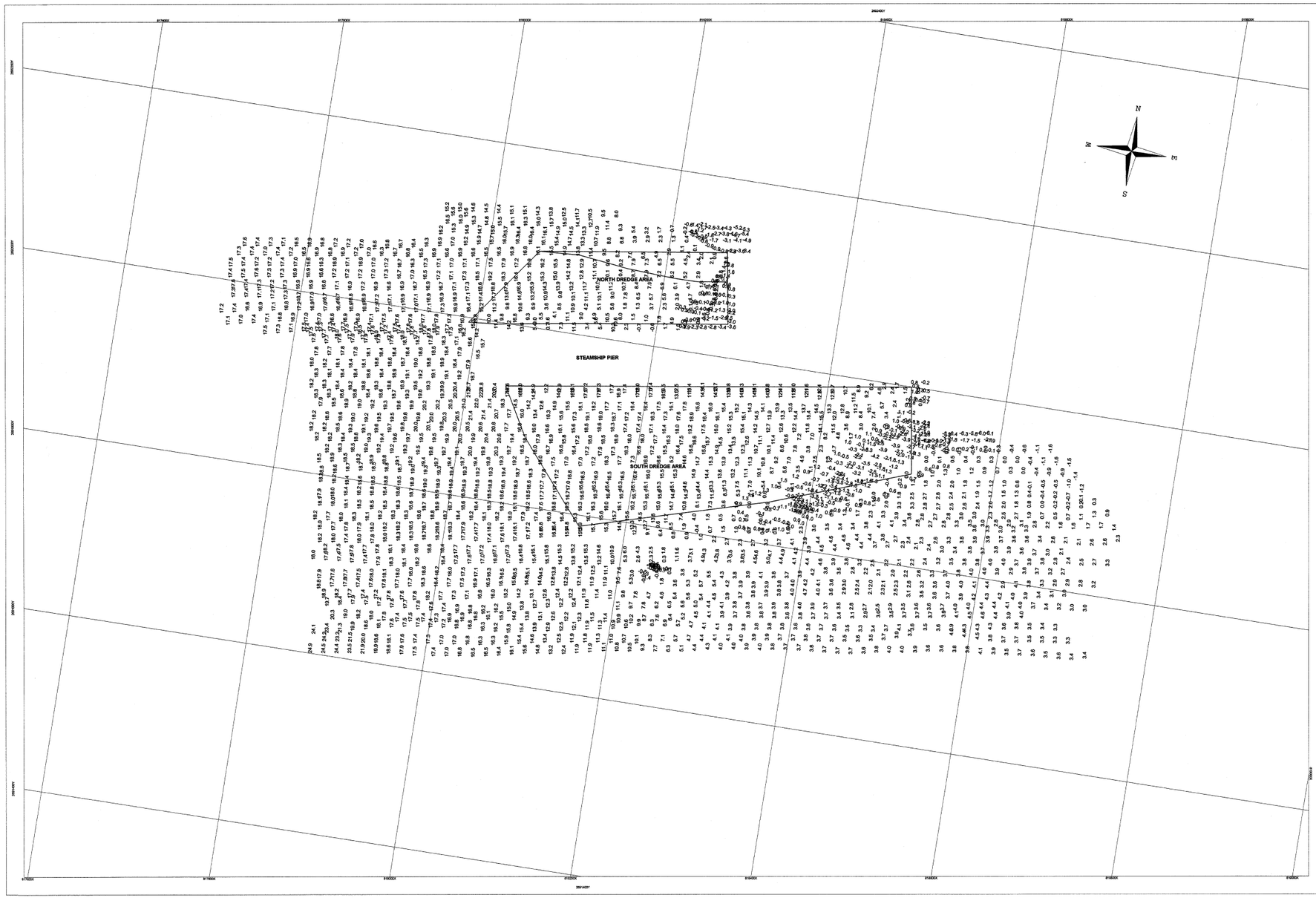
COLER & COLANTONIO INC
ENGINEERS AND SURVEYORS



NO.	DESCRIPTION	DATE	APPROVED

REVISIONS

NOTES

1. THE SOUNDING INFORMATION PRESENTED ON THIS PLAN REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY COLER & COLANTONIO, INC. DURING THE PERIOD JULY 22 – 23, 2008 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY THE CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO COLER & COLANTONIO, INC.
2. SURVEY VESSEL POSITIONING AND TIDE MONITORING WAS BY REAL-TIME KINEMATIC (RTK) GPS.
3. THE DEPTHS SHOWN ON THIS PLAN ARE EXPRESSED IN FEET AND TENTHS AND ARE REFERENCED TO THE MEAN LOWER LOW WATER (MLLW) TIDAL DATUM. THE BENCHMARK FOR THIS PROJECT IS NATIONAL OCEAN SERVICE (NOS) TIDAL BENCHMARK 7564 JOOY 1977 LOCATED IN NEW BEDFORD HARBOR, NEW BEDFORD, MASSACHUSETTS.
4. OTHER THAN SOUNDINGS ANY BASE PLAN DETAIL, INCLUDING THE SHORELINE, HARBOR INFRASTRUCTURE, DREDGE AND CHANNEL LIMITS, WAS PROVIDED BY APEX COMPANIES, LLC.
5. UNLESS OTHERWISE INDICATED ON THIS PLAN UTILITIES OR OBSTRUCTIONS LOCATED ON OR BENEATH THE SEABED ARE UNKNOWN AT THIS TIME.
6. NOT TO BE USED FOR NAVIGATION.

GEODETIC DATUM INFORMATION

HORIZONTAL DATUM
NORTH AMERICAN DATUM 1983 (NAD 83)
MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, ZONE 2001

VERTICAL DATUM
MEAN LOWER LOW WATER (MLLW)
TIDAL EPOCH 1960 – 1978 (NATIONAL OCEAN SERVICE)

SOUNDING DATUM
MEAN LOWER LOW WATER (MLLW)
TIDAL EPOCH 1960 – 1978 (NATIONAL OCEAN SERVICE)

SCALE: 1" = 40'

40 0 40 80 120

CHECK GRAPHIC SCALE BEFORE USING

STEAMSHIP AUTHORITY MAINTENANCE TERMINAL

FAIRHAVEN, MASSACHUSETTS

PRE-DREDGE HYDROGRAPHIC & TOPOGRAPHIC SURVEY

SHEET 1 OF 1

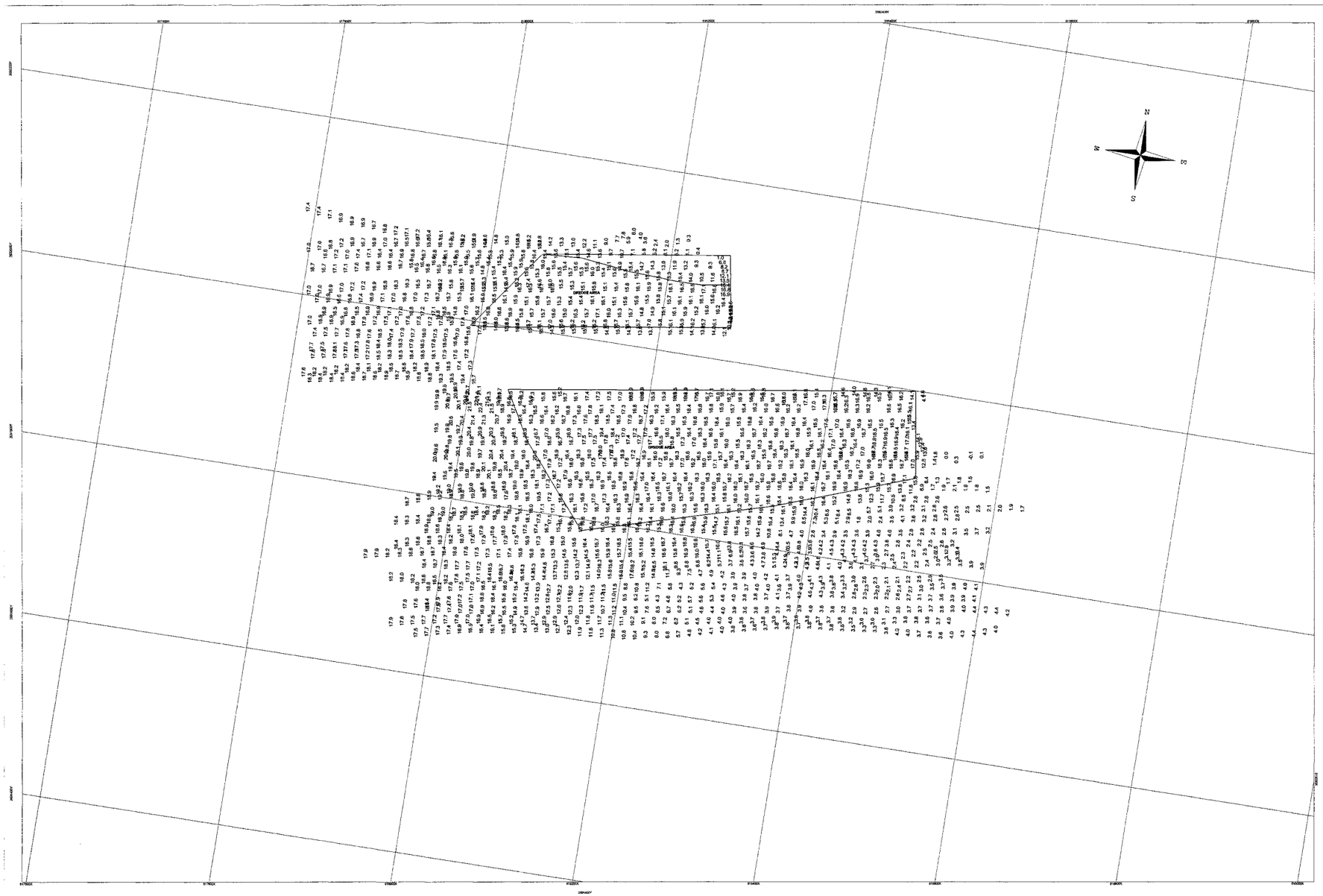
PREPARED FOR:

APEX COMPANIES, LLC.
115 BROAD STREET, SUITE 200
BOSTON, MASSACHUSETTS 02110

PROJECT MANAGER:	COMPUTED BY:	DRAWN BY:	REVIEWED BY:
MARK W. ROHDE	MARK W. ROHDE	MARK W. ROHDE	ERIC J. POREDA
PROJECT NO.:	DATE:	DRAWING NO.:	DRAWING SIZE:
21-00008.02	JULY 27, 2009	PR_40.PLT	ANSI F

COLER & COLANTONIO, INC.
161 ACCORD PARK DRIVE
NORWELL, MA 02061-1655
TEL: (781) 982-9400
FAX: (781) 982-9480

COLER & COLANTONIO, INC.
ENGINEERS AND SCIENTISTS



NO.	DESCRIPTION	DATE	APPROVED

REVISIONS

NOTES

1. THE SOUNDING INFORMATION PRESENTED ON THIS PLAN REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY COLER & COLANTONIO, INC. ON SEPTEMBER 2ND AND 11TH, 2008 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY THE CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO COLER & COLANTONIO, INC.
2. SURVEY VESSEL POSITIONING AND TIDE MONITORING WAS BY REAL-TIME KINEMATIC (RTK) GPS
3. THE DEPTHS SHOWN ON THIS PLAN ARE EXPRESSED IN FEET AND TENTHS AND ARE REFERENCED TO THE MEAN LOWER LOW WATER (MLLW) TIDAL DATUM. THE BENCHMARK FOR THIS PROJECT IS NATIONAL OCEAN SERVICE (NOS) TIDAL BENCHMARK 7394 JOBY 1971 LOCATED IN NEW BEDFORD HARBOR, NEW BEDFORD, MASSACHUSETTS.
4. OTHER THAN SOUNDINGS ANY BASE PLAN DETAIL, INCLUDING THE SHORELINE, HARBOR INFRASTRUCTURE, DREDGE AND CHANNEL LIMITS, WAS PROVIDED BY APEX COMPANIES, LLC.
5. UNLESS OTHERWISE INDICATED ON THIS PLAN UTILITIES OR OBSTRUCTIONS LOCATED ON OR BENEATH THE SEABED ARE UNKNOWN AT THIS TIME.
6. NOT TO BE USED FOR NAVIGATION.

GEODETIC DATUM INFORMATION

HORIZONTAL DATUM
NORTH AMERICAN DATUM 1983 (NAD 83)
MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, ZONE 5001

VERTICAL DATUM
MEAN LOWER LOW WATER (MLLW)
TIDAL EPOCH 1960 – 1978 (NATIONAL OCEAN SERVICE)

SOUNDING DATUM
MEAN LOWER LOW WATER (MLLW)
TIDAL EPOCH 1960 – 1978 (NATIONAL OCEAN SERVICE)

SCALE: 1" = 40'

40 0 40 80 120

CHECK GRAPHIC SCALE BEFORE USING

STEAMSHIP AUTHORITY MAINTENANCE TERMINAL

FAIRHAVEN, MASSACHUSETTS

POST-DREDGE HYDROGRAPHIC SURVEY

SHEET 1 OF 1

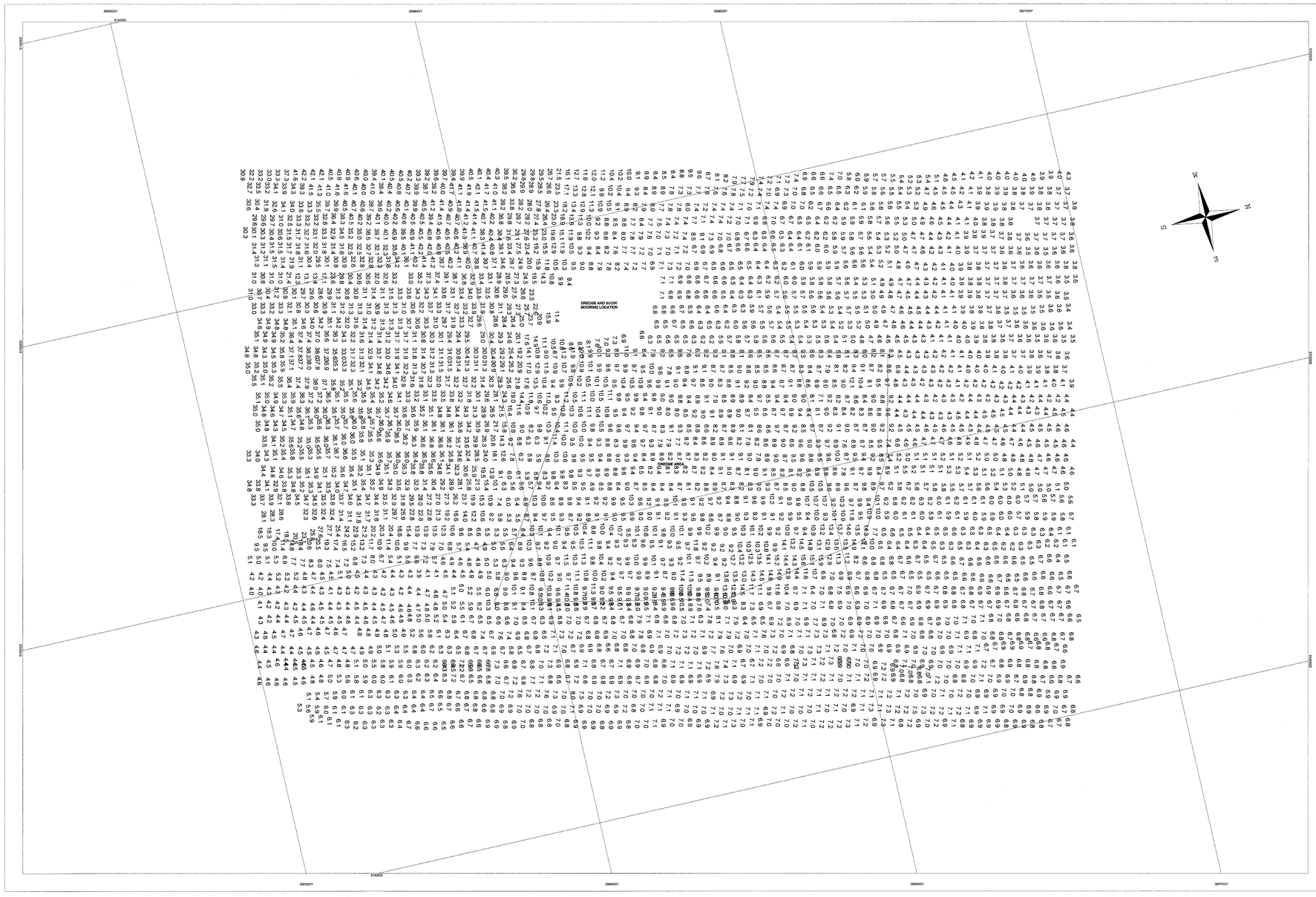
PREPARED FOR:

APEX COMPANIES, LLC.
115 BROAD STREET, SUITE 200
BOSTON, MASSACHUSETTS 02110

PROJECT MANAGER:	COMPUTED BY:	DRAWN BY:	REVIEWED BY:
MARK W. ROHDE	MARK W. ROHDE	MARK W. ROHDE	ERIC J. POREDA
PROJECT NO.:	DATE:	DRAWING NO.:	DRAWING SIZE:
21-00009.02	SEPTEMBER 15, 2008	PO_40.PLT	ANSI F

COLER & COLANTONIO, INC.
181 ACCORD PARK DRIVE
NORWELL, MA 02061-1695
TEL: (781) 982-5400
FAX: (781) 982-5406

COLER & COLANTONIO INC
ENGINEERS AND SCIENTISTS



NO.	DESCRIPTION	DATE	APPROVED

REVISIONS

NOTES

1. THE SOUNDING INFORMATION PRESENTED ON THIS PLAN REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY COLER & COLANTONIO, INC. ON JULY 17, 2008 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY THE CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO COLER & COLANTONIO, INC.
2. SURVEY VESSEL POSITIONING AND TIDE MONITORING WAS BY REAL-TIME KINEMATIC (RTK) GPS.
3. THE DEPTHS SHOWN ON THIS PLAN ARE EXPRESSED IN FEET AND TENTHS AND ARE REFERENCED TO THE MEAN LOWER LOW WATER (MLLW) TIDAL DATUM. THE BENCHMARK FOR THIS PROJECT IS NATIONAL OCEAN SERVICE (NOS) TIDAL BENCHMARK 7594 JODY 1977 LOCATED IN NEW BEDFORD HARBOR, NEW BEDFORD, MASSACHUSETTS.
4. OTHER THAN SOUNDINGS ANY BASE PLAN DETAIL, INCLUDING THE SHORELINE, HARBOR INFRASTRUCTURE, DREDGE AND CHANNEL LIMITS, WAS PROVIDED BY APEX COMPANIES, LLC.
5. UNLESS OTHERWISE INDICATED ON THIS PLAN UTILITIES OR OBSTRUCTIONS LOCATED ON OR BENEATH THE SEABED ARE UNKNOWN AT THIS TIME.
6. NOT TO BE USED FOR NAVIGATION.

GEODETIC DATUM INFORMATION

HORIZONTAL DATUM
NORTH AMERICAN DATUM 1983 (NAD 83)
MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, ZONE 2001

VERTICAL DATUM
BASE PLAN DETAIL VERTICAL DATUM UNKNOWN

SOUNDING DATUM
MEAN LOWER LOW WATER (MLLW)
TIDAL EPOCH 1960 - 1978 (NATIONAL OCEAN SERVICE)

SCALE: 1" = 60'

60 0 60 120 180

CHECK GRAPHIC SCALE BEFORE USING

NEW BEDFORD HARBOR – CAD CELL 2

NEW BEDFORD, MASSACHUSETTS

PRE-DREDGE HYGROGRAPHIC SURVEY

BOTTOM OF CAD CELL

SHEET 1 OF 1

PREPARED FOR:

APEX COMPANIES, LLC
115 BROAD STREET, SUITE 200
BOSTON, MASSACHUSETTS 02110

PROJECT MANAGER:	COMPUTED BY:	DRAWN BY:	REVIEWED BY:
MARK W. ROHDE	MARK W. ROHDE	MARK W. ROHDE	ERIC J. POREDA
PROJECT NO.:	DATE:	DRAWING NO.:	DRAWING SIZE:
21-00008.00	SEPTEMBER 2, 2008	PO_B0.PLT	ANSI F

COLER & COLANTONIO, INC.
101 ACCORD PARK DRIVE
NORWELL, MA 02061-1685
TEL: (781) 982-5400
FAX: (781) 982-5490

COLER & COLANTONIO INC
ENGINEERS AND SCIENTISTS

ERIC
A.
POREDA
No. 49815
COLER & COLANTONIO, INC.
REGISTERED PROFESSIONAL LAND SURVEYOR
8-25-09

NO.	DESCRIPTION	DATE	APPROVED

REVISIONS

NOTES

1. THE SOUNDING INFORMATION PRESENTED ON THIS PLAN REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY COLER & COLANTONIO, INC. ON AUGUST 20, 2009 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY THE CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO COLER & COLANTONIO, INC.
2. SURVEY VESSEL POSITIONING AND TIDE MONITORING WAS BY REAL-TIME KINEMATIC (RTK) GPS.
3. THE DEPTHS SHOWN ON THIS PLAN ARE EXPRESSED IN FEET AND TENTHS AND ARE REFERENCED TO THE MEAN LOWER LOW WATER (MLLW) TIDAL DATUM. THE BENCHMARK FOR THIS PROJECT IS NATIONAL OCEAN SERVICE (NOS) TIDAL BENCHMARK 7594 JODY 1977 LOCATED IN NEW BEDFORD HARBOR, NEW BEDFORD, MASSACHUSETTS.
4. OTHER THAN SOUNDINGS ANY BASE PLAN DETAIL, INCLUDING THE SHORELINE, HARBOR INFRASTRUCTURE, DREDGE AND CHANNEL LIMITS, WAS PROVIDED BY APEX COMPANIES, LLC.
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6. NOT TO BE USED FOR NAVIGATION.

GEODETIC DATUM INFORMATION

HORIZONTAL DATUM
NORTH AMERICAN DATUM 1983 (NAD 83)
MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, ZONE 2001

VERTICAL DATUM
BASE PLAN DETAIL VERTICAL DATUM UNKNOWN

SOUNDING DATUM
MEAN LOWER LOW WATER (MLLW)
TIDAL EPOCH 1960 - 1978 (NATIONAL OCEAN SERVICE)

SCALE: 1" = 40'

40 0 40 80 120

CHECK GRAPHIC SCALE BEFORE USING

NEW BEDFORD HARBOR DREDGE – PHASE III

NEW BEDFORD, MASSACHUSETTS

EXISTING CONDITIONS HYDROGRAPHIC SURVEY
BORROW PIT CAD DISPOSAL AREA

SHEET 1 OF 1

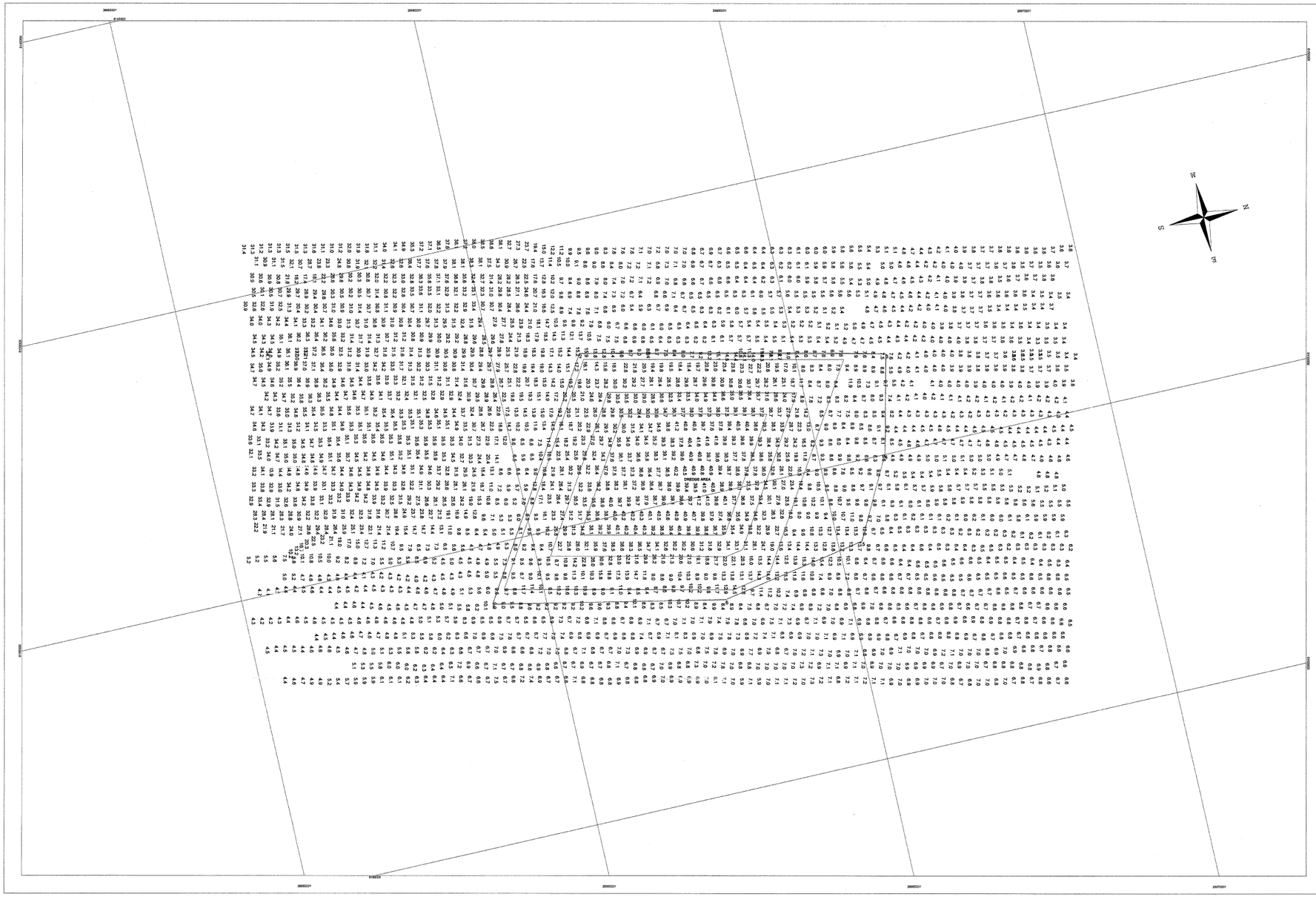
PREPARED FOR:

APEX COMPANIES, LLC.
115 BROAD STREET, SUITE 200
BOSTON, MASSACHUSETTS 02110

PROJECT MANAGER:	COMPUTED BY:	DRAWN BY:	REVIEWED BY:
MARK W. ROHDE	MARK W. ROHDE	MARK W. ROHDE	ERIC J. POREDA
PROJECT NO.:	DATE:	DRAWING NO.:	DRAWING SIZE:
21-09008.04	AUGUST 22, 2009	EC_40.PLT	ANSI F

COLER & COLANTONIO, INC.
101 ACCORD PARK DRIVE
NORWELL, MA 02061-1025
TEL: (781) 982-5400
FAX: (781) 982-5490

COLER & COLANTONIO INC
HYDROGRAPHIC AND SEA SURVEYORS



NO. | DESCRIPTION | DATE | APPROVED

REVISIONS

NOTES

1. THE SOUNDING INFORMATION PRESENTED ON THIS PLAN REPRESENTS THE RESULTS OF A SURVEY PERFORMED BY COLER & COLANTONIO, INC. ON OCTOBER 13, 2008 AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS EXISTING AT THAT TIME. REUSE OF THIS INFORMATION BY THE CLIENT OR OTHERS BEYOND THE SPECIFIC SCOPE OF WORK FOR WHICH IT WAS ACQUIRED SHALL BE AT THE SOLE RISK OF THE USER AND WITHOUT LIABILITY TO COLER & COLANTONIO, INC.
2. SURVEY VESSEL POSITIONING AND TIDE MONITORING WAS BY REAL-TIME KINEMATIC (RTK) GPS.
3. THE DEPTHS SHOWN ON THIS PLAN ARE EXPRESSED IN FEET AND TENTHS AND ARE REFERENCED TO THE MEAN LOWER LOW WATER (MLLW) TIDAL DATUM. THE BENCHMARK FOR THIS PROJECT IS NATIONAL OCEAN SERVICE (NOS) TIDAL BENCHMARK 7594 JODY 1977 LOCATED IN NEW BEDFORD HARBOR, NEW BEDFORD, MASSACHUSETTS.
4. OTHER THAN SOUNDINGS ANY BASE PLAN DETAIL, INCLUDING THE SHORELINE, HARBOR INFRASTRUCTURE, DREDGE AND CHANNEL LIMITS, WAS PROVIDED BY APEX COMPANIES, LLC.
5. UNLESS OTHERWISE INDICATED ON THIS PLAN UTILITIES OR OBSTRUCTIONS LOCATED ON OR BENEATH THE SEABED ARE UNKNOWN AT THIS TIME.
6. NOT TO BE USED FOR NAVIGATION.

GEODETIC DATUM INFORMATION

HORIZONTAL DATUM
NORTH AMERICAN DATUM 1983 (NAD 83)
MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, ZONE 2001

VERTICAL DATUM
BASE PLAN DETAIL VERTICAL DATUM UNKNOWN

SOUNDING DATUM
MEAN LOWER LOW WATER (MLLW)
TIDAL EPOCH 1960 - 1978 (NATIONAL OCEAN SERVICE)

SCALE: 1" = 60'

60 0 60 120 180

CHECK GRAPHIC SCALE BEFORE USING

NEW BEDFORD HARBOR – CAD CELL 2

NEW BEDFORD, MASSACHUSETTS

POST-DREDGE HYDROGRAPHIC SURVEY
BOTTOM OF CAD CELL

SHEET 1 OF 1

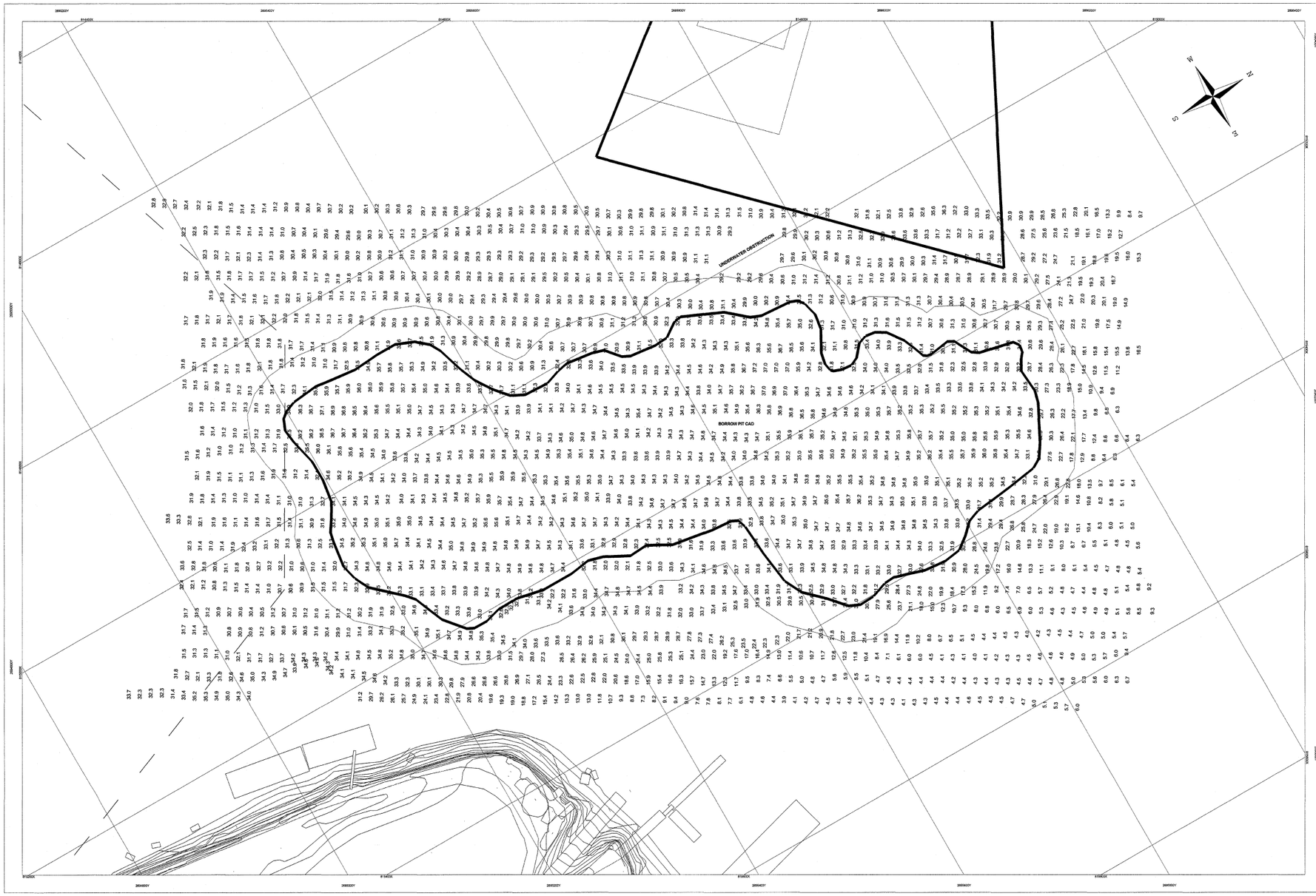
PREPARED FOR:

APEX COMPANIES, LLC.
115 BROAD STREET, SUITE 200
BOSTON, MASSACHUSETTS 02110

PROJECT MANAGER:	COMPUTED BY:	DRAWN BY:	REVIEWED BY:
MARK W. ROHDE	MARK W. ROHDE	MARK W. ROHDE	ERIC J. POREDA
PROJECT NO.:	DATE:	DRAWING NO.:	DRAWING SIZE:
21-00005.05	OCTOBER 16, 2008	PO_60.PLT	ANSI F

COLER & COLANTONIO, INC.
101 ACCORD PARK DRIVE
NORWELL, MA 02061-1685
TEL: (781) 982-5400
FAX: (781) 982-5450

COLER & COLANTONIO, INC.
ENGINEERS AND SCIENTISTS



NO.	DESCRIPTION	DATE	APPROVED

REVISIONS

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GEODETIC DATUM INFORMATION

HORIZONTAL DATUM
NORTH AMERICAN DATUM 1983 (NAD 83)
MASSACHUSETTS STATE PLANE COORDINATE SYSTEM, ZONE 2001

VERTICAL DATUM
BASE PLAN DETAIL VERTICAL DATUM UNKNOWN

SOUNDING DATUM
MEAN LOWER LOW WATER (MLLW)
TIDAL EPOCH 1960 - 1978 (NATIONAL OCEAN SERVICE)

SCALE: 1" = 40'

40 0 40 80 120

CHECK GRAPHIC SCALE BEFORE USING

NEW BEDFORD HARBOR DREDGE – PHASE III

NEW BEDFORD, MASSACHUSETTS

EXISTING CONDITIONS HYDROGRAPHIC SURVEY
BORROW PIT CAD DISPOSAL AREA

SHEET 1 OF 1

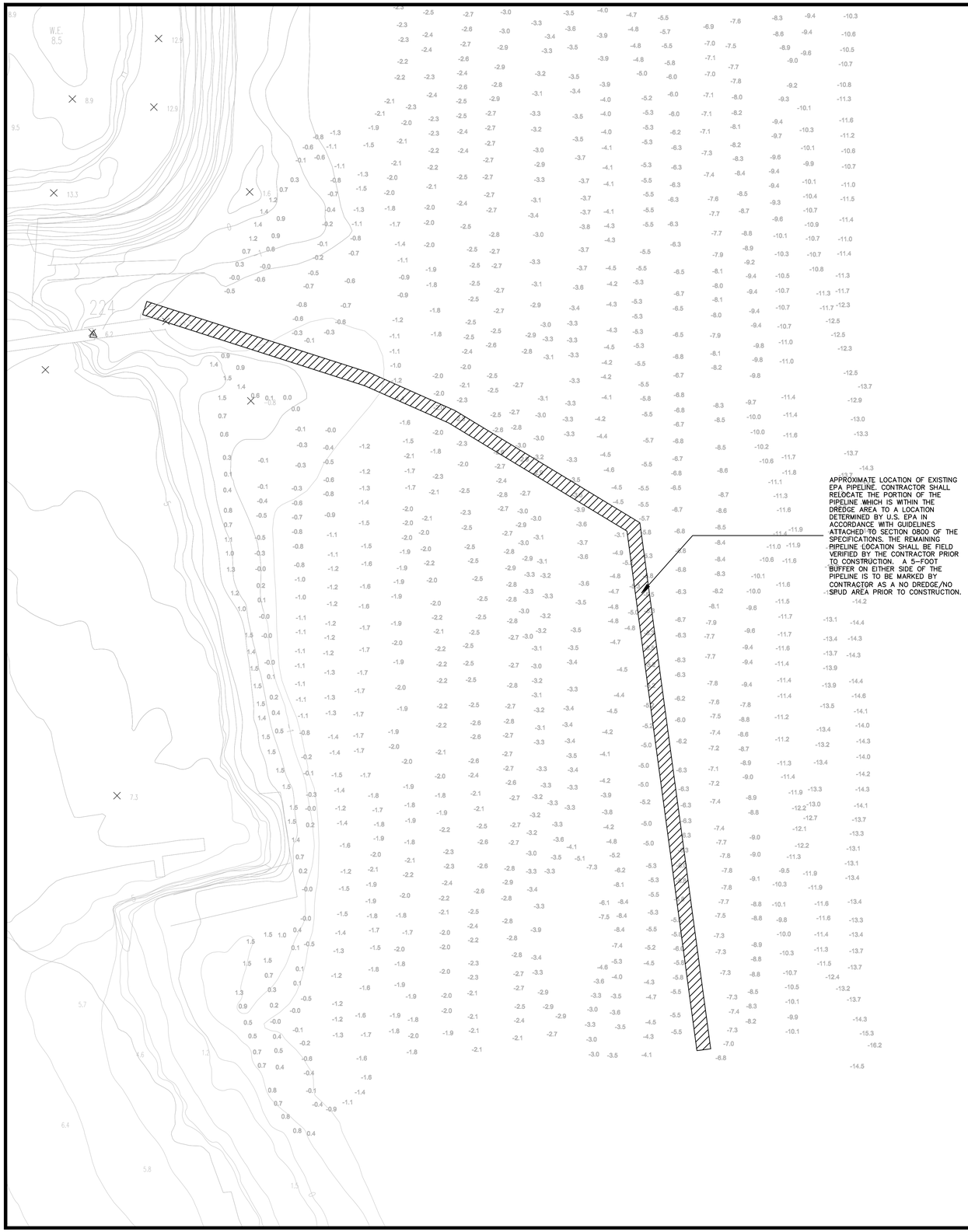
PREPARED FOR:

APEX COMPANIES, LLC.
115 BROAD STREET, SUITE 200
BOSTON, MASSACHUSETTS 02110

PROJECT MANAGER:	COMPUTED BY:	DRAWN BY:	REVIEWED BY:
MARK W. ROHDE	MARK W. ROHDE	MARK W. ROHDE	ERIC J. POREDA
PROJECT NO.:	DATE:	DRAWING NO.:	DRAWING SIZE:
21-00006.05	OCTOBER 16, 2008	EC_40.PLT	ANSI F

COLER & COLANTONIO, INC.
101 ACCORD PARK DRIVE
NORWELL, MA 02061-1665
TEL: (781) 982-5400
FAX: (781) 982-5490

COLER & COLANTONIO INC
ENGINEERS AND SCIENTISTS



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY IS A COMPILATION OF SURVEYS PREFORMED BETWEEN 9-11-06 AND 11-6-08.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7584 J 1977 - SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. FEBRUARY 2002 AS MLLW - 1.52 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.52 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

4. BASE PLAN FOR THIS FIGURE OBTAINED FROM U.S. ARMY CORPS OF ENGINEERS. EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.

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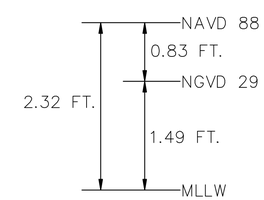
7. EXISTING UTILITIES WITHIN THE SITE HAVE NOT BEEN IDENTIFIED. IDENTIFICATION AND PROTECTION OF EXISTING UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

8. LIMITS OF FEDERAL NAVIGATIONAL CHANNEL OBTAINED FROM U.S. ARMY CORPS OF ENGINEERS.

9. NO SPUDDING SHALL OCCUR IN ANY AREA DESIGNATED NO SPUD ZONE.

GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



Apex Companies, LLC.

115 BROAD STREET
SUITE 200
BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	1/16/09	RE-BID

THESE DRAWINGS PREPARED BY APEX FOR THIS PROJECT ARE INSTRUMENTS OF APEX'S SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT, AND APEX SHALL BE DEEMED THE AUTHOR OF THE DRAWING AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS WITH RESPECT THERETO, INCLUDING COPYRIGHT. THE DOCUMENTS SHALL NOT BE USED ON OTHER PROJECTS, FOR ADDITIONS TO THIS PROJECT OR FOR COMPLETION OF THIS PROJECT BY OTHERS, EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO APEX.

PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART B

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

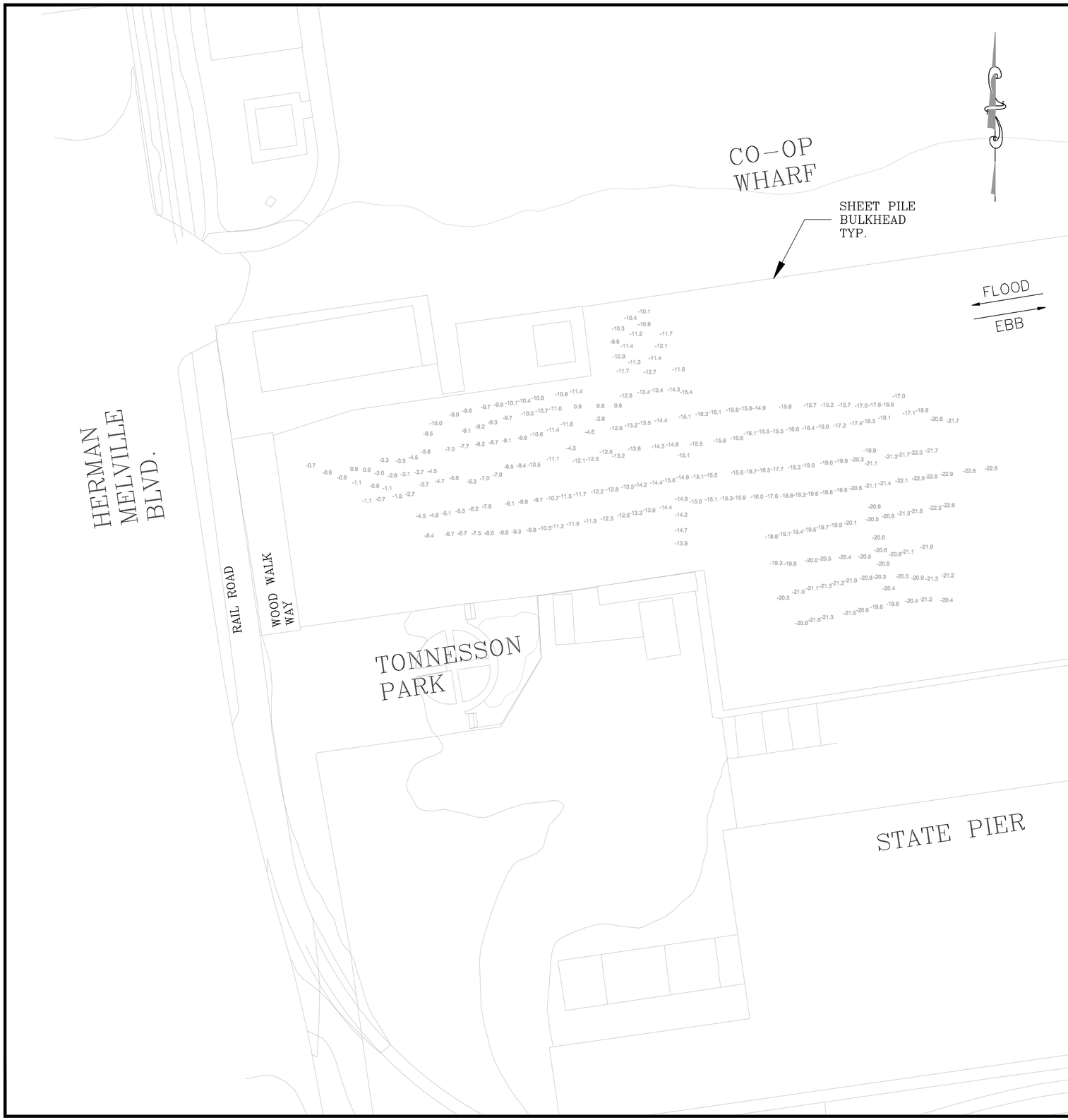
DRAWING TITLE:

NEW BEDFORD ROWING FACILITY DREDGE AREA - EXISTING CONDITIONS NOT FOR CONSTRUCTION

Scale: 1"=40'

0 20 40 80 100 FEET

Date 9/05/08	Drawing No.
Proj. Mgr. JAB	
Design CWM	
Check CM	E-1
Drawn CWM	
Job. No. 6615	
Last Rev. 1/16/09	



NOTES

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2. HYDROGRAPHIC SURVEY IS A COMPILATION OF SURVEYS PREFORMED BETWEEN 9-11-06 AND 11-6-08.

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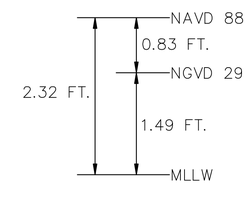
8. LIMITS OF FEDERAL NAVIGATIONAL CHANNEL OBTAINED FROM U.S. ARMY CORPS OF ENGINEERS.

9. NO SPUDDING SHALL OCCUR IN ANY AREA DESIGNATED NO SPUD ZONE.

GRAPHIC DEPICTION OF
DATUM SEPARATIONS FOR
NEW BEDFORD HARBOR



Apex Companies, LLC.

115 BROAD STREET
SUITE 200
BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

TONNESSON PARK DREDGE AREAS- EXISTING CONDITIONS

NOT FOR CONSTRUCTION

Scale: 1"=20'

0 10 20 40 50 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design CW,M	
Check CM	
Drawn CWM	E-1
Job. No. 6615	
Last Rev. 10/30/08	

NOTES

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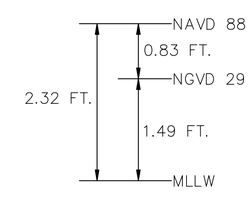
GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



Apex Companies, LLC.

115 BROAD STREET
SUITE 200
BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

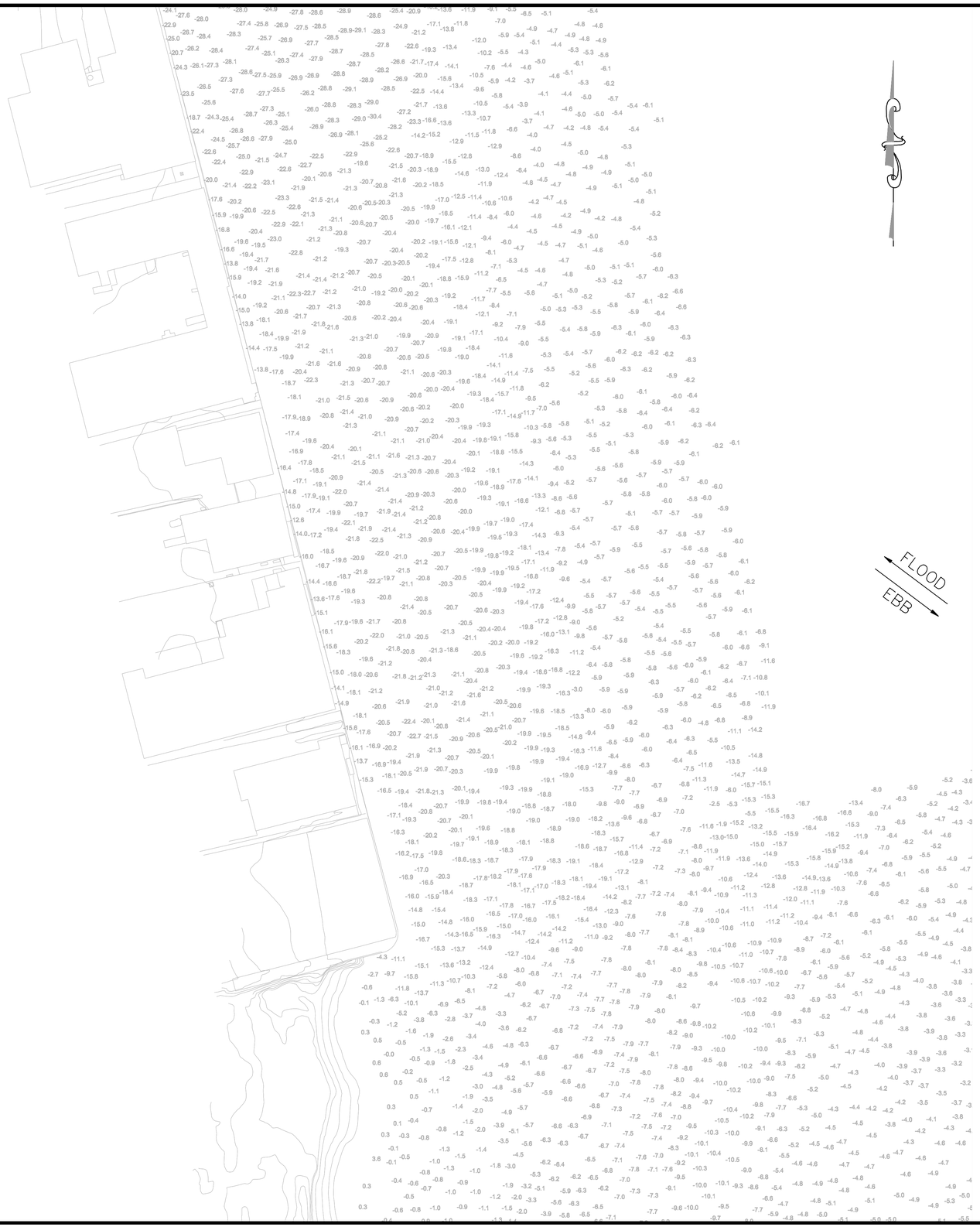
GIFFORD STREET BOAT RAMP DREDGE AREA - EXISTING CONDITIONS

NOT FOR CONSTRUCTION

Scale: 1"=60'

0 30 60 120 150 FEET

Date 9/05/08	Drawing No.
Proj. Mgr. JAB	
Design CWM	
Check CM	E-2
Drawn CWM	
Job. No. 6615	
Last Rev. 10/30/08	



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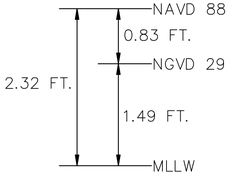
GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



Apex Companies, LLC.

115 BROAD STREET
SUITE 200
BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

SOUTH TERMINAL DREDGE AREAS - EXISTING CONDITIONS

NOT FOR CONSTRUCTION

Scale: 1"=80'

0 40 80 160 200

Date 9/05/08	Drawing No.
Proj. Mgr. JAB	
Design CWM	
Check CM	
Drawn CWM	E-3
Job. No. 6615	
Last Rev. 10/30/08	

NOTES

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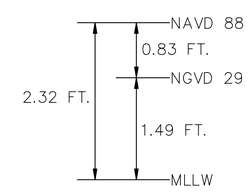
9. NO SPUDDING SHALL OCCUR IN ANY AREA DESIGNATED NO SPUD ZONE.

GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



Apex Companies, LLC.

115 BROAD STREET
SUITE 200
BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET

THESE DRAWINGS PREPARED BY APEX FOR THIS PROJECT ARE INSTRUMENTS OF APEX'S SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT, AND APEX SHALL BE DEEMEND THE AUTHOR OF THE DRAWING AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS WITH RESPECT THERETO, INCLUDING COPYRIGHT. THE DOCUMENTS SHALL NOT BE USED ON OTHER PROJECTS, FOR ADDITIONS TO THIS PROJECT OR FOR COMPLETION OF THIS PROJECT BY OTHERS, EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO APEX.

PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

WARREN ALEXANDER SOUTH AND UNION WHARF DREDGE AREAS- EXISTING CONDITIONS NOT FOR CONSTRUCTION

Scale: 1"=40'

0 20 40 80 100 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design CWM	
Check CM	E-4
Drawn CWM	
Job. No. 6615	
Last Rev. 10/30/08	

NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY IS A COMPILATION OF SURVEYS PREFORMED BETWEEN 9-11-06 AND 11-6-08.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7594 J 1977 - SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. FEBRUARY 2002 AS MLLW - 1.52 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.52 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

4. BASE PLAN FOR THIS FIGURE OBTAINED FROM U.S. ARMY CORPS OF ENGINEERS. EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.

5. HORIZONTAL AND VERTICAL CONTROL HAVE BEEN PROVIDED BY THE OWNER AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF CONTROL DATA.

6. THE INFORMATION DEPICTED ON THIS DRAWING REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED ABOVE AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS AT THE TIME OF THE SURVEYS AND AT THE SOUNDING POINTS NOTED ON THE DRAWING.

7. EXISTING UTILITIES WITHIN THE SITE HAVE NOT BEEN IDENTIFIED. IDENTIFICATION AND PROTECTION OF EXISTING UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

8. LIMITS OF FEDERAL NAVIGATIONAL CHANNEL OBTAINED FROM U.S. ARMY CORPS OF ENGINEERS.

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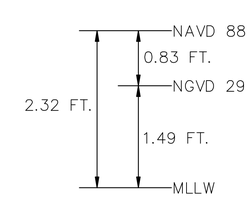
GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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BOSTON MA 02110
(617) 728-0070

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

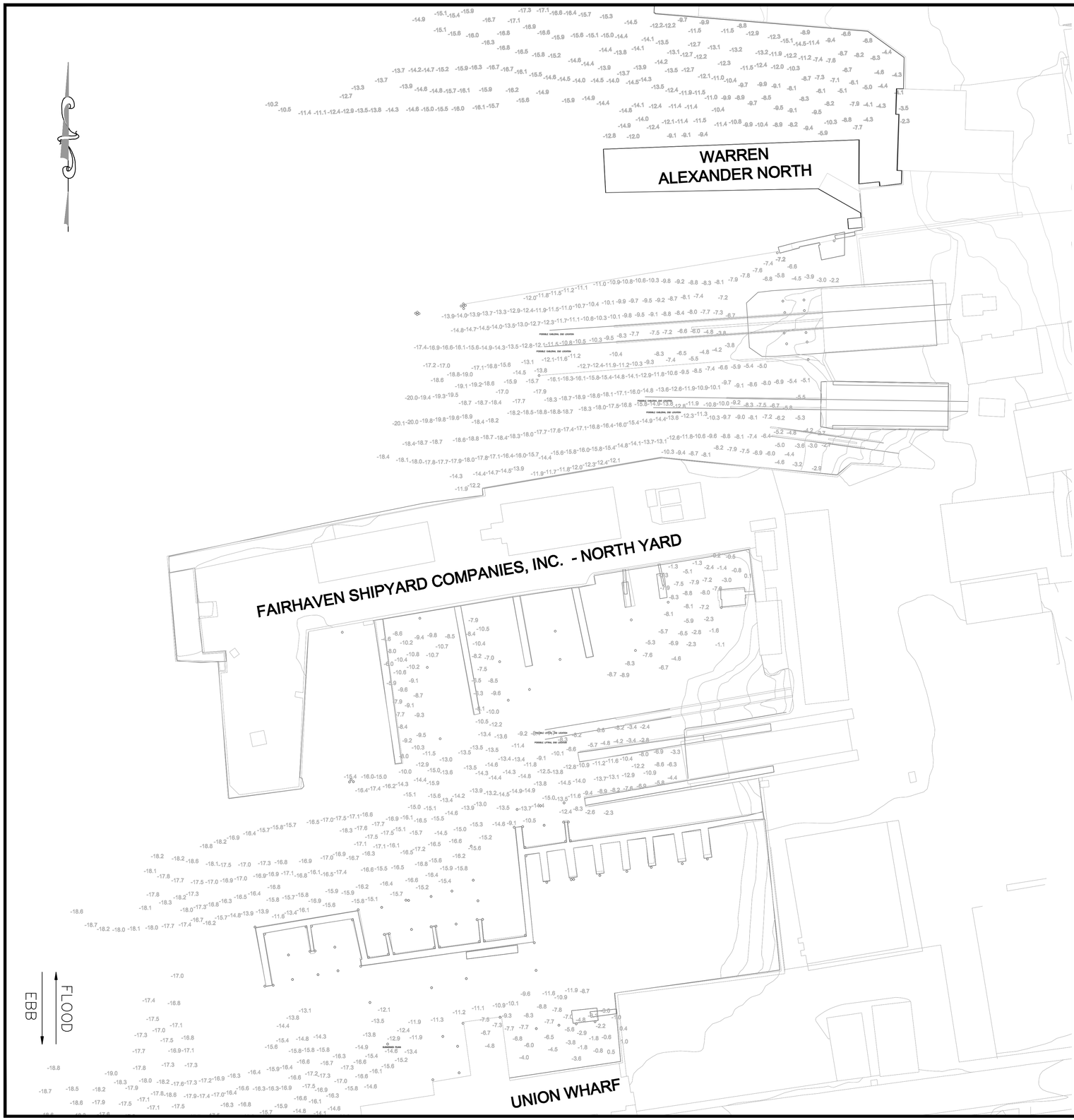
LINBERG DREDGE AREAS- EXISTING CONDITIONS

NOT FOR CONSTRUCTION

Scale: 1"=40'

0 20 40 80 100 FEET

Date	9/5/08	Drawing No.
Proj. Mgr.	JAB	
Design	CWM	
Check	CM	
Drawn	CWM	E-5
Job. No.	6615	
Last Rev.	10/30/08	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY IS A COMPILATION OF SURVEYS PREFORMED BETWEEN 9-11-06 AND 11-6-08.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7584 J 1977 - SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. FEBRUARY 2002 AS MLLW - 1.52 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.52 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

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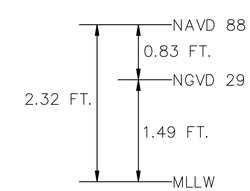
7. EXISTING UTILITIES WITHIN THE SITE HAVE NOT BEEN IDENTIFIED. IDENTIFICATION AND PROTECTION OF EXISTING UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

8. LIMITS OF FEDERAL NAVIGATIONAL CHANNEL OBTAINED FROM U.S. ARMY CORPS OF ENGINEERS.

9. NO SPUDDING SHALL OCCUR IN ANY AREA DESIGNATED NO SPUD ZONE.

GRAPHIC DEPICTION OF
DATUM SEPARATIONS FOR
NEW BEDFORD HARBOR



Apex Companies, LLC.

115 BROAD STREET
SUITE 200
BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET

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TOWN OF FAIRHAVEN MA — INCORPORATED FEB 22 1812

HARBOR DEVELOPMENT COMMISSION — NEW BEDFORD, MA

PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

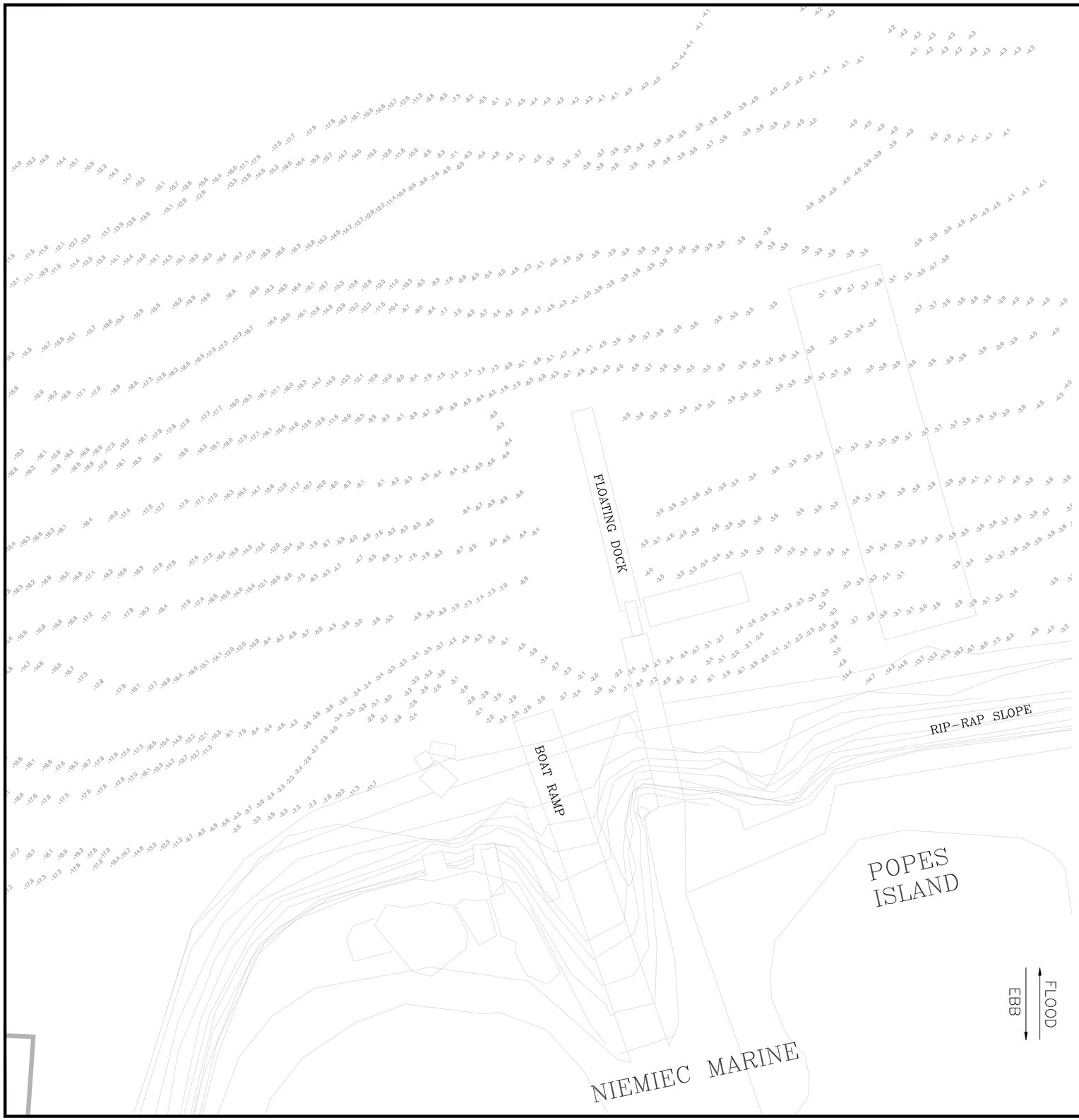
DRAWING TITLE:

WARREN ALEXANDER NORTH AND FAIRHAVEN SHIPYARD DREDGE AREAS - EXISTING CONDITIONS NOT FOR CONSTRUCTION

Scale: 1"=40'

0 20 40 80 100 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design CWM	
Check CM	E-6
Drawn CWM	
Job. No. 6615	
Last Rev. 10/30/08	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY IS A COMPILATION OF SURVEYS PREFORMED BETWEEN 9-11-06 AND 11-6-08.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7584 J 1977 - SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. FEBRUARY 2002 AS MLLW - 1.52 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.52 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

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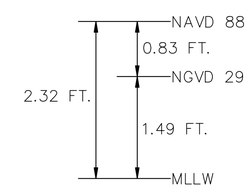
GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



Apex Companies, LLC.

115 BROAD STREET
SUITE 200
BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

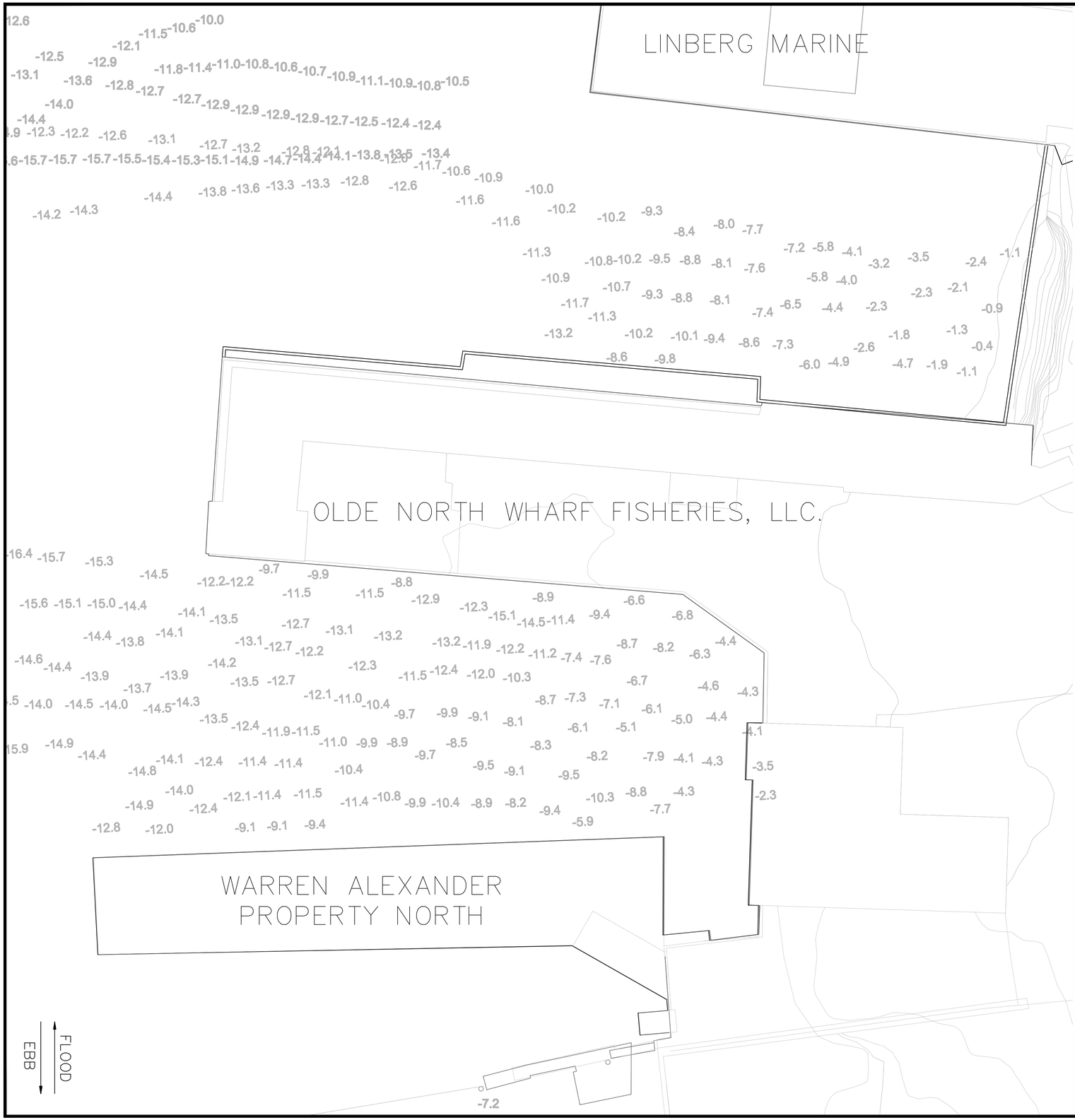
NIEMIEC MARINE DREDGE AREA- EXISTING CONDITIONS

NOT FOR CONSTRUCTION

Scale: 1"=20'

0 10 20 40 50 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design CW,M	
Check CM	E-7
Drawn CWM	
Job. No. 6615	
Last Rev. 10/30/08	



NOTES

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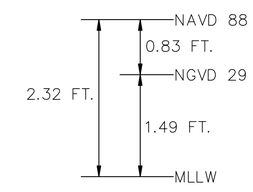
GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



Apex Companies, LLC.

115 BROAD STREET
SUITE 200
BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

OLDE NORTH WHARF FISHERIES DREDGE AREAS- EXISTING CONDITIONS

NOT FOR CONSTRUCTION

Scale: 1"=40'

0 20 40 80 100 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design CWM	
Check CM	E-8
Drawn CWM	
Job. No. 6615	
Last Rev. 10/30/08	

NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

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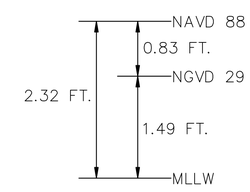
GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

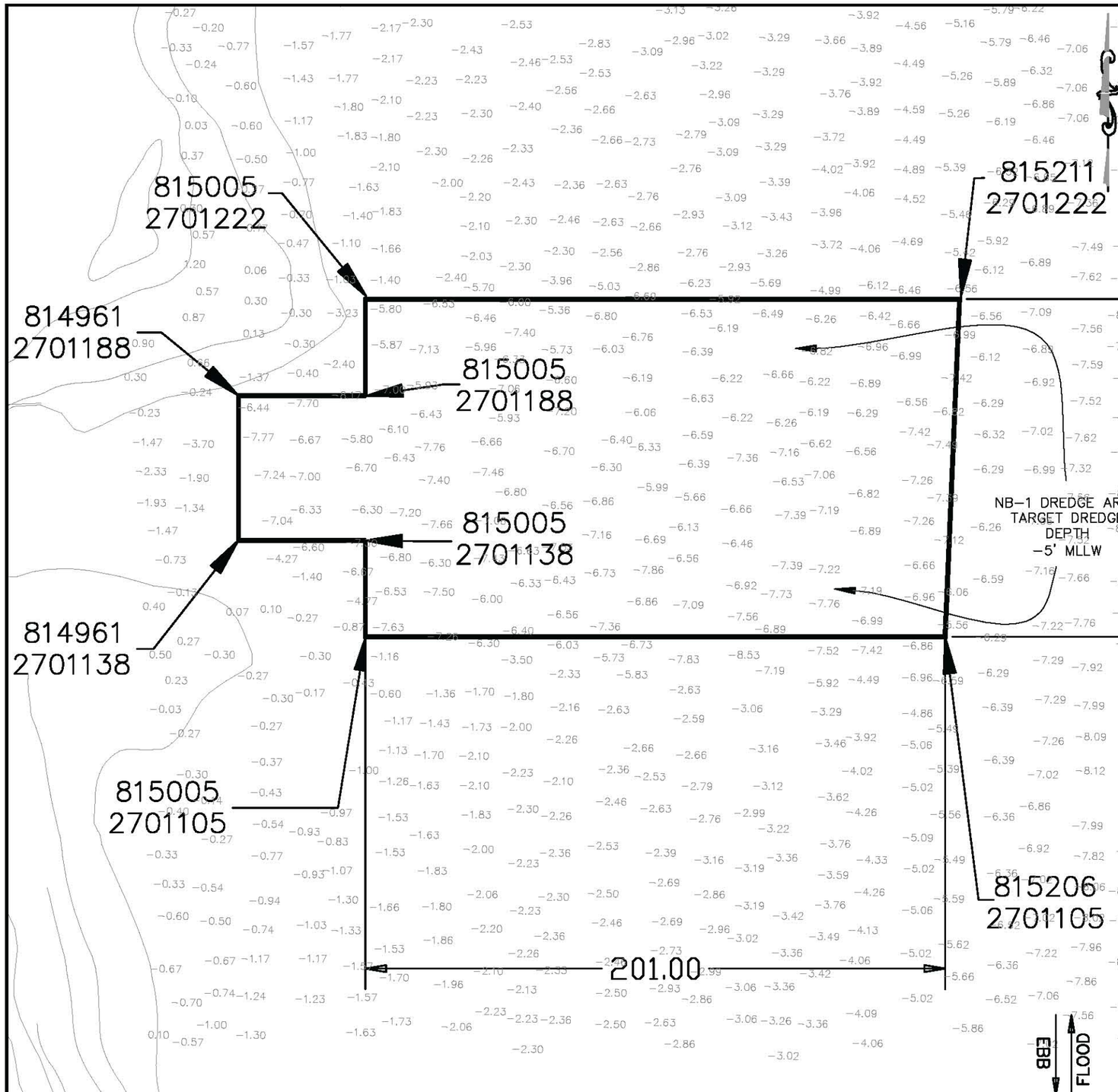
DRAWING TITLE:

PACKER FUEL & MAR-LEES DREDGE AREAS- EXISTING CONDITIONS NOT FOR CONSTRUCTION

Scale: 1"=40'

0 20 40 80 100 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design CWM	
Check CM	E-9
Drawn CWM	
Job. No. 6615	
Last Rev. 10/30/08	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY WAS PERFORMED BY APEX COMPANIES LLC ON 4/29/09.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7584 J 1977 – SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. JUNE 2008, AS MLLW – 1.49 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.49 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

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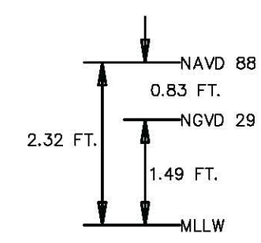
6. THE SOUNDINGS SHOWN HEREON ARE A REDUCED SELECTION OF DATA COLLECTED AT THE TIME OF THE SURVEY. THE DATA REDUCTION WAS PERFORMED USING THE SORT UTILITY WITHIN THE HYPACK SOFTWARE PACKAGE. THIS SORTING UTILITY BIASES THE SOUNDING SELECTION TOWARDS THE MINIMUM (SHOALEST) SOUNDING IN THE SAMPLING AREA.

GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



Apex Companies, LLC.

184 HIGH STREET
SUITE 402
BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	1/16/09	RE-BID
4.	2/18/09	REV. FOOTPRINT LOCATION
5.	3/23/09	FOR CONSTRUCTION
6.	4/30/09	POST-DREDGE

THESE DRAWINGS PREPARED BY APEX FOR THIS PROJECT ARE INSTRUMENTS OF APEX'S SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT, AND APEX SHALL BE DEEMED THE AUTHOR OF THE DRAWING AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS WITH RESPECT THERETO, INCLUDING COPYRIGHT. THE DOCUMENTS SHALL NOT BE USED ON OTHER PROJECTS, FOR ADDITIONS TO THIS PROJECT OR FOR COMPLETION OF THIS PROJECT BY OTHERS, EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO APEX.

PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE – PHASE III, PART B

PREPARED FOR:

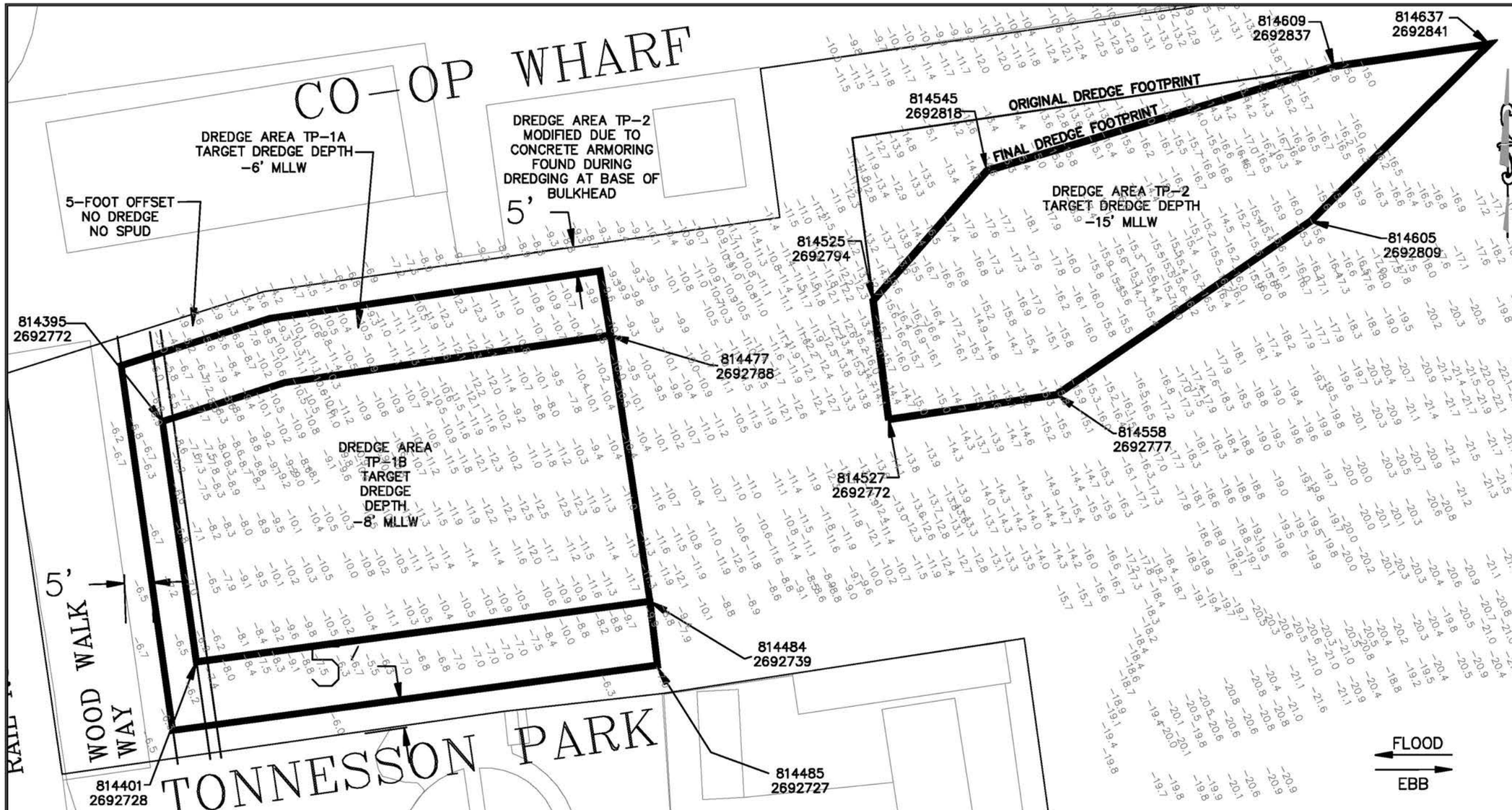
THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

NEW BEDFORD ROWING FACILITY DREDGE AREA POST – DREDGE

Scale: 1"=40'
0 10 20 40 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	P–1
Design GCD	
Check CM	
Drawn GCD	
Job. No. 6615	
Last Rev. 4/30/09	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY WAS PERFORMED BY APEX COMPANIES LLC ON 5/23/09.

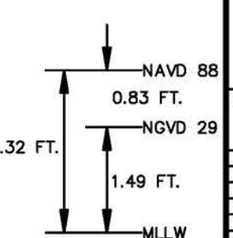
3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7584 J 1977 – SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. JUNE 2008, AS MLLW – 1.49 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.49 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

4. BASE PLAN FOR THIS FIGURE OBTAINED FROM U.S. ARMY CORPS OF ENGINEERS. EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.

5. THE INFORMATION DEPICTED ON THIS DRAWING REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED ABOVE AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS AT THE TIME OF THE SURVEYS AND AT THE SOUNDING POINTS NOTED ON THE DRAWING.

6. THE SOUNDINGS SHOWN HEREON ARE A REDUCED SELECTION OF DATA COLLECTED AT THE TIME OF THE SURVEY. THE DATA REDUCTION WAS PERFORMED USING THE SORT UTILITY WITHIN THE HYPACK SOFTWARE PACKAGE. THIS SORTING UTILITY BIASES THE SOUNDING SELECTION TOWARDS THE MINIMUM (SHOALEST) SOUNDING IN THE SAMPLING AREA.

GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



Apex Companies, LLC.
184 HIGH STREET
SUITE 502
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(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	3/12/09	FOR CONSTRUCTION
4.	5/23/09	POST-DREDGE

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE – PHASE III, PART A

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

TONNESSON PARK DREDGE AREAS POST – DREDGE

Scale: 1"=20'
0 5 10 20 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	P-1
Drawn GCD	
Job. No. 6615	
Last Rev. 5/23/09	

NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY WAS PERFORMED BY APEX COMPANIES LLC ON 8/14/09.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7584 J 1977 – SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. JUNE 2008, AS MLLW – 1.49 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.49 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

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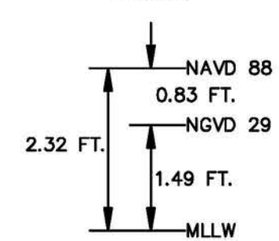
GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	3/12/09	FOR CONSTRUCTION
4.	8/14/09	POST-DREDGE

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE – PHASE III, PART A

PREPARED FOR:

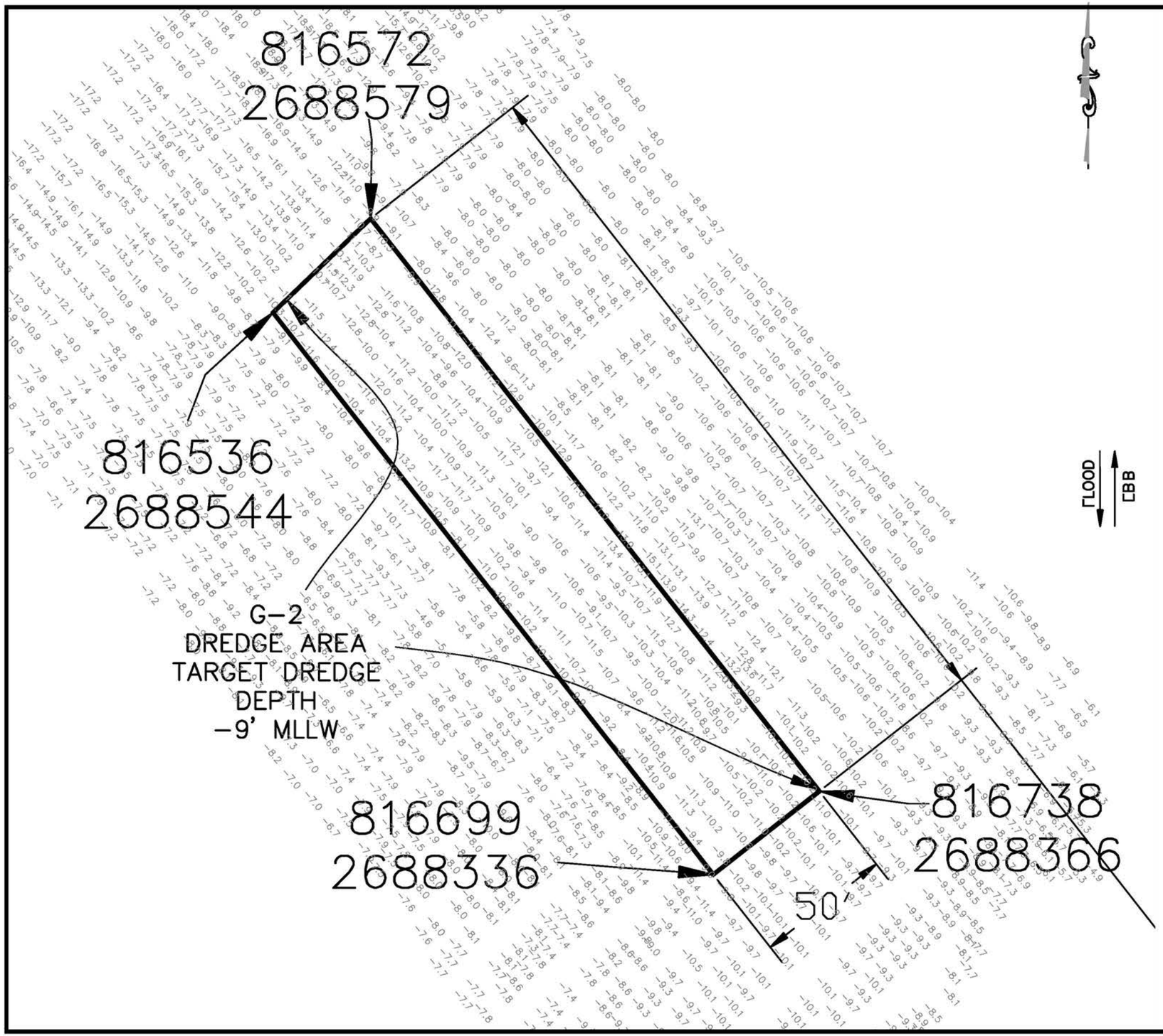
THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

GIFFORD STREET BOAT RAMP DREDGE AREA POST – DREDGE

Scale: 1"=100'
0 25 50 100 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design CCD	
Check CM	
Drawn CCD	P-2
Job. No. 6615	
Last Rev. 8/14/09	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS'S MAINLAND ZONE 2001, RETRENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY WAS PERFORMED BY APEX COMPANIES LLC ON 7/28/09.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7594 J 1977 – SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COASTAL ECOLOGY, INC. JUNE 2006, AS MLLW – 1.49 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.49 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

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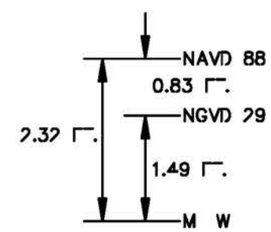
GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	3/12/09	FOR CONSTRUCTION
4.	7/28/09	POST-DREDGE

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TOWN OF FAIRHAVEN, MA — INCORPORATED FEB 22, 1812

HARBOR DEVELOPMENT COMMISSION — NEW BEDFORD, MA

PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE – PHASE III, PART A

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

GIFFORD STREET EXTENSION G-2 DREDGE AREA POST – DREDGE

Scale: 1"=40'
0 10 20 40 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design CCD	
Check CM	P-2B
Draw CCD	
Job. No. 6615	
Last Rev. 7/28/09	

NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY WAS PERFORMED BY APEX COMPANIES LLC ON 10/14/09.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7584 J 1977 – SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. JUNE 2008, AS MLLW – 1.49 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.49 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

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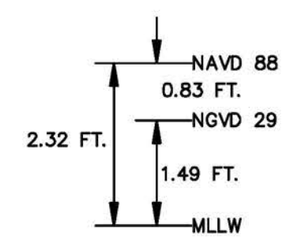
GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	3/12/09	FOR CONSTRUCTION
4.	10/14/09	POST-DREDGE

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE – PHASE III, PART A

PREPARED FOR:

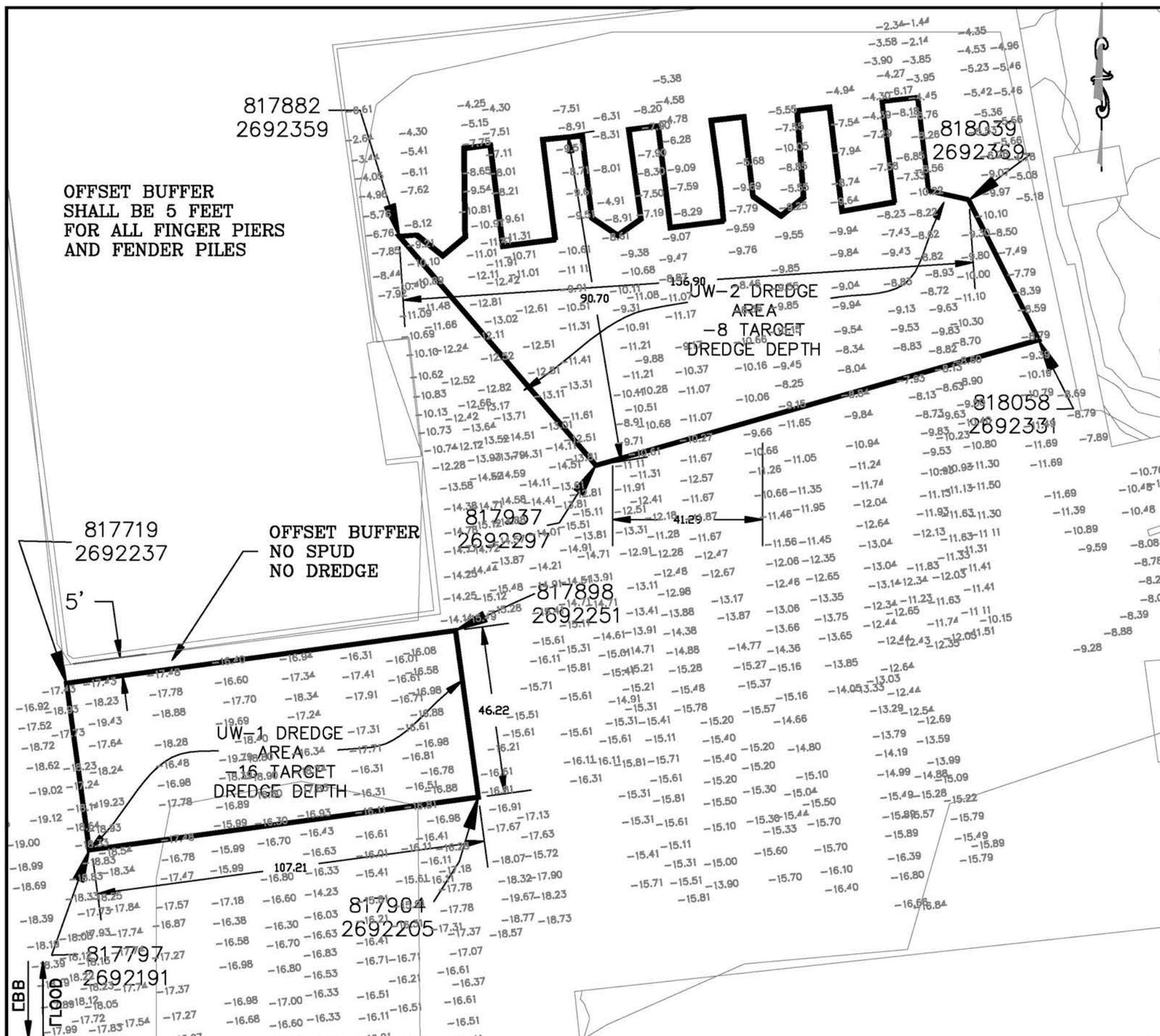
THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

SOUTH TERMINAL DREDGE AREA POST – DREDGE

Scale: 1"=60'
0 12.5 25 50 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design CCD	
Check CM	P-3
Drawn CCD	
Job. No. 6615	
Last Rev. 10/14/09	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY WAS PERFORMED BY APEX COMPANIES LLC ON 5/23/09.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7584 J 1977 – SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. JUNE 2008, AS MLLW – 1.49 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.49 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

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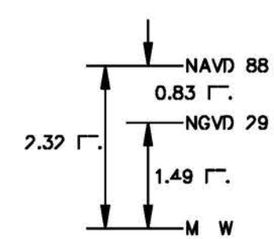
GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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184 HIGH STREET
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BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	3/12/09	FOR CONSTRUCTION
4.	5/23/09	POST-DREDGE

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE – PHASE III, PART A

PREPARED FOR:

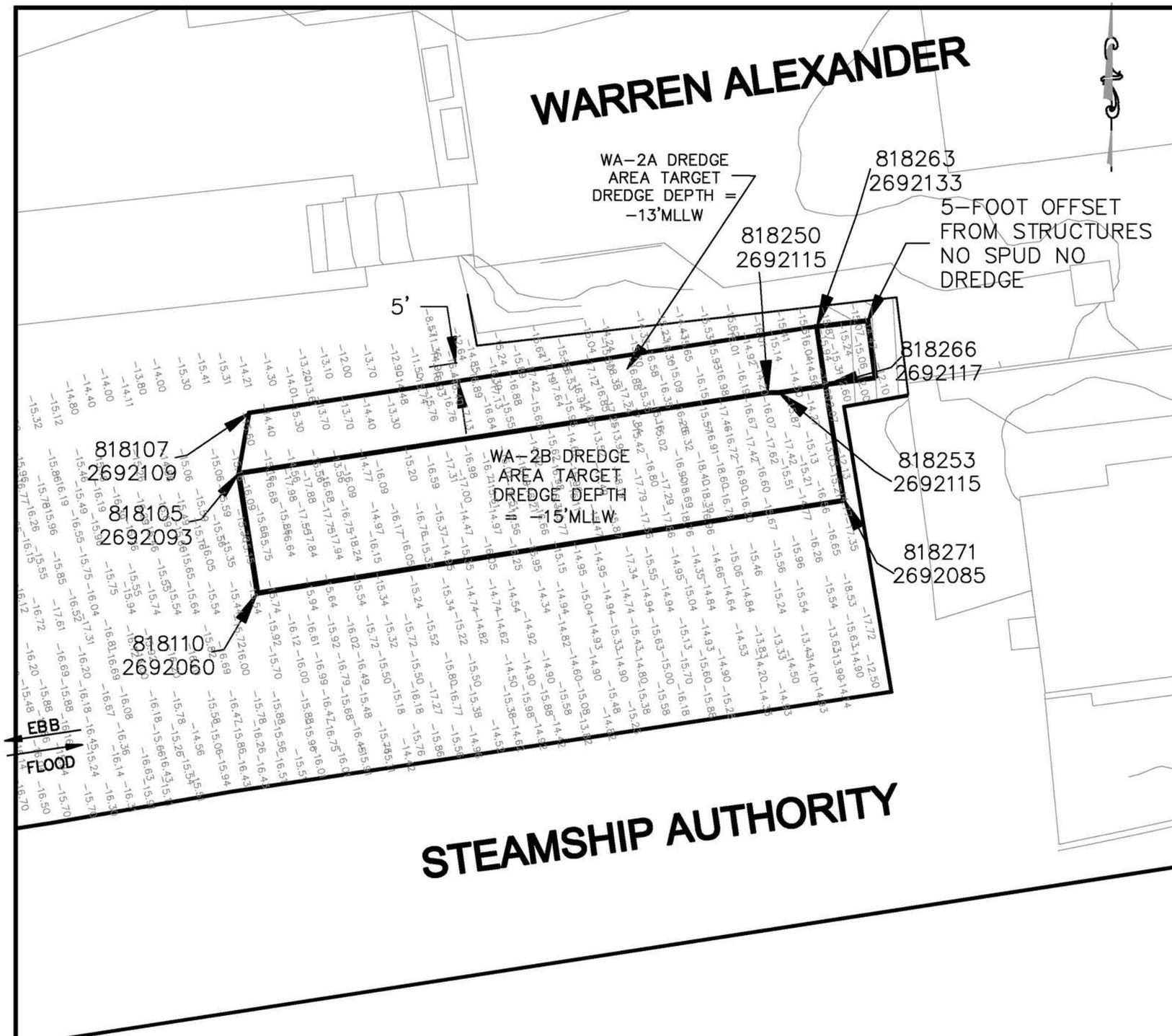
THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

UNION WHARF DREDGE AREAS POST – DREDGE

Scale: 1"=30'
0 7.5 15 30 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	P-4A
Drawn GCD	
Job. No. 6615	
Last Rev. 5/23/09	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY WAS PERFORMED BY APEX COMPANIES LLC ON 7/24/09.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7584 J 1977 – SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. JUNE 2008, AS MLLW – 1.49 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.49 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

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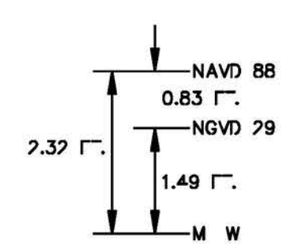
GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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184 HIGH STREET
SUITE 502
BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	3/12/09	FOR CONSTRUCTION
4.	7/24/09	POST-DREDGE

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE – PHASE III, PART A

PREPARED FOR:

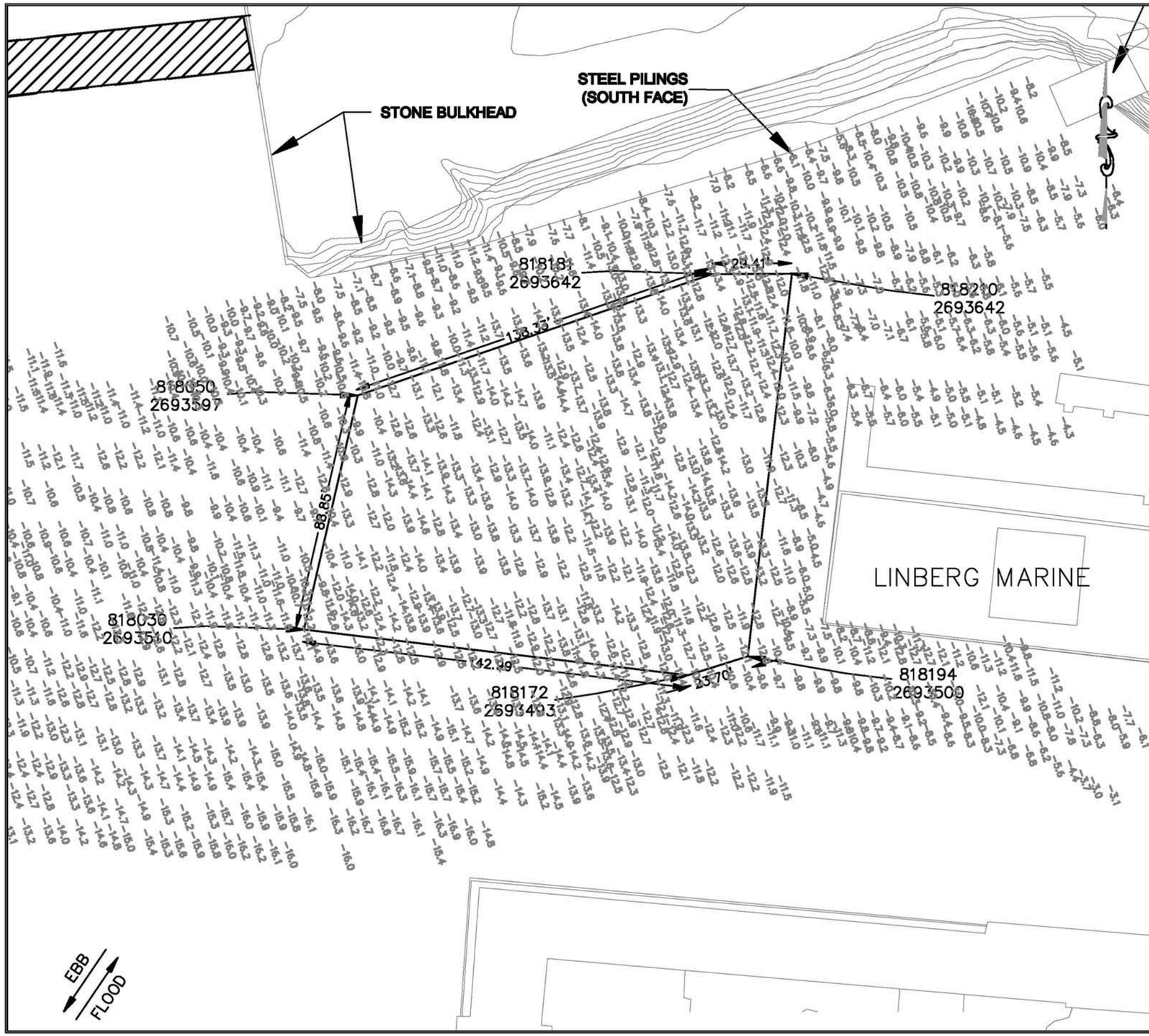
THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

WARREN ALEXANDER SOUTH DREDGE AREA POST – DREDGE

Scale: 1"=30'
0 7.5 15 30 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	P-4B
Drawn GCD	
Job. No. 6615	
Last Rev. 7/24/09	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY WAS PERFORMED BY APEX COMPANIES LLC ON 6/16/09.

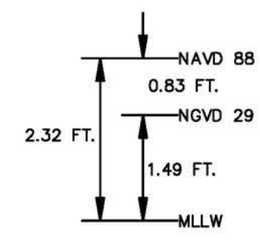
3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7584 J 1977 – SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. JUNE 2008, AS MLLW – 1.49 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.49 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

4. BASE PLAN FOR THIS FIGURE OBTAINED FROM U.S. ARMY CORPS OF ENGINEERS. EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.

5. THE INFORMATION DEPICTED ON THIS DRAWING REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED ABOVE AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS AT THE TIME OF THE SURVEYS AND AT THE SOUNDING POINTS NOTED ON THE DRAWING.

6. THE SOUNDINGS SHOWN HEREON ARE A REDUCED SELECTION OF DATA COLLECTED AT THE TIME OF THE SURVEY. THE DATA REDUCTION WAS PERFORMED USING THE SORT UTILITY WITHIN THE HYPACK SOFTWARE PACKAGE. THIS SORTING UTILITY BIASES THE SOUNDING SELECTION TOWARDS THE MINIMUM (SHOALEST) SOUNDING IN THE SAMPLING AREA.

GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



Apex Companies, LLC.

184 HIGH STREET
SUITE 502
BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	3/12/09	FOR CONSTRUCTION
4.	6/16/09	POST-DREDGE

THESE DRAWINGS PREPARED BY APEX FOR THIS PROJECT ARE INSTRUMENTS OF APEX'S SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT, AND APEX SHALL BE DEEMED THE AUTHOR OF THE DRAWING AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS WITH RESPECT THERETO, INCLUDING COPYRIGHT. THE DOCUMENTS SHALL NOT BE USED ON OTHER PROJECTS, FOR ADDITIONS TO THIS PROJECT OR FOR COMPLETION OF THIS PROJECT BY OTHERS, EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO APEX.

PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE – PHASE III, PART A

PREPARED FOR:

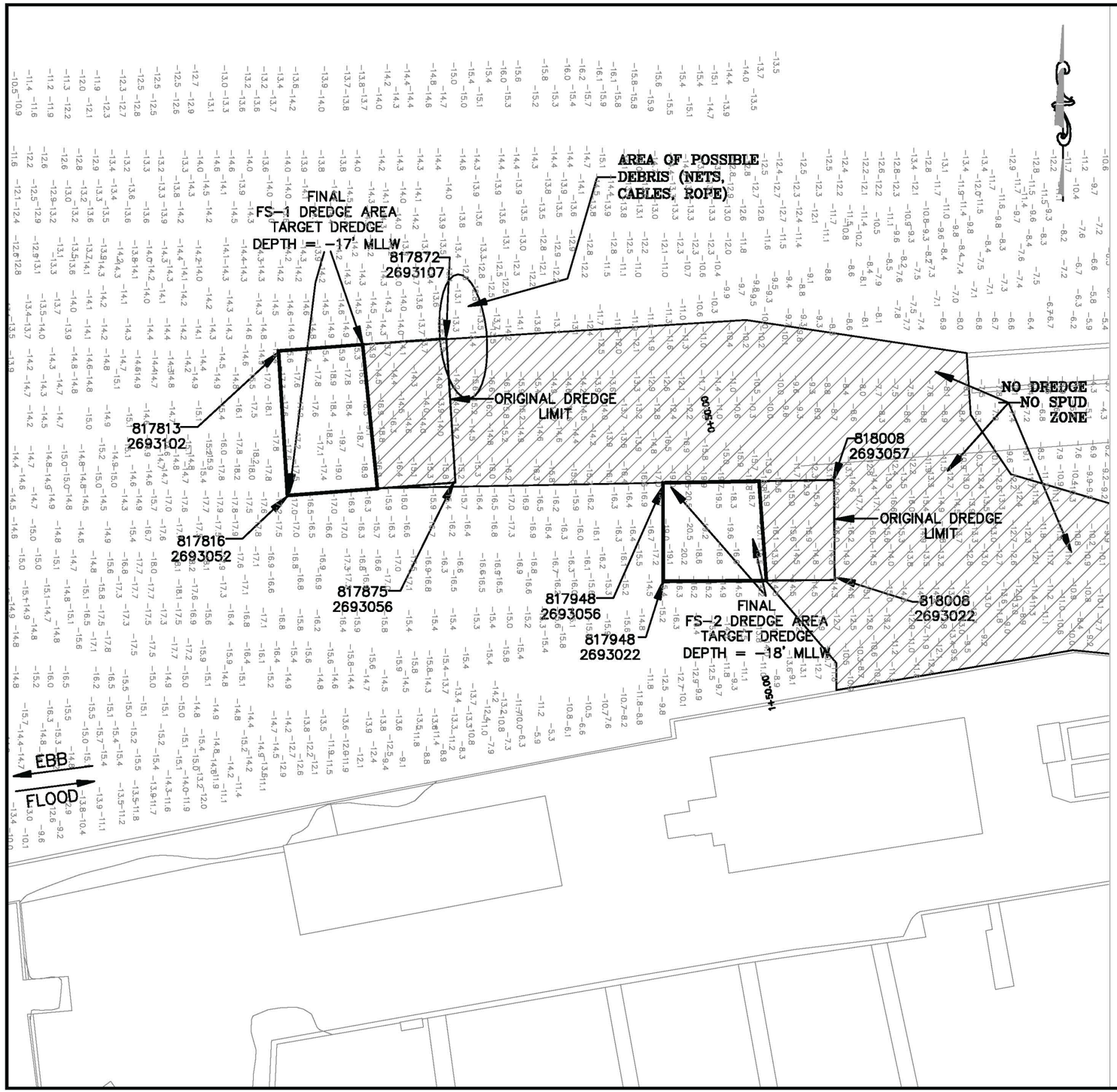
THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

LINBERG MARINE DREDGE AREA POST – DREDGE

Scale: 1"=40'
0 10 20 40 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	P-5
Drawn GCD	
Job. No. 6615	
Last Rev. 6/16/09	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY WAS PERFORMED BY APEX COMPANIES LLC ON 6/15/09.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7584 J 1977 – SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. JUNE 2008, AS MLLW – 1.49 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.49 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

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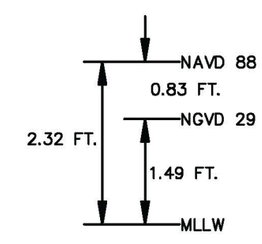
GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	3/12/09	FOR CONSTRUCTION
4.	6/15/09	POST-DREDGE

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE – PHASE III, PART A

PREPARED FOR:

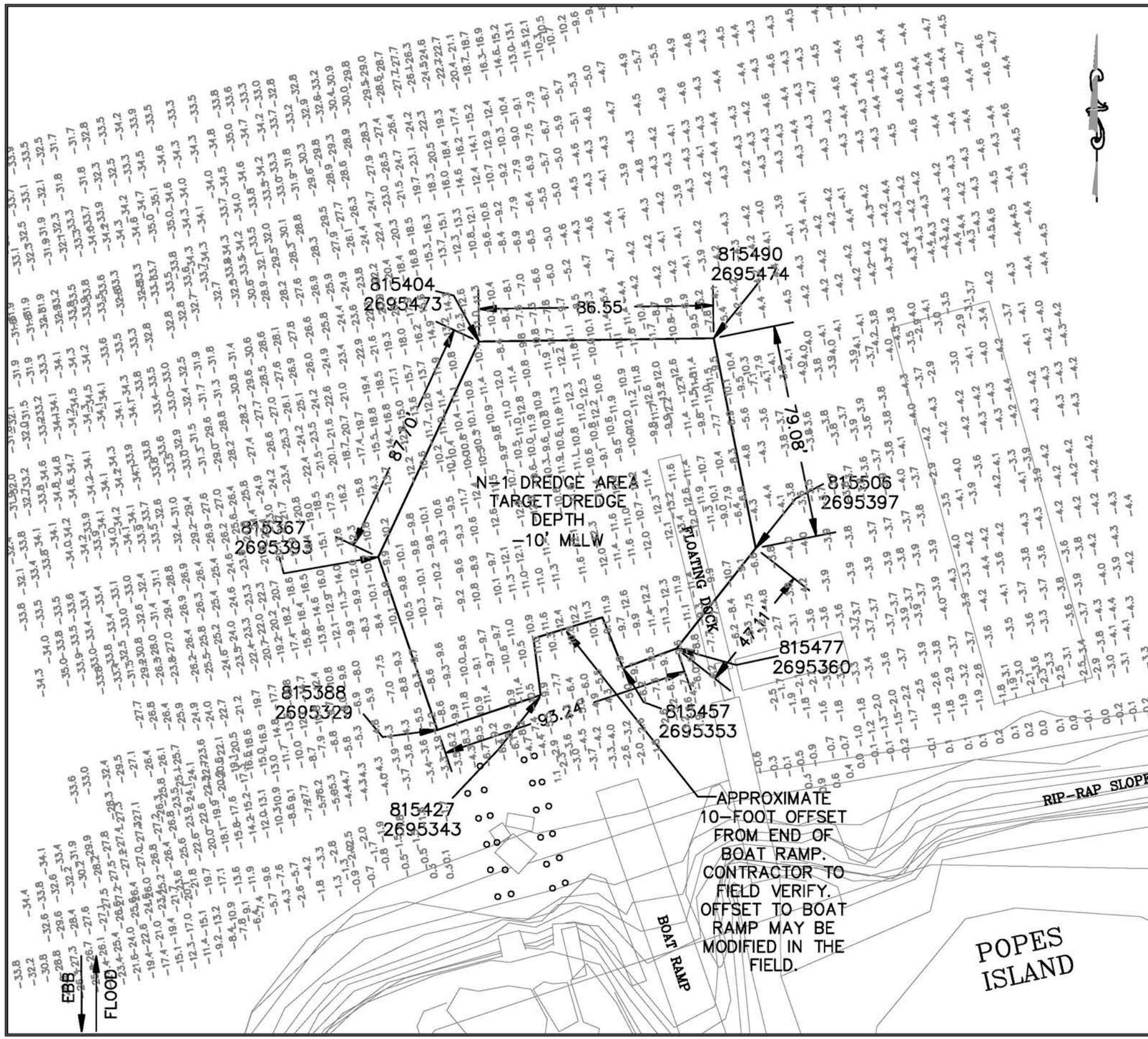
THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

FAIRHAVEN SHIPYARD DREDGE AREAS POST – DREDGE

Scale: 1"=40'
0 10 20 40 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	P-6
Drawn GCD	
Job. No. 6615	
Last Rev. 6/15/09	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY WAS PERFORMED BY APEX COMPANIES LLC ON 6/16/09.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7584 J 1977 – SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. JUNE 2008, AS MLLW – 1.49 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.49 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

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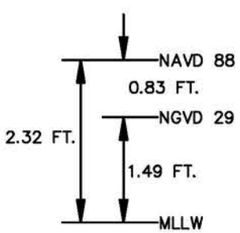
GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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(617) 728-0070

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NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	3/12/09	FOR CONSTRUCTION
4.	6/16/09	POST-DREDGE

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE – PHASE III, PART A

PREPARED FOR:

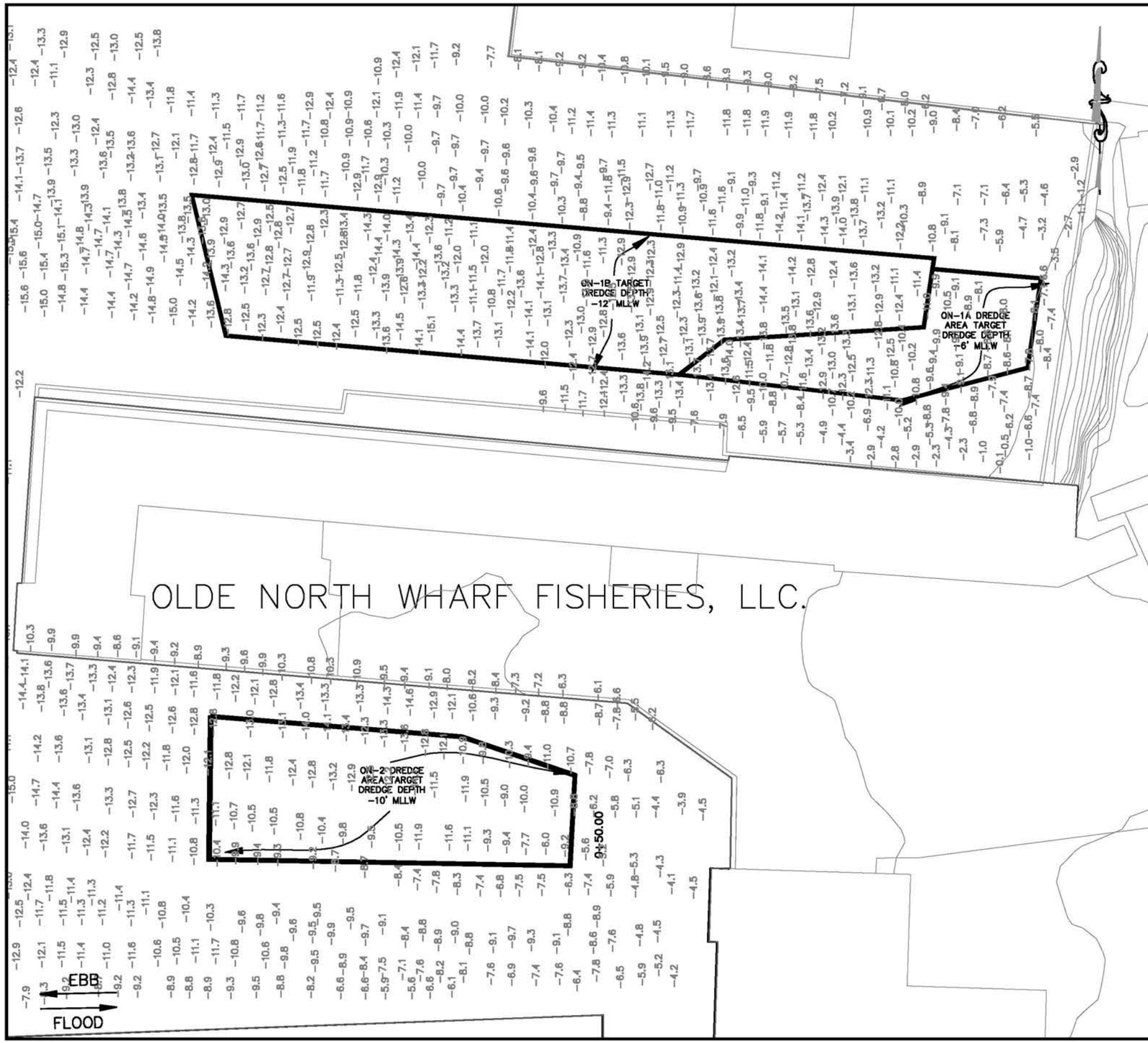
THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

NIEMIEC MARINE DREDGE AREA POST – DREDGE

Scale: 1"=40'
0 10 20 40 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	
Drawn GCD	P-7
Job. No. 6615	
Last Rev. 6/16/09	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY WAS PERFORMED BY APEX COMPANIES LLC ON 7/10/09.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7584 J 1977 – SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. JUNE 2008, AS MLLW – 1.49 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.49 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

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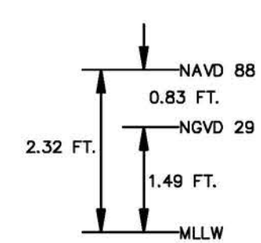
GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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SUITE 502
BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	3/12/09	FOR CONSTRUCTION
4.	7/10/09	POST-DREDGE

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE – PHASE III, PART A

PREPARED FOR:

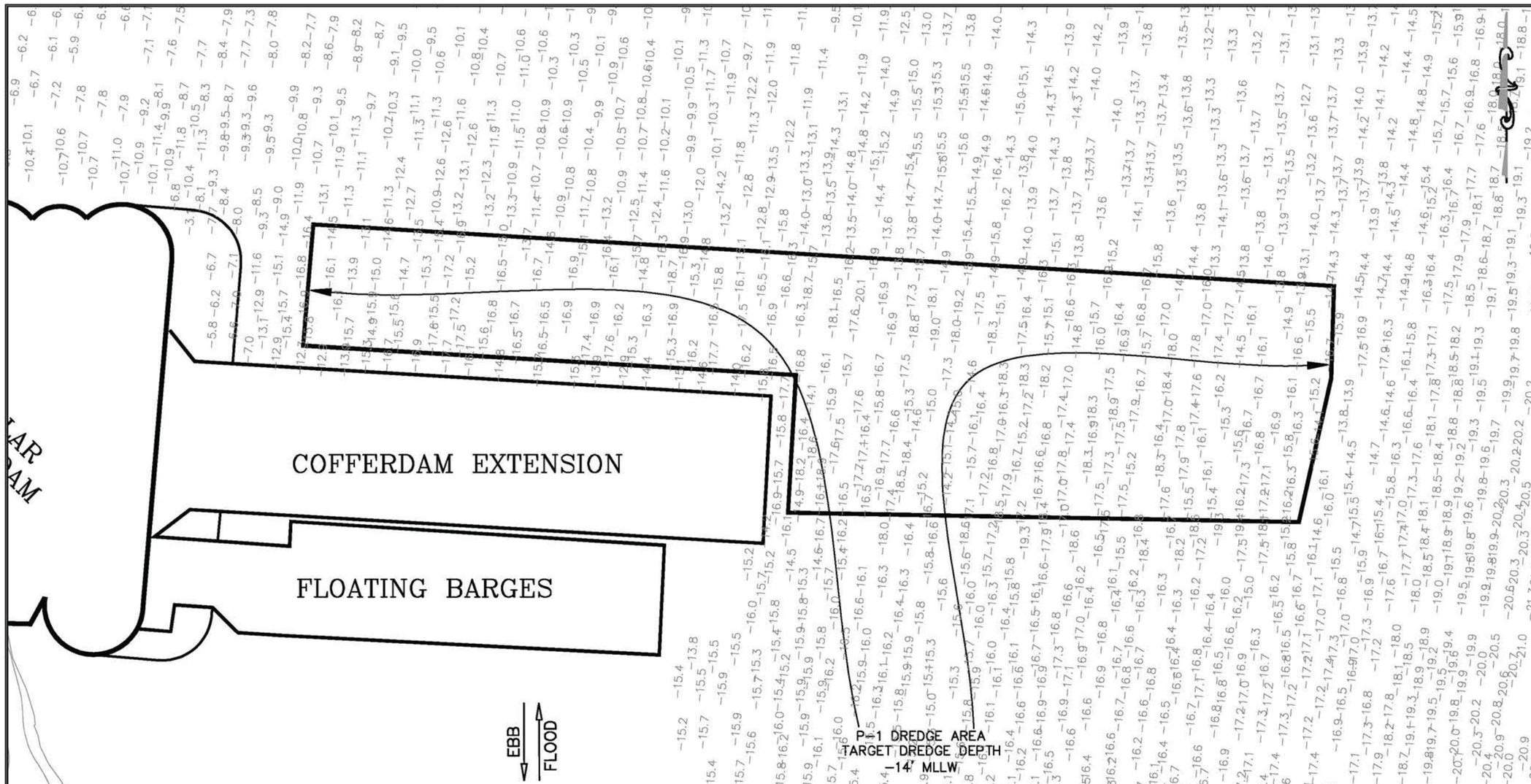
THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

OLD NORTH WHARF FISHERIES DREDGE AREA POST – DREDGE

Scale: 1"=30'
0 7.5 15 30 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	P-8
Drawn GCD	
Job. No. 5615	
Last Rev. 7/10/09	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY WAS PERFORMED BY APEX COMPANIES LLC ON 10/6/09.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7584 J 1977 – SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. JUNE 2008, AS MLLW – 1.49 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.49 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

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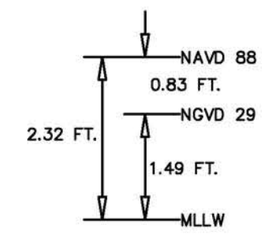
GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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184 HIGH STREET
SUITE 502
BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	3/12/09	FOR CONSTRUCTION
4.	10/8/09	POST-DREDGE

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE – PHASE III, PART A

PREPARED FOR:

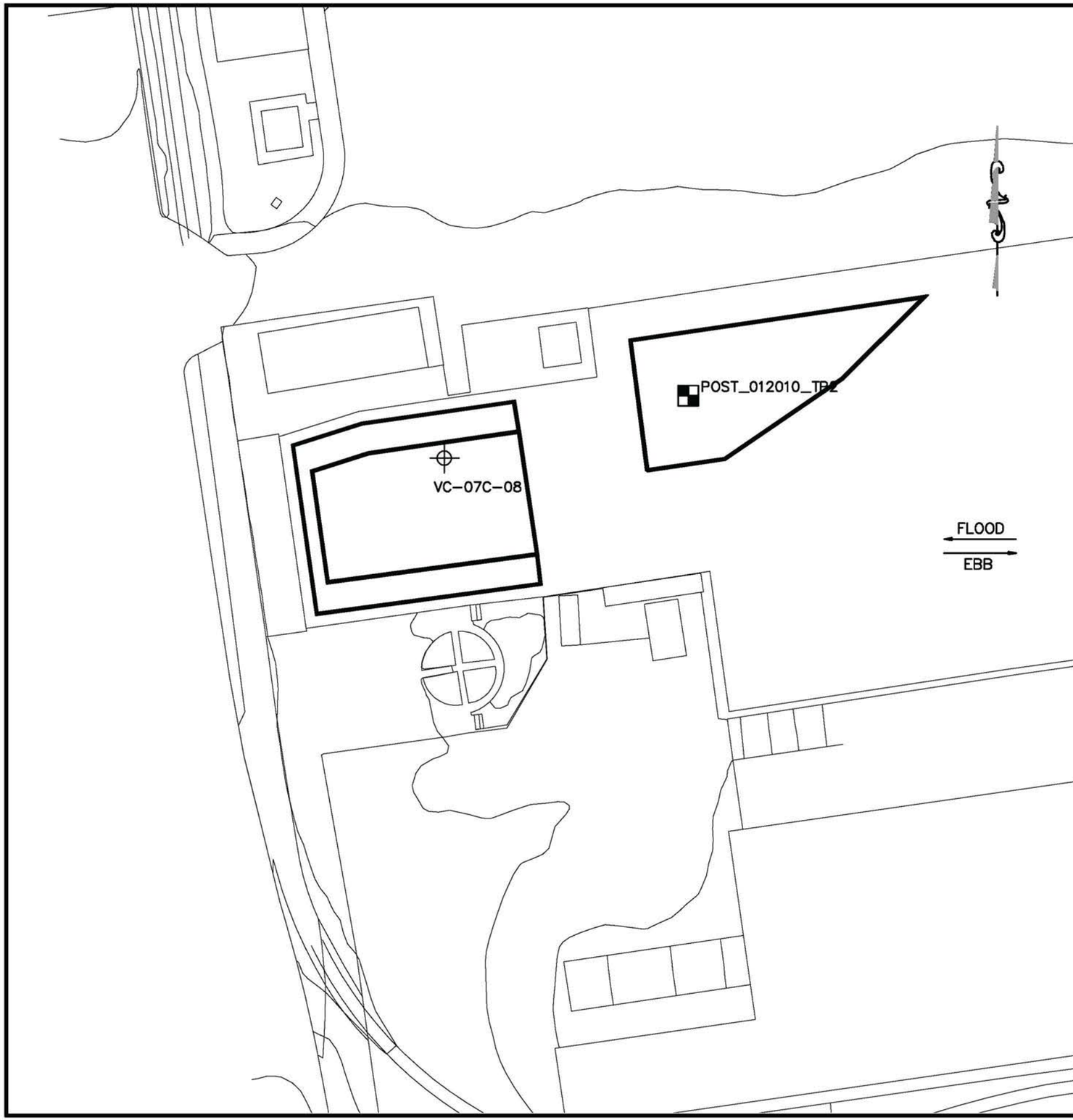
THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

PACKER FUEL DREDGE AREA POST – DREDGE

Scale: 1"=40'
0 10 20 40 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	P-9
Drawn GCD	
Job. No. 6615	
Last Rev. 10/8/09	



NOTES

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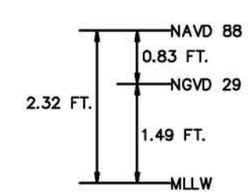
2. BASE PLAN FOR THIS FIGURE OBTAINED FROM U.S. ARMY CORPS OF ENGINEERS. EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.

3. HORIZONTAL AND VERTICAL CONTROL HAVE BEEN PROVIDED BY THE OWNER AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF CONTROL DATA.

VC-07-08 — PRE DREDGE SAMPLE LOCATION

POST_012010_G1 — POST DREDGE SAMPLE LOCATION

GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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184 HIGH STREET
SUITE 502
BOSTON, MA. 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	[illegible]	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	1/16/09	RE-BID
4.	1/22/10	POST-DREDGE SAMPLES

THESE DRAWINGS PREPARED BY APEX FOR THIS PROJECT ARE INSTRUMENTS OF APEX'S SERVICE FOR USE SOLELY WITH RESPECT TO THIS PROJECT, AND APEX SHALL BE DEEMED THE AUTHOR OF THE DRAWING AND SHALL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS WITH RESPECT THERETO, INCLUDING COPYRIGHT. THE DOCUMENTS SHALL NOT BE USED ON OTHER PROJECTS, FOR ADDITIONS TO THIS PROJECT OR FOR COMPLETION OF THIS PROJECT BY OTHERS, EXCEPT BY AGREEMENT IN WRITING AND WITH APPROPRIATE COMPENSATION TO APEX.

PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A & B

PREPARED FOR:

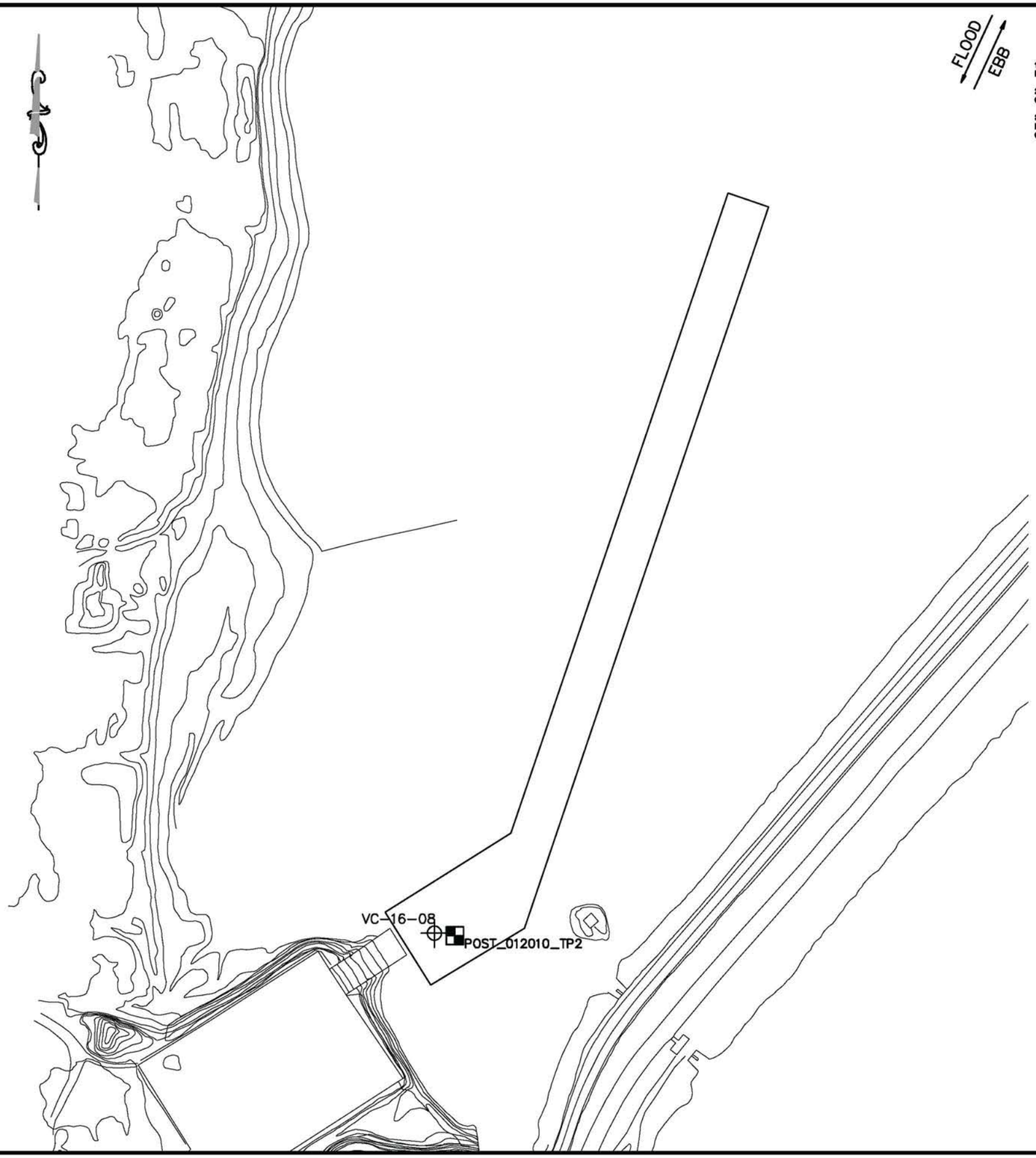
THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

TONNESSON PARK DREDGE AREAS- PRE AND POST DREDGE SAMPLING LOCATIONS NOT FOR CONSTRUCTION

Scale: 0 10 20 40 80 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	V-1
Design GCD	
Check CM	
Drawn GCD	
Job. No. 6615	
Last Rev. 1/22/10	



NOTES

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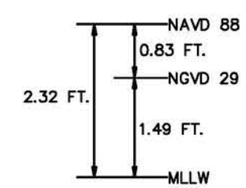
VC-07-08 — PRE DREDGE SAMPLE LOCATION

POST_012010_G1 — POST DREDGE SAMPLE LOCATION

GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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184 HIGH STREET
SUITE 502
BOSTON, MA. 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	6/02/09	PRELIM. DREDGE LAYOUT
2.	11/14/09	BID SET
3.	1/18/09	RE-BID
4.	1/22/10	POST-DREDGE SAMPLES

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A & B

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

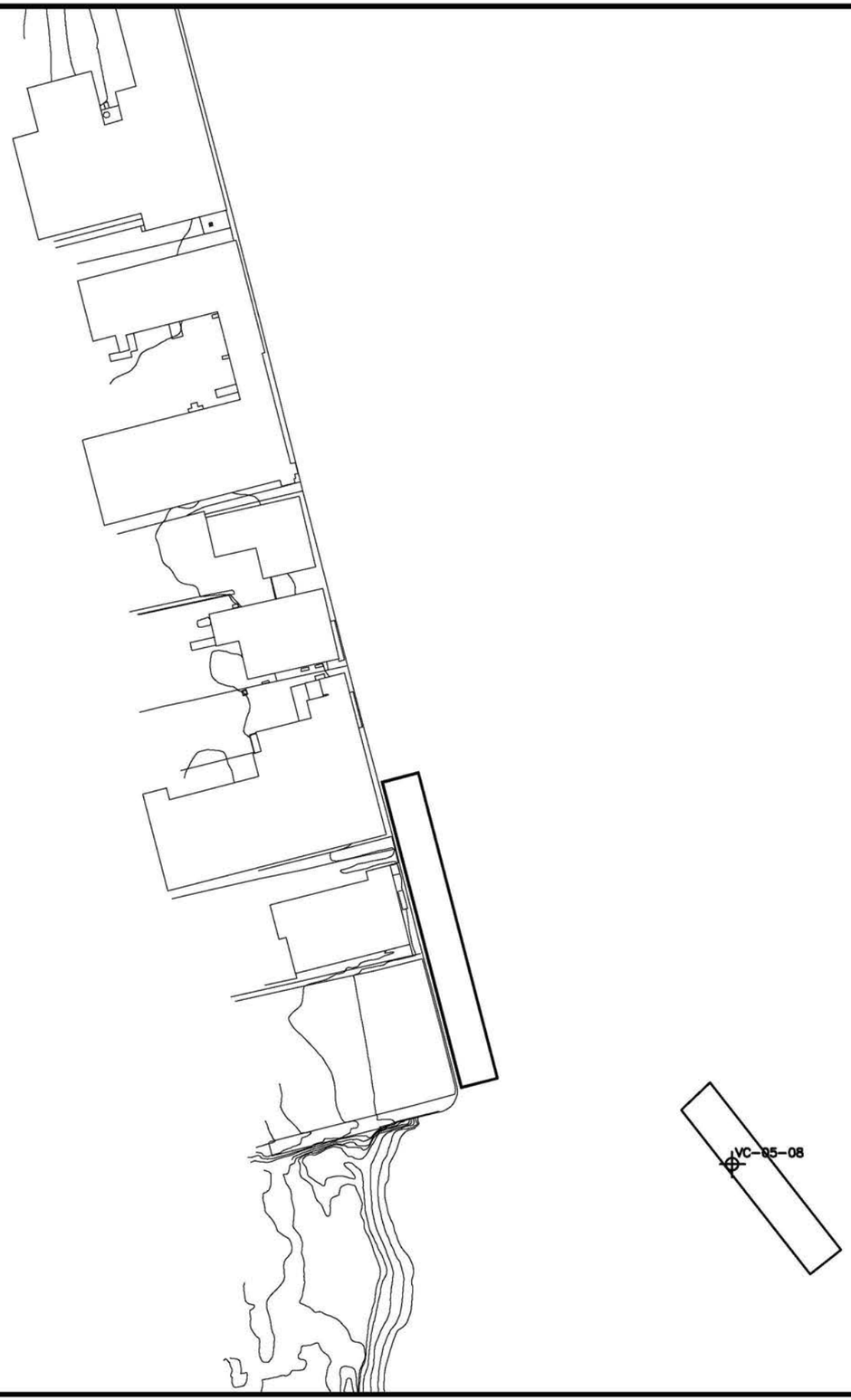
DRAWING TITLE:

GIFFORD STREET BOAT RAMP DREDGE AREA- PRE AND POST DREDGE SAMPLING LOCATIONS

NOT FOR CONSTRUCTION

Scale: 0 30 60 120 150 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	V-2
Drawn GCD	
Job. No. 6615	
Last Rev. 1/22/10	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. BASE PLAN FOR THIS FIGURE OBTAINED FROM U.S. ARMY CORPS OF ENGINEERS. EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.

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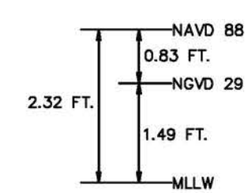
FLOOD
EBB

VC-07-08 — PRE DREDGE SAMPLE LOCATION

POST_012010_G1 — POST DREDGE SAMPLE LOCATION

GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



Apex Companies, LLC.
184 High Street
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Boston, MA. 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	8/28/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	1/19/09	RE-BID
4.	1/22/10	POST-DREDGE SAMPLES

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A & B

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

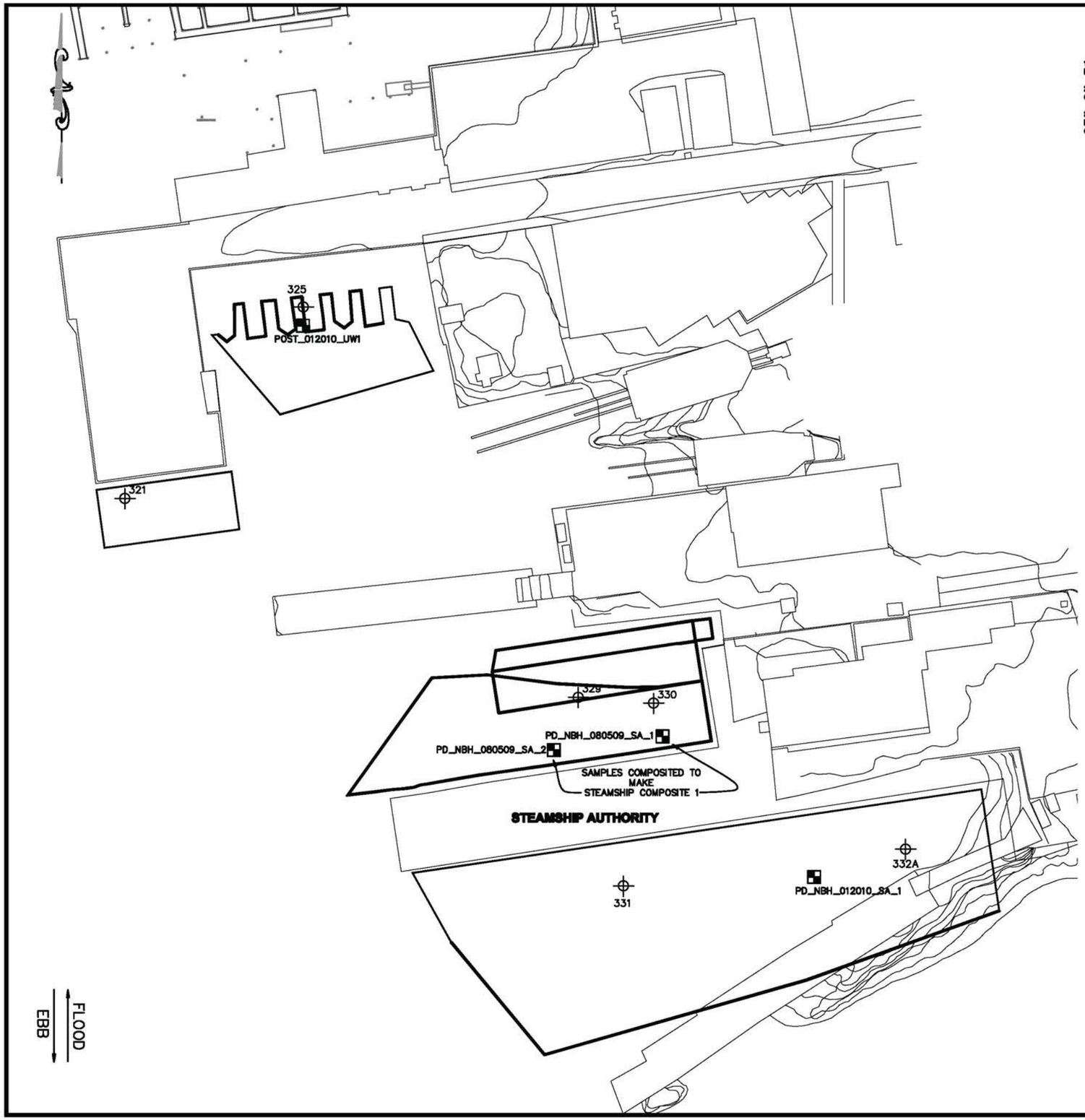
DRAWING TITLE:

SOUTH TERMINAL DREDGE AREAS- PRE AND POST DREDGE SAMPLING LOCATIONS

NOT FOR CONSTRUCTION

Scale: 0 40 80 160 200 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	V-3
Drawn GCD	
Job. No. 5615	
Last Rev. 1/22/10	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

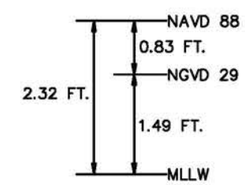
2. BASE PLAN FOR THIS FIGURE OBTAINED FROM U.S. ARMY CORPS OF ENGINEERS. EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.

3. HORIZONTAL AND VERTICAL CONTROL HAVE BEEN PROVIDED BY THE OWNER AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF CONTROL DATA.

VC-07-08 — PRE DREDGE SAMPLE LOCATION

POST_012010_G1 — POST DREDGE SAMPLE LOCATION

GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	1/18/09	RE-BID
4.	1/22/10	POST-DREDGE SAMPLES

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A & B

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

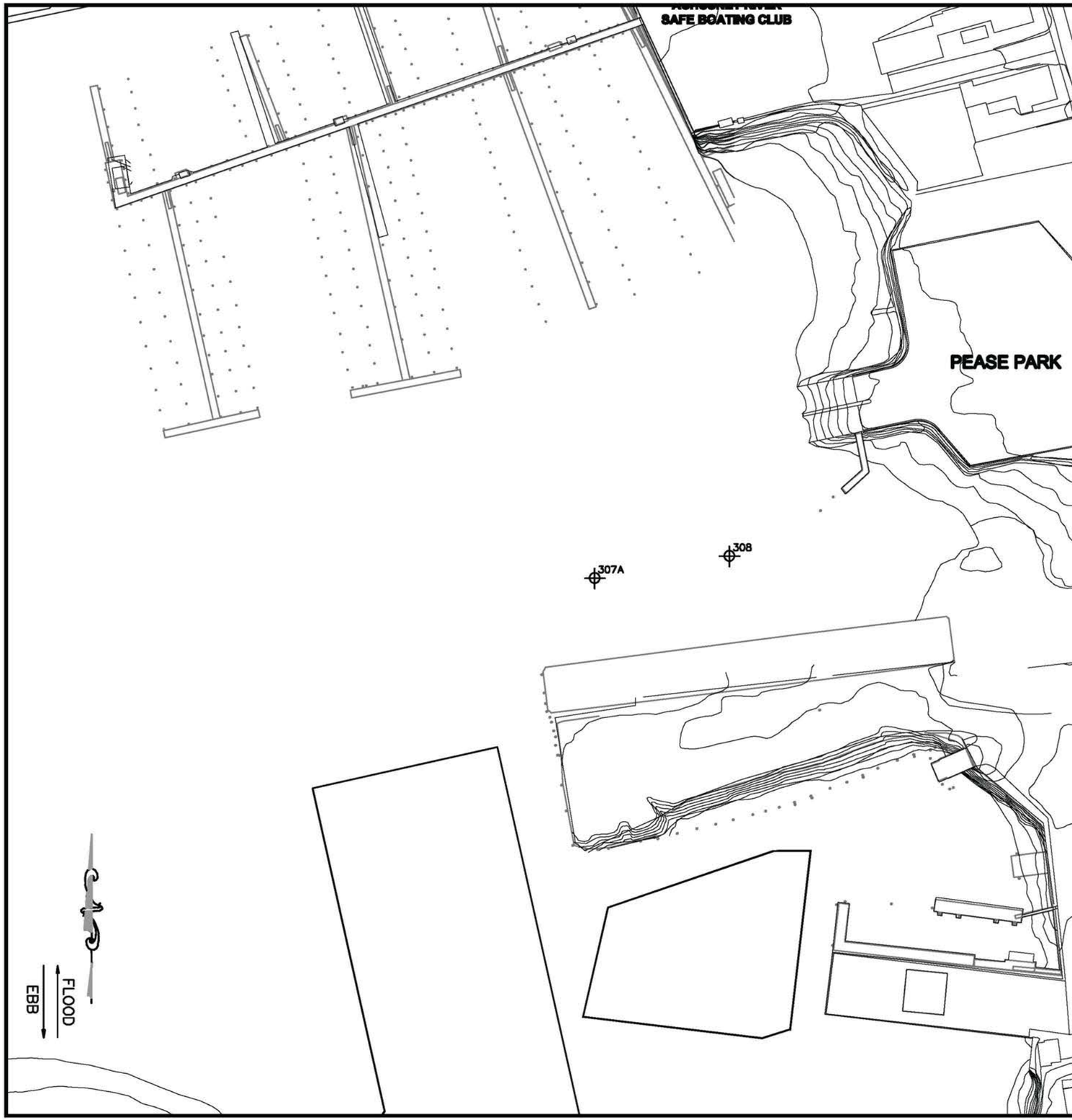
DRAWING TITLE:

WARREN ALEXANDER SOUTH AND UNION WHARF DREDGE AREAS-VIBRACORE AND BORING LOCATION SHEET

NOT FOR CONSTRUCTION

Scale: 0 20 40 80 100 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	V-4
Drawn GCD	
Job. No. 6615	
Last Rev. 1/22/10	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY IS A COMPILATION OF SURVEYS PREFORMED BETWEEN 9-11-08 AND 11-3-08.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM7694 J 1977 - SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION,4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY COLER AND COLANTONIO, INC. FEBRUARY 2002.NB MLLW - 1.82 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.82 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

4. BASE PLAN FOR THIS FIGURE OBTAINED FROM U.S. ARMY CORPS OF ENGINEERS. EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.

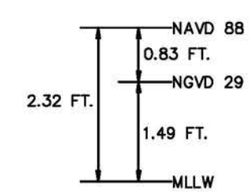
5. HORIZONTAL AND VERTICAL CONTROL HAVE BEEN PROVIDED BY THE OWNER AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF CONTROL DATA.

6. THE INFORMATION DEPICTED ON THIS DRAWING REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED ABOVE AND CAN ONLY BE CONSIDERED AS INDICATING THE CONDITIONS AT THE TIME OF THE SURVEYS AND AT THE SOUNDING POINTS NOTED ON THE DRAWING.

312 VIBRACORE LOCATION

312 BORING LOCATION

GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



Apex Companies, LLC.

115 BROAD STREET
SUITE 300
BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	[illegible]	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	1/[illegible]	RE-BID

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A & B

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

LINBERG DREDGE AREAS- VIBRACORE AND BORING LOCATION SHEET

NOT FOR CONSTRUCTION

Scale: 0 20 40 80 100 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	V-5
Drawn GCD	
Job. No. 6615	
Last Rev. 10/30/08	

NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

2. HYDROGRAPHIC SURVEY IS A COMPILATION OF SURVEYS PREFORMED BETWEEN 6-11-08 AND 11-6-08.

3. HYDROGRAPHIC SURVEY DATUM IS REFERENCED TO MEAN LOWER LOW WATER (MLLW) ON THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE TIDAL BENCHMARK BM#694 J 1977 - SURVEY DISK SET FLUSH IN THE SURFACE OF A CONCRETE SIDEWALK ON THE SOUTH SIDE OF U.S.HIGHWAY 6 ON THE NORTH SIDE OF THE MOBIL SERVICE STATION, 4 FEET (1 M) WEST OF A FIRE HYDRANT AND 1 FOOT (0.3 M) SOUTH OF U.S. HIGHWAY 6. DATUM SEPARATIONS WERE COMPUTED BY DOLER, AND COLANTONIO, INC. FEBRUARY 2002 AS MLLW - 1.62 FT = NGVD29 0.0 FT. TO OBTAIN VALUES IN NGVD29, SUBTRACT 1.62 FEET FROM THE INDICATED VALUE AT ANY POINT. HORIZONTAL CONTROL CAN BE OBTAINED FROM THE ENGINEER.

4. BASE PLAN FOR THIS FIGURE OBTAINED FROM U.S. ARMY CORPS OF ENGINEERS. EXISTING CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.

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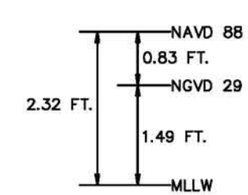
212 VIBRACORE LOCATION

212 BORING LOCATION

GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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SUITE 200
BOSTON MA 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	8/8/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	1/16/09	RE-BID

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A & B

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

NIEMIEC MARINE DREDGE AREA- VIBRACORE AND BORING LOCATION SHEET

NOT FOR CONSTRUCTION

Scale: 0 10 20 40 80 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	V-6
Drawn GCD	
Job. No. 6615	
Last Rev. 10/30/08	

NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

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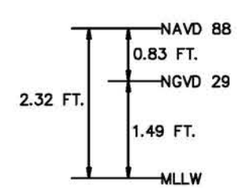
VC-07-08 — PRE DREDGE SAMPLE LOCATION

POST_012010_G1 — POST DREDGE SAMPLE LOCATION

GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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SUITE 502
BOSTON, MA. 02110
(617) 728-0070

REVISIONS

NO.	DATE	DESCRIPTION
1.	9/05/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	1/18/09	RE-BID
4.	1/22/10	POST-DREDGE SAMPLES

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A & B

PREPARED FOR:

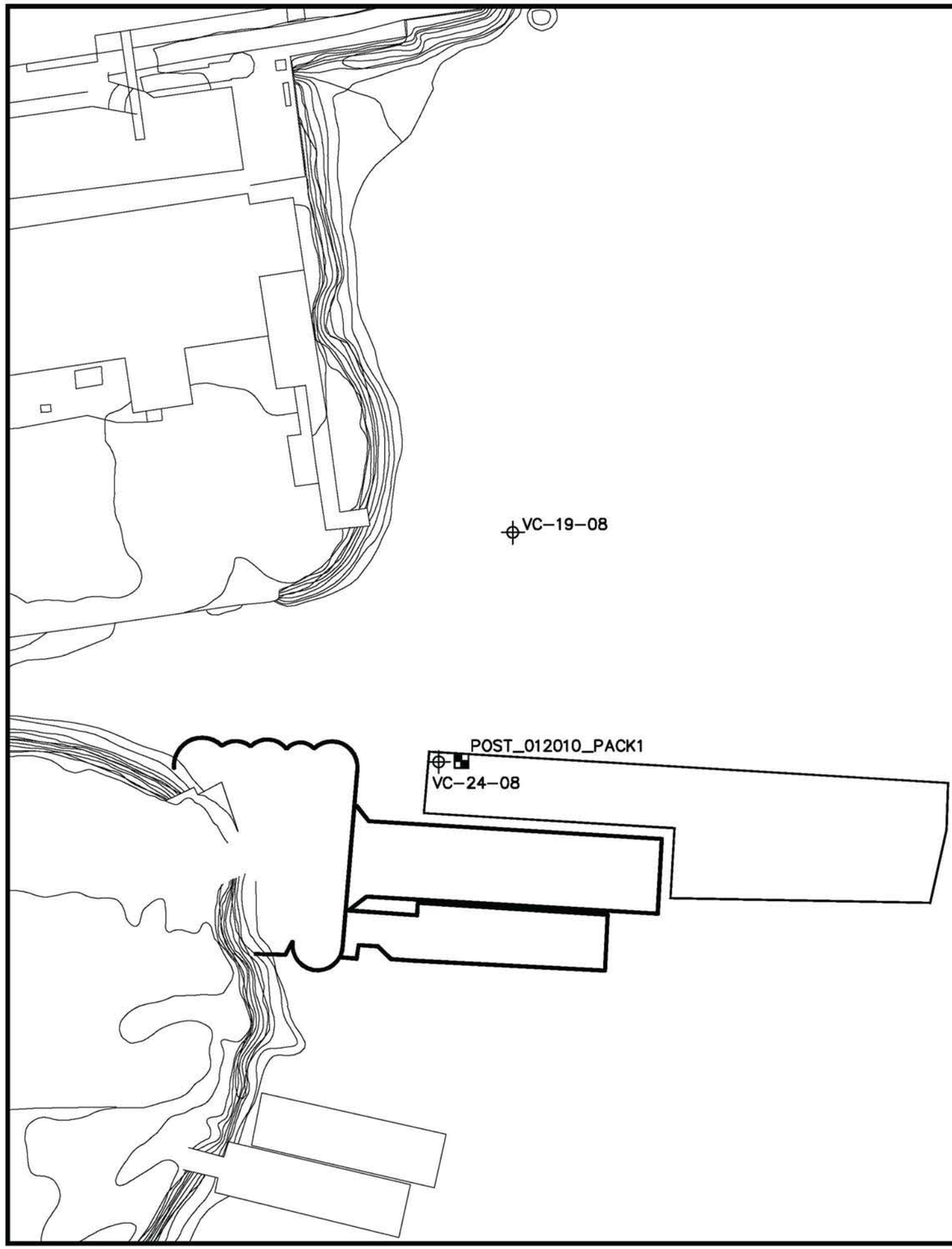
THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

OLDE NORTH WHARF FISHERIES DREDGE AREAS PRE AND POST DREDGE SAMPLING LOCATIONS NOT FOR CONSTRUCTION

Scale: 0 10 20 40 50 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	V-7
Drawn GCD	
Job. No. 6615	
Last Rev. 1/22/10	



NOTES

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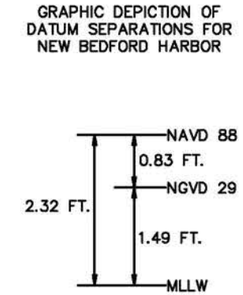
VC-07-08 — PRE DREDGE SAMPLE LOCATION

POST_012010_G1 — POST DREDGE SAMPLE LOCATION

GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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BOSTON, MA. 02110
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REVISIONS

NO.	DATE	DESCRIPTION
1.	6/8/09	PRELIM. DREDGE LAYOUT
2.	11/14/09	BID SET
3.	1/18/10	RE-BID
4.	1/22/10	POST-DREDGE SAMPLES

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A & B

PREPARED FOR:

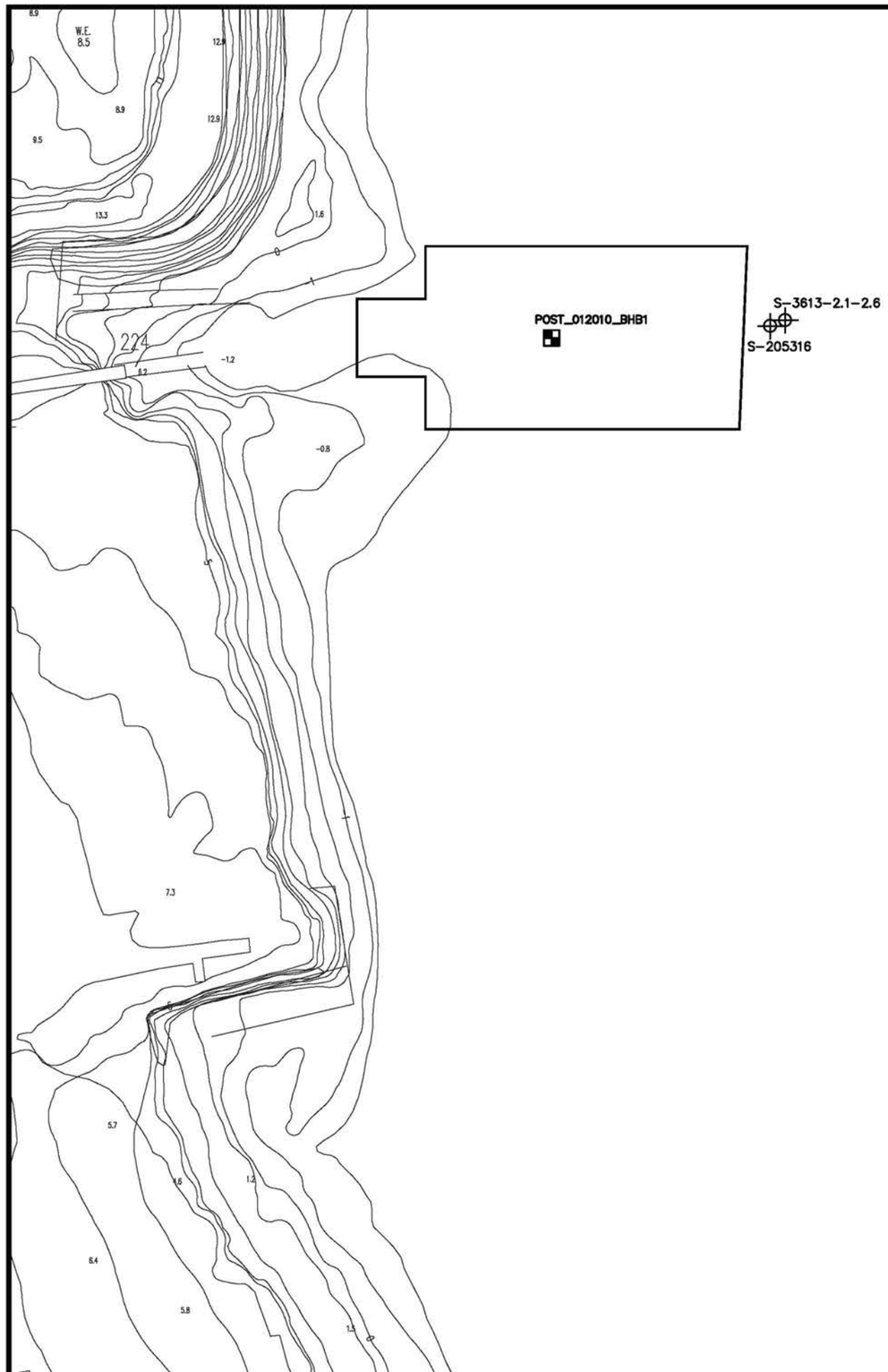
THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

PACKER FUEL & MAR-LEES DREDGE AREAS PRE AND POST DREDGE SAMPLING LOCATIONS NOT FOR CONSTRUCTION

Scale: 0 20 40 60 100 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	V–8
Drawn GCD	
Job. No. 6615	
Last Rev. 1/22/10	



NOTES

1. COORDINATES SHOWN ARE IN THE STATE PLANE COORDINATE SYSTEM, MASSACHUSETTS MAINLAND ZONE 2001, REFERENCED TO THE 1983 NORTH AMERICAN DATUM.

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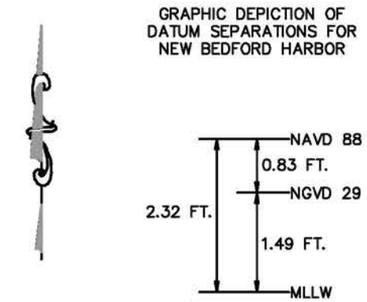
VC-07-08 — PRE DREDGE SAMPLE LOCATION

POST_012010_G1 — POST DREDGE SAMPLE LOCATION

GRAPHIC DEPICTION OF DATUM SEPARATIONS FOR NEW BEDFORD HARBOR



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EBB

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104 HIGH STREET
SUITE 302
BOSTON, MA. 02110
(617) 728-9870

REVISIONS

NO.	DATE	DESCRIPTION
1.	08/08/08	PRELIM. DREDGE LAYOUT
2.	11/14/08	BID SET
3.	1/16/09	RE-BID
4.	1/08/10	POST-DREDGE SAMPLES

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PROJECT TITLE:

NEW BEDFORD HARBOR NAVIGATIONAL DREDGE - PHASE III, PART A & B

PREPARED FOR:

THE NEW BEDFORD HARBOR DEVELOPMENT COMMISSION AND THE TOWN OF FAIRHAVEN, MASSACHUSETTS

DRAWING TITLE:

NEW BEDFORD ROWING FACILITY DREDGE AREA PRE AND POST DREDGE SAMPLING LOCATIONS NOT FOR CONSTRUCTION

Scale: 0 20 40 80 100 FEET

Date 9/5/08	Drawing No.
Proj. Mgr. JAB	
Design GCD	
Check CM	V-9
Drawn GCD	
Job. No. 6615	
Last Rev. 1/22/10	

APPENDIX A
SEDIMENT ANALYTICAL DATA

ANALYTICAL REPORT

Prepared for:
Apex Environmental, Inc.
286 Congress Street
Suite 610
Boston, MA 02210

Project:	New Bedford Harbor
ETR:	0610188
Report Date:	December 01, 2006

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

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375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Sample ID Cross Reference

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**

Lab Code: **MA00030**
ETR: **0610188**

Lab Sample ID	Client Sample ID
0610188-02	301 0-1
0610188-03	302 0-1
0610188-04	303 0-1
0610188-06	304 0-1
0610188-08	305 0-1
0610188-09	306 0-1
0610188-11	307A 0-1
0610188-13	308 0-1
0610188-15	309 0-1
0610188-16	310 0-1
0610188-18	329 0-1
0610188-19	332A 0-1
0610188-20	330 0-1

Gaps in Lab Sample IDs are indicative of samples not analyzed per client request.

CASE NARRATIVE
Alpha Woods Hole Labs

ETR: 0610188
Project: New Bedford Harbor

All analyses were performed according to Alpha Woods Hole Labs quality assurance program and documented Standard Operating Procedures (SOPs). The analytical results contained in this report were performed within holding time, and with appropriate quality control measures, except where noted. A summary of all state and federal accreditations is provided within this report. Blank correction of results is not performed in the laboratory for any parameter. Soil/sediment samples are reported on a dry weight basis unless otherwise noted. Air and sediment samples are either not certifiable under the NELAC and/or are not currently held as accredited matrices.

Sample Receipt

1. Samples were frozen upon receipt, extending the extraction holding time.

Polychlorinated Biphenyls by GC/MS

1. Several target congeners analyzed by this method co-elute with non-target congeners and are therefore reported as a co-eluting pair. Refer to the individual report forms.

2. The initial analysis of several samples had concentrations that exceeded the calibration range of the instrument. These samples were reanalyzed at dilution and both analyses are reported. Refer to the individual report forms for dilution requirements.

Extractable Petroleum Hydrocarbons by GC/FID

1. All data quality objectives were met.

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

Approved by: Nancy a Rose Title: Project Manager Date: 11/30/06

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **301 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-02**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	79.1	5.36	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**5.4**
Cl3-BZ#18	**12**
Cl3-BZ#28/#31[1]	**68**
Cl4-BZ#44	**16**
Cl4-BZ#52	**42**
Cl4-BZ#43/#49[1]	**41**
Cl4-BZ#66	**29**
Cl5-BZ#101/#84[1]	**49**
Cl5-BZ#87	**11**
Cl7-BZ#184	0.24 U
Cl5-BZ#105	**13**
Cl5-BZ#118	**41**
Cl7-BZ#183	**1.4**
Cl6-BZ#167/#128[1]	**7.7**
Cl6-BZ#138/#163[1]	**31**
Cl6-BZ#153	**30**
Cl7-BZ#170/#190[1]	**3.0**
Cl7-BZ#180	**4.5**
Cl7-BZ#182/#187[1]	**3.4**
Cl8-BZ#195	**0.38**
Cl9-BZ#206	**0.43**
Cl10-BZ#209	0.24 U

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	82	50-125
Cl8-BZ#202-C13	81	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:03

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **302 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-03**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	59.4	5.63	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**46**	
Cl3-BZ#18	**98**	
Cl3-BZ#28/#31[1]	**730**	E
Cl4-BZ#44	**140**	
Cl4-BZ#52	**320**	E
Cl4-BZ#43/#49[1]	**400**	
Cl4-BZ#66	**350**	E
Cl5-BZ#101/#84[1]	**480**	E
Cl5-BZ#87	**85**	
Cl7-BZ#184	0.30	U
Cl5-BZ#105	**110**	
Cl5-BZ#118	**440**	E
Cl7-BZ#183	**13**	
Cl6-BZ#167/#128[1]	**67**	
Cl6-BZ#138/#163[1]	**280**	
Cl6-BZ#153	**320**	E
Cl7-BZ#170/#190[1]	**28**	
Cl7-BZ#180	**42**	
Cl7-BZ#182/#187[1]	**34**	
Cl8-BZ#195	**3.7**	
Cl9-BZ#206	**4.2**	
Cl10-BZ#209	**1.7**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	73	50-125
Cl8-BZ#202-C13	77	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:03

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **302 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-03E**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	59.4	5.63	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**44**
Cl3-BZ#18	**90**
Cl3-BZ#28/#31[1]	**670**
Cl4-BZ#44	**130**
Cl4-BZ#52	**290**
Cl4-BZ#43/#49[1]	**360**
Cl4-BZ#66	**310**
Cl5-BZ#101/#84[1]	**450**
Cl5-BZ#87	**81**
Cl7-BZ#184	1.5 U
Cl5-BZ#105	**100**
Cl5-BZ#118	**410**
Cl7-BZ#183	**15**
Cl6-BZ#167/#128[1]	**65**
Cl6-BZ#138/#163[1]	**270**
Cl6-BZ#153	**310**
Cl7-BZ#170/#190[1]	**26**
Cl7-BZ#180	**43**
Cl7-BZ#182/#187[1]	**38**
Cl8-BZ#195	**4.9**
Cl9-BZ#206	**5.1**
Cl10-BZ#209	**3.0**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	85	50-125
Cl8-BZ#202-C13	96	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:06

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **303 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-04**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	38.5	5.89	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**82**	
Cl3-BZ#18	**160**	
Cl3-BZ#28/#31[1]	**1500**	E
Cl4-BZ#44	**230**	
Cl4-BZ#52	**580**	E
Cl4-BZ#43/#49[1]	**840**	E
Cl4-BZ#66	**680**	E
Cl5-BZ#101/#84[1]	**1000**	E
Cl5-BZ#87	**190**	
Cl7-BZ#184	0.44	U
Cl5-BZ#105	**260**	
Cl5-BZ#118	**980**	E
Cl7-BZ#183	**31**	
Cl6-BZ#167/#128[1]	**150**	
Cl6-BZ#138/#163[1]	**650**	
Cl6-BZ#153	**730**	E
Cl7-BZ#170/#190[1]	**67**	
Cl7-BZ#180	**100**	
Cl7-BZ#182/#187[1]	**82**	
Cl8-BZ#195	**11**	
Cl9-BZ#206	**11**	
Cl10-BZ#209	**4.6**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	82	50-125
Cl8-BZ#202-C13	84	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:03

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **303 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-04E**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	38.5	5.89	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**81**
Cl3-BZ#18	**150**
Cl3-BZ#28/#31[1]	**1500**
Cl4-BZ#44	**230**
Cl4-BZ#52	**570**
Cl4-BZ#43/#49[1]	**820**
Cl4-BZ#66	**660**
Cl5-BZ#101/#84[1]	**1000**
Cl5-BZ#87	**220**
Cl7-BZ#184	2.2 U
Cl5-BZ#105	**260**
Cl5-BZ#118	**970**
Cl7-BZ#183	**32**
Cl6-BZ#167/#128[1]	**160**
Cl6-BZ#138/#163[1]	**650**
Cl6-BZ#153	**740**
Cl7-BZ#170/#190[1]	**67**
Cl7-BZ#180	**100**
Cl7-BZ#182/#187[1]	**84**
Cl8-BZ#195	**10**
Cl9-BZ#206	**11**
Cl10-BZ#209	**6.4**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	86	50-125
Cl8-BZ#202-C13	96	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:06

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **304 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-06**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	50.8	5.85	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**52**	
Cl3-BZ#18	**170**	
Cl3-BZ#28/#31[1]	**700**	E
Cl4-BZ#44	**210**	
Cl4-BZ#52	**400**	E
Cl4-BZ#43/#49[1]	**330**	
Cl4-BZ#66	**340**	E
Cl5-BZ#101/#84[1]	**810**	E
Cl5-BZ#87	**260**	
Cl7-BZ#184	0.34	U
Cl5-BZ#105	**250**	
Cl5-BZ#118	**650**	E
Cl7-BZ#183	**20**	
Cl6-BZ#167/#128[1]	**120**	
Cl6-BZ#138/#163[1]	**520**	
Cl6-BZ#153	**410**	E
Cl7-BZ#170/#190[1]	**45**	
Cl7-BZ#180	**67**	
Cl7-BZ#182/#187[1]	**38**	
Cl8-BZ#195	**5.8**	
Cl9-BZ#206	**6.6**	
Cl10-BZ#209	**5.6**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	83	50-125
Cl8-BZ#202-C13	87	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:03

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **304 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-06E**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	50.8	5.85	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**51**
Cl3-BZ#18	**160**
Cl3-BZ#28/#31[1]	**660**
Cl4-BZ#44	**200**
Cl4-BZ#52	**380**
Cl4-BZ#43/#49[1]	**320**
Cl4-BZ#66	**320**
Cl5-BZ#101/#84[1]	**780**
Cl5-BZ#87	**250**
Cl7-BZ#184	1.7 U
Cl5-BZ#105	**240**
Cl5-BZ#118	**610**
Cl7-BZ#183	**20**
Cl6-BZ#167/#128[1]	**120**
Cl6-BZ#138/#163[1]	**500**
Cl6-BZ#153	**390**
Cl7-BZ#170/#190[1]	**46**
Cl7-BZ#180	**65**
Cl7-BZ#182/#187[1]	**40**
Cl8-BZ#195	**7.9**
Cl9-BZ#206	**6.6**
Cl10-BZ#209	**3.9**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	86	50-125
Cl8-BZ#202-C13	86	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:06

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **305 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-08**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	38.8	5.66	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**81**	
Cl3-BZ#18	**130**	
Cl3-BZ#28/#31[1]	**1200**	E
Cl4-BZ#44	**180**	
Cl4-BZ#52	**460**	E
Cl4-BZ#43/#49[1]	**670**	
Cl4-BZ#66	**560**	E
Cl5-BZ#101/#84[1]	**880**	E
Cl5-BZ#87	**190**	
Cl7-BZ#184	0.46	U
Cl5-BZ#105	**240**	
Cl5-BZ#118	**840**	E
Cl7-BZ#183	**28**	
Cl6-BZ#167/#128[1]	**140**	
Cl6-BZ#138/#163[1]	**580**	
Cl6-BZ#153	**630**	E
Cl7-BZ#170/#190[1]	**57**	
Cl7-BZ#180	**90**	
Cl7-BZ#182/#187[1]	**70**	
Cl8-BZ#195	**5.8**	
Cl9-BZ#206	**8.6**	
Cl10-BZ#209	**3.0**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	77	50-125
Cl8-BZ#202-C13	77	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:04

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **305 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-08E**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	38.8	5.66	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**78**
Cl3-BZ#18	**130**
Cl3-BZ#28/#31[1]	**1200**
Cl4-BZ#44	**180**
Cl4-BZ#52	**450**
Cl4-BZ#43/#49[1]	**660**
Cl4-BZ#66	**540**
Cl5-BZ#101/#84[1]	**880**
Cl5-BZ#87	**190**
Cl7-BZ#184	2.3 U
Cl5-BZ#105	**230**
Cl5-BZ#118	**830**
Cl7-BZ#183	**27**
Cl6-BZ#167/#128[1]	**140**
Cl6-BZ#138/#163[1]	**580**
Cl6-BZ#153	**630**
Cl7-BZ#170/#190[1]	**59**
Cl7-BZ#180	**90**
Cl7-BZ#182/#187[1]	**73**
Cl8-BZ#195	**13**
Cl9-BZ#206	**8.3**
Cl10-BZ#209	**3.1**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	85	50-125
Cl8-BZ#202-C13	93	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:06

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **306 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-09**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	50.1	5.68	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**63**	
Cl3-BZ#18	**120**	
Cl3-BZ#28/#31[1]	**1100**	E
Cl4-BZ#44	**200**	
Cl4-BZ#52	**450**	E
Cl4-BZ#43/#49[1]	**560**	E
Cl4-BZ#66	**620**	E
Cl5-BZ#101/#84[1]	**820**	E
Cl5-BZ#87	**180**	
Cl7-BZ#184	0.35	U
Cl5-BZ#105	**230**	
Cl5-BZ#118	**770**	E
Cl7-BZ#183	**24**	
Cl6-BZ#167/#128[1]	**120**	
Cl6-BZ#138/#163[1]	**520**	
Cl6-BZ#153	**530**	E
Cl7-BZ#170/#190[1]	**54**	
Cl7-BZ#180	**79**	
Cl7-BZ#182/#187[1]	**59**	
Cl8-BZ#195	**6.7**	
Cl9-BZ#206	**7.3**	
Cl10-BZ#209	**4.0**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	81	50-125
Cl8-BZ#202-C13	87	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **306 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-09E**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	50.1	5.68	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**62**
Cl3-BZ#18	**130**
Cl3-BZ#28/#31[1]	**1100**
Cl4-BZ#44	**210**
Cl4-BZ#52	**450**
Cl4-BZ#43/#49[1]	**570**
Cl4-BZ#66	**620**
Cl5-BZ#101/#84[1]	**840**
Cl5-BZ#87	**180**
Cl7-BZ#184	1.8 U
Cl5-BZ#105	**220**
Cl5-BZ#118	**760**
Cl7-BZ#183	**26**
Cl6-BZ#167/#128[1]	**130**
Cl6-BZ#138/#163[1]	**520**
Cl6-BZ#153	**540**
Cl7-BZ#170/#190[1]	**51**
Cl7-BZ#180	**80**
Cl7-BZ#182/#187[1]	**60**
Cl8-BZ#195	**6.8**
Cl9-BZ#206	**5.6**
Cl10-BZ#209	**4.8**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	89	50-125
Cl8-BZ#202-C13	97	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:06

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **307A 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-11**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	57.7	5.60	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**87**	
Cl3-BZ#18	**300**	E
Cl3-BZ#28/#31[1]	**1500**	E
Cl4-BZ#44	**370**	E
Cl4-BZ#52	**570**	E
Cl4-BZ#43/#49[1]	**620**	E
Cl4-BZ#66	**740**	E
Cl5-BZ#101/#84[1]	**920**	E
Cl5-BZ#87	**270**	E
Cl7-BZ#184	0.31	U
Cl5-BZ#105	**290**	E
Cl5-BZ#118	**760**	E
Cl7-BZ#183	**29**	
Cl6-BZ#167/#128[1]	**130**	
Cl6-BZ#138/#163[1]	**540**	E
Cl6-BZ#153	**460**	E
Cl7-BZ#170/#190[1]	**54**	
Cl7-BZ#180	**100**	
Cl7-BZ#182/#187[1]	**66**	
Cl8-BZ#195	**9.2**	
Cl9-BZ#206	**19**	
Cl10-BZ#209	**3.8**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	81	50-125
Cl8-BZ#202-C13	86	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:04

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **307A 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-11E**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	57.7	5.60	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**82**
Cl3-BZ#18	**280**
Cl3-BZ#28/#31[1]	**1400**
Cl4-BZ#44	**360**
Cl4-BZ#52	**550**
Cl4-BZ#43/#49[1]	**590**
Cl4-BZ#66	**710**
Cl5-BZ#101/#84[1]	**890**
Cl5-BZ#87	**260**
Cl7-BZ#184	1.6 U
Cl5-BZ#105	**270**
Cl5-BZ#118	**710**
Cl7-BZ#183	**29**
Cl6-BZ#167/#128[1]	**120**
Cl6-BZ#138/#163[1]	**510**
Cl6-BZ#153	**440**
Cl7-BZ#170/#190[1]	**52**
Cl7-BZ#180	**97**
Cl7-BZ#182/#187[1]	**64**
Cl8-BZ#195	**11**
Cl9-BZ#206	**18**
Cl10-BZ#209	**4.3**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	90	50-125
Cl8-BZ#202-C13	89	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:07

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **308 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-13**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	71.1	5.88	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**14**
Cl3-BZ#18	**33**
Cl3-BZ#28/#31[1]	**190**
Cl4-BZ#44	**39**
Cl4-BZ#52	**84**
Cl4-BZ#43/#49[1]	**94**
Cl4-BZ#66	**84**
Cl5-BZ#101/#84[1]	**120**
Cl5-BZ#87	**32**
Cl7-BZ#184	0.24 U
Cl5-BZ#105	**36**
Cl5-BZ#118	**110**
Cl7-BZ#183	**4.1**
Cl6-BZ#167/#128[1]	**20**
Cl6-BZ#138/#163[1]	**80**
Cl6-BZ#153	**80**
Cl7-BZ#170/#190[1]	**8.3**
Cl7-BZ#180	**12**
Cl7-BZ#182/#187[1]	**9.6**
Cl8-BZ#195	**1.1**
Cl9-BZ#206	**1.6**
Cl10-BZ#209	**1.1**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	86	50-125
Cl8-BZ#202-C13	90	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:04

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **309 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-15**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	11/28/06	70.1	5.37	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**26**
Cl3-BZ#18	**57**
Cl3-BZ#28/#31[1]	**330**
Cl4-BZ#44	**73**
Cl4-BZ#52	**160**
Cl4-BZ#43/#49[1]	**180**
Cl4-BZ#66	**140**
Cl5-BZ#101/#84[1]	**240**
Cl5-BZ#87	**61**
Cl7-BZ#184	0.27 U
Cl5-BZ#105	**65**
Cl5-BZ#118	**200**
Cl7-BZ#183	**7.2**
Cl6-BZ#167/#128[1]	**36**
Cl6-BZ#138/#163[1]	**150**
Cl6-BZ#153	**140**
Cl7-BZ#170/#190[1]	**15**
Cl7-BZ#180	**24**
Cl7-BZ#182/#187[1]	**16**
Cl8-BZ#195	**2.4**
Cl9-BZ#206	**2.8**
Cl10-BZ#209	**2.0**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	82	50-125
Cl8-BZ#202-C13	89	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:04

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **310 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-16**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	11/28/06	73.3	5.75	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**85**	
Cl3-BZ#18	**260**	E
Cl3-BZ#28/#31[1]	**1100**	E
Cl4-BZ#44	**280**	E
Cl4-BZ#52	**420**	E
Cl4-BZ#43/#49[1]	**420**	E
Cl4-BZ#66	**460**	E
Cl5-BZ#101/#84[1]	**700**	E
Cl5-BZ#87	**220**	E
Cl7-BZ#184	0.24	U
Cl5-BZ#105	**210**	E
Cl5-BZ#118	**530**	E
Cl7-BZ#183	**19**	
Cl6-BZ#167/#128[1]	**98**	
Cl6-BZ#138/#163[1]	**420**	E
Cl6-BZ#153	**350**	E
Cl7-BZ#170/#190[1]	**42**	
Cl7-BZ#180	**65**	
Cl7-BZ#182/#187[1]	**46**	
Cl8-BZ#195	**6.3**	
Cl9-BZ#206	**5.4**	
Cl10-BZ#209	**2.8**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	81	50-125
Cl8-BZ#202-C13	84	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:05

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **310 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-16E**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	11/28/06	73.3	5.75	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**86**
Cl3-BZ#18	**260**
Cl3-BZ#28/#31[1]	**1100**
Cl4-BZ#44	**290**
Cl4-BZ#52	**420**
Cl4-BZ#43/#49[1]	**420**
Cl4-BZ#66	**480**
Cl5-BZ#101/#84[1]	**730**
Cl5-BZ#87	**230**
Cl7-BZ#184	1.2 U
Cl5-BZ#105	**220**
Cl5-BZ#118	**540**
Cl7-BZ#183	**20**
Cl6-BZ#167/#128[1]	**100**
Cl6-BZ#138/#163[1]	**430**
Cl6-BZ#153	**360**
Cl7-BZ#170/#190[1]	**44**
Cl7-BZ#180	**67**
Cl7-BZ#182/#187[1]	**49**
Cl8-BZ#195	**7.6**
Cl9-BZ#206	**5.3**
Cl10-BZ#209	**3.4**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	83	50-125
Cl8-BZ#202-C13	99	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:07

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **329 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-18**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	48.6	5.89	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**49**
Cl3-BZ#18	**92**
Cl3-BZ#28/#31[1]	**600** E
Cl4-BZ#44	**130**
Cl4-BZ#52	**260**
Cl4-BZ#43/#49[1]	**290**
Cl4-BZ#66	**230**
Cl5-BZ#101/#84[1]	**370**
Cl5-BZ#87	**88**
Cl7-BZ#184	0.35 U
Cl5-BZ#105	**98**
Cl5-BZ#118	**310** E
Cl7-BZ#183	**18**
Cl6-BZ#167/#128[1]	**57**
Cl6-BZ#138/#163[1]	**240**
Cl6-BZ#153	**260**
Cl7-BZ#170/#190[1]	**39**
Cl7-BZ#180	**68**
Cl7-BZ#182/#187[1]	**46**
Cl8-BZ#195	**8.4**
Cl9-BZ#206	**7.5**
Cl10-BZ#209	**2.1**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	81	50-125
Cl8-BZ#202-C13	87	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:05

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **329 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-18E**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	48.6	5.89	2	2	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**48**
Cl3-BZ#18	**87**
Cl3-BZ#28/#31[1]	**540**
Cl4-BZ#44	**120**
Cl4-BZ#52	**260**
Cl4-BZ#43/#49[1]	**290**
Cl4-BZ#66	**220**
Cl5-BZ#101/#84[1]	**370**
Cl5-BZ#87	**90**
Cl7-BZ#184	0.70 U
Cl5-BZ#105	**97**
Cl5-BZ#118	**310**
Cl7-BZ#183	**18**
Cl6-BZ#167/#128[1]	**57**
Cl6-BZ#138/#163[1]	**240**
Cl6-BZ#153	**260**
Cl7-BZ#170/#190[1]	**37**
Cl7-BZ#180	**69**
Cl7-BZ#182/#187[1]	**46**
Cl8-BZ#195	**7.3**
Cl9-BZ#206	**7.3**
Cl10-BZ#209	**1.7**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	81	50-125
Cl8-BZ#202-C13	84	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:05

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **332A 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-19**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	95.9	5.36	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**1.5**
Cl3-BZ#18	**2.8**
Cl3-BZ#28/#31[1]	**14**
Cl4-BZ#44	**3.9**
Cl4-BZ#52	**7.4**
Cl4-BZ#43/#49[1]	**7.5**
Cl4-BZ#66	**5.4**
Cl5-BZ#101/#84[1]	**11**
Cl5-BZ#87	**3.0**
Cl7-BZ#184	0.19 U
Cl5-BZ#105	**3.0**
Cl5-BZ#118	**8.1**
Cl7-BZ#183	**0.69**
Cl6-BZ#167/#128[1]	**1.9**
Cl6-BZ#138/#163[1]	**7.4**
Cl6-BZ#153	**7.6**
Cl7-BZ#170/#190[1]	**1.2**
Cl7-BZ#180	**2.6**
Cl7-BZ#182/#187[1]	**1.9**
Cl8-BZ#195	**0.74**
Cl9-BZ#206	0.19 U
Cl10-BZ#209	**0.30**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	68	50-125
Cl8-BZ#202-C13	74	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:05

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **330 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-20**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/28/06	35.3	5.77	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**130**	
Cl3-BZ#18	**290**	
Cl3-BZ#28/#31[1]	**1400**	E
Cl4-BZ#44	**390**	
Cl4-BZ#52	**560**	E
Cl4-BZ#43/#49[1]	**600**	
Cl4-BZ#66	**590**	E
Cl5-BZ#101/#84[1]	**900**	E
Cl5-BZ#87	**250**	
Cl7-BZ#184	0.49	U
Cl5-BZ#105	**260**	
Cl5-BZ#118	**690**	E
Cl7-BZ#183	**57**	
Cl6-BZ#167/#128[1]	**140**	
Cl6-BZ#138/#163[1]	**600**	
Cl6-BZ#153	**570**	E
Cl7-BZ#170/#190[1]	**120**	
Cl7-BZ#180	**220**	
Cl7-BZ#182/#187[1]	**130**	
Cl8-BZ#195	**23**	
Cl9-BZ#206	**21**	
Cl10-BZ#209	**4.8**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	67	50-125
Cl8-BZ#202-C13	69	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:05

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **330 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-20E**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/29/06	35.3	5.77	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**140**
Cl3-BZ#18	**260**
Cl3-BZ#28/#31[1]	**1300**
Cl4-BZ#44	**340**
Cl4-BZ#52	**600**
Cl4-BZ#43/#49[1]	**620**
Cl4-BZ#66	**600**
Cl5-BZ#101/#84[1]	**930**
Cl5-BZ#87	**260**
Cl7-BZ#184	2.4 U
Cl5-BZ#105	**250**
Cl5-BZ#118	**680**
Cl7-BZ#183	**56**
Cl6-BZ#167/#128[1]	**140**
Cl6-BZ#138/#163[1]	**580**
Cl6-BZ#153	**570**
Cl7-BZ#170/#190[1]	**110**
Cl7-BZ#180	**210**
Cl7-BZ#182/#187[1]	**140**
Cl8-BZ#195	**26**
Cl9-BZ#206	**22**
Cl10-BZ#209	**6.3**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	74	50-125
Cl8-BZ#202-C13	74	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:07

Blank
PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **Blank**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **SS111506B08**
Associated Blank: **N/A**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
N/A	N/A	11/15/06	11/27/06	100	5.00	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	0.40 U
Cl3-BZ#18	0.20 U
Cl3-BZ#28/#31[1]	0.40 U
Cl4-BZ#44	0.20 U
Cl4-BZ#52	0.20 U
Cl4-BZ#43/#49[1]	0.40 U
Cl4-BZ#66	0.20 U
Cl5-BZ#101/#84[1]	0.40 U
Cl5-BZ#87	0.20 U
Cl7-BZ#184	0.20 U
Cl5-BZ#105	0.20 U
Cl5-BZ#118	0.20 U
Cl7-BZ#183	0.20 U
Cl6-BZ#167/#128[1]	0.40 U
Cl6-BZ#138/#163[1]	0.40 U
Cl6-BZ#153	0.20 U
Cl7-BZ#170/#190[1]	0.40 U
Cl7-BZ#180	0.20 U
Cl7-BZ#182/#187[1]	0.40 U
Cl8-BZ#195	0.20 U
Cl9-BZ#206	0.20 U
Cl10-BZ#209	0.20 U

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	83	50-125
Cl8-BZ#202-C13	75	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/30/06 13:02

Laboratory Control Summary
PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **Laboratory Control Sample**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **See Below**
Associated Blank: **SS111506B08**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Analyst
N/A	N/A	11/15/06	100	TLW

Lab ID:	SS111506B08		SS111506LCS05		SS111506LCSD05				
Parameter	**Blank Conc.**		**LCS Conc.**	**LCS % Recovery**	**LCSD Conc.**	**LCSD % Recovery**	**% RPD**	**RPD Limit**	**% Recovery Limits**
Cl2-BZ#5/#8[1]	0.40	U	6.2	78	6.4	79	2	50	40-140
Cl3-BZ#18	0.20	U	6.3	78	6.4	80	2	50	40-140
Cl3-BZ#28/#31[1]	0.40	U	12	76	12	77	1	50	40-140
Cl4-BZ#44	0.20	U	5.6	70	5.8	72	2	50	40-140
Cl4-BZ#52	0.20	U	5.8	73	5.9	74	1	50	40-140
Cl4-BZ#43/#49[1]	0.40	U	6.5	81	6.8	85	4	50	40-140
Cl4-BZ#66	0.20	U	5.2	65	6.0	75	14	50	40-140
Cl5-BZ#101/#84[1]	0.40	U	6.2	77	6.2	78	1	50	40-140
Cl5-BZ#87	0.20	U	4.8	60	4.9	61	1	50	40-140
Cl5-BZ#105	0.20	U	4.8	60	4.7	59	2	50	40-140
Cl5-BZ#118	0.20	U	5.1	63	5.0	62	2	50	40-140
Cl7-BZ#183	0.20	U	5.6	70	5.5	69	0	50	40-140
Cl6-BZ#167/#128[1]	0.40	U	11	66	10	66	1	50	40-140
Cl6-BZ#138/#163[1]	0.40	U	4.4	54	4.4	55	1	50	40-140
Cl6-BZ#153	0.20	U	5.4	68	5.4	68	0	50	40-140
Cl7-BZ#170/#190[1]	0.40	U	4.6	57	4.5	56	2	50	40-140
Cl7-BZ#180	0.20	U	6.4	80	6.6	83	4	50	40-140
Cl7-BZ#182/#187[1]	0.40	U	5.9	74	6.0	75	2	50	40-140
Cl8-BZ#195	0.20	U	5.6	69	5.4	68	2	50	40-140
Cl9-BZ#206	0.20	U	5.5	69	5.6	70	1	50	40-140
Cl10-BZ#209	0.20	U	5.5	68	5.4	68	1	50	40-140

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery		Acceptance Range (%)
Cl3-BZ#19-C13	84	86	50-125
Cl8-BZ#202-C13	82	81	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded result.

11/30/06 13:08

PCB Congeners and Homologs by GC/MS-SIM Data Review Checklist

Updated 7/02

ETR #: 0610188
CLIENT: Apex

Method 680 (modified)

Extraction Date:	11/15/2006	Blank ID:	SS111506B08	LCS ID:	SS111506LCS05, LCSD05
Instrument ID:	BNA # 5	ICAL File:			
Analysis Date:	11/27/06	CCV Date & Times:			
DFTPP Date & Times:					

Review Items	N/A	Yes	No	Reason why data reportable? Narrate w/ETR.	2nd Level
A. Tune					
1. Did PFTBA meet the Tune criteria before the ICAL? Did DFTPP meet SW-846 criteria before every CCV? Did DFTPP meet Max. Sensitivity criteria before every CCV?		✓		PFTBA Date(s): *Circle tuning method(s) used (at left).*	✓
B. Initial Calibration Verification					
1. Has an Initial Calibration Checklist been completed for all ICALs? (Note any QC anomalies).		✓		Notes:	✓
2. Was the correct ICAL method used for sample quantitation? (Check *"Quant File ID" and compare w/ Method(s) above*). If wrong, data needs to be reprocessed w/ the correct Method(s) above.		✓			✓
C. Continuing Calibration Verification					
1. Has a CCV Checklist been completed for each Analytical Batch? (Note any QC anomalies).		✓		Notes:	✓
2. Were all samples injected between CCVs that were 12 hours apart *(including ending CCV)*?		✓			✓
D. Sample Results					
1. Was the correct analysis performed? Is all paperwork present? (Check ETR worksheet & comments).		✓		Client will do summation	✓
2. Is the header information correct? (If not, 2nd bring data package back to the Lab for corrections.)		✓		reported ~~NAA 22 less list per~~ Tbl	✓ narrate corrections 11/30/06 DES
3. Sample analyses done within preparation and analytical holding time (HT)? *If No, list samples and reasons:* [Prep.=Aqu.-7 days; Soil -14 days; Analytical = 40 days] Sample(s) / Reason(s) / HT: frozen – thawed 1 day		✓		1. HT had expired before receipt of sample(s).-*Narrate* 2. Sample received with < 3 days left for extraction. 3. Client requested analysis after HT expired.*-*Narrate* 4. Re-extraction done after HT expired.-*Narrate* 5. Other:	✓
4. Are surrogates within 50-125% R? *If No, list Samples/Surrogates/Reasons:* Sample(s) / Surrogate(s) / Reason(s)		✓		6. Surrogate %R outside QC limits due to matrix effect. MS/MSD surr. %R demonstrated same effect.-*Narrate* 7. Surrogate %R outside QC limits due to matrix effect since re-extraction/re-analysis demonstrated the same effect. ***Report original and Narrate.*** 8. Surrogate %R outside QC limits due to obvious matrix interferences. Explain/*Narrate*: *(Analyst has confirmed w/ Section Head.)* 9. Surrogate %R outside QC limits; however, there wasn't sample left to re-extract. -*Narrate/PM notified.* 10. Surrogate %R outside QC limits; re-extraction outside HT; both sets of data are reported.-*Narrate/PM notified.* 11. Surrogate %R outside QC limits; however, at the client's request, the data were flagged and released without further investigation. *-*Narrate* 12. Surrogates diluted out.	✓
5. Is largest compound diluted to upper half of calibration range? *If no, list sample(s):* Sample(s) / Dilution(s) / Reason(s)		✓		13. At the client's request, the sample was analyzed with minimum dilution even though some compounds were outside of calibration range. *-*Narrate* 14. Largest compound diluted to acceptable concentration based on normal sample dilution volumes. 15. Sample showed matrix inhomogeneity. Duplicate analysis (or Re-extraction) was within calibration range, both analyses are reported.-*Narrate* 16. Other:	✓

* The Client must be involved in these decisions.

Extractable Petroleum Hydrocarbons by GC/FID

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **301 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-02**
Associated Blank: **ES111506B10**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Sample Amount (g)	Fraction	Date Analyzed	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	79.1	10.47	Aromatic	11/22/06	1	1	JBS
					Aliphatic	11/22/06	1	1	JBS

Parameter	Result
C_9-C_{18} Aliphatics [1]	3600 U
C_{19}-C_{36} Aliphatics [1]	**34000**
C_{11}-C_{22} Aromatics [1,2]	**12000**
Unadjusted C_{11}-C_{22} Aromatics [1]	**12000**

Naphthalene	600 U
2-Methylnaphthalene	600 U
Acenaphthylene	600 U
Acenaphthene	600 U
Fluorene	600 U
Phenanthrene	600 U
Anthracene	600 U
Fluoranthene	600 U
Pyrene	600 U
Benzo(a)anthracene	600 U
Chrysene	600 U
Benzo(b)fluoranthene	600 U
Benzo(k)fluoranthene	600 U
Benzo(a)pyrene	600 U
Indeno(1,2,3-cd)pyrene [3]	1200 U
Dibenzo(a,h)anthracene [3]	1200 U
Benzo(g,h,i)perylene	600 U

[1] = Range concentration excludes the concentration of any surrogate(s) and/or internal standards eluting in that range.
[2] = C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
[3] = Values reported reflect their sum.

Extraction Surrogate	% Recovery	Acceptance Range (%)
5-alpha Androstane	67	40-140
ortho-Terphenyl	74	40-140
Fractionation Surrogate		
Biphenyl	85	40-140
2-Fluorobiphenyl	83	40-140

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/28/06 12:12

Extractable Petroleum Hydrocarbons by GC/FID

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **307A 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-11**
Associated Blank: **ES111506B10**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Sample Amount (g)	Fraction	Date Analyzed	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	57.7	10.43	Aromatic	11/22/06	1	1	JBS
					Aliphatic	11/22/06	1	1	JBS

Parameter	Result
C_9-C_{18} Aliphatics [1]	**300000**
C_{19}-C_{36} Aliphatics [1]	**1300000**
C_{11}-C_{22} Aromatics [1,2]	**310000**
Unadjusted C_{11}-C_{22} Aromatics [1]	**320000**

Naphthalene	830	U
2-Methylnaphthalene	830	U
Acenaphthylene	830	U
Acenaphthene	830	U
Fluorene	830	U
Phenanthrene	830	U
Anthracene	830	U
Fluoranthene	**1000**	
Pyrene	**2000**	
Benzo(a)anthracene	**990**	
Chrysene	**890**	
Benzo(b)fluoranthene	**1300**	
Benzo(k)fluoranthene	830	U
Benzo(a)pyrene	**920**	
Indeno(1,2,3-cd)pyrene [3]	1700	U
Dibenzo(a,h)anthracene [3]	1700	U
Benzo(g,h,i)perylene	830	U

[1] = Range concentration excludes the concentration of any surrogate(s) and/or internal standards eluting in that range.
[2] = C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
[3] = Values reported reflect their sum.

Extraction Surrogate	% Recovery	Acceptance Range (%)
5-alpha Androstane	73	40-140
ortho-Terphenyl	69	40-140
Fractionation Surrogate		
Biphenyl	89	40-140
2-Fluorobiphenyl	86	40-140

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/28/06 12:12

Extractable Petroleum Hydrocarbons by GC/FID

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **309 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-15**
Associated Blank: **ES111506B10**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Sample Amount (g)	Fraction	Date Analyzed	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	70.1	10.92	Aromatic	11/27/06	1	1	JBS
					Aliphatic	11/27/06	1	1	JBS

Parameter	Result
C_9-C_{18} Aliphatics [1]	**48000**
C_{19}-C_{36} Aliphatics [1]	**300000**
C_{11}-C_{22} Aromatics [1,2]	**100000**
Unadjusted C_{11}-C_{22} Aromatics [1]	**110000**

Naphthalene	650	U
2-Methylnaphthalene	650	U
Acenaphthylene	650	U
Acenaphthene	650	U
Fluorene	650	U
Phenanthrene	650	U
Anthracene	650	U
Fluoranthene	**860**	
Pyrene	**1800**	
Benzo(a)anthracene	650	U
Chrysene	650	U
Benzo(b)fluoranthene	650	U
Benzo(k)fluoranthene	650	U
Benzo(a)pyrene	650	U
Indeno(1,2,3-cd)pyrene [3]	1300	U
Dibenzo(a,h)anthracene [3]	1300	U
Benzo(g,h,i)perylene	650	U

[1] = Range concentration excludes the concentration of any surrogate(s) and/or internal standards eluting in that range.
[2] = C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
[3] = Values reported reflect their sum.

Extraction Surrogate	% Recovery	Acceptance Range (%)
5-alpha Androstane	77	40-140
ortho-Terphenyl	86	40-140
Fractionation Surrogate		
Biphenyl	94	40-140
2-Fluorobiphenyl	91	40-140

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/28/06 12:12

Extractable Petroleum Hydrocarbons by GC/FID

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **332A 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-19**
Associated Blank: **ES111506B10**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Sample Amount (g)	Fraction	Date Analyzed	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	95.9	10.32	Aromatic	11/22/06	1	1	JBS
					Aliphatic	11/22/06	1	1	JBS

Parameter	Result
C_9-C_{18} Aliphatics [1]	**32000**
C_{19}-C_{36} Aliphatics [1]	**26000**
C_{11}-C_{22} Aromatics [1,2]	**40000**
Unadjusted C_{11}-C_{22} Aromatics [1]	**40000**

Naphthalene	500	U
2-Methylnaphthalene	500	U
Acenaphthylene	500	U
Acenaphthene	500	U
Fluorene	500	U
Phenanthrene	500	U
Anthracene	500	U
Fluoranthene	500	U
Pyrene	500	U
Benzo(a)anthracene	500	U
Chrysene	500	U
Benzo(b)fluoranthene	500	U
Benzo(k)fluoranthene	500	U
Benzo(a)pyrene	500	U
Indeno(1,2,3-cd)pyrene [3]	1000	U
Dibenzo(a,h)anthracene [3]	1000	U
Benzo(g,h,i)perylene	500	U

[1] = Range concentration excludes the concentration of any surrogate(s) and/or internal standards eluting in that range.
[2] = C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
[3] = Values reported reflect their sum.

Extraction Surrogate	% Recovery	Acceptance Range (%)
5-alpha Androstane	68	40-140
ortho-Terphenyl	66	40-140
Fractionation Surrogate		
Biphenyl	74	40-140
2-Fluorobiphenyl	72	40-140

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/28/06 12:12

Blank
Extractable Petroleum Hydrocarbons by GC/FID

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **Blank**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **ES111506B10**
Associated Blank: **N/A**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Sample Amount (g)	Fraction	Date Analyzed	Final Volume (ml)	Dilution Factor	Analyst
N/A	N/A	11/15/06	100	10.00	Aromatic	11/22/06	1	1	JBS
					Aliphatic	11/22/06	1	1	JBS

Parameter	Result
C_9-C_{18} Aliphatics [1]	3000 U
C_{19}-C_{36} Aliphatics [1]	4000 U
C_{11}-C_{22} Aromatics [1,2]	8500 U
Unadjusted C_{11}-C_{22} Aromatics [1]	8500 U
Naphthalene	500 U
2-Methylnaphthalene	500 U
Acenaphthylene	500 U
Acenaphthene	500 U
Fluorene	500 U
Phenanthrene	500 U
Anthracene	500 U
Fluoranthene	500 U
Pyrene	500 U
Benzo(a)anthracene	500 U
Chrysene	500 U
Benzo(b)fluoranthene	500 U
Benzo(k)fluoranthene	500 U
Benzo(a)pyrene	500 U
Indeno(1,2,3-cd)pyrene [3]	1000 U
Dibenzo(a,h)anthracene [3]	1000 U
Benzo(g,h,i)perylene	500 U

[1] = Range concentration excludes the concentration of any surrogate(s) and/or internal standards eluting in that range.
[2] = C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
[3] = Values reported reflect their sum.

Extraction Surrogate	% Recovery	Acceptance Range (%)
5-alpha Androstane	70	40-140
ortho-Terphenyl	74	40-140
Fractionation Surrogate		
Biphenyl	88	40-140
2-Fluorobiphenyl	86	40-140

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/28/06 12:13

Laboratory Control Summary
Extractable Petroleum Hydrocarbons by GC/FID

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **Laboratory Control Sample**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **See Below**
Associated Blank: **ES111506B10**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Analyst
N/A	N/A	11/15/06	100	JBS

Lab ID:	ES111506B10		ES111506LCS07		ES111506LCSD07				
Parameter	**Blank Conc.**		**LCS Conc.**	**LCS % Recovery**	**LCSD Conc.**	**LCSD % Recovery**	**% RPD**	**RPD Limit**	**% Recovery Limits**
Naphthalene	500	U	5800	58	5700	57	2	25	40-140
2-Methylnaphthalene	500	U	6300	63	6200	62	2	25	40-140
Acenaphthylene	500	U	6800	68	6700	67	2	25	40-140
Acenaphthene	500	U	6900	69	6800	68	2	25	40-140
Fluorene	500	U	7400	75	7300	73	2	25	40-140
Phenanthrene	500	U	7700	77	7600	75	2	25	40-140
Anthracene	500	U	7600	76	7400	75	2	25	40-140
Fluoranthene	500	U	7600	76	7500	75	2	25	40-140
Pyrene	500	U	7900	79	7700	77	2	25	40-140
Benzo(a)anthracene	500	U	7800	78	7600	76	2	25	40-140
Chrysene	500	U	7900	79	7800	78	1	25	40-140
Benzo(b)fluoranthene	500	U	8000	80	7900	79	2	25	40-140
Benzo(k)fluoranthene	500	U	7800	78	7600	76	2	25	40-140
Benzo(a)pyrene	500	U	8100	81	8000	80	1	25	40-140
Indeno(1,2,3-cd)pyrene [3]	1000	U	16000	80	16000	79	1	25	40-140
Dibenzo(a,h)anthracene [3]	1000	U	16000	80	16000	79	1	25	40-140
Benzo(g,h,i)perylene	500	U	8100	81	8000	80	2	25	40-140
n-Nonane (C9)	500	U	3400	34	3600	36	6	25	30-140
n-Decane (C10)	500	U	4800	48	5100	51	6	25	40-140
n-Dodecane (C12)	500	U	5900	59	6300	63	7	25	40-140
n-Tetradecane (C14)	500	U	6800	68	7100	71	5	25	40-140
n-Hexadecane (C16)	500	U	7300	73	7600	76	3	25	40-140
n-Octadecane (C18)	500	U	7700	77	8000	80	3	25	40-140
n-Nonadecane (C19)	500	U	8000	80	8300	83	3	25	40-140
n-Eicosane (C20)	500	U	7900	79	8100	81	3	25	40-140
n-Docosane (C22)	500	U	7900	79	7900	79	0	25	40-140
n-Tetracosane (C24)	500	U	8000	80	8000	80	1	25	40-140
n-Hexacosane (C26)	500	U	7900	79	8000	80	1	25	40-140
n-Octacosane (C28)	500	U	7800	78	7800	78	0	25	40-140
n-Triacontane (C30)	500	U	7800	78	7800	78	0	25	40-140
n-Hexatriacontane (C36)	500	U	8400	84	8400	84	0	25	40-140

[1] = Range concentration excludes the concentration of any surrogate(s) and/or internal standards eluting in that range.
[3] = Values reported reflect their sum.

Extraction Surrogate	% Recovery		Acceptance Range (%)
5-alpha Androstane	73	76	40-140
ortho-Terphenyl	78	76	40-140
Fractionation Surrogate			
Biphenyl	85	82	40-140
2-Fluorobiphenyl	82	80	40-140

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded result.

11/28/06 12:13

Laboratory Control Summary
Extractable Petroleum Hydrocarbons by GC/FID

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **Laboratory Control Sample**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **See Below**
Associated Blank: **ES111506B10**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Analyst
N/A	N/A	11/15/06	100	JBS

Aliphatic Breakthrough Criteria

Lab ID:	ES111506LCS07	ES111506LCSD07	
Parameter	**LCS % Breakthrough**	**LCSD % Breakthrough**	**% Breakthrough Maximum Limit**
Naphthalene	0.1	0.1	5
2-Methylnaphthalene	0.2	0.2	5

N/A - Not Applicable

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded result.

11/28/06 12:13

Total Metals

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: N/A SDG: N/A
Client ID: **301 0-1**
Matrix: **Sediment**
Percent Solid: **79.1**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-02**
Concentration Units: **mg/Kg**
Date Collected: **10/23/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Arsenic	**2.4**		0.099	5	11/10/06	11/08/06	6020A	LCP
Barium	**6.2**		0.099	5	11/10/06	11/08/06	6020A	LCP
Cadmium	**0.21**		0.040	5	11/10/06	11/08/06	6020A	LCP
Chromium	**16**		0.99	5	11/10/06	11/08/06	6020A	LCP
Lead	**24**		0.099	5	11/10/06	11/08/06	6020A	LCP
Mercury	**0.19**		0.0060	1	11/09/06	11/08/06	7471A	LMR
Selenium	**0.55**		0.40	5	11/10/06	11/08/06	6020A	LCP
Silver	**0.21**		0.092	5	11/13/06	11/08/06	6020A	LMR

N/A - Not Applicable

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Total Metals

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: N/A SDG: N/A
Client ID: **307A 0-1**
Matrix: **Sediment**
Percent Solid: **57.7**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-11**
Concentration Units: **mg/Kg**
Date Collected: **10/23/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Arsenic	**5.9**		0.12	5	11/10/06	11/08/06	6020A	LCP
Barium	**32**		0.12	5	11/10/06	11/08/06	6020A	LCP
Cadmium	**4.4**		0.050	5	11/10/06	11/08/06	6020A	LCP
Chromium	**260**		1.2	5	11/10/06	11/08/06	6020A	LCP
Lead	**190**		0.12	5	11/10/06	11/08/06	6020A	LCP
Mercury	**0.94**		0.039	5	11/09/06	11/08/06	7471A	LMR
Selenium	**1.4**		0.50	5	11/10/06	11/08/06	6020A	LCP
Silver	**1.8**		0.12	5	11/13/06	11/08/06	6020A	LMR

N/A - Not Applicable

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Total Metals

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: N/A SDG: N/A
Client ID: **309 0-1**
Matrix: **Sediment**
Percent Solid: **70.1**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-15**
Concentration Units: **mg/Kg**
Date Collected: **10/24/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Arsenic	**5.7**		0.11	5	11/10/06	11/08/06	6020A	LCP
Barium	**160**		0.11	5	11/10/06	11/08/06	6020A	LCP
Cadmium	**0.93**		0.045	5	11/10/06	11/08/06	6020A	LCP
Chromium	**56**		1.1	5	11/10/06	11/08/06	6020A	LCP
Lead	**360**		0.11	5	11/10/06	11/08/06	6020A	LCP
Mercury	**0.43**		0.0066	1	11/09/06	11/08/06	7471A	LMR
Selenium	**0.96**		0.45	5	11/10/06	11/08/06	6020A	LCP
Silver	**0.54**		0.11	5	11/13/06	11/08/06	6020A	LMR

N/A - Not Applicable

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Total Metals

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **332A 0-1**
Matrix: **Sediment**
Percent Solid: **95.9**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-19**
Concentration Units: **mg/Kg**
Date Collected: **10/23/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Arsenic	**0.90**		0.090	5	11/10/06	11/08/06	6020A	LCP
Barium	**3.0**		0.090	5	11/10/06	11/08/06	6020A	LCP
Cadmium	**0.071**		0.036	5	11/10/06	11/08/06	6020A	LCP
Chromium	**3.7**		0.90	5	11/10/06	11/08/06	6020A	LCP
Lead	**10**		0.090	5	11/10/06	11/08/06	6020A	LCP
Mercury	**0.027**		0.0051	1	11/09/06	11/08/06	7471A	LMR
Selenium	0.36	U	0.36	5	11/10/06	11/08/06	6020A	LCP
Silver	0.093	U	0.093	5	11/13/06	11/08/06	6020A	LMR

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Blank
Total Metals

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Blank**
Matrix: **Sediment**
Percent Solid: **100.0**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **MS110606B06B**
Concentration Units: **mg/Kg**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Arsenic	0.12	U	0.12	5	11/10/06	11/08/06	6020A	LCP
Barium	0.12	U	0.12	5	11/10/06	11/08/06	6020A	LCP
Cadmium	0.050	U	0.050	5	11/10/06	11/08/06	6020A	LCP
Chromium	1.2	U	1.2	5	11/10/06	11/08/06	6020A	LCP
Lead	0.12	U	0.12	5	11/10/06	11/08/06	6020A	LCP
Selenium	0.50	U	0.50	5	11/10/06	11/08/06	6020A	LCP

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Blank
Total Metals

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Blank**
Matrix: **Sediment**
Percent Solid: **100.0**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **MS110606B05B**
Concentration Units: **mg/Kg**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Silver	0.12	U	0.12	5	11/13/06	11/08/06	6020A	LMR

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Blank
Total Metals

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Blank**
Matrix: **Sediment**
Percent Solid: **100.0**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **MS110606B07B**
Concentration Units: **mg/Kg**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Mercury	0.010	U	0.010	1	11/09/06	11/08/06	7471A	LMR

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Laboratory Control Sample - High
Total Metals

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Lab Control Sample High**
Matrix: **Sediment**
Percent Solid: **100.0**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **MS110606SLH03SLH**
Concentration Units: **mg/Kg**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Conc.	% Recovery	% Recovery Limits
Arsenic	200	99	80-120
Barium	200	100	80-120
Cadmium	99	99	80-120
Chromium	200	100	80-120
Lead	190	96	80-120
Selenium	200	101	80-120

N/A - Not Applicable

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded results.

11/13/06 16:01

Laboratory Control Sample - Low
Total Metals

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: N/A SDG: N/A
Client ID: **Lab Control Sample Low**
Matrix: **Sediment**
Percent Solid: **100.0**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **MS110606SLL02SLL**
Concentration Units: **mg/Kg**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Conc.	% Recovery	% Recovery Limits
Silver	2.2	108	80-120

N/A - Not Applicable

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded results.

11/13/06 16:02

Laboratory Control Sample
Total Metals

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Laboratory Control Sample**
Matrix: **Sediment**
Percent Solid: **100.0**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **MS110606SLC02SLC**
Concentration Units: **mg/Kg**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Conc.	% Recovery	% Recovery Limits
Mercury	0.48	97	80-120

N/A - Not Applicable

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded results.

11/13/06 16:03

Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **301 0-1**
Matrix: **Sediment**
Percent Solid: **79.1**

Lab Code: **MA00030**
ETR: **0610188**

Lab ID: **0610188-02**
Date Collected: **10/23/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**0.53**		0.01	1	11/14/06	%	9060	JAD
Total Organic Carbon (Run 2)	**0.65**		0.01	1	11/14/06	%	9060	JAD
Reactive Sulfide	**2.4**		0.28	1	11/15/06	mg/Kg	Ch.7/376.2	JAD

N/A - Not Applicable

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **307A 0-1**
Matrix: **Sediment**
Percent Solid: **57.7**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **0610188-11**
Date Collected: **10/23/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**0.98**		0.01	1	11/14/06	%	9060	JAD
Total Organic Carbon (Run 2)	**0.86**		0.01	1	11/14/06	%	9060	JAD
Reactive Sulfide	**150**		14	50	11/15/06	mg/Kg	Ch.7/376.2	JAD

N/A - Not Applicable

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **309 0-1**
Matrix: **Sediment**
Percent Solid: **70.1**

Lab Code: **MA00030**
ETR: **0610188**

Lab ID: **0610188-15**
Date Collected: **10/24/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**2.0**		0.01	1	11/14/06	%	9060	JAD
Total Organic Carbon (Run 2)	**1.8**		0.01	1	11/14/06	%	9060	JAD
Reactive Sulfide	**190**		14	50	11/15/06	mg/Kg	Ch.7/376.2	JAD

N/A - Not Applicable

12/01/06 08:12

Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **332A 0-1**
Matrix: **Sediment**
Percent Solid: **95.9**

Lab Code: **MA00030**
ETR: **0610188**

Lab ID: **0610188-19**
Date Collected: **10/23/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**0.12**		0.01	1	11/14/06	%	9060	JAD
Total Organic Carbon (Run 2)	**0.12**		0.01	1	11/14/06	%	9060	JAD
Reactive Sulfide	**11**		1.4	5	11/15/06	mg/Kg	Ch.7/376.2	JAD

N/A - Not Applicable

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Blank
Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Blank**
Matrix: **Sediment**
Percent Solid: **100**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **WS111406B16**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	0.01	U	0.01	1	11/14/06	%	9060	JAD
Total Organic Carbon (Run 2)	0.01	U	0.01	1	11/14/06	%	9060	JAD

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Blank
Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Blank**
Matrix: **Sediment**
Percent Solid: **100**

Lab Code: **MA00030**
ETR: **0610188**
Lab ID: **WS111506B23**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Reactive Sulfide	1.0	U	1.0	1	11/15/06	mg/Kg	Ch.7/376.2	JAD

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Standard Reference Material 1944
Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **SRM 1944**
Matrix: **Sediment**
Percent Solid: **100**

Lab Code: **MA00030**
ETR: **0610188**

Lab ID: **WS111406L194404**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Conc.	% Recovery	% Recovery Limits
Total Organic Carbon (Run 1)	3.8	87	75-125
Total Organic Carbon (Run 2)	3.5	80	75-125

N/A - Not Applicable

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded results.

12/01/06 08:12

Laboratory Control Sample
Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Laboratory Control Sample**
Matrix: **Sediment**
Percent Solid: **100**

Lab Code: **MA00030**
ETR: **0610188**

Lab ID: **WS111506L07**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Conc.	% Recovery	% Recovery Limits
Reactive Sulfide	26	91	75-125

N/A - Not Applicable

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded results.

12/01/06 08:12

CHAIN OF CUSTODY

PAGE 1 OF 4

ALPHA LAB

WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193

RAYNHAM, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: 0610488

Client Information

Client: Apex Companies, LLC

Address: 115 Broad Street Suite 200, Boston, MA 02110

Phone: 617-728-0070 X-113

Fax: 617-728-0080

Email: cmyers@apexenv.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: NB Harbor Dredge-Phase III

Project Location: New Bedford, MA

Project #: 6591.002

Project Manager: Chet Myers

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☒ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

Min Detection Limits: As = 0.5ppm, Cd = 0.1mg/kg, Cr = 1mg/kg, Cu = 1mg/kg, Pb = 1mg/kg, Hg = 0.02ppm, Ni = 1ppm, Zn = 1ppm, PCB summation of Congeners = 0.001mg/kg, EPH = 0.01ppm, TOC = 0.1%, Reactive Sulfide = 30ppm

HOLD All Samples

SAMPLE HANDLING

Filtration: ☐ Done ☒ Not needed ☐ Lab to do

Preservation: ☐ Lab to do (Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	RCRA & Metals	PCB Summation of Congeners	EPH Petroleum Hydrocarbons	TOC	Reactive Sulfide	Sample Specific Comments	Total # Bottles
-1	301 2.5-3.5	10/23/06	330pm	SED	KVN		X					
-2	301 0-1	10/23/06	330pm	SED	KVN	X	X	X	X	X		
-3	302 0-1	10/23/06	340pm	SED	KVN		X					
-4	303 0-1	10/23/06	230pm	SED	KVN		X					
-5	303 2.5-3.5	10/23/06	2:30pm	SED	KVN		X					
-6	304 0-1	10/23/06	346pm	SED	KVN		X					
-7	304 2.5-3.5	10/23/06	346pm	SED	KVN		X					
-8	305 0-1	10/23/06	410pm	SED	KVN		X					
-9	306 0-1	10/23/06	420pm	SED	KVN		X					
-10	306 2.5-3.5	10/23/06	420pm	SED	KVN		X					

Container Type

Preservative

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	10/23/06 4pm	Sheila Murender	10-26-06 4pm
Sheila Murender	10-27-06 9:10	Paul Gilbert	10-27-06 9:10
Paul Gilbert	10-27-06 0945		10/27/06 0945

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 10-OCT-05)

CHAIN OF CUSTODY

PAGE 2 OF 4

Date Rec'd in Lab:

ALPHA Job #: 0610188

WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

RAYNHAM, MA
TEL: 508-822-9300
FAX: 508-822-3288

Client Information

Client: Apex Companies LLC
Address: 115 Broad Street, Suite 2100
Boston, MA 02110
Phone: 617-728-0070 x-113
Fax: 617-728-0080
Email: cmyers@apexenv.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: NB Harbor Dredge Phase III
Project Location: New Bedford, MA
Project #: 6591.002
Project Manager: Clot Myers
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☒ FAX ☒ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
MA Detection Limits: As=0.5ppm, Cd=0.1ppm, Hg=0.02ppm, (Ni, Zn, Cr, Cu, Pb=1ppm)
PCB sum of Con.=0.001ppm, EPH=0.01ppm, TOC=0.1%, Reg Sulf.=30ppm
HOLD All Samples pending call

SAMPLE HANDLING
Filtration
☐ Done
☒ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	RCRA 8 Metals	PCB sum of Con.	EPH Petroleum Hydrocarbons	TOC	Reactive Sulfide	Sample Specific Comments	TOTAL # BOTTLES
-11	307A 0-1	10/23/06	935AM	SED	KUN	X	X	X	X	X		
-12	307A 2.5-3.5	10/23/06	935AM	SED	KUN		X					
-13	308 0-1	10/23/06	910AM	SED	KUN		X					
-14	308 2.5-3.5	10/23/06	910AM	SED	KUN		X					
-15	309 0-1	10/24/06	751AM	SED	KUN	X	X	X	X	X		
-16	310 0-1	10/24/06	826AM	SED	KUN		X					
-17	310 2.5-3.5	10/24/06	826AM	SED	KUN		X					
-18	329 0-1	10/23/06	100pm	SED	KUN		X					
-19	332A 0-1	10/23/06	1030AM	SED	KUN	X	X	X	X	X		
-20	330 0-1	10/23/06	145pm	SED	KUN		X					

Container Type
Preservative

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	10/26/06 4pm	Shelly Muranda	10/26/06 4pm
Shelly Muranda	10/27/06 9:10am	Paul Gilbert	10-27-06 9:10
Paul Gilbert	10-27-06 0945	[illegible]	10/27/06 0945

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 10-OCT-05)

Sample Receipt Checklist

Client:	APEENV	**Receipt Date:**	10/27/06
Project:	NB Harbor Phase II	**Log-in Date:**	↓
ETR #:	0610188	**Inspection by:** wr	**Login by:** wr

ALL SECTIONS BELOW MUST BE COMPLETED

Comments / Notes

Were samples shipped? Yes, FedEx / UPS / Other:_____
(No, WHG Courier pick-up) / Hand delivered

Is bill of lading retained? Yes, Tracking #:_____
No, Unavailable / (NA)

Number of coolers received for this project delivery: 1

Indicate cooler temperature upon opening (if multiple coolers, record all temps):

Note: If all coolers are 2-6°C, use one checklist, if NOT, use separate checklists and note all samples received *above* 6°C.

Cooler 1:
Temperature(s) taken from: 4° IR Gun, 3° Temp. Blank, / NA

Were samples received on ice? (Yes) / No

Chain-of-Custody present? (Yes) / No
Complete? (Yes) / No

Custody seals present on Cooler? Yes / (No)
on Bottles? Yes / (No)
Intact? Yes / No / (NA)
Note: Affix custody seals to back of this page.

Were sample containers intact? (Yes) / No If No, list samples: →

Did VOA/VPH waters contain headspace (>5mm)? Yes / No (NA) If Yes, list samples: →

Were 5035 VOA soils, or VPH soils, *covered* with MeOH? Yes / No / (NA)
If No, list samples: →

Was a sufficient amount of sample received for each test indicated on the COC?
(Yes) / No If No, list samples: →

If chemical preservation is appropriate -
Were samples field preserved? Yes / No / (NA)
☐ C=HCl ☐ M=MeOH ☐ S=H_2SO4
☐ H=NaOH ☐ N=HNO_3 ☐ Other:_____ ☐ U= Unknown

Preservation (pH) verified at lab for *EVERY* bottle? (Not: VOA / VPH / Sulfide)
YES: <2 or >12 (CN) or NO (NA)
If No, why?:

Were samples received within hold time? (Yes) / No If No, list samples: →

Discrepancy between samples rec'd & COC ? Yes / (No) If Yes, list samples: →

Was the Project Manager notified of any other problems? Yes / No / NA

Project Manager Acknowledgement: Nancy Carlson Date: 10/27/06

Sample storage refrigerator #: C3

Sample storage freezer #:_____

Cooler 2:_____ Cooler 3:_____

Cooler 4:_____ Cooler 5:_____

Cooler 6:_____ Cooler 7:_____

More:_____

Chemical preservation OK for ALL samples?

Yes / No / (N/A)

If No, list samples below:

Please use back for any additional notes!

Certificate Program Summary

Method numbers assume the most recent EPA revisions. For a complete listing of analytes for the referenced methods please contact your Alpha Woods Hole Lab Project Manager or the Quality Assurance Manager.

Connecticut Department of Public Health Certificate No. : PH-0141 - *Wastewater* (General Chemistry: 120.1, 150.1, 160.1, 160.2, 180.1, 300.0, 310.1, 335.2, 365.2, 405.1, 413.1, COD HACH 8000; Metals: 200.7, 245.1; Organics: 608, 624, 625). *Solid Waste/Soil* (General Chemistry: 1010, 9010/9014, 9045, 9056, 9060; Metals: 6010, 6020, 7041, 7471; Organics: 8081, 8082, 8260, 8270, ETPH).

Florida Department of Health Certificate No. : E87814 - Secondary NELAP Accreditation for *Wastewater* (General Chemistry: 120.1/2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, SM2320B, 335.2, 365.2, 413.1, 420.1, SM2540G, COD HACH 8000; Metals: 200.7, 204.2, 206.2, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624, 625). *Solid and Hazardous Waste* (General Chemistry: 9010/9014, 9045, 9050, 9056, 9060, 9065; Metals: 6010, 6020, 7041, 7060, 7421, 7470, 7471, 7740, 7841; Organics: 8081, 8082, 8260, 8270).

Louisiana Department of Environmental Quality Certificate No. : 03090 - Primary NELAP Accrediting Authority for *Wastewater* (General Chemistry: 120.1/2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 310.1/SM2320B, 335.2, 365.2, 376.2, 405.1, 413.1, 420.1, SM2540G, COD HACH 8000; Metals: 200.7, 204.2, 206.2, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624, 625). *Solid and Hazardous Waste* (General Chemistry:1010, 1311, 9010/9014, 9045, 9056, 9060; Metals: 6010, 6020, 7041, 7060, 7191, 7421, 7470, 7471, 7740, 7841; Organics: 8081, 8082, 8260, 8270).

Maine Department of Human Services Certificate No. : MA030 - *Wastewater* (General Chemistry: 120.1/2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 310.1/SM2320B, 335.2, 365.2, 405.1, 413.1, 420.1, COD HACH 8000; Metals: 200.7, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624).

Massachusetts Department of Environmental Protection Certificate No. : M-MA030 - *Wastewater* (General Chemistry: 120.1/2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 310.1/SM2320B, 335.2, 365.2, 405.1, 413.1, 420.1, COD HACH 8000; Metals: 200.7, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624).

New Hampshire Department of Environmental Services Certificate No. : 220604 - Secondary NELAP Accreditation for *Wastewater* (General Chemistry: 120.1/2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 310.1/SM2320B, 335.2, 365.2, 376.2, 405.1, 413.1, 420.1, COD HACH 8000, SM2540G; Metals: 200.7, 204.2, 206.2, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624, 625).

New Jersey Department of Environmental Protection Certificate No. : MA015 - *Solid and Hazardous Waste* (General Chemistry: 1010, 1311, 3060, 7196, 9010/9014, 9045, 9056, 9060; Metals: 3010, 3015, 3020, 3050, 3051, 6010, 6020, 7041, 7060, 7131, 7191, 7211, 7421, 7470, 7471, 7520, 7740, 7761, 7841; Organics: 3510, 3545, 5030, 5035, 3620, 3630, 3640, 3660, 8081, 8082, 8100, 8260, 8270).

New York Department of Health Certificate No. : 11627 - Secondary NELAP Accreditation for *Wastewater* (Metals: 200.7, 204.2, 206.2, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624, 625). *Solid and Hazardous Waste* (Metals: 6010, 7041, 7060, 7470, 7471, 7740; Organics: 8081, 8082, 8260, 8270).

Rhode Island Department of Health Certificate No. : 00064 - Chemistry: *Organic and Inorganic in Surface Water, Wastewater/Sewage and Soil* (Method numbers not specified with certificate.)

U.S. Army Corps of Engineers - General Chemistry: 9010/9014, 9071/418.1, 9060; Organics: 8081, 8082, 8260, 8270, 8270-SIM; Metals: 6010, 6020, 7000.

Department of the Navy - General Chemistry: 9010/9014, 9060; Organics: 8081, 8082, 8015-mod, 8260, 8270, 8270-SIM; Metals: 6010, 6020.

ANALYTICAL REPORT

Prepared for:
Apex Environmental, Inc.
286 Congress Street
Suite 610
Boston, MA 02210

Project:	New Bedford Harbor
ETR:	0610189
Report Date:	December 04, 2006

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

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375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Sample ID Cross Reference

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**

Lab Code: **MA00030**
ETR: **0610189**

Lab Sample ID	Client Sample ID
0610189-01	311 0-1
0610189-03	316 0-1
0610189-04	319 0-1
0610189-05	321 0-1
0610189-06	325 0-1
0610189-07	327 0-1
0610189-08	328 0-1
0610189-09	331 0-1
0610189-10	333 0-1
0610189-11	334 0-1
0610189-12	335 0-1
0610189-13	336 0-1
0610189-14	337 0-1

Gaps in Lab Sample IDs are indicative of samples not analyzed per client request.

CASE NARRATIVE
Alpha Woods Hole Labs

ETR: 0610189
Project: New Bedford Harbor

All analyses were performed according to Alpha Woods Hole Labs quality assurance program and documented Standard Operating Procedures (SOPs). The analytical results contained in this report were performed within holding time, and with appropriate quality control measures, except where noted. A summary of all state and federal accreditations is provided within this report. Blank correction of results is not performed in the laboratory for any parameter. Soil/sediment samples are reported on a dry weight basis unless otherwise noted. Air and sediment samples are either not certifiable under the NELAC and/or are not currently held as accredited matrices.

Sample Receipt

1. Samples were frozen upon receipt, extending the extraction holding time.

Polychlorinated Biphenyls by GC/MS

1. Several target congeners analyzed by this method co-elute with non-target congeners and are therefore reported as a co-eluting pair. Refer to the individual report forms.
2. The initial analysis of several samples had concentrations that exceeded the calibration range of the instrument. These samples were reanalyzed at dilution and both analyses are reported. Refer to the individual report forms for dilution requirements.

Extractable Petroleum Hydrocarbons by GC/FID

1. All data quality objectives were met.

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

Approved by: Nancy J. Rose Title: Project Manager Date: 12/4/06

PCB CONGENERS

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **311 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-01**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	11/29/06	65.7	5.42	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**29**
Cl3-BZ#18	**65**
Cl3-BZ#28/#31[1]	**390**
Cl4-BZ#44	**95**
Cl4-BZ#52	**170**
Cl4-BZ#43/#49[1]	**200**
Cl4-BZ#66	**190**
Cl5-BZ#101/#84[1]	**300**
Cl5-BZ#87	**78**
Cl7-BZ#184	0.28 U
Cl5-BZ#105	**81**
Cl5-BZ#118	**240** E
Cl7-BZ#183	**9.4**
Cl6-BZ#167/#128[1]	**43**
Cl6-BZ#138/#163[1]	**180**
Cl6-BZ#153	**160**
Cl7-BZ#170/#190[1]	**20**
Cl7-BZ#180	**32**
Cl7-BZ#182/#187[1]	**21**
Cl8-BZ#195	**2.5**
Cl9-BZ#206	**3.0**
Cl10-BZ#209	**1.2**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	76	50-125
Cl8-BZ#202-C13	76	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:53

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **311 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-01E**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	11/29/06	65.7	5.42	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**31**
Cl3-BZ#18	**65**
Cl3-BZ#28/#31[1]	**370**
Cl4-BZ#44	**95**
Cl4-BZ#52	**170**
Cl4-BZ#43/#49[1]	**190**
Cl4-BZ#66	**180**
Cl5-BZ#101/#84[1]	**300**
Cl5-BZ#87	**80**
Cl7-BZ#184	1.4 U
Cl5-BZ#105	**80**
Cl5-BZ#118	**230**
Cl7-BZ#183	**11**
Cl6-BZ#167/#128[1]	**44**
Cl6-BZ#138/#163[1]	**180**
Cl6-BZ#153	**160**
Cl7-BZ#170/#190[1]	**22**
Cl7-BZ#180	**35**
Cl7-BZ#182/#187[1]	**23**
Cl8-BZ#195	**3.9**
Cl9-BZ#206	**3.9**
Cl10-BZ#209	**2.3**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	88	50-125
Cl8-BZ#202-C13	88	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:56

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **316 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-03**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/25/06	10/27/06	11/15/06	11/29/06	62.0	5.68	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**34**
Cl3-BZ#18	**70**
Cl3-BZ#28/#31[1]	**400**
Cl4-BZ#44	**110**
Cl4-BZ#52	**210**
Cl4-BZ#43/#49[1]	**240**
Cl4-BZ#66	**200**
Cl5-BZ#101/#84[1]	**410**
Cl5-BZ#87	**100**
Cl7-BZ#184	0.28 U
Cl5-BZ#105	**100**
Cl5-BZ#118	**340** E
Cl7-BZ#183	**15**
Cl6-BZ#167/#128[1]	**62**
Cl6-BZ#138/#163[1]	**260**
Cl6-BZ#153	**260** E
Cl7-BZ#170/#190[1]	**31**
Cl7-BZ#180	**51**
Cl7-BZ#182/#187[1]	**35**
Cl8-BZ#195	**4.6**
Cl9-BZ#206	**4.9**
Cl10-BZ#209	**2.4**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	74	50-125
Cl8-BZ#202-C13	78	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:53

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **316 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-03E**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/25/06	10/27/06	11/15/06	11/29/06	62.0	5.68	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**38**
Cl3-BZ#18	**76**
Cl3-BZ#28/#31[1]	**410**
Cl4-BZ#44	**120**
Cl4-BZ#52	**220**
Cl4-BZ#43/#49[1]	**260**
Cl4-BZ#66	**210**
Cl5-BZ#101/#84[1]	**440**
Cl5-BZ#87	**110**
Cl7-BZ#184	1.4 U
Cl5-BZ#105	**110**
Cl5-BZ#118	**360**
Cl7-BZ#183	**16**
Cl6-BZ#167/#128[1]	**70**
Cl6-BZ#138/#163[1]	**290**
Cl6-BZ#153	**280**
Cl7-BZ#170/#190[1]	**34**
Cl7-BZ#180	**56**
Cl7-BZ#182/#187[1]	**39**
Cl8-BZ#195	**4.9**
Cl9-BZ#206	**5.4**
Cl10-BZ#209	**2.9**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	86	50-125
Cl8-BZ#202-C13	94	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:56

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **319 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-04**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/23/06	10/27/06	11/15/06	11/29/06	76.8	5.60	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**7.4**
Cl3-BZ#18	**13**
Cl3-BZ#28/#31[1]	**64**
Cl4-BZ#44	**19**
Cl4-BZ#52	**37**
Cl4-BZ#43/#49[1]	**39**
Cl4-BZ#66	**29**
Cl5-BZ#101/#84[1]	**50**
Cl5-BZ#87	**12**
Cl7-BZ#184	0.23 U
Cl5-BZ#105	**12**
Cl5-BZ#118	**38**
Cl7-BZ#183	**1.7**
Cl6-BZ#167/#128[1]	**6.8**
Cl6-BZ#138/#163[1]	**28**
Cl6-BZ#153	**29**
Cl7-BZ#170/#190[1]	**2.9**
Cl7-BZ#180	**4.7**
Cl7-BZ#182/#187[1]	**3.6**
Cl8-BZ#195	0.23 U
Cl9-BZ#206	**0.49**
Cl10-BZ#209	**0.48**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	76	50-125
Cl8-BZ#202-C13	82	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:53

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **321 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-05**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/25/06	10/27/06	11/15/06	11/29/06	63.7	5.55	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**24**
Cl3-BZ#18	**68**
Cl3-BZ#28/#31[1]	**270**
Cl4-BZ#44	**82**
Cl4-BZ#52	**120**
Cl4-BZ#43/#49[1]	**110**
Cl4-BZ#66	**140**
Cl5-BZ#101/#84[1]	**170**
Cl5-BZ#87	**45**
Cl7-BZ#184	0.28 U
Cl5-BZ#105	**46**
Cl5-BZ#118	**97**
Cl7-BZ#183	**43**
Cl6-BZ#167/#128[1]	**22**
Cl6-BZ#138/#163[1]	**180**
Cl6-BZ#153	**180**
Cl7-BZ#170/#190[1]	**77**
Cl7-BZ#180	**170**
Cl7-BZ#182/#187[1]	**96**
Cl8-BZ#195	**18**
Cl9-BZ#206	**8.8**
Cl10-BZ#209	**0.36**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	84	50-125
Cl8-BZ#202-C13	88	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:54

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **325 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-06**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/25/06	10/27/06	11/15/06	11/29/06	46.5	5.88	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**73**
Cl3-BZ#18	**150**
Cl3-BZ#28/#31[1]	**720** E
Cl4-BZ#44	**220**
Cl4-BZ#52	**370** E
Cl4-BZ#43/#49[1]	**320**
Cl4-BZ#66	**350** E
Cl5-BZ#101/#84[1]	**940** E
Cl5-BZ#87	**280**
Cl7-BZ#184	0.37 U
Cl5-BZ#105	**250**
Cl5-BZ#118	**620** E
Cl7-BZ#183	**120**
Cl6-BZ#167/#128[1]	**150**
Cl6-BZ#138/#163[1]	**810** E
Cl6-BZ#153	**870** E
Cl7-BZ#170/#190[1]	**210**
Cl7-BZ#180	**440** E
Cl7-BZ#182/#187[1]	**300**
Cl8-BZ#195	**42**
Cl9-BZ#206	**33**
Cl10-BZ#209	**9.4**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	78	50-125
Cl8-BZ#202-C13	80	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 16:00

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **325 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-06E**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/25/06	10/27/06	11/15/06	11/29/06	46.5	5.88	2	10	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**80**
Cl3-BZ#18	**160**
Cl3-BZ#28/#31[1]	**780**
Cl4-BZ#44	**260**
Cl4-BZ#52	**400**
Cl4-BZ#43/#49[1]	**340**
Cl4-BZ#66	**380**
Cl5-BZ#101/#84[1]	**1000**
Cl5-BZ#87	**310**
Cl7-BZ#184	3.7 U
Cl5-BZ#105	**270**
Cl5-BZ#118	**650**
Cl7-BZ#183	**130**
Cl6-BZ#167/#128[1]	**160**
Cl6-BZ#138/#163[1]	**870**
Cl6-BZ#153	**940**
Cl7-BZ#170/#190[1]	**220**
Cl7-BZ#180	**470**
Cl7-BZ#182/#187[1]	**340**
Cl8-BZ#195	**48**
Cl9-BZ#206	**34**
Cl10-BZ#209	**13**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	96	50-125
Cl8-BZ#202-C13	95	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:57

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **327 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-07**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/25/06	10/27/06	11/15/06	11/29/06	36.6	5.67	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**100**
Cl3-BZ#18	**180**
Cl3-BZ#28/#31[1]	**1000** E
Cl4-BZ#44	**280**
Cl4-BZ#52	**490** E
Cl4-BZ#43/#49[1]	**540**
Cl4-BZ#66	**510** E
Cl5-BZ#101/#84[1]	**810** E
Cl5-BZ#87	**190**
Cl7-BZ#184	0.48 U
Cl5-BZ#105	**210**
Cl5-BZ#118	**650** E
Cl7-BZ#183	**57**
Cl6-BZ#167/#128[1]	**120**
Cl6-BZ#138/#163[1]	**560**
Cl6-BZ#153	**610** E
Cl7-BZ#170/#190[1]	**110**
Cl7-BZ#180	**210**
Cl7-BZ#182/#187[1]	**140**
Cl8-BZ#195	**21**
Cl9-BZ#206	**16**
Cl10-BZ#209	**4.9**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	73	50-125
Cl8-BZ#202-C13	75	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:54

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **327 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-07E**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/25/06	10/27/06	11/15/06	11/29/06	36.6	5.67	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**120**
Cl3-BZ#18	**200**
Cl3-BZ#28/#31[1]	**1100**
Cl4-BZ#44	**310**
Cl4-BZ#52	**520**
Cl4-BZ#43/#49[1]	**570**
Cl4-BZ#66	**540**
Cl5-BZ#101/#84[1]	**880**
Cl5-BZ#87	**200**
Cl7-BZ#184	2.4 U
Cl5-BZ#105	**230**
Cl5-BZ#118	**700**
Cl7-BZ#183	**63**
Cl6-BZ#167/#128[1]	**140**
Cl6-BZ#138/#163[1]	**610**
Cl6-BZ#153	**660**
Cl7-BZ#170/#190[1]	**110**
Cl7-BZ#180	**220**
Cl7-BZ#182/#187[1]	**160**
Cl8-BZ#195	**26**
Cl9-BZ#206	**18**
Cl10-BZ#209	**7.0**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	85	50-125
Cl8-BZ#202-C13	86	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:57

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **328 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-08**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/25/06	10/27/06	11/15/06	11/29/06	32.1	5.20	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**70**
Cl3-BZ#18	**130**
Cl3-BZ#28/#31[1]	**720**
Cl4-BZ#44	**170**
Cl4-BZ#52	**330**
Cl4-BZ#43/#49[1]	**410**
Cl4-BZ#66	**300**
Cl5-BZ#101/#84[1]	**530**
Cl5-BZ#87	**96**
Cl7-BZ#184	0.60 U
Cl5-BZ#105	**120**
Cl5-BZ#118	**430**
Cl7-BZ#183	**47**
Cl6-BZ#167/#128[1]	**80**
Cl6-BZ#138/#163[1]	**390**
Cl6-BZ#153	**450**
Cl7-BZ#170/#190[1]	**82**
Cl7-BZ#180	**170**
Cl7-BZ#182/#187[1]	**120**
Cl8-BZ#195	**18**
Cl9-BZ#206	**13**
Cl10-BZ#209	**4.3**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	74	50-125
Cl8-BZ#202-C13	79	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:54

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **331 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-09**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/25/06	10/27/06	11/15/06	11/29/06	57.0	5.29	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**1.5**
Cl3-BZ#18	**2.7**
Cl3-BZ#28/#31[1]	**14**
Cl4-BZ#44	**4.0**
Cl4-BZ#52	**7.6**
Cl4-BZ#43/#49[1]	**8.7**
Cl4-BZ#66	**6.0**
Cl5-BZ#101/#84[1]	**12**
Cl5-BZ#87	**2.3**
Cl7-BZ#184	0.33 U
Cl5-BZ#105	**2.7**
Cl5-BZ#118	**9.2**
Cl7-BZ#183	**1.6**
Cl6-BZ#167/#128[1]	**3.0**
Cl6-BZ#138/#163[1]	**8.4**
Cl6-BZ#153	**10**
Cl7-BZ#170/#190[1]	**1.7**
Cl7-BZ#180	**3.9**
Cl7-BZ#182/#187[1]	**2.8**
Cl8-BZ#195	0.33 U
Cl9-BZ#206	0.33 U
Cl10-BZ#209	0.33 U

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	82	50-125
Cl8-BZ#202-C13	76	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **333 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-10**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	11/29/06	54.3	5.78	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**220**	
Cl3-BZ#18	**610**	E
Cl3-BZ#28/#31[1]	**2400**	E
Cl4-BZ#44	**590**	E
Cl4-BZ#52	**880**	E
Cl4-BZ#43/#49[1]	**900**	E
Cl4-BZ#66	**910**	E
Cl5-BZ#101/#84[1]	**1100**	E
Cl5-BZ#87	**400**	E
Cl7-BZ#184	0.32	U
Cl5-BZ#105	**360**	E
Cl5-BZ#118	**840**	E
Cl7-BZ#183	**28**	
Cl6-BZ#167/#128[1]	**150**	
Cl6-BZ#138/#163[1]	**640**	E
Cl6-BZ#153	**500**	E
Cl7-BZ#170/#190[1]	**61**	
Cl7-BZ#180	**94**	
Cl7-BZ#182/#187[1]	**56**	
Cl8-BZ#195	**5.6**	
Cl9-BZ#206	**8.3**	
Cl10-BZ#209	**2.9**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	80	50-125
Cl8-BZ#202-C13	82	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:55

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **333 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-10E**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	11/29/06	54.3	5.78	2	10	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**190**
Cl3-BZ#18	**560**
Cl3-BZ#28/#31[1]	**2200**
Cl4-BZ#44	**570**
Cl4-BZ#52	**840**
Cl4-BZ#43/#49[1]	**850**
Cl4-BZ#66	**850**
Cl5-BZ#101/#84[1]	**1100**
Cl5-BZ#87	**380**
Cl7-BZ#184	3.2 U
Cl5-BZ#105	**350**
Cl5-BZ#118	**790**
Cl7-BZ#183	**32**
Cl6-BZ#167/#128[1]	**150**
Cl6-BZ#138/#163[1]	**620**
Cl6-BZ#153	**490**
Cl7-BZ#170/#190[1]	**64**
Cl7-BZ#180	**94**
Cl7-BZ#182/#187[1]	**64**
Cl8-BZ#195	**7.2**
Cl9-BZ#206	**8.7**
Cl10-BZ#209	**4.4**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	91	50-125
Cl8-BZ#202-C13	97	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 16:09

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **334 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-11**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	11/29/06	50.7	5.40	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**40**
Cl3-BZ#18	**93**
Cl3-BZ#28/#31[1]	**550**
Cl4-BZ#44	**120**
Cl4-BZ#52	**280**
Cl4-BZ#43/#49[1]	**310**
Cl4-BZ#66	**220**
Cl5-BZ#101/#84[1]	**360**
Cl5-BZ#87	**85**
Cl7-BZ#184	0.36 U
Cl5-BZ#105	**87**
Cl5-BZ#118	**290**
Cl7-BZ#183	**11**
Cl6-BZ#167/#128[1]	**50**
Cl6-BZ#138/#163[1]	**210**
Cl6-BZ#153	**220**
Cl7-BZ#170/#190[1]	**20**
Cl7-BZ#180	**33**
Cl7-BZ#182/#187[1]	**25**
Cl8-BZ#195	**2.5**
Cl9-BZ#206	**3.6**
Cl10-BZ#209	**1.8**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	78	50-125
Cl8-BZ#202-C13	81	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:55

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **335 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-12**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	11/29/06	64.3	5.39	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**57**	
Cl3-BZ#18	**160**	
Cl3-BZ#28/#31[1]	**640**	E
Cl4-BZ#44	**190**	
Cl4-BZ#52	**370**	E
Cl4-BZ#43/#49[1]	**320**	
Cl4-BZ#66	**270**	E
Cl5-BZ#101/#84[1]	**580**	E
Cl5-BZ#87	**180**	
Cl7-BZ#184	0.29	U
Cl5-BZ#105	**160**	
Cl5-BZ#118	**440**	E
Cl7-BZ#183	**15**	
Cl6-BZ#167/#128[1]	**84**	
Cl6-BZ#138/#163[1]	**340**	
Cl6-BZ#153	**290**	E
Cl7-BZ#170/#190[1]	**31**	
Cl7-BZ#180	**50**	
Cl7-BZ#182/#187[1]	**31**	
Cl8-BZ#195	**3.5**	
Cl9-BZ#206	**4.6**	
Cl10-BZ#209	**2.2**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	75	50-125
Cl8-BZ#202-C13	85	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:55

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **335 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-12E**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	11/29/06	64.3	5.39	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**53**
Cl3-BZ#18	**150**
Cl3-BZ#28/#31[1]	**600**
Cl4-BZ#44	**180**
Cl4-BZ#52	**350**
Cl4-BZ#43/#49[1]	**300**
Cl4-BZ#66	**260**
Cl5-BZ#101/#84[1]	**560**
Cl5-BZ#87	**170**
Cl7-BZ#184	1.4 U
Cl5-BZ#105	**160**
Cl5-BZ#118	**430**
Cl7-BZ#183	**14**
Cl6-BZ#167/#128[1]	**81**
Cl6-BZ#138/#163[1]	**330**
Cl6-BZ#153	**280**
Cl7-BZ#170/#190[1]	**33**
Cl7-BZ#180	**50**
Cl7-BZ#182/#187[1]	**31**
Cl8-BZ#195	**7.8**
Cl9-BZ#206	**3.9**
Cl10-BZ#209	1.4 U

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	81	50-125
Cl8-BZ#202-C13	82	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:57

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **336 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-13**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	11/29/06	56.4	5.81	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**73**	
Cl3-BZ#18	**170**	
Cl3-BZ#28/#31[1]	**800**	E
Cl4-BZ#44	**290**	E
Cl4-BZ#52	**640**	E
Cl4-BZ#43/#49[1]	**510**	E
Cl4-BZ#66	**320**	E
Cl5-BZ#101/#84[1]	**1000**	E
Cl5-BZ#87	**350**	E
Cl7-BZ#184	0.31	U
Cl5-BZ#105	**310**	E
Cl5-BZ#118	**820**	E
Cl7-BZ#183	**28**	
Cl6-BZ#167/#128[1]	**170**	
Cl6-BZ#138/#163[1]	**700**	E
Cl6-BZ#153	**540**	E
Cl7-BZ#170/#190[1]	**65**	
Cl7-BZ#180	**92**	
Cl7-BZ#182/#187[1]	**51**	
Cl8-BZ#195	**6.5**	
Cl9-BZ#206	**6.8**	
Cl10-BZ#209	**4.3**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	75	50-125
Cl8-BZ#202-C13	81	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:56

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **336 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-13E**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	11/30/06	56.4	5.81	2	10	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**71**
Cl3-BZ#18	**160**
Cl3-BZ#28/#31[1]	**760**
Cl4-BZ#44	**300**
Cl4-BZ#52	**630**
Cl4-BZ#43/#49[1]	**500**
Cl4-BZ#66	**320**
Cl5-BZ#101/#84[1]	**1100**
Cl5-BZ#87	**360**
Cl7-BZ#184	3.0 U
Cl5-BZ#105	**320**
Cl5-BZ#118	**820**
Cl7-BZ#183	**30**
Cl6-BZ#167/#128[1]	**180**
Cl6-BZ#138/#163[1]	**710**
Cl6-BZ#153	**560**
Cl7-BZ#170/#190[1]	**66**
Cl7-BZ#180	**97**
Cl7-BZ#182/#187[1]	**55**
Cl8-BZ#195	**9.2**
Cl9-BZ#206	**7.9**
Cl10-BZ#209	3.0 U

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	96	50-125
Cl8-BZ#202-C13	92	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:58

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **337 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-14**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	11/29/06	41.0	5.72	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**600**	
Cl3-BZ#18	**1500**	E
Cl3-BZ#28/#31[1]	**7900**	E
Cl4-BZ#44	**1800**	E
Cl4-BZ#52	**2400**	E
Cl4-BZ#43/#49[1]	**2900**	E
Cl4-BZ#66	**3500**	E
Cl5-BZ#101/#84[1]	**3400**	E
Cl5-BZ#87	**1200**	E
Cl7-BZ#184	0.43	U
Cl5-BZ#105	**1200**	E
Cl5-BZ#118	**2700**	E
Cl7-BZ#183	**89**	
Cl6-BZ#167/#128[1]	**460**	
Cl6-BZ#138/#163[1]	**1900**	E
Cl6-BZ#153	**1500**	E
Cl7-BZ#170/#190[1]	**210**	
Cl7-BZ#180	**310**	
Cl7-BZ#182/#187[1]	**180**	
Cl8-BZ#195	**24**	
Cl9-BZ#206	**25**	
Cl10-BZ#209	**6.3**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	79	50-125
Cl8-BZ#202-C13	83	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 14:56

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **337 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-14E**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	11/30/06	41.0	5.72	2	20	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**680**
Cl3-BZ#18	**1700**
Cl3-BZ#28/#31[1]	**9300**
Cl4-BZ#44	**2100**
Cl4-BZ#52	**2900**
Cl4-BZ#43/#49[1]	**3400**
Cl4-BZ#66	**4000**
Cl5-BZ#101/#84[1]	**4000**
Cl5-BZ#87	**1300**
Cl7-BZ#184	8.5 U
Cl5-BZ#105	**1200**
Cl5-BZ#118	**2900**
Cl7-BZ#183	**96**
Cl6-BZ#167/#128[1]	**480**
Cl6-BZ#138/#163[1]	**2000**
Cl6-BZ#153	**1600**
Cl7-BZ#170/#190[1]	**220**
Cl7-BZ#180	**330**
Cl7-BZ#182/#187[1]	**210**
Cl8-BZ#195	**30**
Cl9-BZ#206	**28**
Cl10-BZ#209	8.5 U

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	96	50-125
Cl8-BZ#202-C13	101	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/01/06 15:33

Blank
PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **Blank**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **SS111506B09**
Associated Blank: **N/A**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
N/A	N/A	11/15/06	11/29/06	100	5.00	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	0.40 U
Cl3-BZ#18	0.20 U
Cl3-BZ#28/#31[1]	0.40 U
Cl4-BZ#44	0.20 U
Cl4-BZ#52	0.20 U
Cl4-BZ#43/#49[1]	0.40 U
Cl4-BZ#66	0.20 U
Cl5-BZ#101/#84[1]	0.40 U
Cl5-BZ#87	0.20 U
Cl7-BZ#184	0.20 U
Cl5-BZ#105	0.20 U
Cl5-BZ#118	0.20 U
Cl7-BZ#183	0.20 U
Cl6-BZ#167/#128[1]	0.40 U
Cl6-BZ#138/#163[1]	0.40 U
Cl6-BZ#153	0.20 U
Cl7-BZ#170/#190[1]	0.40 U
Cl7-BZ#180	0.20 U
Cl7-BZ#182/#187[1]	0.40 U
Cl8-BZ#195	0.20 U
Cl9-BZ#206	0.20 U
Cl10-BZ#209	0.20 U

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	86	50-125
Cl8-BZ#202-C13	90	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Laboratory Control Summary
PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **Laboratory Control Sample**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **See Below**
Associated Blank: **SS111506B09**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Analyst
N/A	N/A	11/15/06	100	TLW

Lab ID:	SS111506B09		SS111506LCS06		SS111506LCSD06				
Parameter	**Blank Conc.**		**LCS Conc.**	**LCS % Recovery**	**LCSD Conc.**	**LCSD % Recovery**	**% RPD**	**RPD Limit**	**% Recovery Limits**
Cl2-BZ#5/#8[1]	0.40	U	4.8	60	4.5	56	6	50	40-140
Cl3-BZ#18	0.20	U	5.0	62	5.0	62	0	50	40-140
Cl3-BZ#28/#31[1]	0.40	U	9.9	62	9.5	59	4	50	40-140
Cl4-BZ#44	0.20	U	4.9	61	4.9	61	1	50	40-140
Cl4-BZ#52	0.20	U	5.0	62	4.9	61	1	50	40-140
Cl4-BZ#43/#49[1]	0.40	U	5.5	69	5.8	72	5	50	40-140
Cl4-BZ#66	0.20	U	5.7	71	5.5	68	4	50	40-140
Cl5-BZ#101/#84[1]	0.40	U	5.8	72	6.0	74	3	50	40-140
Cl5-BZ#87	0.20	U	5.0	62	5.0	63	1	50	40-140
Cl5-BZ#105	0.20	U	5.7	71	5.8	72	1	50	40-140
Cl5-BZ#118	0.20	U	5.4	67	5.3	67	0	50	40-140
Cl7-BZ#183	0.20	U	5.9	74	6.2	77	5	50	40-140
Cl6-BZ#167/#128[1]	0.40	U	12	72	13	80	11	50	40-140
Cl6-BZ#138/#163[1]	0.40	U	5.1	64	5.3	66	3	50	40-140
Cl6-BZ#153	0.20	U	5.9	73	6.1	76	3	50	40-140
Cl7-BZ#170/#190[1]	0.40	U	5.1	63	5.6	70	10	50	40-140
Cl7-BZ#180	0.20	U	5.6	70	6.3	79	12	50	40-140
Cl7-BZ#182/#187[1]	0.40	U	6.3	78	6.7	84	7	50	40-140
Cl8-BZ#195	0.20	U	5.7	72	6.3	78	9	50	40-140
Cl9-BZ#206	0.20	U	6.0	74	6.6	82	10	50	40-140
Cl10-BZ#209	0.20	U	6.0	76	6.5	82	8	50	40-140

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery		Acceptance Range (%)
Cl3-BZ#19-C13	75	73	50-125
Cl8-BZ#202-C13	73	81	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded result.

12/01/06 14:59

EXTRACTABLE PETROLEUM HYDROCARBONS (EPH)

Extractable Petroleum Hydrocarbons by GC/FID

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **325 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-06**
Associated Blank: **ES111506B10**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Sample Amount (g)	Fraction	Date Analyzed	Final Volume (ml)	Dilution Factor	Analyst
10/25/06	10/27/06	11/15/06	46.5	10.70	Aromatic	11/22/06	1	1	JBS
					Aliphatic	11/22/06	1	1	JBS

Parameter	Result
C_9-C_{18} Aliphatics [1]	**880000**
C_{19}-C_{36} Aliphatics [1]	**2200000**
C_{11}-C_{22} Aromatics [1,2]	**1000000**
Unadjusted C_{11}-C_{22} Aromatics [1]	**1100000**

Naphthalene	1000 U
2-Methylnaphthalene	1000 U
Acenaphthylene	1000 U
Acenaphthene	1000 U
Fluorene	1000 U
Phenanthrene	**2400**
Anthracene	**1200**
Fluoranthene	**8500**
Pyrene	**10000**
Benzo(a)anthracene	**5700**
Chrysene	**5200**
Benzo(b)fluoranthene	**5600**
Benzo(k)fluoranthene	**2400**
Benzo(a)pyrene	**4100**
Indeno(1,2,3-cd)pyrene [3]	**3700**
Dibenzo(a,h)anthracene [3]	**3700**
Benzo(g,h,i)perylene	**2800**

[1] = Range concentration excludes the concentration of any surrogate(s) and/or internal standards eluting in that range.
[2] = C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
[3] = Values reported reflect their sum.

Extraction Surrogate	% Recovery	Acceptance Range (%)
5-alpha Androstane	68	40-140
ortho-Terphenyl	66	40-140
Fractionation Surrogate		
Biphenyl	92	40-140
2-Fluorobiphenyl	88	40-140

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/28/06 12:12

Extractable Petroleum Hydrocarbons by GC/FID

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **327 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-07**
Associated Blank: **ES111506B10**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Sample Amount (g)	Fraction	Date Analyzed	Final Volume (ml)	Dilution Factor	Analyst
10/25/06	10/27/06	11/15/06	36.6	10.83	Aromatic	11/27/06	1	1	JBS
					Aliphatic	11/27/06	1	1	JBS

Parameter	Result
C_9-C_{18} Aliphatics [1]	**1100000**
C_{19}-C_{36} Aliphatics [1]	**2300000**
C_{11}-C_{22} Aromatics [1,2]	**1000000**
Unadjusted C_{11}-C_{22} Aromatics [1]	**1000000**

Naphthalene	1300	U
2-Methylnaphthalene	1300	U
Acenaphthylene	**2100**	
Acenaphthene	1300	U
Fluorene	**1300**	
Phenanthrene	**1500**	
Anthracene	1300	U
Fluoranthene	**3900**	
Pyrene	**4800**	
Benzo(a)anthracene	**1700**	
Chrysene	**1700**	
Benzo(b)fluoranthene	**2400**	
Benzo(k)fluoranthene	1300	U
Benzo(a)pyrene	**1700**	
Indeno(1,2,3-cd)pyrene [3]	2500	U
Dibenzo(a,h)anthracene [3]	2500	U
Benzo(g,h,i)perylene	1300	U

[1] = Range concentration excludes the concentration of any surrogate(s) and/or internal standards eluting in that range.
[2] = C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
[3] = Values reported reflect their sum.

Extraction Surrogate	% Recovery	Acceptance Range (%)
5-alpha Androstane	73	40-140
ortho-Terphenyl	84	40-140
Fractionation Surrogate		
Biphenyl	94	40-140
2-Fluorobiphenyl	89	40-140

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/28/06 12:12

Extractable Petroleum Hydrocarbons by GC/FID

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **333 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-10**
Associated Blank: **ES111506B10**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Sample Amount (g)	Fraction	Date Analyzed	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	54.3	10.17	Aromatic	11/27/06	1	1	JBS
					Aliphatic	11/27/06	1	1	JBS

Parameter	Result
C_9-C_{18} Aliphatics [1]	**200000**
C_{19}-C_{36} Aliphatics [1]	**830000**
C_{11}-C_{22} Aromatics [1,2]	**320000**
Unadjusted C_{11}-C_{22} Aromatics [1]	**330000**

Naphthalene	910	U
2-Methylnaphthalene	910	U
Acenaphthylene	910	U
Acenaphthene	910	U
Fluorene	910	U
Phenanthrene	910	U
Anthracene	910	U
Fluoranthene	**1800**	
Pyrene	**2700**	
Benzo(a)anthracene	**1400**	
Chrysene	**1200**	
Benzo(b)fluoranthene	**1600**	
Benzo(k)fluoranthene	910	U
Benzo(a)pyrene	**1300**	
Indeno(1,2,3-cd)pyrene [3]	1800	U
Dibenzo(a,h)anthracene [3]	1800	U
Benzo(g,h,i)perylene	910	U

[1] = Range concentration excludes the concentration of any surrogate(s) and/or internal standards eluting in that range.
[2] = C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
[3] = Values reported reflect their sum.

Extraction Surrogate	% Recovery	Acceptance Range (%)
5-alpha Androstane	71	40-140
ortho-Terphenyl	76	40-140
Fractionation Surrogate		
Biphenyl	89	40-140
2-Fluorobiphenyl	85	40-140

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/28/06 12:12

Extractable Petroleum Hydrocarbons by GC/FID

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **335 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-12**
Associated Blank: **ES111506B10**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Sample Amount (g)	Fraction	Date Analyzed	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	64.3	10.54	Aromatic	11/22/06	1	1	JBS
					Aliphatic	11/22/06	1	1	JBS

Parameter	Result
C_9-C_{18} Aliphatics [1]	**150000**
C_{19}-C_{36} Aliphatics [1]	**650000**
C_{11}-C_{22} Aromatics [1,2]	**430000**
Unadjusted C_{11}-C_{22} Aromatics [1]	**520000**

Naphthalene	**800**
2-Methylnaphthalene	740 U
Acenaphthylene	740 U
Acenaphthene	**1500**
Fluorene	**2200**
Phenanthrene	**15000**
Anthracene	**4000**
Fluoranthene	**16000**
Pyrene	**16000**
Benzo(a)anthracene	**7400**
Chrysene	**7700**
Benzo(b)fluoranthene	**7900**
Benzo(k)fluoranthene	**2900**
Benzo(a)pyrene	**6000**
Indeno(1,2,3-cd)pyrene [3]	**4600**
Dibenzo(a,h)anthracene [3]	**4600**
Benzo(g,h,i)perylene	**3100**

[1] = Range concentration excludes the concentration of any surrogate(s) and/or internal standards eluting in that range.
[2] = C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
[3] = Values reported reflect their sum.

Extraction Surrogate	% Recovery	Acceptance Range (%)
5-alpha Androstane	72	40-140
ortho-Terphenyl	78	40-140
Fractionation Surrogate		
Biphenyl	86	40-140
2-Fluorobiphenyl	81	40-140

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/28/06 12:12

Extractable Petroleum Hydrocarbons by GC/FID

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **336 0-1**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-13**
Associated Blank: **ES111506B10**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Sample Amount (g)	Fraction	Date Analyzed	Final Volume (ml)	Dilution Factor	Analyst
10/24/06	10/27/06	11/15/06	56.4	10.98	Aromatic	11/22/06	1	1	JBS
					Aliphatic	11/22/06	1	1	JBS

Parameter	Result
C_9-C_{18} Aliphatics [1]	**120000**
C_{19}-C_{36} Aliphatics [1]	**870000**
C_{11}-C_{22} Aromatics [1,2]	**360000**
Unadjusted C_{11}-C_{22} Aromatics [1]	**380000**

Naphthalene	810	U
2-Methylnaphthalene	810	U
Acenaphthylene	810	U
Acenaphthene	810	U
Fluorene	810	U
Phenanthrene	**1600**	
Anthracene	810	U
Fluoranthene	**3500**	
Pyrene	**5400**	
Benzo(a)anthracene	**2000**	
Chrysene	**2400**	
Benzo(b)fluoranthene	**2900**	
Benzo(k)fluoranthene	**1100**	
Benzo(a)pyrene	**1600**	
Indeno(1,2,3-cd)pyrene [3]	1600	U
Dibenzo(a,h)anthracene [3]	1600	U
Benzo(g,h,i)perylene	**940**	

[1] = Range concentration excludes the concentration of any surrogate(s) and/or internal standards eluting in that range.
[2] = C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
[3] = Values reported reflect their sum.

Extraction Surrogate	% Recovery	Acceptance Range (%)
5-alpha Androstane	72	40-140
ortho-Terphenyl	75	40-140
Fractionation Surrogate		
Biphenyl	81	40-140
2-Fluorobiphenyl	77	40-140

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/28/06 12:12

Blank
Extractable Petroleum Hydrocarbons by GC/FID

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **Blank**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **ES111506B10**
Associated Blank: **N/A**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Sample Amount (g)	Fraction	Date Analyzed	Final Volume (ml)	Dilution Factor	Analyst
N/A	N/A	11/15/06	100	10.00	Aromatic	11/22/06	1	1	JBS
					Aliphatic	11/22/06	1	1	JBS

Parameter	Result	
C_9-C_{18} Aliphatics [1]	3000	U
C_{19}-C_{36} Aliphatics [1]	4000	U
C_{11}-C_{22} Aromatics [1,2]	8500	U
Unadjusted C_{11}-C_{22} Aromatics [1]	8500	U
Naphthalene	500	U
2-Methylnaphthalene	500	U
Acenaphthylene	500	U
Acenaphthene	500	U
Fluorene	500	U
Phenanthrene	500	U
Anthracene	500	U
Fluoranthene	500	U
Pyrene	500	U
Benzo(a)anthracene	500	U
Chrysene	500	U
Benzo(b)fluoranthene	500	U
Benzo(k)fluoranthene	500	U
Benzo(a)pyrene	500	U
Indeno(1,2,3-cd)pyrene [3]	1000	U
Dibenzo(a,h)anthracene [3]	1000	U
Benzo(g,h,i)perylene	500	U

[1] = Range concentration excludes the concentration of any surrogate(s) and/or internal standards eluting in that range.
[2] = C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes.
[3] = Values reported reflect their sum.

Extraction Surrogate	% Recovery	Acceptance Range (%)
5-alpha Androstane	70	40-140
ortho-Terphenyl	74	40-140
Fractionation Surrogate		
Biphenyl	88	40-140
2-Fluorobiphenyl	86	40-140

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

11/28/06 12:12

Laboratory Control Summary
Extractable Petroleum Hydrocarbons by GC/FID

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **Laboratory Control Sample**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **See Below**
Associated Blank: **ES111506B10**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Analyst
N/A	N/A	11/15/06	100	JBS

Lab ID:	ES111506B10		ES111506LCS07		ES111506LCSD07				
Parameter	**Blank Conc.**		**LCS Conc.**	**LCS % Recovery**	**LCSD Conc.**	**LCSD % Recovery**	**% RPD**	**RPD Limit**	**% Recovery Limits**
Naphthalene	500	U	5800	58	5700	57	2	25	40-140
2-Methylnaphthalene	500	U	6300	63	6200	62	2	25	40-140
Acenaphthylene	500	U	6800	68	6700	67	2	25	40-140
Acenaphthene	500	U	6900	69	6800	68	2	25	40-140
Fluorene	500	U	7400	75	7300	73	2	25	40-140
Phenanthrene	500	U	7700	77	7600	75	2	25	40-140
Anthracene	500	U	7600	76	7400	75	2	25	40-140
Fluoranthene	500	U	7600	76	7500	75	2	25	40-140
Pyrene	500	U	7900	79	7700	77	2	25	40-140
Benzo(a)anthracene	500	U	7800	78	7600	76	2	25	40-140
Chrysene	500	U	7900	79	7800	78	1	25	40-140
Benzo(b)fluoranthene	500	U	8000	80	7900	79	2	25	40-140
Benzo(k)fluoranthene	500	U	7800	78	7600	76	2	25	40-140
Benzo(a)pyrene	500	U	8100	81	8000	80	1	25	40-140
Indeno(1,2,3-cd)pyrene [3]	1000	U	16000	80	16000	79	1	25	40-140
Dibenzo(a,h)anthracene [3]	1000	U	16000	80	16000	79	1	25	40-140
Benzo(g,h,i)perylene	500	U	8100	81	8000	80	2	25	40-140
n-Nonane (C9)	500	U	3400	34	3600	36	6	25	30-140
n-Decane (C10)	500	U	4800	48	5100	51	6	25	40-140
n-Dodecane (C12)	500	U	5900	59	6300	63	7	25	40-140
n-Tetradecane (C14)	500	U	6800	68	7100	71	5	25	40-140
n-Hexadecane (C16)	500	U	7300	73	7600	76	3	25	40-140
n-Octadecane (C18)	500	U	7700	77	8000	80	3	25	40-140
n-Nonadecane (C19)	500	U	8000	80	8300	83	3	25	40-140
n-Eicosane (C20)	500	U	7900	79	8100	81	3	25	40-140
n-Docosane (C22)	500	U	7900	79	7900	79	0	25	40-140
n-Tetracosane (C24)	500	U	8000	80	8000	80	1	25	40-140
n-Hexacosane (C26)	500	U	7900	79	8000	80	1	25	40-140
n-Octacosane (C28)	500	U	7800	78	7800	78	0	25	40-140
n-Triacontane (C30)	500	U	7800	78	7800	78	0	25	40-140
n-Hexatriacontane (C36)	500	U	8400	84	8400	84	0	25	40-140

[1] = Range concentration excludes the concentration of any surrogate(s) and/or internal standards eluting in that range.
[3] = Values reported reflect their sum.

Extraction Surrogate	% Recovery		Acceptance Range (%)
5-alpha Androstane	73	76	40-140
ortho-Terphenyl	78	76	40-140
Fractionation Surrogate			
Biphenyl	85	82	40-140
2-Fluorobiphenyl	82	80	40-140

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded result.

11/28/06 12:12

Laboratory Control Summary
Extractable Petroleum Hydrocarbons by GC/FID

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **Laboratory Control Sample**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **See Below**
Associated Blank: **ES111506B10**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Analyst
N/A	N/A	11/15/06	100	JBS

Aliphatic Breakthrough Criteria

Lab ID:	ES111506LCS07	ES111506LCSD07	
Parameter	**LCS % Breakthrough**	**LCSD % Breakthrough**	**% Breakthrough Maximum Limit**
Naphthalene	0.1	0.1	5
2-Methylnaphthalene	0.2	0.2	5

N/A - Not Applicable

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded result.

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TOTAL METALS

Total Metals

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **325 0-1**
Matrix: **Sediment**
Percent Solid: **46.5**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-06**
Concentration Units: **mg/Kg**
Date Collected: **10/25/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Arsenic	**20**		0.17	5	11/10/06	11/08/06	6020A	LCP
Barium	**330**		0.17	5	11/10/06	11/08/06	6020A	LCP
Cadmium	**5.1**		0.067	5	11/10/06	11/08/06	6020A	LCP
Chromium	**200**		1.7	5	11/10/06	11/08/06	6020A	LCP
Lead	**3000**		0.67	20	11/10/06	11/08/06	6020A	LCP
Mercury	**7.3**		0.20	20	11/09/06	11/08/06	7471A	LMR
Selenium	**3.0**		0.67	5	11/10/06	11/08/06	6020A	LCP
Silver	**1.2**		0.17	5	11/13/06	11/08/06	6020A	LMR

N/A - Not Applicable

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Total Metals

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **327 0-1**
Matrix: **Sediment**
Percent Solid: **36.6**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-07**
Concentration Units: **mg/Kg**
Date Collected: **10/25/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Arsenic	**49**		0.20	5	11/10/06	11/08/06	6020A	LCP
Barium	**83**		0.20	5	11/10/06	11/08/06	6020A	LCP
Cadmium	**3.7**		0.080	5	11/10/06	11/08/06	6020A	LCP
Chromium	**270**		2.0	5	11/10/06	11/08/06	6020A	LCP
Lead	**360**		0.20	5	11/10/06	11/08/06	6020A	LCP
Mercury	**2.0**		0.064	5	11/09/06	11/08/06	7471A	LMR
Selenium	**3.5**		0.80	5	11/10/06	11/08/06	6020A	LCP
Silver	**2.9**		0.20	5	11/13/06	11/08/06	6020A	LMR

N/A - Not Applicable

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Total Metals

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **333 0-1**
Matrix: **Sediment**
Percent Solid: **54.3**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-10**
Concentration Units: **mg/Kg**
Date Collected: **10/24/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Arsenic	**12**		0.14	5	11/10/06	11/08/06	6020A	LCP
Barium	**59**		0.14	5	11/10/06	11/08/06	6020A	LCP
Cadmium	**7.7**		0.058	5	11/10/06	11/08/06	6020A	LCP
Chromium	**360**		1.4	5	11/10/06	11/08/06	6020A	LCP
Lead	**270**		0.14	5	11/10/06	11/08/06	6020A	LCP
Mercury	**1.3**		0.045	5	11/09/06	11/08/06	7471A	LMR
Selenium	**2.1**		0.58	5	11/10/06	11/08/06	6020A	LCP
Silver	**1.8**		0.14	5	11/13/06	11/08/06	6020A	LMR

N/A - Not Applicable

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Total Metals

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **335 0-1**
Matrix: **Sediment**
Percent Solid: **64.3**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-12**
Concentration Units: **mg/Kg**
Date Collected: **10/24/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Arsenic	**19**		0.12	5	11/10/06	11/08/06	6020A	LCP
Barium	**52**		0.12	5	11/10/06	11/08/06	6020A	LCP
Cadmium	**2.3**		0.046	5	11/10/06	11/08/06	6020A	LCP
Chromium	**94**		1.2	5	11/10/06	11/08/06	6020A	LCP
Lead	**340**		0.12	5	11/10/06	11/08/06	6020A	LCP
Mercury	**0.98**		0.038	5	11/09/06	11/08/06	7471A	LMR
Selenium	**1.4**		0.46	5	11/10/06	11/08/06	6020A	LCP
Silver	**0.66**		0.11	5	11/13/06	11/08/06	6020A	LMR

N/A - Not Applicable

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Total Metals

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **336 0-1**
Matrix: **Sediment**
Percent Solid: **56.4**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-13**
Concentration Units: **mg/Kg**
Date Collected: **10/24/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Arsenic	**13**		0.13	5	11/10/06	11/08/06	6020A	LCP
Barium	**59**		0.13	5	11/10/06	11/08/06	6020A	LCP
Cadmium	**2.6**		0.051	5	11/10/06	11/08/06	6020A	LCP
Chromium	**200**		1.3	5	11/10/06	11/08/06	6020A	LCP
Lead	**710**		0.13	5	11/10/06	11/08/06	6020A	LCP
Mercury	**1.3**		0.043	5	11/09/06	11/08/06	7471A	LMR
Selenium	**1.9**		0.51	5	11/10/06	11/08/06	6020A	LCP
Silver	**1.6**		0.13	5	11/13/06	11/08/06	6020A	LMR

N/A - Not Applicable

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Blank
Total Metals

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Blank**
Matrix: **Sediment**
Percent Solid: **100.0**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **MS110606B06B**
Concentration Units: **mg/Kg**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Arsenic	0.12	U	0.12	5	11/10/06	11/08/06	6020A	LCP
Barium	0.12	U	0.12	5	11/10/06	11/08/06	6020A	LCP
Cadmium	0.050	U	0.050	5	11/10/06	11/08/06	6020A	LCP
Chromium	1.2	U	1.2	5	11/10/06	11/08/06	6020A	LCP
Lead	0.12	U	0.12	5	11/10/06	11/08/06	6020A	LCP
Selenium	0.50	U	0.50	5	11/10/06	11/08/06	6020A	LCP

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Blank
Total Metals

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Blank**
Matrix: **Sediment**
Percent Solid: **100.0**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **MS110606B05B**
Concentration Units: **mg/Kg**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Silver	0.12	U	0.12	5	11/13/06	11/08/06	6020A	LMR

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Blank
Total Metals

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Blank**
Matrix: **Sediment**
Percent Solid: **100.0**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **MS110606B07B**
Concentration Units: **mg/Kg**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Date Prepared	Analytical Method	Analyst
Mercury	0.010	U	0.010	1	11/09/06	11/08/06	7471A	LMR

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Laboratory Control Sample - High
Total Metals

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Lab Control Sample High**
Matrix: **Sediment**
Percent Solid: **100.0**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **MS110606SLH03SLH**
Concentration Units: **mg/Kg**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Conc.	% Recovery	% Recovery Limits
Arsenic	200	99	80-120
Barium	200	100	80-120
Cadmium	99	99	80-120
Chromium	200	100	80-120
Lead	190	96	80-120
Selenium	200	101	80-120

N/A - Not Applicable

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded results.

11/13/06 16:01

Laboratory Control Sample - Low
Total Metals

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Lab Control Sample Low**
Matrix: **Sediment**
Percent Solid: **100.0**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **MS110606SLL02SLL**
Concentration Units: **mg/Kg**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Conc.	% Recovery	% Recovery Limits
Silver	2.2	108	80-120

N/A - Not Applicable

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded results.

11/13/06 16:02

Laboratory Control Sample
Total Metals

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Laboratory Control Sample**
Matrix: **Sediment**
Percent Solid: **100.0**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **MS110606SLC02SLC**
Concentration Units: **mg/Kg**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Conc.	% Recovery	% Recovery Limits
Mercury	0.48	97	80-120

N/A - Not Applicable

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded results.

11/13/06 16:03

WET CHEMISTRY

Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **325 0-1**
Matrix: **Sediment**
Percent Solid: **46.5**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-06**
Date Collected: **10/25/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**3.7**		0.01	1	11/15/06	%	9060	GJP
Total Organic Carbon (Run 2)	**3.9**		0.01	1	11/15/06	%	9060	GJP
Reactive Sulfide	**79**		6.6	25	11/15/06	mg/Kg	Ch.7/376.2	JAD

N/A - Not Applicable

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Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **327 0-1**
Matrix: **Sediment**
Percent Solid: **36.6**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-07**
Date Collected: **10/25/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**2.5**		0.01	1	11/15/06	%	9060	GJP
Total Organic Carbon (Run 2)	**2.2**		0.01	1	11/15/06	%	9060	GJP
Reactive Sulfide	**1300**		100	500	11/15/06	mg/Kg	Ch.7/376.2	JAD

N/A - Not Applicable

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Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **333 0-1**
Matrix: **Sediment**
Percent Solid: **54.3**

Lab Code: **MA00030**
ETR: **0610189**

Lab ID: **0610189-10**
Date Collected: **10/24/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**1.7**		0.01	1	11/15/06	%	9060	GJP
Total Organic Carbon (Run 2)	**2.0**		0.01	1	11/15/06	%	9060	GJP
Reactive Sulfide	**220**		14	50	11/15/06	mg/Kg	Ch.7/376.2	JAD

N/A - Not Applicable

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Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **335 0-1**
Matrix: **Sediment**
Percent Solid: **64.3**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-12**
Date Collected: **10/24/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**2.5**		0.01	1	11/15/06	%	9060	GJP
Total Organic Carbon (Run 2)	**2.7**		0.01	1	11/15/06	%	9060	GJP
Reactive Sulfide	**730**		57	200	11/15/06	mg/Kg	Ch.7/376.2	JAD

N/A - Not Applicable

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Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **336 0-1**
Matrix: **Sediment**
Percent Solid: **56.4**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **0610189-13**
Date Collected: **10/24/06**
Date Received: **10/27/06**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	**1.1**		0.01	1	11/15/06	%	9060	GJP
Total Organic Carbon (Run 2)	**1.2**		0.01	1	11/15/06	%	9060	GJP
Reactive Sulfide	**390**		48	200	11/15/06	mg/Kg	Ch.7/376.2	JAD

N/A - Not Applicable

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Blank
Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Blank**
Matrix: **Sediment**
Percent Solid: **100**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **WS111506B23**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Reactive Sulfide	1.0	U	1.0	1	11/15/06	mg/Kg	Ch.7/376.2	JAD

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Blank
Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Blank**
Matrix: **Sediment**
Percent Solid: **100**

Lab Code: **MA00030**
ETR: **0610189**
Lab ID: **WS111606B08**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Result	Qualifier	Reporting Limit	Dilution	Date Analyzed	Unit	Analytical Method	Analyst
Total Organic Carbon (Run 1)	0.01	U	0.01	1	11/15/06	%	9060	GJP
Total Organic Carbon (Run 2)	0.01	U	0.01	1	11/15/06	%	9060	GJP

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

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Laboratory Control Sample
Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **Laboratory Control Sample**
Matrix: **Sediment**
Percent Solid: **100**

Lab Code: **MA00030**
ETR: **0610189**

Lab ID: **WS111506L07**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Conc.	% Recovery	% Recovery Limits
Reactive Sulfide	26	91	75-125

N/A - Not Applicable

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded results.

12/01/06 08:33

Standard Reference Material 1944
Inorganics

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Case: **N/A** SDG: **N/A**
Client ID: **SRM 1944**
Matrix: **Sediment**
Percent Solid: **100**

Lab Code: **MA00030**
ETR: **0610189**

Lab ID: **WS111606L194401**
Date Collected: **N/A**
Date Received: **N/A**

Parameter	Conc.	% Recovery	% Recovery Limits
Total Organic Carbon (Run 1)	4.7	106	75-125
Total Organic Carbon (Run 2)	4.4	100	75-125

N/A - Not Applicable

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded results.

12/01/06 08:33

CHAIN OF CUSTODY RECORDS

Sample Receipt Checklist

Client:	APEENV	Receipt Date:	10/27/06
Project:	NB Harbor Phase II	Log-in Date:	
ETR #:	0610189	Inspection by:	Lw
		Login by:	W

ALL SECTIONS BELOW MUST BE COMPLETED

Comments / Notes

Were samples shipped? Yes, FedEx / UPS / Other:_____
(No, WHG Courier pick-up) / Hand delivered

Is bill of lading retained? Yes, Tracking #:_____
No, Unavailable / (NA)

Number of coolers received for this project delivery: 1

Indicate cooler temperature upon opening (if multiple coolers, record all temps):

Note: If all coolers are 2-6°C, use one checklist, if NOT, use separate checklists and note all samples received *above* 6°C.

Cooler 1:
Temperature(s) taken from: 4° IR Gun, 3° Temp. Blank, / NA

Were samples received on ice? (Yes) / No

Chain-of-Custody present? (Yes) / No
Complete? (Yes) / No

Custody seals present on Cooler? Yes / (No)
on Bottles? Yes / (No)
Intact? Yes / No / (NA)
Note: Affix custody seals to back of this page.

Were sample containers intact? (Yes) / No If No, list samples: →

Did VOA/VPH waters contain headspace (>5mm)? Yes / No / (NA) If Yes, list samples: →

Were 5035 VOA soils, or VPH soils, *covered* with MeOH? Yes / No / (NA)
If No, list samples: →

Was a sufficient amount of sample received for each test indicated on the COC?
(Yes) / No If No, list samples: →

If chemical preservation is appropriate -
Were samples field preserved? Yes / No / (NA)
☐ C=HCl ☐ M=MeOH ☐ S=H_2SO4
☐ H=NaOH ☐ N=HNO_3 ☐ Other:_____ ☐ U= Unknown

Preservation (pH) verified at lab for *EVERY* bottle? (Not: VOA / VPH / Sulfide)
YES: <2 or >12 (CN) or NO (NA)
If No, why?:

Were samples received within hold time? (Yes) / No If No, list samples: →

Discrepancy between samples rec'd & COC ? Yes / (No) If Yes, list samples: →

Was the Project Manager notified of any other problems? Yes / No / NA

Project Manager Acknowledgement: NAL Date: 10/27/06

Sample storage refrigerator #: C3

Sample storage freezer #:_____

Cooler 2:_____ Cooler 3:_____

Cooler 4:_____ Cooler 5:_____

Cooler 6:_____ Cooler 7:_____

More:_____

Chemical preservation OK for ALL samples?
Yes / No / (N/A)

If No, list samples below:

Please use back for any additional notes!

CHAIN OF CUSTODY

PAGE 3 OF 4

Date Rec'd in Lab:

ALPHA Job #: 0610189

WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

RAYNHAM, MA
TEL: 508-822-9300
FAX: 508-822-3288

Client Information

Client: Apex Companies, LLC

Address: 115 Broad Street, Suite 200
Boston, MA 02110

Phone: 617-728 0070 x113

Fax: 617-728-0080

Email: cmyers@apexenv.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: NB Harbor Dredge Phase III

Project Location: New Bedford, MA

Project #: 6591.002

Project Manager: Chet Myers

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☒ FAX ☒ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:
Min detection Limits = As=0.5ppm, Cd=0.1ppm, Hg=0.02ppm/(Ni, Zn, Cr, Cu, Pb=1ppm)
Acrolein/Acrylonitrile = 0.001ppm, EPH=0.01ppm, TOC=0.1%, Reactivity=30ppm
HOLD All Samples

SAMPLE HANDLING
Filtration
☒ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	RCRA 8 Metals	PCBs	EPH	Petroleum Hydrocarbons	TOC	Reactivity	Sample Specific Comments	TOTAL # BOTTLES
-1	311 0-1	10/24/06	1004AM	SED	KVN		X						
-2	311 2.5-3.5	10/24/06	1010AM	SED	KVN		X						
-3	316 0-1	10/25/06	1052AM	SED	KVN		X						
-4	319 0-1	10/23/06	1019AM	SED	KVN		X						
-5	321 0-1	10/25/06	823AM	SED	KVN		X						
-6	325 0-1	10/25/06	1215pm	SED	KVN	X	X	X	X	X			
-7	327 0-1	10/25/06	1144AM	SED	KVN	X	X	X	X	X			
-8	328 0-1	10/25/06	1216pm	SED	KVN		X						
-9	331 0-1	10/25/06	128pm	SED	KVN		X						
-10	333 0-1	10/24/06	1230pm	SED	KVN	X	X	X	X	X			

Container Type
Preservative

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	10/26/06 4pm	Shelly Miranda	10-26-06 4pm
Shelly Miranda	10-27-06 9:10	Paul Gillet	10-27-06 9:10
Paul Gillet	10-27-06 0945		10/27/06 0945

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 10-OCT-05)

CHAIN OF CUSTODY

PAGE 4 OF 4

Date Rec'd in Lab:

ALPHA Job #: 0610189

WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

RAYNHAM, MA
TEL: 508-822-9300
FAX: 508-822-3288

Client Information

Client: Apex Companies

Address: 115 Broad St. Suite 2000, 02110

Phone: 617-728-0070

Fax: 617-728-0080

Email: cmyers@apexenv.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: New Bedford Harbor Pre-Case Phase III

Project Location: New Bedford, MA

Project #: 6591.002

Project Manager: Chet Myers

ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☒ FAX ☒ EMAIL

☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☒ No Are MCP Analytical Methods Required?

☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

(In Detection Limits: As=0.15ppm, Hg=0.02ppm, Cd=0.1ppm, TOC=0.1%, Rec Sulf=30ppm, EPH=0.01ppm, PCB Sum of Congs=0.001 ppm, Ni, Zn, Cr, Cu, Pb=1ppm HOLD ALL Samples

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Summation (Aroclors)	TOC	Reactive Sulfide RCRA 8 Metals	EPH (Ref Hyd)													TOTAL # BOTTLES
-11	334 0-1	10/24/06	210pm	SED	KVN	X																
-12	335 0-1	10/24/06	1200pm	SED	KVN	X	X	X	X	X												
-13	336 0-1	10/24/06	130pm	SED	KVN	X	X	X	X	X												
-14	337 0-1	10/24/06	210pm	SED	KVN	X																

SAMPLE HANDLING

Filtration
☐ Done
☐ Not needed
☐ Lab to do

Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

Container Type																	
Preservative																	

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
	10/26/06 4pm	Shelly Muender	10-26-06 4pm
Shelly Muender	10-27-06 9:10	Paul Gilbert	10-27-06 9:10
Paul Gilbert	10-27-06 0945		10/27/06 0945

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 10-OCT-05)

Certificate Program Summary

Method numbers assume the most recent EPA revisions. For a complete listing of analytes for the referenced methods please contact your Alpha Woods Hole Lab Project Manager or the Quality Assurance Manager.

Connecticut Department of Public Health Certificate No. : PH-0141 - *Wastewater* (General Chemistry: 120.1, 150.1, 160.1, 160.2, 180.1, 300.0, 310.1, 335.2, 365.2, 405.1, 413.1, COD HACH 8000; Metals: 200.7, 245.1; Organics: 608, 624, 625). *Solid Waste/Soil* (General Chemistry: 1010, 9010/9014, 9045, 9056, 9060; Metals: 6010, 6020, 7041, 7471; Organics: 8081, 8082, 8260, 8270, ETPH).

Florida Department of Health Certificate No. : E87814 - Secondary NELAP Accreditation for *Wastewater* (General Chemistry: 120.1/2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, SM2320B, 335.2, 365.2, 413.1, 420.1, SM2540G, COD HACH 8000; Metals: 200.7, 204.2, 206.2, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624, 625). *Solid and Hazardous Waste* (General Chemistry: 9010/9014, 9045, 9050, 9056, 9060, 9065; Metals: 6010, 6020, 7041, 7060, 7421, 7470, 7471, 7740, 7841; Organics: 8081, 8082, 8260, 8270).

Louisiana Department of Environmental Quality Certificate No. : 03090 - Primary NELAP Accrediting Authority for *Wastewater* (General Chemistry: 120.1/2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 310.1/SM2320B, 335.2, 365.2, 376.2, 405.1, 413.1, 420.1, SM2540G, COD HACH 8000; Metals: 200.7, 204.2, 206.2, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624, 625). *Solid and Hazardous Waste* (General Chemistry:1010, 1311, 9010/9014, 9045, 9056, 9060; Metals: 6010, 6020, 7041, 7060, 7191, 7421, 7470, 7471, 7740, 7841; Organics: 8081, 8082, 8260, 8270).

Maine Department of Human Services Certificate No. : MA030 - *Wastewater* (General Chemistry: 120.1/2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 310.1/SM2320B, 335.2, 365.2, 405.1, 413.1, 420.1, COD HACH 8000; Metals: 200.7, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624).

Massachusetts Department of Environmental Protection Certificate No. : M-MA030 - *Wastewater* (General Chemistry: 120.1/2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 310.1/SM2320B, 335.2, 365.2, 405.1, 413.1, 420.1, COD HACH 8000; Metals: 200.7, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624).

New Hampshire Department of Environmental Services Certificate No. : 220604 - Secondary NELAP Accreditation for *Wastewater* (General Chemistry: 120.1/2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 310.1/SM2320B, 335.2, 365.2, 376.2, 405.1, 413.1, 420.1, COD HACH 8000, SM2540G; Metals: 200.7, 204.2, 206.2, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624, 625).

New Jersey Department of Environmental Protection Certificate No. : MA015 - *Solid and Hazardous Waste* (General Chemistry: 1010, 1311, 3060, 7196, 9010/9014, 9045, 9056, 9060; Metals: 3010, 3015, 3020, 3050, 3051, 6010, 6020, 7041, 7060, 7131, 7191, 7211, 7421, 7470, 7471, 7520, 7740, 7761, 7841; Organics: 3510, 3545, 5030, 5035, 3620, 3630, 3640, 3660, 8081, 8082, 8100, 8260, 8270).

New York Department of Health Certificate No. : 11627 - Secondary NELAP Accreditation for *Wastewater* (Metals: 200.7, 204.2, 206.2, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624, 625). *Solid and Hazardous Waste* (Metals: 6010, 7041, 7060, 7470, 7471, 7740; Organics: 8081, 8082, 8260, 8270).

Rhode Island Department of Health Certificate No. : 00064 - Chemistry: *Organic and Inorganic in Surface Water, Wastewater/Sewage and Soil* (Method numbers not specified with certificate.)

U.S. Army Corps of Engineers - General Chemistry: 9010/9014, 9071/418.1, 9060; Organics: 8081, 8082, 8260, 8270, 8270-SIM; Metals: 6010, 6020, 7000.

Department of the Navy - General Chemistry: 9010/9014, 9060; Organics: 8081, 8082, 8015-mod, 8260, 8270, 8270-SIM; Metals: 6010, 6020.

ANALYTICAL REPORT

Prepared for:
Apex Environmental, Inc.
286 Congress Street
Suite 610
Boston, MA 02210

Project:	New Bedford Harbor
ETR:	0611024
Report Date:	December 06, 2006

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

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

375 Paramount Drive, Suite 2, Raynham, Massachusetts 02767, (508) 822-9300, Fax (508) 822-3288

Sample ID Cross Reference

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**

Lab Code: **MA00030**
ETR: **0611024**

Lab Sample ID	Client Sample ID
0611024-01	501 grab
0611024-02	502 grab
0611024-03	503 grab
0611024-04	504 grab
0611024-05	505 composite
0611024-06	506 composite
0611024-07	507 composite
0611024-08	508 composite

CASE NARRATIVE
Alpha Woods Hole Labs

ETR: 0611024
Project: New Bedford Harbor

All analyses were performed according to Alpha Woods Hole Labs quality assurance program and documented Standard Operating Procedures (SOPs). The analytical results contained in this report were performed within holding time, and with appropriate quality control measures, except where noted. A summary of all state and federal accreditations is provided within this report. Blank correction of results is not performed in the laboratory for any parameter. Soil/sediment samples are reported on a dry weight basis unless otherwise noted. Air and sediment samples are either not certifiable under the NELAC and/or are not currently held as accredited matrices.

Polychlorinated Biphenyls by GC/MS

1. Several target congeners analyzed by this method co-elute with non-target congeners and are therefore reported as a co-eluting pair. Refer to the individual report forms.

2. The initial analysis of several samples had concentrations that exceeded the calibration range of the instrument. These samples were reanalyzed at dilution and both analyses are reported. Refer to the individual report forms for dilution requirements.

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

Approved by: Nancy JuRose Title: Project Manager Date: 12/6/06

PCB CONGENERS

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **501 grab**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **0611024-01**
Associated Blank: **SS111506B13**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
11/03/06	11/03/06	11/15/06	11/30/06	73.9	5.54	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**9.5**
Cl3-BZ#18	**25**
Cl3-BZ#28/#31[1]	**140**
Cl4-BZ#44	**32**
Cl4-BZ#52	**70**
Cl4-BZ#43/#49[1]	**75**
Cl4-BZ#66	**56**
Cl5-BZ#101/#84[1]	**100**
Cl5-BZ#87	**27**
Cl7-BZ#184	0.24 U
Cl5-BZ#105	**27**
Cl5-BZ#118	**83**
Cl7-BZ#183	**3.2**
Cl6-BZ#167/#128[1]	**16**
Cl6-BZ#138/#163[1]	**65**
Cl6-BZ#153	**62**
Cl7-BZ#170/#190[1]	**6.5**
Cl7-BZ#180	**11**
Cl7-BZ#182/#187[1]	**7.4**
Cl8-BZ#195	**0.76**
Cl9-BZ#206	**1.1**
Cl10-BZ#209	**0.34**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	77	50-125
Cl8-BZ#202-C13	80	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/04/06 15:17

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **502 grab**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **0611024-02**
Associated Blank: **SS111506B13**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
11/03/06	11/03/06	11/15/06	11/30/06	80.8	5.31	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**6.0**
Cl3-BZ#18	**16**
Cl3-BZ#28/#31[1]	**77**
Cl4-BZ#44	**18**
Cl4-BZ#52	**44**
Cl4-BZ#43/#49[1]	**45**
Cl4-BZ#66	**32**
Cl5-BZ#101/#84[1]	**65**
Cl5-BZ#87	**16**
Cl7-BZ#184	0.23 U
Cl5-BZ#105	**17**
Cl5-BZ#118	**52**
Cl7-BZ#183	**2.3**
Cl6-BZ#167/#128[1]	**11**
Cl6-BZ#138/#163[1]	**42**
Cl6-BZ#153	**41**
Cl7-BZ#170/#190[1]	**4.6**
Cl7-BZ#180	**7.0**
Cl7-BZ#182/#187[1]	**5.2**
Cl8-BZ#195	**0.68**
Cl9-BZ#206	**0.76**
Cl10-BZ#209	0.23 U

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	82	50-125
Cl8-BZ#202-C13	79	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/04/06 15:17

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **503 grab**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **0611024-03**
Associated Blank: **SS111506B13**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
11/03/06	11/03/06	11/15/06	11/30/06	52.0	5.66	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**38**
Cl3-BZ#18	**84**
Cl3-BZ#28/#31[1]	**560** E
Cl4-BZ#44	**100**
Cl4-BZ#52	**250**
Cl4-BZ#43/#49[1]	**310**
Cl4-BZ#66	**240**
Cl5-BZ#101/#84[1]	**380**
Cl5-BZ#87	**90**
Cl7-BZ#184	0.34 U
Cl5-BZ#105	**100**
Cl5-BZ#118	**350** E
Cl7-BZ#183	**12**
Cl6-BZ#167/#128[1]	**62**
Cl6-BZ#138/#163[1]	**250**
Cl6-BZ#153	**260**
Cl7-BZ#170/#190[1]	**26**
Cl7-BZ#180	**41**
Cl7-BZ#182/#187[1]	**31**
Cl8-BZ#195	**2.7**
Cl9-BZ#206	**4.7**
Cl10-BZ#209	**1.9**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	82	50-125
Cl8-BZ#202-C13	81	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/04/06 15:17

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **503 grab**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **0611024-03E**
Associated Blank: **SS111506B13**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
11/03/06	11/03/06	11/15/06	11/30/06	52.0	5.66	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**31**
Cl3-BZ#18	**78**
Cl3-BZ#28/#31[1]	**490**
Cl4-BZ#44	**96**
Cl4-BZ#52	**220**
Cl4-BZ#43/#49[1]	**270**
Cl4-BZ#66	**210**
Cl5-BZ#101/#84[1]	**340**
Cl5-BZ#87	**81**
Cl7-BZ#184	1.7 U
Cl5-BZ#105	**91**
Cl5-BZ#118	**300**
Cl7-BZ#183	**16**
Cl6-BZ#167/#128[1]	**56**
Cl6-BZ#138/#163[1]	**220**
Cl6-BZ#153	**230**
Cl7-BZ#170/#190[1]	**27**
Cl7-BZ#180	**39**
Cl7-BZ#182/#187[1]	**32**
Cl8-BZ#195	1.7 U
Cl9-BZ#206	1.7 U
Cl10-BZ#209	1.7 U

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	80	50-125
Cl8-BZ#202-C13	78	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/04/06 15:18

PCB by GC/MS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **504 grab**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **0611024-04**
Associated Blank: **SS111506B13**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
11/03/06	11/03/06	11/15/06	11/30/06	45.9	5.35	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**56**	
Cl3-BZ#18	**120**	
Cl3-BZ#28/#31[1]	**760**	E
Cl4-BZ#44	**150**	
Cl4-BZ#52	**340**	E
Cl4-BZ#43/#49[1]	**410**	
Cl4-BZ#66	**340**	E
Cl5-BZ#101/#84[1]	**520**	
Cl5-BZ#87	**120**	
Cl7-BZ#184	0.41	U
Cl5-BZ#105	**140**	
Cl5-BZ#118	**460**	E
Cl7-BZ#183	**18**	
Cl6-BZ#167/#128[1]	**79**	
Cl6-BZ#138/#163[1]	**330**	
Cl6-BZ#153	**340**	E
Cl7-BZ#170/#190[1]	**35**	
Cl7-BZ#180	**56**	
Cl7-BZ#182/#187[1]	**41**	
Cl8-BZ#195	**5.5**	
Cl9-BZ#206	**6.7**	
Cl10-BZ#209	**3.4**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	82	50-125
Cl8-BZ#202-C13	81	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/04/06 15:17

PCB by GC/MS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **504 grab**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **0611024-04E**
Associated Blank: **SS111506B13**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
11/03/06	11/03/06	11/15/06	11/30/06	45.9	5.35	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**46**
Cl3-BZ#18	**110**
Cl3-BZ#28/#31[1]	**660**
Cl4-BZ#44	**140**
Cl4-BZ#52	**300**
Cl4-BZ#43/#49[1]	**350**
Cl4-BZ#66	**290**
Cl5-BZ#101/#84[1]	**460**
Cl5-BZ#87	**110**
Cl7-BZ#184	2.0 U
Cl5-BZ#105	**120**
Cl5-BZ#118	**390**
Cl7-BZ#183	**17**
Cl6-BZ#167/#128[1]	**73**
Cl6-BZ#138/#163[1]	**290**
Cl6-BZ#153	**300**
Cl7-BZ#170/#190[1]	**31**
Cl7-BZ#180	**50**
Cl7-BZ#182/#187[1]	**37**
Cl8-BZ#195	**4.7**
Cl9-BZ#206	**6.4**
Cl10-BZ#209	**3.3**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	79	50-125
Cl8-BZ#202-C13	78	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/04/06 15:18

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **505 composite**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **0611024-05**
Associated Blank: **SS111506B13**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
11/03/06	11/03/06	11/15/06	11/30/06	41.1	5.25	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**72**	
Cl3-BZ#18	**160**	
Cl3-BZ#28/#31[1]	**1000**	E
Cl4-BZ#44	**200**	
Cl4-BZ#52	**460**	E
Cl4-BZ#43/#49[1]	**560**	
Cl4-BZ#66	**460**	E
Cl5-BZ#101/#84[1]	**750**	E
Cl5-BZ#87	**180**	
Cl7-BZ#184	0.46	U
Cl5-BZ#105	**210**	
Cl5-BZ#118	**680**	E
Cl7-BZ#183	**24**	
Cl6-BZ#167/#128[1]	**120**	
Cl6-BZ#138/#163[1]	**490**	
Cl6-BZ#153	**510**	E
Cl7-BZ#170/#190[1]	**50**	
Cl7-BZ#180	**80**	
Cl7-BZ#182/#187[1]	**59**	
Cl8-BZ#195	**5.5**	
Cl9-BZ#206	**7.7**	
Cl10-BZ#209	**3.9**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	80	50-125
Cl8-BZ#202-C13	85	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/04/06 15:17

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **505 composite**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **0611024-05E**
Associated Blank: **SS111506B13**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
11/03/06	11/03/06	11/15/06	12/02/06	41.1	5.25	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**56**
Cl3-BZ#18	**120**
Cl3-BZ#28/#31[1]	**820**
Cl4-BZ#44	**150**
Cl4-BZ#52	**360**
Cl4-BZ#43/#49[1]	**430**
Cl4-BZ#66	**370**
Cl5-BZ#101/#84[1]	**600**
Cl5-BZ#87	**150**
Cl7-BZ#184	2.3 U
Cl5-BZ#105	**180**
Cl5-BZ#118	**560**
Cl7-BZ#183	**21**
Cl6-BZ#167/#128[1]	**110**
Cl6-BZ#138/#163[1]	**420**
Cl6-BZ#153	**420**
Cl7-BZ#170/#190[1]	**47**
Cl7-BZ#180	**72**
Cl7-BZ#182/#187[1]	**52**
Cl8-BZ#195	**5.6**
Cl9-BZ#206	**7.7**
Cl10-BZ#209	**3.5**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	76	50-125
Cl8-BZ#202-C13	73	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/04/06 15:18

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **506 composite**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **0611024-06**
Associated Blank: **SS111506B13**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
11/03/06	11/03/06	11/15/06	11/30/06	44.1	5.37	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**69**	
Cl3-BZ#18	**150**	
Cl3-BZ#28/#31[1]	**1100**	E
Cl4-BZ#44	**180**	
Cl4-BZ#52	**480**	E
Cl4-BZ#43/#49[1]	**590**	
Cl4-BZ#66	**450**	E
Cl5-BZ#101/#84[1]	**710**	E
Cl5-BZ#87	**150**	
Cl7-BZ#184	0.42	U
Cl5-BZ#105	**180**	
Cl5-BZ#118	**650**	E
Cl7-BZ#183	**22**	
Cl6-BZ#167/#128[1]	**110**	
Cl6-BZ#138/#163[1]	**450**	
Cl6-BZ#153	**500**	E
Cl7-BZ#170/#190[1]	**46**	
Cl7-BZ#180	**73**	
Cl7-BZ#182/#187[1]	**57**	
Cl8-BZ#195	**5.2**	
Cl9-BZ#206	**7.6**	
Cl10-BZ#209	**3.8**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	82	50-125
Cl8-BZ#202-C13	83	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/04/06 15:17

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **506 composite**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **0611024-06E**
Associated Blank: **SS111506B13**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
11/03/06	11/03/06	11/15/06	12/02/06	44.1	5.37	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**54**
Cl3-BZ#18	**110**
Cl3-BZ#28/#31[1]	**860**
Cl4-BZ#44	**150**
Cl4-BZ#52	**370**
Cl4-BZ#43/#49[1]	**460**
Cl4-BZ#66	**360**
Cl5-BZ#101/#84[1]	**580**
Cl5-BZ#87	**130**
Cl7-BZ#184	2.1 U
Cl5-BZ#105	**160**
Cl5-BZ#118	**550**
Cl7-BZ#183	**20**
Cl6-BZ#167/#128[1]	**99**
Cl6-BZ#138/#163[1]	**390**
Cl6-BZ#153	**420**
Cl7-BZ#170/#190[1]	**42**
Cl7-BZ#180	**67**
Cl7-BZ#182/#187[1]	**52**
Cl8-BZ#195	**6.6**
Cl9-BZ#206	**11**
Cl10-BZ#209	**4.4**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	77	50-125
Cl8-BZ#202-C13	76	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/04/06 15:18

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **507 composite**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **0611024-07**
Associated Blank: **SS111506B13**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
11/03/06	11/03/06	11/15/06	11/30/06	37.4	5.82	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**72**	
Cl3-BZ#18	**140**	
Cl3-BZ#28/#31[1]	**1300**	E
Cl4-BZ#44	**180**	
Cl4-BZ#52	**500**	E
Cl4-BZ#43/#49[1]	**730**	
Cl4-BZ#66	**570**	E
Cl5-BZ#101/#84[1]	**880**	E
Cl5-BZ#87	**160**	
Cl7-BZ#184	0.46	U
Cl5-BZ#105	**240**	
Cl5-BZ#118	**870**	E
Cl7-BZ#183	**29**	
Cl6-BZ#167/#128[1]	**150**	
Cl6-BZ#138/#163[1]	**590**	
Cl6-BZ#153	**680**	E
Cl7-BZ#170/#190[1]	**60**	
Cl7-BZ#180	**96**	
Cl7-BZ#182/#187[1]	**77**	
Cl8-BZ#195	**5.7**	
Cl9-BZ#206	**12**	
Cl10-BZ#209	**23**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	76	50-125
Cl8-BZ#202-C13	84	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/04/06 15:18

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **507 composite**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **0611024-07E**
Associated Blank: **SS111506B13**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
11/03/06	11/03/06	11/15/06	12/02/06	37.4	5.82	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**54**
Cl3-BZ#18	**100**
Cl3-BZ#28/#31[1]	**1000**
Cl4-BZ#44	**150**
Cl4-BZ#52	**410**
Cl4-BZ#43/#49[1]	**590**
Cl4-BZ#66	**470**
Cl5-BZ#101/#84[1]	**730**
Cl5-BZ#87	**140**
Cl7-BZ#184	2.3 U
Cl5-BZ#105	**200**
Cl5-BZ#118	**740**
Cl7-BZ#183	**26**
Cl6-BZ#167/#128[1]	**130**
Cl6-BZ#138/#163[1]	**520**
Cl6-BZ#153	**590**
Cl7-BZ#170/#190[1]	**54**
Cl7-BZ#180	**86**
Cl7-BZ#182/#187[1]	**70**
Cl8-BZ#195	**4.7**
Cl9-BZ#206	**12**
Cl10-BZ#209	**22**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	72	50-125
Cl8-BZ#202-C13	81	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/04/06 15:19

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **508 composite**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **0611024-08**
Associated Blank: **SS111506B13**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
11/03/06	11/03/06	11/15/06	11/30/06	47.2	5.32	2	1	TLW

Parameter	Result	
Cl2-BZ#5/#8[1]	**70**	
Cl3-BZ#18	**170**	
Cl3-BZ#28/#31[1]	**1000**	E
Cl4-BZ#44	**210**	
Cl4-BZ#52	**490**	E
Cl4-BZ#43/#49[1]	**540**	
Cl4-BZ#66	**440**	E
Cl5-BZ#101/#84[1]	**700**	E
Cl5-BZ#87	**160**	
Cl7-BZ#184	0.40	U
Cl5-BZ#105	**200**	
Cl5-BZ#118	**620**	E
Cl7-BZ#183	**21**	
Cl6-BZ#167/#128[1]	**110**	
Cl6-BZ#138/#163[1]	**450**	
Cl6-BZ#153	**450**	E
Cl7-BZ#170/#190[1]	**46**	
Cl7-BZ#180	**70**	
Cl7-BZ#182/#187[1]	**50**	
Cl8-BZ#195	**3.9**	
Cl9-BZ#206	**6.7**	
Cl10-BZ#209	**3.8**	

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	79	50-125
Cl8-BZ#202-C13	85	50-125

N/A - Not Applicable
E - Estimated value, exceeds the upper limit of calibration.
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/04/06 15:18

PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **508 composite**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **0611024-08E**
Associated Blank: **SS111506B13**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
11/03/06	11/03/06	11/15/06	12/02/06	47.2	5.32	2	5	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	**53**
Cl3-BZ#18	**120**
Cl3-BZ#28/#31[1]	**760**
Cl4-BZ#44	**160**
Cl4-BZ#52	**370**
Cl4-BZ#43/#49[1]	**410**
Cl4-BZ#66	**340**
Cl5-BZ#101/#84[1]	**550**
Cl5-BZ#87	**130**
Cl7-BZ#184	2.0 U
Cl5-BZ#105	**160**
Cl5-BZ#118	**500**
Cl7-BZ#183	**20**
Cl6-BZ#167/#128[1]	**98**
Cl6-BZ#138/#163[1]	**370**
Cl6-BZ#153	**370**
Cl7-BZ#170/#190[1]	**41**
Cl7-BZ#180	**62**
Cl7-BZ#182/#187[1]	**44**
Cl8-BZ#195	**4.1**
Cl9-BZ#206	**8.8**
Cl10-BZ#209	**3.2**

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	66	50-125
Cl8-BZ#202-C13	78	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/04/06 15:19

Blank
PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **Blank**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **SS111506B13**
Associated Blank: **N/A**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Date Analyzed	Percent Solid	Sample Amount (g)	Final Volume (ml)	Dilution Factor	Analyst
N/A	N/A	11/15/06	11/30/06	100	5.00	2	1	TLW

Parameter	Result
Cl2-BZ#5/#8[1]	0.40 U
Cl3-BZ#18	0.20 U
Cl3-BZ#28/#31[1]	0.40 U
Cl4-BZ#44	0.20 U
Cl4-BZ#52	0.20 U
Cl4-BZ#43/#49[1]	0.40 U
Cl4-BZ#66	0.20 U
Cl5-BZ#101/#84[1]	0.40 U
Cl5-BZ#87	0.20 U
Cl7-BZ#184	0.20 U
Cl5-BZ#105	0.20 U
Cl5-BZ#118	0.20 U
Cl7-BZ#183	0.20 U
Cl6-BZ#167/#128[1]	0.40 U
Cl6-BZ#138/#163[1]	0.40 U
Cl6-BZ#153	0.20 U
Cl7-BZ#170/#190[1]	0.40 U
Cl7-BZ#180	0.20 U
Cl7-BZ#182/#187[1]	0.40 U
Cl8-BZ#195	0.20 U
Cl9-BZ#206	0.20 U
Cl10-BZ#209	0.20 U

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery	Acceptance Range (%)
Cl3-BZ#19-C13	88	50-125
Cl8-BZ#202-C13	80	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

12/04/06 15:16

Laboratory Control Summary
PCB by GC/MS

ALPHA WOODS HOLE LABS

Client: **Apex Environmental, Inc.**
Project: **New Bedford Harbor**
Client ID: **Laboratory Control Sample**
Case: **N/A** SDG: **N/A**
Matrix: **Sediment**

Lab Code: **MA00030**
ETR: **0611024**
Lab ID: **See Below**
Associated Blank: **SS111506B13**
Concentration Units: **µg/Kg**

Date Collected	Date Received	Date Extracted	Percent Solid	Analyst
N/A	N/A	11/15/06	100	TLW

Lab ID:	SS111506B13		SS111506LCS11		SS111506LCSD11				
Parameter	**Blank Conc.**		**LCS Conc.**	**LCS % Recovery**	**LCSD Conc.**	**LCSD % Recovery**	**% RPD**	**RPD Limit**	**% Recovery Limits**
Cl2-BZ#5/#8[1]	0.40	U	6.0	76	6.9	86	13	50	40-140
Cl3-BZ#18	0.20	U	5.9	74	6.8	85	13	50	40-140
Cl3-BZ#28/#31[1]	0.40	U	11	69	13	80	14	50	40-140
Cl4-BZ#44	0.20	U	5.4	68	6.1	77	13	50	40-140
Cl4-BZ#52	0.20	U	5.5	69	6.3	78	13	50	40-140
Cl4-BZ#43/#49[1]	0.40	U	6.2	77	7.1	89	14	50	40-140
Cl4-BZ#66	0.20	U	5.6	70	6.0	75	6	50	40-140
Cl5-BZ#101/#84[1]	0.40	U	6.0	75	6.7	84	12	50	40-140
Cl5-BZ#87	0.20	U	4.9	61	5.5	69	12	50	40-140
Cl5-BZ#105	0.20	U	5.2	65	5.7	71	9	50	40-140
Cl5-BZ#118	0.20	U	5.0	63	5.6	70	11	50	40-140
Cl7-BZ#183	0.20	U	5.9	73	6.3	79	7	50	40-140
Cl6-BZ#167/#128[1]	0.40	U	12	73	13	80	9	50	40-140
Cl6-BZ#138/#163[1]	0.40	U	4.9	61	5.4	67	10	50	40-140
Cl6-BZ#153	0.20	U	5.7	71	6.2	77	9	50	40-140
Cl7-BZ#170/#190[1]	0.40	U	5.2	65	5.6	70	7	50	40-140
Cl7-BZ#180	0.20	U	5.9	73	6.6	83	12	50	40-140
Cl7-BZ#182/#187[1]	0.40	U	6.3	79	6.7	84	7	50	40-140
Cl8-BZ#195	0.20	U	6.1	76	6.6	82	7	50	40-140
Cl9-BZ#206	0.20	U	6.2	78	6.9	86	11	50	40-140
Cl10-BZ#209	0.20	U	6.1	76	6.8	84	10	50	40-140

[1] = These two Congeners are reported as a co-eluting pair.

Surrogate	% Recovery		Acceptance Range (%)
Cl3-BZ#19-C13	88	94	50-125
Cl8-BZ#202-C13	77	84	50-125

N/A - Not Applicable
U - The analyte was analyzed for but not detected at the sample specific level reported.

Concentrations reported as calculated values, which includes rounding for significant figures. Percent recoveries and RPD values are calculated from the unrounded result.

12/04/06 15:19

CHAIN OF CUSTODY RECORDS

CHAIN OF CUSTODY

PAGE 1 OF 1

WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

RAYNHAM, MA
TEL: 508-822-9300
FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #: 0611024

Client Information

Client: APEX Companies LLC
Address: 115 Broad St. Suite 200
Phone: 617.728.0070
Fax: 617.728.0080
Email: KvanNaersson@apexcos.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: New Bedford Harbor
Project Location: Fairhaven
Project #: 6591.002
Project Manager: Kris van Naersson
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☒ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

Minimum detection limit 0.001 ppm.

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB summation 31 congeners	Sample Specific Comments	Total # Bottles
-1	501 grab	11/3/06	13:30	SE	OR KVN	✓		
-2	502 grab	11/3/06	14:00	SE	OR KVN	✓		
-3	503 grab	11/3/06	14:10	SE	OR KVN	✓		
-4	504 grab	11/3/06	14:20	SE	OR KVN	✓		
-5	505 composite	11/3/06	14:30	SE	OR KVN	✓		
-6	506 composite	11/3/06	15:15	SE	OR KVN	✓		
-7	507 composite	11/3/06	15:31	SE	OR KVN	✓		
-8	508 composite	11/3/06	15:45	SE	OR KVN	✓		

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Container Type
Preservative

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
Paul Gilbert	11/3/06 16:15	Paul Gilbert	11-3-06 16:15
	11-3-06		11/3/06 1650

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 10-OCT-05)

Sample Receipt Checklist

Client: APEENV		**Receipt Date:** 11/3/06	
Project: New Bedford Harbor		**Log-in Date:**	
ETR #: 061102H		**Inspection by:**	**Login by:**

ALL SECTIONS BELOW MUST BE COMPLETED

Comments / Notes

Were samples shipped? Yes, FedEx / UPS / Other:_____
(No, WHG Courier pick-up) / Hand delivered

Is bill of lading retained? Yes, Tracking #:_____
No, Unavailable / (NA)

Number of coolers received for this project delivery: 1

Indicate cooler temperature upon opening (if multiple coolers, record all temps):

Note: If all coolers are 2-6°C, use one checklist, if NOT, use separate checklists and note all samples received *above* 6°C.

Cooler 1:
Temperature(s) taken from: 4° IR Gun, 3.5° Temp. Blank, / NA

Were samples received on ice? (Yes) / No

Chain-of-Custody present? (Yes) / No
Complete? (Yes) / No

Custody seals present on Cooler? Yes / (No)
on Bottles? Yes / (No)
Intact? Yes / No / (NA)
Note: Affix custody seals to back of this page.

Were sample containers intact? (Yes) / No If No, list samples: →

Did VOA/VPH waters contain headspace (>5mm)? Yes / No / (NA) If Yes, list samples: →

Were 5035 VOA soils, or VPH soils, *covered* with MeOH? Yes / No / (NA)
If No, list samples: →

Was a sufficient amount of sample received for each test indicated on the COC?
(Yes) / No If No, list samples: →

If chemical preservation is appropriate -
Were samples field preserved? Yes / No / (NA)
☐ C=HCl ☐ M=MeOH ☐ S=H_2SO4
☐ H=NaOH ☐ N=HNO_3 ☐ Other:_____ ☐ U= Unknown

Preservation (pH) verified at lab for *EVERY* bottle? (Not: VOA / VPH / Sulfide)
YES: <2 or >12 (CN) or NO (NA)
If No, why?:

Were samples received within hold time? (Yes) / No If No, list samples: →

Discrepancy between samples rec'd & COC ? Yes / (No) If Yes, list samples: →

Was the Project Manager notified of any other problems? Yes / No / NA

Project Manager Acknowledgement: Nancy Giles Date: 11/3/06

Sample storage refrigerator #: C3

Sample storage freezer #:_____

Cooler 2:_____ Cooler 3:_____

Cooler 4:_____ Cooler 5:_____

Cooler 6:_____ Cooler 7:_____

More:_____

Chemical preservation OK for ALL samples?

Yes / No / (N/A)

If No, list samples below:

Please use back for any additional notes!

Certificate Program Summary

Method numbers assume the most recent EPA revisions. For a complete listing of analytes for the referenced methods please contact your Alpha Woods Hole Lab Project Manager or the Quality Assurance Manager.

Connecticut Department of Public Health Certificate No. : PH-0141 - *Wastewater* (General Chemistry: 120.1, 150.1, 160.1, 160.2, 180.1, 300.0, 310.1, 335.2, 365.2, 405.1, 413.1, COD HACH 8000; Metals: 200.7, 245.1; Organics: 608, 624, 625). *Solid Waste/Soil* (General Chemistry: 1010, 9010/9014, 9045, 9056, 9060; Metals: 6010, 6020, 7041, 7471; Organics: 8081, 8082, 8260, 8270, ETPH).

Florida Department of Health Certificate No. : E87814 - Secondary NELAP Accreditation for *Wastewater* (General Chemistry: 120.1/2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, SM2320B, 335.2, 365.2, 413.1, 420.1, SM2540G, COD HACH 8000; Metals: 200.7, 204.2, 206.2, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624, 625). *Solid and Hazardous Waste* (General Chemistry: 9010/9014, 9045, 9050, 9056, 9060, 9065; Metals: 6010, 6020, 7041, 7060, 7421, 7470, 7471, 7740, 7841; Organics: 8081, 8082, 8260, 8270).

Louisiana Department of Environmental Quality Certificate No. : 03090 - Primary NELAP Accrediting Authority for *Wastewater* (General Chemistry: 120.1/2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 310.1/SM2320B, 335.2, 365.2, 376.2, 405.1, 413.1, 420.1, SM2540G, COD HACH 8000; Metals: 200.7, 204.2, 206.2, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624, 625). *Solid and Hazardous Waste* (General Chemistry:1010, 1311, 9010/9014, 9045, 9056, 9060; Metals: 6010, 6020, 7041, 7060, 7191, 7421, 7470, 7471, 7740, 7841; Organics: 8081, 8082, 8260, 8270).

Maine Department of Human Services Certificate No. : MA030 - *Wastewater* (General Chemistry: 120.1/2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 310.1/SM2320B, 335.2, 365.2, 405.1, 413.1, 420.1, COD HACH 8000; Metals: 200.7, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624).

Massachusetts Department of Environmental Protection Certificate No. : M-MA030 - *Wastewater* (General Chemistry: 120.1/2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 310.1/SM2320B, 335.2, 365.2, 405.1, 413.1, 420.1, COD HACH 8000; Metals: 200.7, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624).

New Hampshire Department of Environmental Services Certificate No. : 220604 - Secondary NELAP Accreditation for *Wastewater* (General Chemistry: 120.1/2510B, 150.1, 160.1/SM2540C, 160.2/SM2540D, 180.1, 300.0, 310.1/SM2320B, 335.2, 365.2, 376.2, 405.1, 413.1, 420.1, COD HACH 8000, SM2540G; Metals: 200.7, 204.2, 206.2, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624, 625).

New Jersey Department of Environmental Protection Certificate No. : MA015 - *Solid and Hazardous Waste* (General Chemistry: 1010, 1311, 3060, 7196, 9010/9014, 9045, 9056, 9060; Metals: 3010, 3015, 3020, 3050, 3051, 6010, 6020, 7041, 7060, 7131, 7191, 7211, 7421, 7470, 7471, 7520, 7740, 7761, 7841; Organics: 3510, 3545, 5030, 5035, 3620, 3630, 3640, 3660, 8081, 8082, 8100, 8260, 8270).

New York Department of Health Certificate No. : 11627 - Secondary NELAP Accreditation for *Wastewater* (Metals: 200.7, 204.2, 206.2, 239.2, 245.1, 270.2, 279.2; Organics: 608, 624, 625). *Solid and Hazardous Waste* (Metals: 6010, 7041, 7060, 7470, 7471, 7740; Organics: 8081, 8082, 8260, 8270).

Rhode Island Department of Health Certificate No. : 00064 - Chemistry: *Organic and Inorganic in Surface Water, Wastewater/Sewage and Soil* (Method numbers not specified with certificate.)

U.S. Army Corps of Engineers - General Chemistry: 9010/9014, 9071/418.1, 9060; Organics: 8081, 8082, 8260, 8270, 8270-SIM; Metals: 6010, 6020, 7000.

Department of the Navy - General Chemistry: 9010/9014, 9060; Organics: 8081, 8082, 8015-mod, 8260, 8270, 8270-SIM; Metals: 6010, 6020.

ANALYTICAL REPORT

Lab Number:	L1001187
Client:	Apex Companies 115 Broad Street Suite 200 Boston, MA 02110
ATTN:	Chet Myers
Project Name:	NBH PHASE III
Project Number:	6690.001
Report Date:	01/29/10

Certifications & Approvals: MA (M-MA030), NY (11627), CT (PH-0141), NH (2206), NJ (MA015), RI (LAO00299), ME (MA0030), PA (Registration #68-02089), LA NELAC (03090), FL NELAC (E87814), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: NBH PHASE III
Project Number: 6690.001

Lab Number: L1001187
Report Date: 01/29/10

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1001187-01	POST_012010_G1	NEW BEDFORD, MA	01/20/10 10:16
L1001187-02	POST_012010_TP2	NEW BEDFORD, MA	01/20/10 12:45
L1001187-03	POST_012010_UW1	NEW BEDFORD, MA	01/20/10 12:17
L1001187-04	POST_012010_PACK1	NEW BEDFORD, MA	01/20/10 14:20
L1001187-05	POST_012010_BHB1	NEW BEDFORD, MA	01/20/10 14:46
L1001187-06	POST_012010_ONWF1	NEW BEDFORD, MA	01/20/10 13:48
L1001187-07	POST_012010_SA1	NEW BEDFORD, MA	01/20/10 11:20
L1001187-08	POST_012010_SA2	NEW BEDFORD, MA	01/20/10 11:30
L1001187-09	POST_012010_SA3	NEW BEDFORD, MA	01/20/10 11:45
L1001187-10	POST_012010_TP1	NEW BEDFORD, MA	01/20/10 13:00

Project Name: NBH PHASE III **Lab Number:** L1001187
Project Number: 6690.001 **Report Date:** 01/29/10

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

For additional information, please contact Client Services at 800-624-9220.

PCB Congeners

L1001187-05 was re-analyzed on dilution in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

Project Name:	NBH PHASE III	**Lab Number:**	L1001187
Project Number:	6690.001	**Report Date:**	01/29/10

Case Narrative (continued)

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kathleen M. O'Brien

Title: Technical Director/Representative

Date: 01/29/10

ORGANICS

PCBS

Project Name: NBH PHASE III **Lab Number:** L1001187

Project Number: 6690.001 **Report Date:** 01/29/10

SAMPLE RESULTS

Lab ID:	L1001187-01	Date Collected:	01/20/10 10:16
Client ID:	POST_012010_G1	Date Received:	01/22/10
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3570
Analytical Method:	1,8270C-SIM	Extraction Date:	01/25/10 14:11
Analytical Date:	01/28/10 16:51	Cleanup Method1:	- - - -
Analyst:	WN		
Percent Solids:	76%		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab					
Cl2-BZ#8	20.4		ug/kg	0.954	1
Cl3-BZ#18	64.8		ug/kg	0.954	1
Cl3-BZ#28	204		ug/kg	0.954	1
Cl4-BZ#44	58.5		ug/kg	0.954	1
Cl4-BZ#49	70.3		ug/kg	0.954	1
Cl4-BZ#52	129		ug/kg	0.954	1
Cl4-BZ#66	25.0		ug/kg	0.954	1
Cl5-BZ#87	ND		ug/kg	0.954	1
Cl5-BZ#101	75.7		ug/kg	0.954	1
Cl5-BZ#105	25.3		ug/kg	0.954	1
Cl5-BZ#118	76.9		ug/kg	0.954	1
Cl6-BZ#128	10.4		ug/kg	0.954	1
Cl6-BZ#138	66.7		ug/kg	0.954	1
Cl6-BZ#153	30.4		ug/kg	0.954	1
Cl7-BZ#170	7.11		ug/kg	0.954	1
Cl7-BZ#180	7.56		ug/kg	0.954	1
Cl7-BZ#183	ND		ug/kg	0.954	1
Cl7-BZ#184	ND		ug/kg	0.954	1
Cl7-BZ#187	4.11		ug/kg	0.954	1
Cl8-BZ#195	ND		ug/kg	0.954	1
Cl9-BZ#206	ND		ug/kg	0.954	1
Cl10-BZ#209	ND		ug/kg	0.954	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	81		50-125
BZ 198	81		50-125

Project Name: NBH PHASE III **Lab Number:** L1001187

Project Number: 6690.001 **Report Date:** 01/29/10

SAMPLE RESULTS

Lab ID:	L1001187-02	Date Collected:	01/20/10 12:45
Client ID:	POST_012010_TP2	Date Received:	01/22/10
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3570
Analytical Method:	1,8270C-SIM	Extraction Date:	01/25/10 14:11
Analytical Date:	01/28/10 17:30	Cleanup Method1:	- - - -
Analyst:	WN		
Percent Solids:	66%		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab					
Cl2-BZ#8	ND		ug/kg	1.08	1
Cl3-BZ#18	ND		ug/kg	1.08	1
Cl3-BZ#28	ND		ug/kg	1.08	1
Cl4-BZ#44	ND		ug/kg	1.08	1
Cl4-BZ#49	ND		ug/kg	1.08	1
Cl4-BZ#52	ND		ug/kg	1.08	1
Cl4-BZ#66	ND		ug/kg	1.08	1
Cl5-BZ#87	ND		ug/kg	1.08	1
Cl5-BZ#101	ND		ug/kg	1.08	1
Cl5-BZ#105	ND		ug/kg	1.08	1
Cl5-BZ#118	ND		ug/kg	1.08	1
Cl6-BZ#128	ND		ug/kg	1.08	1
Cl6-BZ#138	ND		ug/kg	1.08	1
Cl6-BZ#153	ND		ug/kg	1.08	1
Cl7-BZ#170	ND		ug/kg	1.08	1
Cl7-BZ#180	ND		ug/kg	1.08	1
Cl7-BZ#183	ND		ug/kg	1.08	1
Cl7-BZ#184	ND		ug/kg	1.08	1
Cl7-BZ#187	ND		ug/kg	1.08	1
Cl8-BZ#195	ND		ug/kg	1.08	1
Cl9-BZ#206	ND		ug/kg	1.08	1
Cl10-BZ#209	ND		ug/kg	1.08	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	88		50-125
BZ 198	89		50-125

Project Name: NBH PHASE III **Lab Number:** L1001187

Project Number: 6690.001 **Report Date:** 01/29/10

SAMPLE RESULTS

Lab ID:	L1001187-03	Date Collected:	01/20/10 12:17
Client ID:	POST_012010_UW1	Date Received:	01/22/10
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3570
Analytical Method:	1,8270C-SIM	Extraction Date:	01/25/10 14:11
Analytical Date:	01/28/10 18:08	Cleanup Method1:	- - - -
Analyst:	WN		
Percent Solids:	35%		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab					
Cl2-BZ#8	30.1		ug/kg	2.10	1
Cl3-BZ#18	192		ug/kg	2.10	1
Cl3-BZ#28	397		ug/kg	2.10	1
Cl4-BZ#44	112		ug/kg	2.10	1
Cl4-BZ#49	92.1		ug/kg	2.10	1
Cl4-BZ#52	218		ug/kg	2.10	1
Cl4-BZ#66	42.4		ug/kg	2.10	1
Cl5-BZ#87	ND		ug/kg	2.10	1
Cl5-BZ#101	158		ug/kg	2.10	1
Cl5-BZ#105	70.3		ug/kg	2.10	1
Cl5-BZ#118	170		ug/kg	2.10	1
Cl6-BZ#128	41.0		ug/kg	2.10	1
Cl6-BZ#138	209		ug/kg	2.10	1
Cl6-BZ#153	102		ug/kg	2.10	1
Cl7-BZ#170	45.5		ug/kg	2.10	1
Cl7-BZ#180	67.9		ug/kg	2.10	1
Cl7-BZ#183	9.25		ug/kg	2.10	1
Cl7-BZ#184	ND		ug/kg	2.10	1
Cl7-BZ#187	54.1		ug/kg	2.10	1
Cl8-BZ#195	ND		ug/kg	2.10	1
Cl9-BZ#206	ND		ug/kg	2.10	1
Cl10-BZ#209	ND		ug/kg	2.10	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	88		50-125
BZ 198	119		50-125

Project Name: NBH PHASE III **Lab Number:** L1001187

Project Number: 6690.001 **Report Date:** 01/29/10

SAMPLE RESULTS

Lab ID:	L1001187-04	Date Collected:	01/20/10 14:20
Client ID:	POST_012010_PACK1	Date Received:	01/22/10
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3570
Analytical Method:	1,8270C-SIM	Extraction Date:	01/25/10 14:11
Analytical Date:	01/28/10 18:47	Cleanup Method1:	- - - -
Analyst:	WN		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab					
Cl2-BZ#8	ND		ug/kg	0.923	1
Cl3-BZ#18	1.74		ug/kg	0.923	1
Cl3-BZ#28	8.85		ug/kg	0.923	1
Cl4-BZ#44	1.98		ug/kg	0.923	1
Cl4-BZ#49	4.04		ug/kg	0.923	1
Cl4-BZ#52	5.71		ug/kg	0.923	1
Cl4-BZ#66	4.04		ug/kg	0.923	1
Cl5-BZ#87	ND		ug/kg	0.923	1
Cl5-BZ#101	4.46		ug/kg	0.923	1
Cl5-BZ#105	ND		ug/kg	0.923	1
Cl5-BZ#118	2.96		ug/kg	0.923	1
Cl6-BZ#128	ND		ug/kg	0.923	1
Cl6-BZ#138	2.58		ug/kg	0.923	1
Cl6-BZ#153	2.48		ug/kg	0.923	1
Cl7-BZ#170	ND		ug/kg	0.923	1
Cl7-BZ#180	ND		ug/kg	0.923	1
Cl7-BZ#183	ND		ug/kg	0.923	1
Cl7-BZ#184	ND		ug/kg	0.923	1
Cl7-BZ#187	ND		ug/kg	0.923	1
Cl8-BZ#195	ND		ug/kg	0.923	1
Cl9-BZ#206	ND		ug/kg	0.923	1
Cl10-BZ#209	ND		ug/kg	0.923	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	88		50-125
BZ 198	88		50-125

Project Name: NBH PHASE III **Lab Number:** L1001187

Project Number: 6690.001 **Report Date:** 01/29/10

SAMPLE RESULTS

Lab ID:	L1001187-05	Date Collected:	01/20/10 14:46
Client ID:	POST_012010_BHB1	Date Received:	01/22/10
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3570
Analytical Method:	1,8270C-SIM	Extraction Date:	01/25/10 14:11
Analytical Date:	01/28/10 21:21	Cleanup Method1:	- - - -
Analyst:	WN		
Percent Solids:	72%		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab					
Cl2-BZ#8	322	E	ug/kg	0.988	1
Cl3-BZ#18	991	E	ug/kg	0.988	1
Cl3-BZ#28	2820	E	ug/kg	0.988	1
Cl4-BZ#44	968	E	ug/kg	0.988	1
Cl4-BZ#49	847	E	ug/kg	0.988	1
Cl4-BZ#52	1770	E	ug/kg	0.988	1
Cl4-BZ#66	260	E	ug/kg	0.988	1
Cl5-BZ#87	ND		ug/kg	0.988	1
Cl5-BZ#101	789	E	ug/kg	0.988	1
Cl5-BZ#105	140		ug/kg	0.988	1
Cl5-BZ#118	524	E	ug/kg	0.988	1
Cl6-BZ#128	39.4		ug/kg	0.988	1
Cl6-BZ#138	314	E	ug/kg	0.988	1
Cl6-BZ#153	285	E	ug/kg	0.988	1
Cl7-BZ#170	31.8		ug/kg	0.988	1
Cl7-BZ#180	30.3		ug/kg	0.988	1
Cl7-BZ#183	6.06		ug/kg	0.988	1
Cl7-BZ#184	ND		ug/kg	0.988	1
Cl7-BZ#187	28.7		ug/kg	0.988	1
Cl8-BZ#195	ND		ug/kg	0.988	1
Cl9-BZ#206	4.35		ug/kg	0.988	1
Cl10-BZ#209	1.74		ug/kg	0.988	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	76		50-125
BZ 198	105		50-125

Project Name: NBH PHASE III **Lab Number:** L1001187

Project Number: 6690.001 **Report Date:** 01/29/10

SAMPLE RESULTS

Lab ID:	L1001187-05 D	Date Collected:	01/20/10 14:46
Client ID:	POST_012010_BHB1	Date Received:	01/22/10
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3570
Analytical Method:	1,8270C-SIM	Extraction Date:	01/25/10 14:11
Analytical Date:	01/28/10 19:25	Cleanup Method1:	- - - -
Analyst:	WN		
Percent Solids:	72%		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab					
Cl2-BZ#8	568		ug/kg	19.8	20
Cl3-BZ#18	1780		ug/kg	19.8	20
Cl3-BZ#28	4900		ug/kg	19.8	20
Cl4-BZ#44	1590		ug/kg	19.8	20
Cl4-BZ#49	1620		ug/kg	19.8	20
Cl4-BZ#52	2530		ug/kg	19.8	20
Cl4-BZ#66	466		ug/kg	19.8	20
Cl5-BZ#101	756		ug/kg	19.8	20
Cl5-BZ#118	631		ug/kg	19.8	20
Cl6-BZ#138	413		ug/kg	19.8	20
Cl6-BZ#153	356		ug/kg	19.8	20

Project Name: NBH PHASE III **Lab Number:** L1001187

Project Number: 6690.001 **Report Date:** 01/29/10

SAMPLE RESULTS

Lab ID:	L1001187-06	Date Collected:	01/20/10 13:48
Client ID:	POST_012010_ONWF1	Date Received:	01/22/10
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3570
Analytical Method:	1,8270C-SIM	Extraction Date:	01/25/10 14:11
Analytical Date:	01/28/10 20:43	Cleanup Method1:	- - - -
Analyst:	WN		
Percent Solids:	74%		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab					
Cl2-BZ#8	8.68		ug/kg	0.965	1
Cl3-BZ#18	47.0		ug/kg	0.965	1
Cl3-BZ#28	143		ug/kg	0.965	1
Cl4-BZ#44	49.3		ug/kg	0.965	1
Cl4-BZ#49	50.7		ug/kg	0.965	1
Cl4-BZ#52	92.8		ug/kg	0.965	1
Cl4-BZ#66	17.6		ug/kg	0.965	1
Cl5-BZ#87	ND		ug/kg	0.965	1
Cl5-BZ#101	72.8		ug/kg	0.965	1
Cl5-BZ#105	21.2		ug/kg	0.965	1
Cl5-BZ#118	77.2		ug/kg	0.965	1
Cl6-BZ#128	19.7		ug/kg	0.965	1
Cl6-BZ#138	80.4		ug/kg	0.965	1
Cl6-BZ#153	37.0		ug/kg	0.965	1
Cl7-BZ#170	4.90		ug/kg	0.965	1
Cl7-BZ#180	11.3		ug/kg	0.965	1
Cl7-BZ#183	ND		ug/kg	0.965	1
Cl7-BZ#184	ND		ug/kg	0.965	1
Cl7-BZ#187	6.66		ug/kg	0.965	1
Cl8-BZ#195	ND		ug/kg	0.965	1
Cl9-BZ#206	ND		ug/kg	0.965	1
Cl10-BZ#209	ND		ug/kg	0.965	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	92		50-125
BZ 198	103		50-125

Project Name: NBH PHASE III **Lab Number:** L1001187

Project Number: 6690.001 **Report Date:** 01/29/10

SAMPLE RESULTS

Lab ID:	L1001187-07	Date Collected:	01/20/10 11:20
Client ID:	POST_012010_SA1	Date Received:	01/22/10
Sample Location:	NEW BEDFORD, MA	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3570
Analytical Method:	1,8270C-SIM	Extraction Date:	01/25/10 14:11
Analytical Date:	01/28/10 22:00	Cleanup Method1:	- - - -
Analyst:	WN		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab					
Cl2-BZ#8	ND		ug/kg	0.925	1
Cl3-BZ#18	ND		ug/kg	0.925	1
Cl3-BZ#28	18.4		ug/kg	0.925	1
Cl4-BZ#44	ND		ug/kg	0.925	1
Cl4-BZ#49	6.46		ug/kg	0.925	1
Cl4-BZ#52	15.2		ug/kg	0.925	1
Cl4-BZ#66	2.28		ug/kg	0.925	1
Cl5-BZ#87	ND		ug/kg	0.925	1
Cl5-BZ#101	8.49		ug/kg	0.925	1
Cl5-BZ#105	ND		ug/kg	0.925	1
Cl5-BZ#118	10.8		ug/kg	0.925	1
Cl6-BZ#128	ND		ug/kg	0.925	1
Cl6-BZ#138	10.4		ug/kg	0.925	1
Cl6-BZ#153	8.73		ug/kg	0.925	1
Cl7-BZ#170	ND		ug/kg	0.925	1
Cl7-BZ#180	ND		ug/kg	0.925	1
Cl7-BZ#183	ND		ug/kg	0.925	1
Cl7-BZ#184	ND		ug/kg	0.925	1
Cl7-BZ#187	ND		ug/kg	0.925	1
Cl8-BZ#195	ND		ug/kg	0.925	1
Cl9-BZ#206	ND		ug/kg	0.925	1
Cl10-BZ#209	ND		ug/kg	0.925	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	96		50-125
BZ 198	69		50-125

Project Name: NBH PHASE III **Lab Number:** L1001187

Project Number: 6690.001 **Report Date:** 01/29/10

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270C-SIM
Analytical Date: 01/28/10 14:55
Analyst: WN

Extraction Method: EPA 3570
Extraction Date: 01/25/10 14:11
Cleanup Method1: - - - -
Cleanup Date1:

Parameter	Result	Qualifier	Units	RDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 01-07 Batch: WG397971-1				
Cl2-BZ#8	ND		ug/kg	0.800
Cl3-BZ#18	ND		ug/kg	0.800
Cl3-BZ#28	ND		ug/kg	0.800
Cl4-BZ#44	ND		ug/kg	0.800
Cl4-BZ#49	ND		ug/kg	0.800
Cl4-BZ#52	ND		ug/kg	0.800
Cl4-BZ#66	ND		ug/kg	0.800
Cl5-BZ#87	ND		ug/kg	0.800
Cl5-BZ#101	ND		ug/kg	0.800
Cl5-BZ#105	ND		ug/kg	0.800
Cl5-BZ#118	ND		ug/kg	0.800
Cl6-BZ#128	ND		ug/kg	0.800
Cl6-BZ#138	ND		ug/kg	0.800
Cl6-BZ#153	ND		ug/kg	0.800
Cl7-BZ#170	ND		ug/kg	0.800
Cl7-BZ#180	ND		ug/kg	0.800
Cl7-BZ#183	ND		ug/kg	0.800
Cl7-BZ#184	ND		ug/kg	0.800
Cl7-BZ#187	ND		ug/kg	0.800
Cl8-BZ#195	ND		ug/kg	0.800
Cl9-BZ#206	ND		ug/kg	0.800
Cl10-BZ#209	ND		ug/kg	0.800

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	75		50-125
BZ 198	88		50-125

Lab Control Sample Analysis
Batch Quality Control

Project Name: NBH PHASE III
Project Number: 6690.001

Lab Number: L1001187
Report Date: 01/29/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-07 Batch: WG397971-2 WG397971-3								
Cl2-BZ#8	57		73		40-140	25		30
Cl3-BZ#18	56		71		40-140	24		30
Cl3-BZ#28	57		70		40-140	20		30
Cl4-BZ#44	59		72		40-140	20		30
Cl4-BZ#49	47		55		40-140	16		30
Cl4-BZ#52	69		92		40-140	29		30
Cl4-BZ#66	61		75		40-140	21		30
Cl5-BZ#87	63		71		40-140	12		30
Cl5-BZ#101	58		70		40-140	19		30
Cl5-BZ#105	41		50		40-140	20		30
Cl5-BZ#118	63		71		40-140	12		30
Cl6-BZ#128	62		75		40-140	19		30
Cl6-BZ#138	62		77		40-140	22		30
Cl6-BZ#153	61		72		40-140	17		30
Cl7-BZ#170	68		78		40-140	14		30
Cl7-BZ#180	66		75		40-140	13		30
Cl7-BZ#183	43		44		40-140	2		30
Cl7-BZ#184	59		73		40-140	21		30
Cl7-BZ#187	82		102		40-140	22		30
Cl8-BZ#195	58		66		40-140	13		30
Cl9-BZ#206	67		80		40-140	18		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: NBH PHASE III

Project Number: 6690.001

Lab Number: L1001187

Report Date: 01/29/10

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab Associated sample(s): 01-07 Batch: WG397971-2 WG397971-3								
Cl10-BZ#209	58		70		40-140	19		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	58		73		50-125
BZ 198	69		75		50-125

INORGANICS
&
MISCELLANEOUS

Project Name: NBH PHASE III
Project Number: 6690.001

Lab Number: L1001187
Report Date: 01/29/10

SAMPLE RESULTS

Lab ID: L1001187-01
Client ID: POST_012010_G1
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 01/20/10 10:16
Date Received: 01/22/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab									
Solids, Total	76.1		%	0.100	1	-	01/25/09 13:15	30,2540G	KB

Project Name: NBH PHASE III
Project Number: 6690.001

Lab Number: L1001187
Report Date: 01/29/10

SAMPLE RESULTS

Lab ID: L1001187-02
Client ID: POST_012010_TP2
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 01/20/10 12:45
Date Received: 01/22/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab									
Solids, Total	66.0		%	0.100	1	-	01/25/09 13:15	30,2540G	KB

Project Name: NBH PHASE III
Project Number: 6690.001

Lab Number: L1001187
Report Date: 01/29/10

SAMPLE RESULTS

Lab ID: L1001187-03
Client ID: POST_012010_UW1
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 01/20/10 12:17
Date Received: 01/22/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab									
Solids, Total	34.5		%	0.100	1	-	01/25/09 13:15	30,2540G	KB

Project Name: NBH PHASE III
Project Number: 6690.001

Lab Number: L1001187
Report Date: 01/29/10

SAMPLE RESULTS

Lab ID: L1001187-04
Client ID: POST_012010_PACK1
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 01/20/10 14:20
Date Received: 01/22/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab									
Solids, Total	81.3		%	0.100	1	-	01/25/09 13:15	30,2540G	KB

Project Name: NBH PHASE III
Project Number: 6690.001

Lab Number: L1001187
Report Date: 01/29/10

SAMPLE RESULTS

Lab ID: L1001187-05
Client ID: POST_012010_BHB1
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 01/20/10 14:46
Date Received: 01/22/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab									
Solids, Total	71.9		%	0.100	1	-	01/25/09 13:15	30,2540G	KB

Project Name: NBH PHASE III
Project Number: 6690.001

Lab Number: L1001187
Report Date: 01/29/10

SAMPLE RESULTS

Lab ID: L1001187-06
Client ID: POST_012010_ONWF1
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 01/20/10 13:48
Date Received: 01/22/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab									
Solids, Total	73.9		%	0.100	1	-	01/25/09 13:15	30,2540G	KB

Project Name: NBH PHASE III
Project Number: 6690.001

Lab Number: L1001187
Report Date: 01/29/10

SAMPLE RESULTS

Lab ID: L1001187-07
Client ID: POST_012010_SA1
Sample Location: NEW BEDFORD, MA
Matrix: Soil

Date Collected: 01/20/10 11:20
Date Received: 01/22/10
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab									
Solids, Total	80.5		%	0.100	1	-	01/25/09 13:15	30,2540G	KB

Lab Duplicate Analysis
Batch Quality Control

Project Name: NBH PHASE III
Project Number: 6690.001

Lab Number: L1001187
Report Date: 01/29/10

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG397944-1 QC Sample: L1001187-01 Client ID: POST_012010_G1						
Solids, Total	76.1	75.3	%	1		20

Project Name: NBH PHASE III
Project Number: 6690.001

Lab Number: L1001187
Report Date: 01/29/10

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis
L1001187-01A	Glass 100ml unpreserved	A	N/A	3	Y	Absent	A2-PCBCONG-8270-NOAA(),A2-TS(7)
L1001187-02A	Glass 100ml unpreserved	A	N/A	3	Y	Absent	A2-PCBCONG-8270-NOAA(),A2-TS(7)
L1001187-03A	Glass 100ml unpreserved	A	N/A	3	Y	Absent	A2-PCBCONG-8270-NOAA(),A2-TS(7)
L1001187-04A	Glass 100ml unpreserved	A	N/A	3	Y	Absent	A2-PCBCONG-8270-NOAA(),A2-TS(7)
L1001187-05A	Glass 100ml unpreserved	A	N/A	3	Y	Absent	A2-PCBCONG-8270-NOAA(),A2-TS(7)
L1001187-06A	Glass 100ml unpreserved	A	N/A	3	Y	Absent	A2-PCBCONG-8270-NOAA(),A2-TS(7)
L1001187-07A	Glass 100ml unpreserved	A	N/A	3	Y	Absent	A2-PCBCONG-8270-NOAA(),A2-TS(7)
L1001187-08A	Glass 100ml unpreserved	A	N/A	3	Y	Absent	HOLD(14)
L1001187-09A	Glass 100ml unpreserved	A	N/A	3	Y	Absent	HOLD(14)
L1001187-10A	Glass 100ml unpreserved	A	N/A	3	Y	Absent	HOLD(14)

*Hold days indicated by values in parentheses

Project Name:	NBH PHASE III	**Lab Number:**	L1001187
Project Number:	6690.001	**Report Date:**	01/29/10

GLOSSARY

Acronyms

EPA	· Environmental Protection Agency.
LCS	· Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	· Laboratory Control Sample Duplicate: Refer to LCS.
MS	· Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	· Matrix Spike Sample Duplicate: Refer to MS.
NA	· Not Applicable.
NC	· Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
ND	· Not detected at the reported detection limit for the sample.
NI	· Not Ignitable.
RDL	· Reported Detection Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	· Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
P	- The RPD between the results for the two columns exceeds the method-specified criteria.
Q	- The quality control sample exceeds the associated acceptance criteria. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RDL. (Metals only.)
R	- Analytical results are from sample re-analysis.
RE	- Analytical results are from sample re-extraction.
J	- Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

Report Format: Data Usability Report

Project Name:	NBH PHASE III	**Lab Number:**	L1001187
Project Number:	6690.001	**Report Date:**	01/29/10

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Woods Hole Labs shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Woods Hole Labs.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised December 15, 2009 – Mansfield Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable), Total Cyanide. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Organic Carbon, Total Cyanide, Corrosivity, TCLP 1311. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, EPA 120.1, SM2510B, EPA 245.1, EPA 150.1, EPA 160.2, SM2540D, EPA 335.2, SM2540G, EPA 180.1. Organic Parameters: EPA 625, 608.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045, 9014. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 120.1, 150.1, 160.2, 180.1, 200.8, 245.1, 310.1, 335.2, 608, 625, 1631, 3010, 3015, 3020, 6020, 9010, 9014, 9040, SM2320B, 2510B, 2540D, 2540G, 4500CN-E, 4500H-B, Organic Parameters: EPA 3510, 3580, 3630, 3640, 3660, 3665, 5030, 8015 (mod), 3570, 8081, 8082, 8260, 8270,)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7196, 7470, 7471, 7474, 9010, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015 (mod), EPA 3570, 1311, 3050, 3051, 3060, 3580, 3630, 3640, 3660, 3665, 5035, 8081, 8082, 8260, 8270.)

Biological Tissue (Inorganic Parameters: EPA 6020. Organic Parameters: EPA 3570, 3510, 3610, 3630, 3640, 8270.)

Maine Department of Human Services Certificate/Lab ID: MA0030.

Wastewater (Inorganic Parameters: EPA 120.1, 300.0, SM 2320, 2510B, 2540C, 2540D, EPA 245.1. Organic Parameters: 608, 624.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA030.

Non-Potable Water (Inorganic Parameters: SM4500H+B. Organic Parameters: EPA 624.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 200.8, 245.1, 1631E, 120.1, 150.1, 180.1, 310.1, 335.2, 160.2, SM2540D, 2540G, 4500CN-E, 4500H+B, 2320B, 2510B. Organic Parameters: EPA 625, 608.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3010, 3020A, 3015, 6020, SM2320B, EPA 200.8, SM2540C, 2540D, 2540G, EPA 120.1, SM2510B, EPA 180.1, 245.1, 1631E, SW-846 9040B, 6020, 9010B, 9014 Organic Parameters: EPA 608, 625, SW-846 3510C, 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082 8260B, 8270C)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6020, 9010B, 9014, 1311, 1312, 3050B, 3051, 3060A, 7196A, 7470A, 7471A, 9045C, 9060. Organic Parameters: SW-846 3580A, 5030B, 3035L, 5035H, 3630C, 3640A, 3660B, 3665A, 8081A, 8082, 8260B, 8270C, 3570, 8015B.)

Atmospheric Organic Parameters (EPA TO-15)

Biological Tissue (Inorganic Parameters: SW-846 6020 Organic Parameters: SW-846 8270C, 3510C, 3570, 3610B, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 310.1, SM2320B, EPA 365.2, 160.1, EPA 160.2, SM2540D, EPA 200.8, 6020, 1631E, 245.1, 335.2, 9014, 150.1, 9040B, 120.1, SM2510B, EPA 376.2, 180.1, 9010B. Organic Parameters: EPA 624, 8260B, 8270C, 608, 8081A, 625, 8082, 3510C, 3511, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, SW-846 Ch7 Sec 7.3, EPA 6020, 7196A, 7471A, 7474, 9014, 9040B, 9045C, 9010B. Organic Parameters: EPA 8260B, 8270C, 8081A, DRO 8015B, 8082, 1311, 3050B, 3580, 3050B, 3035, 3570, 3051, 5035, 5030B.)

Air & Emissions (EPA TO-15.)

Pennsylvania Department of Environmental Protection Certificate/Lab ID: 68-02089. ***NELAP Accredited.***

Non-Potable Water (Organic Parameters: EPA 5030B, EPA 8260)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via LA-DEQ.***

Refer to MA-DEP Certificate for Non-Potable Water.

Refer to LA-DEQ Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 7196, 9014, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8260, 8081, 8082.)

U.S. Army Corps of Engineers

Department of Defense Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 3005A,3020, 6020, 245.1, 245.7, 1631E, 7470A, 7474, 9014, 120.1, 9050A, 180.1, SM4500H-B, 2320B, 2510B, 2540D,9040. Organic Parameters: EPA 3510C, 5030B, 9010B, 624, 8260B, 8270C, 8270 Alk-PAH, 8082, 8081A, 8015 (SHC), 8015 (DRO).)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312,3051, 6020, 747A, 7474, 9045C,9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580, 3570, 3540C, 5035, 8260B, 8270C, 8270 Alk-PAH, 8082, 8081A, 8015 (SHC), 8015 (DRO).

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP
Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl.

01291010:29

CHAIN OF CUSTODY

PAGE ____ OF ____

Date Rec'd in Lab:

ALPHA Job #: L1001187

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: APEX COMPANIES LLC
Address: 184 HIGH ST SUITE 502 BOSTON MA 02110
Phone: 617-728-0070
Fax: 617-728 0080
Email: CMYERS@APEXCOS.COM
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: NBH PHASE III
Project Location: NEW BEDFORD
Project #: 66690.001
Project Manager: CHET MYERS
ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTOCOLS

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS: PCB's NOAA CONTAINERS

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB's NOAA CONTAINERS	Sample Specific Comments	TOTAL # BOTTLES
-1	POST_012010_G1	1/20/10	10:16	SOIL	GCD	X		1
-2	POST_012010_TP2	1/20/10	12:45	SOIL	GCD	X		1
-3	POST_012010_OW1	1/20/10	12:17	SOIL	GCD	X		1
-4	POST_012010_PACK1	1/20/10	14:20	SOIL	GCD	X		1
-5	POST_012010_BHB1	1/20/10	14:46	SOIL	GCD	X		1
-6	POST_012010_ONWF1	1/20/10	13:48	SOIL	GCD	X		1
-7	POST_012010_SA1	1/20/10	11:20	SOIL	GCD	X		1
-8	POST_012010_SA2	1/20/10	11:30	SOIL	GCD	HOLD	HOLD	1
-9	POST_012010_SA3	1/20/10	11:45	SOIL	GCD	HOLD	HOLD	1
-10	POST_012010_TP1	1/20/10	13:00	SOIL	GCD	HOLD	HOLD	1

Container Type: AMBER GLASS
Preservative: NONE

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT MA MCP or CT RCP?

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	1/22/10 1230	[signature]	1/22/10 1530
[signature]	1/22/10	[signature]	1/22/10 1700
[signature]	1/25/10 1030	[signature]	1/25/10 9:45
		[signature]	1/25/10 1030

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms. See reverse side.

FORM NO: 01-01 (rev. 30-JUL-07)

APPENDIX B
WATER QUALITY MONITORING SHEETS

Dredge Water Quality Monitoring Form

Apex

PROJECT: 0615.005 NBH
JOB NUMBER:
DATE: 06/13/2008
MONITORS: MB JM
WEATHER CONDITIONS: Sunny 75°
WIND: Calm
PRIOR STORM EVENTS: None
DREDGE UPDATE: Not Begun
TYPE OF WATER QUALITY MONITORING:

UP-CURRENT

TIME: 1115
GPS FILE NAME: 06132008-00-1
NORTHING:
TIDAL STAGE:

NUMBER OF HOURS OF DREDGING: 0
DISTANCE FROM DREDGE/SILT CURTAIN:
EASTING:
WATER DEPTH: 7.6'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
06132008-00-1-5.5	1115	5.5	0.06	DO 3.91 / pH 7.71 / ORP 289.2
06132008-00-1-2.0	1115	2.0	0.1	DO 3.51 / pH 7.73 / ORP 292.2
-00-1-3.25	1115	3.25	-0.2	DO 3.31 / pH 7.72 / ORP 299.2

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 1045
GPS FILE NAME: 06132008-00
NORTHING: -
TIDAL STAGE: Low Tide was @ 10:11

NUMBER OF HOURS OF DREDGING: Ø
DISTANCE FROM DREDGE/SILT CURTAIN:
EASTING:
WATER DEPTH: 7.0'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
06132008-00-9-5	1045	5	-0.1	Temp 20.7°C / 46.39 mS/cm³ / 42.44 ns/m / 70.5% DO 5.29 pH 7.8 137.2 ORP
06132008-00-9-2	1047	2	-0.5	DO 6.09 / pH 7.81 / ORP 1.511
06132008-00-9-3	1049	3	0.0	DO 5.24 / pH 7.811 / ORP 1.594

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Disposal Water Quality Monitoring Form

NOT DISPOSAL DREDGE MONITORING
KJN 6/15/08

Apex

PROJECT: NBH-CAD II
JOB NUMBER: 6615.005.01
DATE: 6/14/08
DISPOSAL EVENT:
MONITORS: Jen Martino / Chris Morris
WEATHER CONDITIONS: Clear, Calm, 70°F
WIND: Cool Breeze
PRIOR STORM EVENTS: None

UP-CURRENT

TIME: 07:15am
GPS FILE NAME: 061408
NORTHING: 269640.99
TIDAL STAGE: High to Low

TIME OF DISPOSAL:
DISTANCE FROM DISPOSAL LOCATION:
EASTING: 815208.62
WATER DEPTH: 7.8

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	Temp	Spc. Cond.	NOTES pH	ORP	DO	Turb
061408-00-1-5.5	0719	5.5	0	20.58°C	42.85 uS/cm	7.84 pH	111.2 ORP	4.26 DO	0
061408-00-1-2.0	0720	2.0	0	20.84	42.79 uS/cm	7.82 pH	122.5	4.93	0
061408-00-1-3.25	0721	3.25	0	20.84	42.77	7.84 pH	13.2	4.74	0
061408-01-9-2.0	0825	2	0	20.93	42.83	7.78	242.2	2.86	0
061408-01-9-4.0	0826	4	0.3	20.86	42.76	7.77	252.9	2.78	.3
061408-01-9-3.0	0829	3	.4	20.83	42.82	7.76	258.1	2.88	.4
061408-03-1-3.0	1017	3	.9	21.45	43.34	7.81	108.5	7.79	1.0
061408-03-1-2.5	1019	2.5	.9	21.48	43.34	7.79	132.4	7.79	.9
061408-03-1-2.0	1021	2	.9	21.52	43.37	7.79	150.1	7.78	.9
061408-03-9-5	1032	5	2	20.78	42.84	7.78	253	2.49	2
061408-03-9-2	1035	2	2	21.52	43.38	7.79	262.1	2.69	2
061408-03-9-2.5	1037	3.5	2	21.51	43.35	7.79	271.0	2.81	2

AVERAGE TURBIDITY:

DISPOSAL LOCATION

TIME:
GPS FILE NAME:
NORTHING:
TIDAL STAGE:

TIME OF DISPOSAL:
DISTANCE FROM DISPOSAL LOCATION:
EASTING:
WATER DEPTH:

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Disposal Water Quality Monitoring Form

Apex

DOWN-CURRENT

TIME:

GPS FILE NAME:

NORTHING:

TIDAL STAGE:

TIME OF DISPOSAL:

DISTANCE FROM DISPOSAL LOCATION:

EASTING:

WATER DEPTH:

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES pH	Tem	SpCn	ORP	DO	Turb
061408-05-1-2	1240	2	0	6.82	22.17	43.97	444.5	3.81	0
061408-05-1-3	1242	3	0	6.84	22.10	43.90	461.5	3.69	0
061408-05-1-2.5	1244	2.5	0	6.89	22.16	44.00	469.5	3.73	0
061408-05-9-6	1252	6	1	7.19	21.06	43.02	484.4	2.68	1
061408-05-9-2	1253	2	1	7.25	21.67	43.54	485.1	3.30	1
061408-05-9-4	1254	4	1	7.34	21.60	43.42	489.1	3.18	1
061408-07-1-2	1631	2		7.75	22.36	44.27	203.7	8.05	2.7
061408-07-1-4	1633	4		7.69	22.25	44.20	238.1	6.47	2.3
061408-07-1-6	1634	6		7.62	21.53	46.74	268.1	6.14	1.1
061808-07-9-8	1649	8		7.87	21.23	43.47	362.2	2.63	0
061808-07-9-2	1651	2		7.87	22.24	46.16	365.4	2.38	3.5
061808-07-9-5	1653	5		7.87	21.73	43.84	369.2	2.37	0

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: NB H
JOB NUMBER: 66152005.01
DATE: 6/16/08
MONITORS: MB JK
WEATHER CONDITIONS: Cold 60°
WIND: 5 knts
PRIOR STORM EVENTS: None
DREDGE UPDATE: Pre
TYPE OF WATER QUALITY MONITORING: Pre Dredge

UP-CURRENT

TIME: 1645
GPS FILE NAME: 061608-1
NORTHING:
TIDAL STAGE: Low → High

NUMBER OF HOURS OF DREDGING: Ø
DISTANCE FROM DREDGE/SILT CURTAIN:
EASTING:
WATER DEPTH: 46.0

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	DO	pH	ORP	NOTES
061808-32-1	1645	32	44.1	2.03	7.86	207.1	
061808-2-1	1648	2	0.1	8.18	7.86	210.0	
061808-15-1	1653	15	-0.3	2.25	7.87	214.8	

AVERAGE TURBIDITY:

Pre-Dump

DOWN-CURRENT

TIME: 1630
GPS FILE NAME: 061608-9
NORTHING:
TIDAL STAGE: Low → High

NUMBER OF HOURS OF DREDGING: Ø
DISTANCE FROM DREDGE/SILT CURTAIN:
EASTING:
WATER DEPTH: 20'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	DO	Ph	ORP	NOTES
061608_18_9	1629	18	-0.2	5.21	7.8	129.5	
061608_02_9	1632	2	-0.2	7.28	7.88	131.6	
061608_08_9	1635	8	-0.1	3.41	7.87	134.2	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

PROJECT: NBH - Top of CAD Cell 2

Dredge Water Quality Monitoring Form

JOB NUMBER: 6615.005.01

DATE: 6/19/08

MONITORS: Jen Martino & Chris Morris

WEATHER CONDITIONS: Sunny, cool, 70°F

WIND: Slight breeze

PRIOR STORM EVENTS: N/A

DREDGE UPDATE: Pre-Dredge WQ Monitoring

TYPE OF WATER QUALITY MONITORING: Pre-Dredge WQ Monitoring (up-current) (down-current)

UP-CURRENT

TIME: 0800 hrs

GPS FILE NAME: 061908-00-1

NORTHING: 2695782.23

TIDAL STAGE: Flood (low to high)

NUMBER OF HOURS OF DREDGING: 00

DISTANCE FROM DREDGE/SILT CURTAIN: 200 feet

EASTING: 815597.93

WATER DEPTH: 8.0 feet

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
061908-00-1-2	0810	2.0	5.2	
061908-00-1-4	0815	4.0	6.3	
061908-00-1-6	0820	6.0	6.7	
		Total:	18.2/3	= 6.06

AVERAGE TURBIDITY: 6.0 NTU

DOWN-CURRENT

TIME: 0830 hrs.

GPS FILE NAME: 061908-00-9

NORTHING: 2698242.76 N

TIDAL STAGE: Flood (low to high)

NUMBER OF HOURS OF DREDGING: 00

DISTANCE FROM DREDGE/SILT CURTAIN: 200 feet

EASTING: 815579.98 E

WATER DEPTH: 8.4 feet

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
061908-00-9-2	0835	2.0	1.3	
061908-00-9-4	0840	4.0	1.1	
061908-00-9-6	0845	6.0	4.1	
		Total:	6.5/3	= 2.16

AVERAGE TURBIDITY: 2.2 NTU

TURBIDITY INCREASE*: 2.2 NTU - 6.0 NTU = -3.8 NTU

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

6/19/08

Dredge Disposal Water Quality Monitoring Form

PROJECT: NBH - Top of CAD
JOB NUMBER: 6615.005.01
DATE: 6/19/08
DISPOSAL EVENT: D2 of day - dumping SE-103
MONITORS: Jen Martino + Chris Morris
WEATHER CONDITIONS: Cloudy/Sunny, warm ~ 75°F
WIND: Light breeze
PRIOR STORM EVENTS: N/A

Apex

UP-CURRENT

TIME: 1200 hrs.
GPS FILE NAME: 061908-05-1
NORTHING: 2696029.4
TIDAL STAGE: Ebb (High to low)

TIME OF DISPOSAL: 1200 hrs
DISTANCE FROM DISPOSAL LOCATION:
EASTING: 814946.07
WATER DEPTH: 40 Feet

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
061908-05-1-2	1150	2.0	27.9	
061908-05-1-16	1155	16.0	31.0	
061908-05-1-38	1200	38.0	11.4	

AVERAGE TURBIDITY:

DISPOSAL LOCATION

TIME: 1205 hrs
GPS FILE NAME: 061908-D2-05m.
NORTHING: 2695906
TIDAL STAGE: Ebb (High to low)

TIME OF DISPOSAL: 1200 hrs
DISTANCE FROM DISPOSAL LOCATION: ~~[illegible]~~ @location
EASTING: 814821
WATER DEPTH: 43 Feet

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
061908-D2-05-2	1215	2.0	1	
061908-D2-05-20	1220	20.0	2.1	
061908-D2-05-40	1225	40.0	2.2	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Apex

DOWN-CURRENT

TIME: 1230 hrs

GPS FILE NAME: 061908-05-9

NORTHING: 2695752

TIDAL STAGE: Ebb (High to low)

TIME OF DISPOSAL: 1200 hrs

DISTANCE FROM DISPOSAL LOCATION: 300 feet

EASTING: 814857

WATER DEPTH: 43 ft.

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
061908-05-9-2	1230	2.0	0.5	
061908-05-9-20	1235	20.0	0.6	
061908-05-9-40	1240	40.0	11.6	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

PROJECT: NBH - Top of CAP

Dredge Water Quality Monitoring Form

JOB NUMBER: 6645.005.01

DATE: 6/24/08

MONITORS: Jen Martino + Josh Ray

WEATHER CONDITIONS: Clear, overcast, cool ~ 65°F

WIND: cool breeze

PRIOR STORM EVENTS: rain

DREDGE UPDATE: started at 0800 hrs

TYPE OF WATER QUALITY MONITORING: 00 hr upcurrent / downcurrent turbidity

UP-CURRENT

TIME: 0750 hrs

GPS FILE NAME: 062408-00-1 (dredge)

NORTHING: 2695793

TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 00

DISTANCE FROM DREDGE/SILT CURTAIN: 200 ft

EASTING: 815466

WATER DEPTH: 10 ft.

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
062408-00-1-2	0750	2.0	0.0	
062408-00-1-5	0755	5.0	0.2	
062408-00-1-8	0800	8.0	0.0	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 0800 hrs

GPS FILE NAME: 062408-00-9

NORTHING: 2696375

TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 00

DISTANCE FROM DREDGE/SILT CURTAIN: 200 feet

EASTING: 815344

WATER DEPTH: 6 feet

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
062408-00-9-2	0800	2.0	0.2	
062408-00-9-3	0805	3.0	0.2	
062408-00-9-4	0810	4.0	0.2	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: NBH-Dredge Top of CAD
JOB NUMBER: 6615.005.01
DATE: 6/24/08
MONITORS: Jen Martino + Josh Ray
WEATHER CONDITIONS: Sunny, hot, clear skies
WIND: slight breeze
PRIOR STORM EVENTS: rain
DREDGE UPDATE: 02 hours of dredge
TYPE OF WATER QUALITY MONITORING: turbidity dredge WQ - upcurrent + downcurrent

UP-CURRENT

TIME: 1000 hrs
GPS FILE NAME: 062408-02-1
NORTHING: 2695844
TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 02
DISTANCE FROM DREDGE/SILT CURTAIN: 200 ft.
EASTING: 815382
WATER DEPTH: 31 feet

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
062408-02-1-2	1000	2.0	-0.2	
062408-02-1-13	1005	13.0	-0.2	
062408-02-1-29	1010	29.0	2.1	
		total:	1.7/3 = 0.~~12~~5	

AVERAGE TURBIDITY: 0.~~12~~5 NTU

DOWN-CURRENT

TIME: 1010 hrs.
GPS FILE NAME: 062408-02-9
NORTHING: 2696493
TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 02
DISTANCE FROM DREDGE/SILT CURTAIN: 200 ft.
EASTING: 815278
WATER DEPTH: 7.5 feet

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
062408-02-9-2.0	1010	2.0	1.1	
062408-02-9-4.0	1015	4.0	-0.2	
062408-02-9-5.0	1020	5.0	-0.2	
		total:	0.7/3 = ~~0.12~~ 0.2 NTU	

AVERAGE TURBIDITY: 0.~~12~~2 NTU

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: NCH
JOB NUMBER: 6615.005.001
DATE: 6/26/08
MONITORS:
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING:

UP-CURRENT

TIME: 10:05
GPS FILE NAME: 62608-00-1
NORTHING: 2695861
TIDAL STAGE: flood

NUMBER OF HOURS OF DREDGING: 00
DISTANCE FROM DREDGE/SILT CURTAIN: 200'
EASTING: 915596
WATER DEPTH: 6.7'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
062608-00-1-2	1005	2	0.3	
062608-00-1-3	1005	3	1.5	
062608-00-1-4	1006	4	3.2	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 10:17
GPS FILE NAME: 062608-00-9
NORTHING: 2694325
TIDAL STAGE: flood

NUMBER OF HOURS OF DREDGING: 00
DISTANCE FROM DREDGE/SILT CURTAIN: 200'
EASTING: 915684
WATER DEPTH: 8

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
062608-00-9-2	10:17	2	.5	
062608-00-9-4	10:17	4	.5	
062608-00-9-6	10:17	6	.4	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: NBH - TOP OF CAP
JOB NUMBER: 6615.005.01
DATE: 6/26/08
MONITORS: Jen Martino + Warren B.
WEATHER CONDITIONS: Cloudy n 66°F
WIND: Slightly breezy
PRIOR STORM EVENTS: rain
DREDGE UPDATE: 02 hrs - dumping into Slow SE-104
TYPE OF WATER QUALITY MONITORING: Turbidity - up + down current

UP-CURRENT

TIME: 1150
GPS FILE NAME: 062608 - 02 - 1
NORTHING: 2695847
TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 02
DISTANCE FROM DREDGE/SILT CURTAIN: 200 feet
EASTING: 815400
WATER DEPTH: 31 feet

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
062608-02-1-2	11.52	2	-0.3	
062608-02-1-14	11:55	14	0.6	
062608-02-1-28	1157	28	1.7	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 1155
GPS FILE NAME:
NORTHING: 2696567 (1)
TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 02
DISTANCE FROM DREDGE/SILT CURTAIN: 200 ft
EASTING: 815755 (1)
WATER DEPTH: 9

2696556 (2)

815503 (2)

WD 7.5 (2)

	Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
(1)	062608-02-9-2	1155	2	0.5	
	062608-02-9-5	1157	5	9.7	
	062608-02-9-8	1200	8	6.4	
(2)	062608-02-9-2	1202	2	1.3	
	062608-02-9-4	1205	4	0.5	
	062608-02-9-5	1207	5	0.6	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

PROJECT: NBM - Top of CAD

Dredge Water Quality Monitoring Form

JOB NUMBER: 6615.005.01

DATE: 6/26/08

MONITORS: Jen Martino + Warren B.

WEATHER CONDITIONS: Overcast, rain, ~70°F humid

WIND: cool/humid breeze

PRIOR STORM EVENTS: Rain

DREDGE UPDATE: 06 hour. DI of mudcat, up-current/down current readings

TYPE OF WATER QUALITY MONITORING: Turbidity - WQ

Apex

UP-CURRENT

TIME: 1600

GPS FILE NAME:

NORTHING: 2696430

TIDAL STAGE: Ebb

NUMBER OF HOURS OF DREDGING: 06

DISTANCE FROM DREDGE/SILT CURTAIN: 200 ft.

EASTING: 815768

WATER DEPTH: 10 feet

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
062608-06-1-2	1600	2	-0.5	
062608-06-1-5	1603	5	-0.6	
	1605	8	-0.7	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 1607

GPS FILE NAME: 062608-06-9

NORTHING: 2695861

TIDAL STAGE: Ebb

NUMBER OF HOURS OF DREDGING: 06

DISTANCE FROM DREDGE/SILT CURTAIN: 200 feet

EASTING: 815574

WATER DEPTH: 8 feet

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
062608-06-9-2	1607	2	1.8	
062608-06-9-4	1610	4	6.6	
062608-06-9-6	1611	6	6.9	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: NBH - Top of CAD
JOB NUMBER: 6615.005.01
DATE: 6/26/08
MONITORS: Jennartino + Warren B.
WEATHER CONDITIONS: Cloudy, some rain, humid ~ 75°F
WIND: no wind / slight breeze
PRIOR STORM EVENTS: Rain
DREDGE UPDATE: 08 hr dredging
TYPE OF WATER QUALITY MONITORING: turbidity up/down current

UP-CURRENT

TIME: 1800
GPS FILE NAME: 062608-08-1
NORTHING: 2696590
TIDAL STAGE: Ebb

NUMBER OF HOURS OF DREDGING: 08
DISTANCE FROM DREDGE/SILT CURTAIN: 200 ft.
EASTING: 815503
WATER DEPTH: 7.5'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
062608-08-1-2	1800	2	0.0	
062608-08-1-4	1802	4	0.0	
062608-08-1-6	1803	6	-0.4	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 1805
GPS FILE NAME: ~~062608~~ 062608-08-9
NORTHING: 2695842
TIDAL STAGE: Ebb

NUMBER OF HOURS OF DREDGING: 08
DISTANCE FROM DREDGE/SILT CURTAIN: 200'
EASTING: 815579
WATER DEPTH: 6'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
062608-08-9-2	1805	2	5.4	
062608-08-9-3	1807	3	7.3	
062608-08-9-4	1808	4	7.1	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

PROJECT: 6615.005.01 NBH Top of CAD Phase III
JOB NUMBER: 6615.005.01
DATE: 6/30/08
MONITORS: JLC, JER
WEATHER CONDITIONS: 72°F
WIND: approx 0-5 kts.
PRIOR STORM EVENTS: Heavy rain yesterday evening
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: Dredge Monitoring

UP-CURRENT

TIME: 07:00
GPS FILE NAME:
NORTHING: ~~2696678~~ 2696588
TIDAL STAGE: Ebb

NUMBER OF HOURS OF DREDGING: 0
DISTANCE FROM DREDGE/SILT CURTAIN: N/A
EASTING: ~~815342~~ 815379
WATER DEPTH: 7

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
063008-00.1.2	07:05	2	-0.1	
063008.00-1-4	07:05	4	0.0	
063008-00.1-5	07:06	5	-0.1	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 07:10
GPS FILE NAME:
NORTHING: 2696093
TIDAL STAGE: Ebb

NUMBER OF HOURS OF DREDGING: 0
DISTANCE FROM DREDGE/SILT CURTAIN: N/A
EASTING: 815613
WATER DEPTH: 10

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
063008-00-9-2	07:12	2	0.2	
063008.00-9-~~85~~	07:12	5	0.3	
063008-00-9-8	07:12	8	0.3	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

PROJECT:
JOB NUMBER:
DATE: 6/30/08
MONITORS:
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING:

UP-CURRENT

TIME: 10:00
GPS FILE NAME:
NORTHING: 2696551
TIDAL STAGE: Ebb

NUMBER OF HOURS OF DREDGING: 2
DISTANCE FROM DREDGE/SILT CURTAIN: N/A
EASTING: 815310
WATER DEPTH: 6

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
063008-02-1-2	10:01	2	0.3	
063008-02-1-3	10:01	3	0.3	
063008-02-1-4	10:01	4	1.3	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 10:04
GPS FILE NAME:
NORTHING: 2696111
TIDAL STAGE: Ebb

NUMBER OF HOURS OF DREDGING: 2
DISTANCE FROM DREDGE/SILT CURTAIN: N/A
EASTING: 815468
WATER DEPTH: 8

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
063008-02-9-2	10:04	2	3.0	
063008-02-9-4	10:04	4	1.1	
063008-02-9-6	10:04	6	1.0	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: NBH Top of CAD 2 Phase III
JOB NUMBER: 6615.005.01
DATE: 6/30/08
MONITORS: JK, JER
WEATHER CONDITIONS: HOT 80°F
WIND: 5 kts.
PRIOR STORM EVENTS: Yesterday morning rain
DREDGE UPDATE: on 4th 75ft. cut. on western side
TYPE OF WATER QUALITY MONITORING: Dredge Monitoring for Turbidity.

* GPS down *

UP-CURRENT

TIME: 12:15
GPS FILE NAME: /
NORTHING: /
TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 4
DISTANCE FROM DREDGE/SILT CURTAIN: N/A
EASTING: 30-40 ft. off 2626 stem
WATER DEPTH: 9

Soft dredge length of SAMSON + 26. North of Natick Marine moorings 100 ft.

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
063008-4-1-2	12:15	2	6.7	GPS Trimble down
063008-4-1-4	12:15	4	6.7	" "
063008-4-1-7	12:15	7	7.2	" "

AVERAGE TURBIDITY:

* GPS down *

DOWN-CURRENT

TIME: 12:20
GPS FILE NAME:
NORTHING: /
TIDAL STAGE: Flood.

NUMBER OF HOURS OF DREDGING: 4
DISTANCE FROM DREDGE/SILT CURTAIN: N/A
EASTING: /
WATER DEPTH: 4.5

Location: 150 feet N. of 88 dredge. Directly N of swing bridge.

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
063008-4-9-2	12:20	2	1.6	GPS Trimble down
063008-4-9-2.5	12:20	2.5	2.3	" "
063008-4-9-3	12:20	3	2.4	" "

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

PROJECT: New Bedford Harbor Phase III dredging Top of CAD

Dredge Water Quality Monitoring Form

JOB NUMBER: 6615.005.01

DATE: 6/30/08

MONITORS: JK, JER, GCD

WEATHER CONDITIONS: South wind - 10 Knots clear 80's

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING:

UP-CURRENT

TIME: ~~14:25~~ 14:25

GPS FILE NAME: NA

NORTHING: GPS Not working

TIDAL STAGE:

NUMBER OF HOURS OF DREDGING: 6

DISTANCE FROM DREDGE/SILT CURTAIN: 100'

EASTING: Sample taken Directly south of Dredge

WATER DEPTH: 10'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
063008-06-1-2	14:25	2	2.7	
063008-06-1-5	14:25	5	2.8	
063008-06-1-8	14:25	8	3.1	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 2:20 or 14:20

GPS FILE NAME: NA

NORTHING: GPS Not working

TIDAL STAGE:

NUMBER OF HOURS OF DREDGING: ~~195~~ GCD, 6 hrs

DISTANCE FROM DREDGE/SILT CURTAIN: 175' ±

EASTING: Sample taken N W of Dredge site

WATER DEPTH: 7

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
~~063008-06-9-~~	~~14:20~~	~~2~~	~~3.0~~	
063008-06-9-2	14:20	2'	1.5	
063008-06-9-4	14:20	4'	3.0	
063008-06-9-5	14:20	5	3.7	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

PROJECT: Top of Cod

Dredge Water Quality Monitoring Form

JOB NUMBER: 6615.005.01

DATE: 6/30/08

MONITORS: Jray + JKline

WEATHER CONDITIONS: overcast + muggy, then hot + sunny

WIND: 10 MPH

PRIOR STORM EVENTS: rain last night

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING:

Apex

* GPS down * **UP-CURRENT**

TIME: 16:10

GPS FILE NAME: N/A

NORTHING: N/A

TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 8

DISTANCE FROM DREDGE/SILT CURTAIN: N/A

EASTING: N/A

WATER DEPTH: ~~8~~ 10

South of Dredge. North of Nelick Marine

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
063008.08.1-2	16:10	2	~~[illegible]~~ 3.0	
063008-08-1-5	16 10	5	4.5	
063008.08.1-8	16 10	8	5.5	

AVERAGE TURBIDITY:

* GPS down * **DOWN-CURRENT**

TIME: 16:05

GPS FILE NAME:

NORTHING:

TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 8

DISTANCE FROM DREDGE/SILT CURTAIN:

EASTING:

WATER DEPTH: 8

N of SAMSON III. ~~SW~~ SE of overloaded scow w/ grass 400 yds.

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
063008-08-9-2	1600	2	-0.2	
063008.08.9-4	1602	4	0.5	
063008.08-9-6	1605	6	0.4	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Disposal Water Quality Monitoring Form

PROJECT: NBH Phase III Dredging
JOB NUMBER: 6615.005.001
DATE: 7/3/08
DISPOSAL EVENT:
MONITORS: GCD JM WB
WEATHER CONDITIONS: Clear Breezy, 70s
WIND: SSW ±
PRIOR STORM EVENTS: None

Apex

UP-CURRENT

TIME: 0646
GPS FILE NAME: N/A
NORTHING: 2695870
TIDAL STAGE: Flooding

TIME OF DISPOSAL: 0642
DISTANCE FROM DISPOSAL LOCATION: 200 ft
EASTING: 814901
WATER DEPTH: 40'

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
070308-DD-1-2	0645	2	0.0	
070308-DD-1-20	0646	20	0.3	
070308-DD-1-38	0647	38	2.2	
			2.5/3 = 0.83 NTU	

AVERAGE TURBIDITY: 0.83 NTU

DISPOSAL LOCATION

TIME: 0650
GPS FILE NAME: 070308-dl-00
NORTHING: 2696130
TIDAL STAGE: Flood

TIME OF DISPOSAL: 0642
DISTANCE FROM DISPOSAL LOCATION: @ location
EASTING: 814856
WATER DEPTH: 41 feet

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
070308-dl-00-2	0650	2.0	15.0	
070308-dl-00-20	0651	20.0	0.6	
070308-dl-00-38	0653	38.0	4.7	
			20.3/3 = 6.7	

AVERAGE TURBIDITY: 6.7 NTU

TURBIDITY INCREASE*:

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

Apex

DOWN-CURRENT

TIME: 0655
GPS FILE NAME: 070308
NORTHING: 2696381
TIDAL STAGE: Flood

TIME OF DISPOSAL: 0642
DISTANCE FROM DISPOSAL LOCATION: 200'
EASTING: 814907
WATER DEPTH: 12'

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
070308-00-9-2	0655	2.0	1.4	
070308-00-9-6	0656	6.0	0.7	
070308-00-9-10	0657	10.0	0.8	
			2.9/3 = 0.96	

AVERAGE TURBIDITY: 0.96

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: NBH - Dredge CAD II
JOB NUMBER: 6615.005.01
DATE: 7/3/08
MONITORS: Jen Martino + Warren B.
WEATHER CONDITIONS: Sunny, warm, ~75°F
WIND: Slight breeze
PRIOR STORM EVENTS: Rain
DREDGE UPDATE: ~~[illegible]~~
TYPE OF WATER QUALITY MONITORING: Turbidity - up/down current + disposal

UP-CURRENT

TIME: 0840
GPS FILE NAME: 070308-02-1
NORTHING: 2696088
TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 02
DISTANCE FROM DREDGE/SILT CURTAIN: 200'
EASTING: 815597
WATER DEPTH: 11'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
070308-02-1-2	0840	2.0	3.2	
070308-02-1-6	0842	6.0	2.9	
070308-02-1-10	0843	10.0	37.0	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 0845
GPS FILE NAME: 070308-02-9
NORTHING: 2696618
TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 02
DISTANCE FROM DREDGE/SILT CURTAIN: 200'
EASTING: 815759
WATER DEPTH: 10'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
070308-02-9-2	0845	2.0	6.4	
070308-02-9-5	0846	5.0	5.8	
070308-02-9-8	0847	8.0	5.8	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: NBH - Dredge CAD II
JOB NUMBER: 6615.005.01
DATE: 07/03/08
MONITORS: JM + WB
WEATHER CONDITIONS: Sunny, warm, 75°F ~ 80°F
WIND: Cool Breeze
PRIOR STORM EVENTS: Rain
DREDGE UPDATE: ~~[illegible]~~ 04 hrs.
TYPE OF WATER QUALITY MONITORING: Turbidity WQ - up + down current

UP-CURRENT

TIME: 1040
GPS FILE NAME: 070308-04-1
NORTHING: 2696628
TIDAL STAGE: Ebb

NUMBER OF HOURS OF DREDGING: 04
DISTANCE FROM DREDGE/SILT CURTAIN: 200'
EASTING: 815770
WATER DEPTH: 8.5'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
070308-04-1-2	1040	2.0	0.0	
070308-04-1-4	1041	4.0	0.0	
070308-04-1-6	1043	6.0	-0.1	

AVERAGE TURBIDITY: 0.0 NTU

DOWN-CURRENT

TIME: 1045
GPS FILE NAME: 070308-04-9
NORTHING: 2696128
TIDAL STAGE: Ebb

NUMBER OF HOURS OF DREDGING: 04
DISTANCE FROM DREDGE/SILT CURTAIN: 200'
EASTING: 815446
WATER DEPTH: 10'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
070308-04-9-2	1045	2.0	5.1	
070308-04-9-5	1046	5.0	4.2	
070308-04-9-8	1048	8.0	4.2	
			13.5/3	= 4.5

AVERAGE TURBIDITY: 4.5 NTU

TURBIDITY INCREASE*: 4.5 - 0 = 4.5 NTU

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

Dredge Disposal Water Quality Monitoring Form

PROJECT: NBH - Dredge CAD II Top of CAD
JOB NUMBER: 6615.005.01
DATE: 7/3/08
DISPOSAL EVENT: D2 - mud cat
MONITORS: JM + WB
WEATHER CONDITIONS: Gusty winds! warm, sunny 80°F
WIND: Gusty, strong
PRIOR STORM EVENTS: N/A

Apex

UP-CURRENT

TIME: 1220
GPS FILE NAME: 070308-d2-06-1
NORTHING: 2696303
TIDAL STAGE: Ebb

TIME OF DISPOSAL: 1220
DISTANCE FROM DISPOSAL LOCATION: 200'
EASTING: 814738
WATER DEPTH: 18'

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
070308-06-1-2	1220	2.0	1.5	extremely high winds
070308-06-1-8	1222	8.0	1.8	
070308-06-1-16	1223	16.0	2.0	

AVERAGE TURBIDITY:

DISPOSAL LOCATION (mud cat)

TIME: 1230
GPS FILE NAME: 070308-d2-06u
NORTHING: 2696210
TIDAL STAGE: Ebb

TIME OF DISPOSAL: 1220
DISTANCE FROM DISPOSAL LOCATION: @ location
EASTING: 814762
WATER DEPTH: 40'

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
070308-d2-06-2	1230	2.0	11.0	extremely high winds / current
070308-d2-06-18	1231	18.0	46.5	
070308-d2-06-36	1232	36.0	5.4	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Apex

DOWN-CURRENT

TIME: 1240
GPS FILE NAME: 070308-06-9r
NORTHING: 2695838
TIDAL STAGE: Ebb

TIME OF DISPOSAL: 1220
DISTANCE FROM DISPOSAL LOCATION: 200'
EASTING: 814716
WATER DEPTH: 38'

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
070308-06-9-2	1240	2.0	1.6	extremely windy
070308-06-9-17	1241	17.0	3.1	
070308-06-9-33	1242	33.0	6.1	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: NBH - Dredge CAD II - Top of CAD
JOB NUMBER: 6615.005.01
DATE: 7/3/08
MONITORS: JM + WB
WEATHER CONDITIONS: Gusty winds! Sunny, warm ~ 80°F
WIND: GUSTY! very strong
PRIOR STORM EVENTS: N/A
DREDGE UPDATE: 06 hr. (dumped mud cat, 3E-104)
TYPE OF WATER QUALITY MONITORING: WQ + turbidity - up + down current

UP-CURRENT

TIME: 1330
GPS FILE NAME: 070308-06-1
NORTHING: 2696672
TIDAL STAGE: Ebb

NUMBER OF HOURS OF DREDGING: 07
DISTANCE FROM DREDGE/SILT CURTAIN: 200'
EASTING: 815716
WATER DEPTH: 10'

Monitoring ID #	TIME 1330	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
070308-06-1-2		2.0	6.3	
070308-06-1-	1332	5.0	5.3	
070308-06-1-	1333	8.0	4.3	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 1335
GPS FILE NAME: 070308-07-9
NORTHING: 2696140
TIDAL STAGE: Ebb

NUMBER OF HOURS OF DREDGING: 07
DISTANCE FROM DREDGE/SILT CURTAIN: 200'
EASTING: 815381
WATER DEPTH: 8'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
070308-07-9-2	1335	2.0	4.6	
070308-07-9-	1336	4.0	5.1	
070308-07-9-	1337	6.0	5.1	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: NBH - Dredge - Top of CAD Cell II
JOB NUMBER: 6615.005.01
DATE: 07/03/08
MONITORS: JM + WB
WEATHER CONDITIONS: Sunny / windy / 80°F
WIND: Windy
PRIOR STORM EVENTS: N/A
DREDGE UPDATE: 09 hr of dredge (using small bucket - filling mud cat)
TYPE OF WATER QUALITY MONITORING: turbidity WQ

UP-CURRENT

TIME: 1540
GPS FILE NAME: 070308-09-1
NORTHING:
TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 09
DISTANCE FROM DREDGE/SILT CURTAIN: 200'
EASTING:
WATER DEPTH: 10'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
070308-09-1-2	1545	2	1.9	
070308-09-1-5	1546	5	1.6	
070308-09-1-8	1547	8	9.0	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 1555
GPS FILE NAME: 070308-09-9
NORTHING:
TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 09
DISTANCE FROM DREDGE/SILT CURTAIN: 200'
EASTING:
WATER DEPTH: 10'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
070308-09-9-2	0555	2	0.5	
070308-09-9-5	0556	5	7.5	
070308-09-9-8	0557	8	8.4	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Disposal Water Quality Monitoring Form

1/2

Apex

PROJECT: NBHDC Top of CAD
JOB NUMBER: 6615.005.01
DATE: 7/8/08
DISPOSAL EVENT: 1
MONITORS: J. Ray + M. Bruno
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:

UP-CURRENT

TIME: 0705
GPS FILE NAME: N/A
NORTHING: 2695803
TIDAL STAGE: Flood

TIME OF DISPOSAL: 07:02
DISTANCE FROM DISPOSAL LOCATION: 75 ft.
EASTING: 815017
WATER DEPTH: 29 ft

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
070808.00-X-2	07:10	2	0.5	
" -X-13	07:15	13	0.6	
" -X-27	07:15	27	8.2	

AVERAGE TURBIDITY:

DISPOSAL LOCATION

TIME: ~~07:25~~ 07:32
GPS FILE NAME: ~~N/A~~ N/A
NORTHING: ~~2696278~~ 2696198
TIDAL STAGE: ~~Flood~~ Flood

TIME OF DISPOSAL: 07:02 07:02
DISTANCE FROM DISPOSAL LOCATION: 100 ft.
EASTING: ~~815041~~ 815040
WATER DEPTH: ~~8 ft~~ 27

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
070808.0737-2 07/37	0725	~~2~~	~~2.8~~	6.1 @ 2 ft
070808.0737.12 "	0726	~~4~~	~~2.7~~	4.5 @ 12 ft
070808.0737.25 "	~~0726~~	~~6~~	~~2.0~~	~~10.0~~ 46.8 @ 25 ft.

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Apex

2/2

DOWN-CURRENT

TIME: 07:25

GPS FILE NAME: N/A

NORTHING: 2696298

TIDAL STAGE: Flood

TIME OF DISPOSAL: 07:07

DISTANCE FROM DISPOSAL LOCATION: 100 ft.

EASTING: 815041

WATER DEPTH: 8

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
070808.0725.2	0725	2	2.2	
070808.0725.4	0726	4	2.1	
070808.0725.6	0726	6	2.0	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

PROJECT: NBH Dredge - CAD Cell II Top of CAD

Dredge Water Quality Monitoring Form

JOB NUMBER: 6615.005.01

DATE: 7/8/08

MONITORS: J. Ray + M. Bruno

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING:

Apex

UP-CURRENT

TIME: 07:40

GPS FILE NAME: N/A

NORTHING: 2696275

TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 0

DISTANCE FROM DREDGE/SILT CURTAIN: N/A

EASTING: 815505

WATER DEPTH: 8

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
070808.0740.2	07:40	2	0.8	
" " .4	07:40	4	1.0	
" " .6	07:40	6	1.0	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 07:45

GPS FILE NAME: N/A

NORTHING: -2696521

TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 0

DISTANCE FROM DREDGE/SILT CURTAIN:

EASTING: 815345

WATER DEPTH: 4

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
070808.0745.2	07:45	2	.2	
" " .2.5	07:45	2.5	.2	
" " .3	07:45	3	2.2	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

PROJECT: NBH Dredge - CAD Cell II Top of CAD

Dredge Water Quality Monitoring Form

JOB NUMBER: 6615.005.01

DATE: 7/8/08

MONITORS: J. Ray & M. Bruno

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING:

Apex

UP-CURRENT

TIME: 10:05

GPS FILE NAME:

NORTHING: 2696218

TIDAL STAGE:

NUMBER OF HOURS OF DREDGING: 2

DISTANCE FROM DREDGE/SILT CURTAIN:

EASTING: 815814

WATER DEPTH: 8

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
070808.1005.2	10:05	2	14.4	
070808.1005.4	10:05	4	14.3	
" " .6	10:05	6	14.3	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 10:23

GPS FILE NAME:

NORTHING: 2696887

TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 2

DISTANCE FROM DREDGE/SILT CURTAIN:

EASTING: 815423

WATER DEPTH: 6

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
070808.1023.2	10:23	2	9.2	
" " .3	10:23	3	8.5	
" " .4	10:23	4	9.1	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: NBH - Top of CAD2
JOB NUMBER: C615.005.01
DATE: 7/11/08
MONITORS: JM + GCD
WEATHER CONDITIONS: Sunny + Hot ~ 80°F
WIND: Cool breeze
PRIOR STORM EVENTS: N/A
DREDGE UPDATE: 00 hr
TYPE OF WATER QUALITY MONITORING: up/down turbidity

UP-CURRENT

TIME: 0750
GPS FILE NAME: 071108-00-1
NORTHING:
TIDAL STAGE: Ebb

NUMBER OF HOURS OF DREDGING: 00 hrs
DISTANCE FROM DREDGE/SILT CURTAIN: 200'
EASTING:
WATER DEPTH: 5'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
071108-00-1-2	0750	2.0	1.5	
071108-00-1-3	0751	3.0	1.3	
071108-00-1-4	0752	4.0	1.5	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 0753
GPS FILE NAME: 071108-00
NORTHING:
TIDAL STAGE: Ebb

NUMBER OF HOURS OF DREDGING: 00 hrs
DISTANCE FROM DREDGE/SILT CURTAIN: 200'
EASTING:
WATER DEPTH: 9'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
071108-00-9-2	0753	2.0	3.5	
071108-00-9-5	0754	5.0	3.9	
071108-00-9-7	0755	7.0	6.8	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: NBH - Top of CAD2 Dredge
JOB NUMBER: 6615.005.01
DATE: 7/11/08
MONITORS: JM + GCD
WEATHER CONDITIONS: Sunny + warm 85°F
WIND: Slight breeze
PRIOR STORM EVENTS: N/A
DREDGE UPDATE: 02 hour of dredge
TYPE OF WATER QUALITY MONITORING: up/down current turbidity monitoring

UP-CURRENT

TIME: 1015 hrs
GPS FILE NAME: 071108-02-1
NORTHING:
TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 02 hr
DISTANCE FROM DREDGE/SILT CURTAIN: 200'
EASTING:
WATER DEPTH: 9.5'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
071108-02-1-2	1015	2.0	0.0	
071108-02-1-4	1016	4.0	0.2	
071108-02-1-	1017	7.0	0.7	
			0.9/3 = 0.3	

AVERAGE TURBIDITY: 0.3 NTU

DOWN-CURRENT

TIME: 1018 hrs
GPS FILE NAME: 071108-
NORTHING:
TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 02 hr
DISTANCE FROM DREDGE/SILT CURTAIN: 200'
EASTING:
WATER DEPTH: 10'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
071108-02-9-2	1018	2.0	4.0	
071108-02-9-	1019	5.0	21.5	
071108-02-9-	1020	8.0	27.7	
			53.2/3 = 17.73	

AVERAGE TURBIDITY: 17.73 NTU

TURBIDITY INCREASE*: 17.73 - 0.3 = 17.43 NTU

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

PROJECT: NBH - Top of CAD 2

Dredge Water Quality Monitoring Form

JOB NUMBER: 6615.005.01

DATE: 7/11/08

MONITORS: JM + GCD

WEATHER CONDITIONS: Sunny, HOT! 85°F

WIND: Hardly any wind. LIGHT Breeze

PRIOR STORM EVENTS: N/A

DREDGE UPDATE: 04 hr - cleaning dredge

TYPE OF WATER QUALITY MONITORING: up-current + down-current turbidity

Apex

UP-CURRENT

TIME: 1240 hrs

GPS FILE NAME: 071108-04-1

NORTHING:

TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 04 hrs

DISTANCE FROM DREDGE/SILT CURTAIN: 200'

EASTING:

WATER DEPTH: 29'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
071108-04-1-2	1240	2.0	0.4	
071108-04-1-	1241	14.0	0.6	
071108-04-1-	1242	27.0	9.7	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 1230 hrs

GPS FILE NAME: 071108-04-9

NORTHING: -

TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: 04 hrs

DISTANCE FROM DREDGE/SILT CURTAIN: 200'

EASTING:

WATER DEPTH: 10'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
071108-04-9-2	12:18	2.0	21.2	
071108-04-9-5	12:18	5.0	23.5	
071108-04-9-8	12:18	8.0	4.5	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

PROJECT: NBH - Cad Cell 2 Top of CAD

Dredge Water Quality Monitoring Form

JOB NUMBER: 6615.005.01

DATE: June 17, 2008

MONITORS: Josh Ray + Jen Martino

WEATHER CONDITIONS: Clear, possibility of rain (damp) ~ 60°F to 70°F

WIND: Cool breeze

PRIOR STORM EVENTS: rain, thunder, lightening last night 6/16 - 6/17

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: Dredging → up-current & down current monitoring

UP-CURRENT

TIME: 0700 hrs

GPS FILE NAME: 061708

NORTHING: 2696628.4

TIDAL STAGE: Ebbing

NUMBER OF HOURS OF DREDGING: 06 hrs.

DISTANCE FROM DREDGE/SILT CURTAIN: 200 feet

EASTING: 815259.8

WATER DEPTH: 5.5 feet

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES 49.2 DO% 41.20 ms/cm
061708-02-1-2	0800	2ft	0.1	2.65 = DO 7.89 pH 124.3 ORP 45.42 mS/cm
061708-02-1-4	0800	4ft	3.7	3.50 DO, 7.86 PH, 132.8 ORP, 45.69 41.72 cm 45.0
061708-02-1-6	0800	6ft	10.3	3.22 DO, 7.83 pH, 140.8 ORP, 46.33, 42.12 42.2 DO%
061708-06-1-2	1300	2ft	-0.1	4.27 DO, 7.80 pH, 120.7 ORP, 45.41 ms/cm, 41.98 ms/cm, 55.0% DO
061708-06-1-2.5	1300	2.5ft	0.1	4.00 DO, 7.75 pH, 151.8 ORP, " " 54.3% DO
061708-06-1-	1300	3.0ft	-0.1	3.54 DO, 7.70 pH, 191.4 ORP, ", ", 47.6% DO

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 0830 hrs.

GPS FILE NAME: 061708

NORTHING: 2695753.3

TIDAL STAGE: Ebbing

NUMBER OF HOURS OF DREDGING: 06 hrs.

DISTANCE FROM DREDGE/SILT CURTAIN: 200 feet

EASTING: 815300.1

WATER DEPTH: 34 feet

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
061708-02-9-2	0850	2ft	13.9	1.74 DO, 7.82 PH, 179.4 ORP, 45.98 mS/cm, 41.75 ms/cm 24.7 DO
061708-02-9-5	0850	5ft.	22.3	2.30 DO, 7.80 pH, 183.4 ORP, 46.03 mS/cm, 41.8 ms/cm 31.9 DO%
061708-02-9-9	0850	9ft.	36.5	2.20 DO, 7.79 pH, 185.1 ORP, 46.24 ms/cm, 41.97 ms/cm, 29.7 DO
061708-02-9-2	0900	2ft.	0.6	2.82 DO, 7.82 pH, 197.9 ORP, 45.72 ms/cm, 41.65 ms/cm 42.9 DO
061708-02-9-3.5	0900	3.5ft.	0.6	2.58 DO, 7.81 pH, 205.1 ORP, 45.89 ms/cm, 41.76 ms/cm, 34.7 DO%
061708-02-9-5	0900	5ft.	0.6	2.80 DO, 7.81 pH 211.9 ORP, 45.91 ms/cm, 41.78 ms/cm, 37.0 DO%
061708-06-9-2	1300	2ft.	1.4	1.79 DO, 7.75 pH, 257.8 ORP, ", " 25.7 DO%
061708-06-9-15	1300	15ft.	0.1	2.08 DO, 7.66 pH, 297.5 ORP, ", " 28.0 DO%
061708-06-9-32	1300	32ft.	1.5	2.24 DO, 7.64 pH, 314.8 ORP, 27.5 DO%

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: NBH - Top of CAD Cell 2
JOB NUMBER: 66615.005.01
DATE: June 17, 2008
MONITORS: Jen Martino & Josh Ray
WEATHER CONDITIONS: Sunny and 70°F - Cool Breeze
WIND: Cool Breeze
PRIOR STORM EVENTS: Rain/thunder & lightening the night before
DREDGE UPDATE: 08 hr. Now using "SCOW" "SC103"
TYPE OF WATER QUALITY MONITORING: Up-current & downcurrent readings - turbidity ~200' from barge

UP-CURRENT

TIME: 15:58p ~ 1600 hrs
GPS FILE NAME: 061708-08-1
NORTHING: 2695760.15
TIDAL STAGE: Flood (low to high)
NUMBER OF HOURS OF DREDGING: 08 hrs.
DISTANCE FROM DREDGE/SILT CURTAIN: 200 feet
EASTING: 815312.86
WATER DEPTH: 36 feet

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
061708-08-1-02	1600	2ft.	0.0	5.14 DO, 7.79 pH 111.5 ORP, 68.1 DO%
061708-08-1-16	1600	16 ft.	0.1	3.41 DO, 7.66 pH, 207.8 ORP, 39.9 DO%
061708-08-1-34	1600	34 ft.	0.7	2.53 DO, 7.56 pH, 253.9 ORP, 31.9 DO%

AVERAGE TURBIDITY: 0.26

DOWN-CURRENT

TIME: 1600 hrs.
GPS FILE NAME: 061708-08-9
NORTHING: 2696535.8
TIDAL STAGE: Flood (low to high)
NUMBER OF HOURS OF DREDGING: 08 hrs.
DISTANCE FROM DREDGE/SILT CURTAIN: 200 feet
EASTING: 815236.7
WATER DEPTH: 8.0 feet

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	NOTES
061708-08-9-2.0	1600	2.0	1.5	1.64 DO, 7.76 pH, 266.9 ORP, 20.6 DO%
061708-08-9-4.0	1600	4	1.8	1.65 DO, 7.78 pH, 275.4 ORP, 23.4 DO%
061708-08-9-6.0	1600	6.0	0.7	1.96 DO, 7.79 pH, 280.4 ORP, 26.3 DO%

AVERAGE TURBIDITY: 1.3

TURBIDITY INCREASE*:

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

PROJECT: NBH-CAD Cell 2 - Top of CAD
JOB NUMBER: 6615.005.01
DATE: 6/18/08
DISPOSAL EVENT: Dumping of "Mudcat" into CAD Cell I
MONITORS: Jen Martino & Josh Ray
WEATHER CONDITIONS: Sunny, clear, 70°F
WIND: None
PRIOR STORM EVENTS: N/A

Apex

UP-CURRENT

TIME: 0700 hrs.
GPS FILE NAME: 061808-00-1
NORTHING: 2695527.8
TIDAL STAGE: Flood (High to low)

TIME OF DISPOSAL: 0730 hrs.
DISTANCE FROM DISPOSAL LOCATION: 200 feet
EASTING: 814873.8
WATER DEPTH: 33 feet

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
061808-00-1-2.0	0700	2.0	-0.2	3.3 DO, 7.82 pH, 127.2 ORP, 20.38°C, 42.6 DO%
061808-00-1-16.0	0710	16.0	0.0	2.65 DO, 7.8 pH, 136.2 ORP, 33.8 DO%, 19.84°C
061808-00-1-31.0	0720	31.0	0.5	2.3 DO, 7.78 pH, 141.9 ORP, 19.47°C, 28.4 DO%

AVERAGE TURBIDITY:

DISPOSAL LOCATION

TIME: 0800 hrs.
GPS FILE NAME: 061808-D1-00
NORTHING: 2695922.1
TIDAL STAGE: Flood (low to high)

TIME OF DISPOSAL: 0730 hrs.
DISTANCE FROM DISPOSAL LOCATION: @location
EASTING: 814916.8
WATER DEPTH: 48 feet

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
061808-D1-00-2.0	0800	2.0	-0.5	1.21 DO, 7.86 pH, 150.8 ORP, 20.47°C, 20.3 DO%
061808-D1-00-23.0	0810	23.0	0.0	1.64 DO, 7.81 pH, 173.5 ORP, 20.05°C, 26.3 DO%
061808-D1-00-46.0	0820	46.0	48.7	1.8 DO, 7.76 pH, 180.0 ORP, 19.56°C, 20.4 DO%

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Apex

DOWN-CURRENT

TIME: 0730 hrs.
GPS FILE NAME: 061808-DI-00-9
NORTHING: 2696283.6
TIDAL STAGE: Flood (low to high)

TIME OF DISPOSAL: 0730 hrs.
DISTANCE FROM DISPOSAL LOCATION: 200 feet
EASTING: 814982.7
WATER DEPTH: 12 feet

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
061808-DI-00-9-2	0730	2.0	-0.2	1.89 DO, 7.82 pH, 153.7 ORP, 20.46°C, 25.8 DO%
061808-DI-00-9-6	0740	6.0	-0.2	1.94 DO, 7.81 pH, 161.8 ORP, 20.44°C, 21.4 DO%
061808-DI-00-9-9	0745	9.0	0.0	2.05 DO, 7.82 pH, 168.4 ORP, 20.23°C, 27.2 DO%

AVERAGE TURBIDITY: -0.2 NTU

TURBIDITY INCREASE*:

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

Dredge Disposal Water Quality Monitoring Form

PROJECT: NBH-CAD Cell 2-Top of CAD
JOB NUMBER: 6615.005.01
DATE: June 18, 2008
DISPOSAL EVENT: D2 of day - Dumping of mud cat
MONITORS: Jen Martino + Josh Ray
WEATHER CONDITIONS: Sunny, Breezy, 70°F
WIND: Cool, Breezy
PRIOR STORM EVENTS: N/A

Apex

UP-CURRENT

TIME: 1130 hrs
GPS FILE NAME: 061808-04-1
NORTHING: 2696228.0
TIDAL STAGE: Ebb (High to low)

TIME OF DISPOSAL: 1130 hrs
DISTANCE FROM DISPOSAL LOCATION: 100 feet
EASTING: 814971.4
WATER DEPTH: 13 feet

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
061808-04-1-2	1130	2.0	-0.4	1.45 DO, 7.34 pH, 245.6 ORP, 21.16 °C, 20.4 DO%
061808-04-1-7	1140	7.0	0.5	
061808-04-1-11	1145	11.0	11.3	

AVERAGE TURBIDITY:

DISPOSAL LOCATION

TIME: 1145 hrs
GPS FILE NAME: 061808-D2-04
NORTHING: 2695948.0
TIDAL STAGE: Ebb (High to low)

TIME OF DISPOSAL: 1130 hrs
DISTANCE FROM DISPOSAL LOCATION: @ location
EASTING: 814912.2
WATER DEPTH: 44 feet

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
061808-D2-04-2	1150	2.0 ft.	1.0	
061808-D2-04-20	1155	20.0 ft	0.1	
061808-D2-04-40	1200	40.0 ft	25.5	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Apex

DOWN-CURRENT

TIME: 1205 hrs.
GPS FILE NAME: 061808-04-9
NORTHING: 2695393.7
TIDAL STAGE: ~~[illegible]~~ Ebb (High to low)

TIME OF DISPOSAL: 1130 hrs.
DISTANCE FROM DISPOSAL LOCATION:
EASTING: 814951.a
WATER DEPTH: 32 feet

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
061808-04-9-2	1205	2	1.2	
061808-04-9-15	1210	15	3.2	
061808-04-9-30	1215	30	~~[illegible]~~ 33.0	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Disposal Water Quality Monitoring Form

PROJECT: NBH
JOB NUMBER: 16615.005
DATE: 6/23/2008
DISPOSAL EVENT: 1
MONITORS: JK MB
WEATHER CONDITIONS: cloudy 70°
WIND: calm
PRIOR STORM EVENTS:

Apex

UP-CURRENT

TIME:
GPS FILE NAME:
NORTHING:
TIDAL STAGE:

TIME OF DISPOSAL:
DISTANCE FROM DISPOSAL LOCATION:
EASTING:
WATER DEPTH:

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES

AVERAGE TURBIDITY:

DISPOSAL LOCATION 0725 - Trouble w/ dump

TIME: 0740
GPS FILE NAME: 062308_1-10-5
NORTHING: 2676126.47
TIDAL STAGE: Flood

TIME OF DISPOSAL: 0730
DISTANCE FROM DISPOSAL LOCATION: on location
EASTING: 814784.85
WATER DEPTH: 42

Trouble w/ pocket for dump for 1 hr.

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	DO	pH	ORP	NOTES
062308-1-10-5	0840	40	30.2	1.42	7.77	298.2	
062308-1-10-5	0842	2	-0.4	1.89	7.78	298.8	
062308-1-10-5	0844	20	8.2	1.79	7.78	300.5	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

PROJECT: NBH

Dredge Water Quality Monitoring Form

JOB NUMBER: 16615.005

DATE: 6/23/2008

MONITORS: MB JK

WEATHER CONDITIONS: Cloudy

WIND: calm

Low 5:10
High 11:52
Low 17:07

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING:

Apex

UP-CURRENT

TIME: 0730

GPS FILE NAME: 062308_D-1-0

NORTHING: 269893.32

TIDAL STAGE: Flood

NUMBER OF HOURS OF DREDGING: During

DISTANCE FROM DREDGE/SILT CURTAIN: —

EASTING: 814760.18

WATER DEPTH: 40

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)				NOTES
062308-D-1-9.38	0730	38	0.2	2.01	7.79	224.3	
062308-D-1-92	0732	2	-0.4	2.19	7.80	225.1	
062308-D-1-920	0734	20	-0.5	2.46	7.79	228.4	

AVERAGE TURBIDITY:

DOWN-CURRENT

TIME: 0725

GPS FILE NAME: 062308_D-1-0

NORTHING: 269653655.88

TIDAL STAGE: Low > High

NUMBER OF HOURS OF DREDGING: During

DISTANCE FROM DREDGE/SILT CURTAIN: —

EASTING: 814815.11

WATER DEPTH: 11'

Monitoring ID #	TIME	DEPTH (ft)	AVE TURBIDITY (NTUs)	DO	pH	ORP	NOTES
062308-D-1-0-9	0725	9	-0.3	3.29	7.87	169.9	
062308-D-1-0-2	0726	2	-0.2	2.96	7.85	171.8	
062308-D-1-05.5	0727	5.5	-0.2	2.95	7.84	175.6	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Disposal Water Quality Monitoring Form

PROJECT: 6615.005
JOB NUMBER:
DATE: 6/23/08
DISPOSAL EVENT:
MONITORS:
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:

Apex

UP-CURRENT

TIME: 1330
GPS FILE NAME:
NORTHING: 2696245
TIDAL STAGE: Ebb

TIME OF DISPOSAL: 1335
DISTANCE FROM DISPOSAL LOCATION: Approx. 200ft up current
EASTING: 814859
WATER DEPTH: 16

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
062308-DZ01	13:33	19	2.2	ORP 226.5 pH 7.77 21.96°C 2.60 DO
062308DZ01 - 10	13:34	10	2.5	ORP 235.2 pH 7.76 22.48°C 2.88 DO
062308DZ01 - 2	13:36	2	1.5	ORP 239.4 pH 7.78 23.13°C 3.68 DO

AVERAGE TURBIDITY:

DISPOSAL LOCATION

TIME: 13:48
GPS FILE NAME:
NORTHING: 2696072
TIDAL STAGE: Ebb

TIME OF DISPOSAL: 1335
DISTANCE FROM DISPOSAL LOCATION:
EASTING: 814766
WATER DEPTH: 46

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
062308DZ-15.5 - 44	1:48	44	104.6	
062308DZ15.5 - 21	1:50	21	1.3	ORP 301.8 pH 7.76 22.01°C 2.31 DO
062308DZ155 - 2	1:53	2	1.1	ORP 304.6 pH 7.77 22.95°C 2.69 DO

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Apex

DOWN-CURRENT

TIME: 1338

GPS FILE NAME:

NORTHING: 2695796

TIDAL STAGE: Ebb

TIME OF DISPOSAL: 13:35

DISTANCE FROM DISPOSAL LOCATION: Approx. 200ft.

EASTING: 814717

WATER DEPTH: 36ft

Monitoring ID # (DWA)	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
062308D239-34	1:40	34	0.5	ORP 264.8 pH 7.76 21.68°C 2.26 DO
062308D239-16	1:41	16	0.1	ORP 271.8 pH 7.76 22.48°C 2.63 DO
062308D239-2	1:43	2	0.2	ORP 275.0 pH 7.76 22.79°C 3.10 DO

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Disposal Water Quality Monitoring Form

PROJECT: NBH - Top of CAD
JOB NUMBER: 6613.005.01
DATE: 6/24/08
DISPOSAL EVENT: D1 of Mud cat
MONITORS: Jen Martino + Josh Ray
WEATHER CONDITIONS: Clear, Cool, Overcast ~ 65°F
WIND: cool breeze
PRIOR STORM EVENTS: rain

Apex

UP-CURRENT

TIME: 0728 hrs
GPS FILE NAME: 062408-00-1
NORTHING: 2695778
TIDAL STAGE: Flood

TIME OF DISPOSAL: 07:28
DISTANCE FROM DISPOSAL LOCATION: 200 ft.
EASTING: 814772
WATER DEPTH: 42

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
062408-00-1-02	07:28	2	0.0	
062408-00-1-20	07:30	20	0.2	
062408-00-1-40	07:32	40	0.7	
		Total:	0.9/3 = 0.3	

AVERAGE TURBIDITY: 0.3 NTU

DISPOSAL LOCATION

TIME: 0745 hrs
GPS FILE NAME: 062408-D1-00
NORTHING: 2696154.8
TIDAL STAGE: Flood

TIME OF DISPOSAL: 0728 hrs
DISTANCE FROM DISPOSAL LOCATION: (1) location
EASTING: 814778
WATER DEPTH: 31 feet

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
062408-D1-00-2	0745	2.0	2.6	
062408-D1-00-16	0750	16.0	3.4	
062408-D1-00-29	0755	29.0	58.7	
		Total:	64.7/3 = 21.4	

AVERAGE TURBIDITY: 21.4 NTU

TURBIDITY INCREASE*:

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

Apex

DOWN-CURRENT

TIME: 0730 hrs

GPS FILE NAME:

NORTHING: 2696235.02

TIDAL STAGE: Flood

TIME OF DISPOSAL: 0728 hrs.

DISTANCE FROM DISPOSAL LOCATION:

EASTING: 814815.17

WATER DEPTH: ~~22~~ 11 feet

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
062408-00-9-2	0730	2.0	0.2	
062408-00-9-4	0735	4.0	0.3	
062408-00-9-9	0740	9.0	0.3	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Disposal Water Quality Monitoring Form

Apex

PROJECT: NBH - Top of CAD (Dredge + Disposal)
JOB NUMBER: 6615.005.01
DATE: 6/26/08
DISPOSAL EVENT: D1 of MudCat (05 hrs of dredging)
MONITORS: Jen Martino + Warren B.
WEATHER CONDITIONS: overcast, muggy, ~75°F
WIND: slight breeze
PRIOR STORM EVENTS: N/A - rain

UP-CURRENT

TIME: 1500
GPS FILE NAME: 062608-05-1
NORTHING: 2696215
TIDAL STAGE: Ebb

TIME OF DISPOSAL: 1505
DISTANCE FROM DISPOSAL LOCATION: 200 feet
EASTING: 814863
WATER DEPTH: 20 feet

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
062608-05-1-2	1500	2	0.1	
062608-05-1-9	1501	9	0.2	
062608-05-1-18	1503	18	7.1	

AVERAGE TURBIDITY:

DISPOSAL LOCATION

TIME: 1515
GPS FILE NAME: 062608-D1-05m
NORTHING: 2696109
TIDAL STAGE: Ebb

TIME OF DISPOSAL: 1510
DISTANCE FROM DISPOSAL LOCATION: @ location
EASTING: 814692
WATER DEPTH: 47 feet

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
062608-D1-05-2	1515	2	2.0	
062608-D1-05-	1517	17	0.9	
	1520	45	119.5	
		23	2.3	

total = 124.7/4 = 31.1 NTU

119.5
2.0
2.3
3) 123.8

AVERAGE TURBIDITY: 41.2 NTU

TURBIDITY INCREASE:

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

Apex

DOWN-CURRENT

TIME: 1510

GPS FILE NAME: 062608-05-9

NORTHING: 2695788

TIDAL STAGE: Ebb

TIME OF DISPOSAL: 1510

DISTANCE FROM DISPOSAL LOCATION: 200 feet

EASTING: 814771

WATER DEPTH: 30 feet

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
062608-05-9-2	1510	2	1.0	
062608-05-9-14	1511	14	0.9	
062608-05-9-28	1513	28	2.2	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Disposal Water Quality Monitoring Form

Apex

PROJECT: 6615.005.01
JOB NUMBER:
DATE: 6/30/08
DISPOSAL EVENT: 1
MONITORS: JK, JER
WEATHER CONDITIONS: 65°
WIND: 5-10 kts
PRIOR STORM EVENTS: Rain yesterday evening/night

UP-CURRENT

TIME: 08:36
GPS FILE NAME:
NORTHING: 2696492
TIDAL STAGE: Ebb

TIME OF DISPOSAL: 08:45
DISTANCE FROM DISPOSAL LOCATION:
EASTING: 814732
WATER DEPTH: 10.5

Monitoring ID # (date # mins place depth)	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
063008-1-0-1-2	08:36	2	1.1	
063008-1-0-1-6	08:36	6	1.2	
063008-1-0-1-8	08:36	8	1.4	

AVERAGE TURBIDITY:

DISPOSAL LOCATION

TIME: 09:15
GPS FILE NAME:
NORTHING: 2696037
TIDAL STAGE: Ebb

TIME OF DISPOSAL: 08:45
DISTANCE FROM DISPOSAL LOCATION:
EASTING: 814777
WATER DEPTH: 39

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
063008-1-30-5-2	09:15	2	1.2	
063008-1-30-5-20	09:15	20	6.0	
063008-1-30-5-37	09:15	37	69.0	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Apex

DOWN-CURRENT

TIME: 08:50

GPS FILE NAME:

NORTHING: 2695751

TIDAL STAGE: Ebb

TIME OF DISPOSAL: 08:45

DISTANCE FROM DISPOSAL LOCATION: 150 ft.

EASTING: 814695

WATER DEPTH: 32

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
063008-1-5-9 - 2	08:50	2	.3	
063008-1-5-9 - 16	08:50	16	3.2	
063008-1-5-9 - 30	08:50	30	2.9	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Disposal Water Quality Monitoring Form

1/2

Apex

PROJECT: NBH Dredge CAD Cell II - Top of CAD
JOB NUMBER: 6615.005.01
DATE: 7/8/08
DISPOSAL EVENT:
MONITORS: J. Ray + M. Bruno
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:

UP-CURRENT

TIME: 12:00
GPS FILE NAME: N/A
NORTHING: 269573 51
TIDAL STAGE:

TIME OF DISPOSAL:
DISTANCE FROM DISPOSAL LOCATION: 75
EASTING: 814 999
WATER DEPTH: 16

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
070808 - 1200 - 2	12:00	2	0.5	
" " - 7	12:00	7	0.2	
" " - 14	12:00	14	0.2	

AVERAGE TURBIDITY:

~~DISPOSAL LOCATION~~ DOWN CURRENT

TIME: 12:10
GPS FILE NAME: N/A
NORTHING: 814930
TIDAL STAGE:

TIME OF DISPOSAL:
DISTANCE FROM DISPOSAL LOCATION: 150
EASTING: 269333
WATER DEPTH: 2

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
070808 - 1210 - 2	12:10	2	1.2	
" " - 6	12:10	6	1.5	
" " - 10	12:10	10	1.9	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Apex 2/2

~~DOWN-CURRENT~~ Disposal Location

TIME: 12:25
GPS FILE NAME: N/A
NORTHING: 2696021
TIDAL STAGE:

TIME OF DISPOSAL:
DISTANCE FROM DISPOSAL LOCATION:
EASTING: 815005
WATER DEPTH: 42

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
070808.1225.2	12:25	2	1.3	
" " .3	12:25	30	6.7	
" " .4	12:25	40	13.5	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Disposal Water Quality Monitoring Form

PROJECT: NBH - Top of CAD 2
JOB NUMBER: 6615.005.01
DATE: 7/11/08
DISPOSAL EVENT: D1 of SE-103 (00 hr of dredge)
MONITORS: JM + GCD
WEATHER CONDITIONS: Sunny, Hot ~ 75°F
WIND: Cool breeze
PRIOR STORM EVENTS: N/A

Apex

UP-CURRENT

TIME: 0650 hrs
GPS FILE NAME: 071108-00-1
NORTHING:
TIDAL STAGE: Ebb

TIME OF DISPOSAL: 0650 hrs
DISTANCE FROM DISPOSAL LOCATION: 200'
EASTING:
WATER DEPTH: 30'

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
071108-00-1-2	0650	2.0	0.6	
071108-00-1-14	0651	14.0	1.3	
071108-00-1-28	0653	28.0	6.8	

AVERAGE TURBIDITY:

DISPOSAL LOCATION

TIME: 0657
GPS FILE NAME: 071108-d1-00 (SE-103)
NORTHING:
TIDAL STAGE: Ebb

TIME OF DISPOSAL: 0650
DISTANCE FROM DISPOSAL LOCATION: @ location
EASTING:
WATER DEPTH: 32'

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
071108-d1-00-2	0657	2.0	9.0	
071108-d1-00-15	0658	15.0	10.6	
071108-d1-00-30	0659	30.0	45.9	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Apex

DOWN-CURRENT

TIME: 0655 hrs

GPS FILE NAME: 071108-00-9

NORTHING:

TIDAL STAGE: Ebb

TIME OF DISPOSAL: 0850 hrs

DISTANCE FROM DISPOSAL LOCATION: 200'

EASTING:

WATER DEPTH: 31'

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
071108-00-9-2	0655	2.0	0.0	
071108-00-9-15	0656	15.0	0.0	
071108-00-9-29	0657	29.0	0.3	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Disposal Water Quality Monitoring Form

PROJECT: NBH- Top of CAD 2
JOB NUMBER: 6615.005.01
DATE: 7/15/08
DISPOSAL EVENT: D1 of SE-103, SE-104, mud cat
MONITORS: JM+JR + GCD
WEATHER CONDITIONS: Sunny, warm, 80°F
WIND: Slight breeze
PRIOR STORM EVENTS: N/A

Apex

UP-CURRENT

TIME: 0945 hrs
GPS FILE NAME: 071508-00-1
NORTHING: 2696380
TIDAL STAGE: Ebb

TIME OF DISPOSAL: 0700 - 0915 hrs
DISTANCE FROM DISPOSAL LOCATION: 200'
EASTING: 814731
WATER DEPTH: 13.0'

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
071508-00-1-2	0945	2.0	-0.2	
071508-00-1-5	0946	5.0	0.0	
071508-00-1-11	0947	11.0	0.5	

AVERAGE TURBIDITY:

DISPOSAL LOCATION

TIME: 0925 hrs
GPS FILE NAME: 071508-d01-00
NORTHING: 2695980
TIDAL STAGE: Ebb

TIME OF DISPOSAL: 0700 - 0915 hrs
DISTANCE FROM DISPOSAL LOCATION: @ location
EASTING: 814698
WATER DEPTH: 40'

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
071508-d1-00-2	0925	2.0	-0.4	
071508-d1-00-	0926	18.0	0.3	
071508-d1-00-	0927	38.0	109.7	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Apex

DOWN-CURRENT

TIME: 0935 hrs.
GPS FILE NAME: 071508-00-9
NORTHING: 2695806
TIDAL STAGE: Ebb

TIME OF DISPOSAL: 0700 - 0915 hrs
DISTANCE FROM DISPOSAL LOCATION: 200'
EASTING: 814639
WATER DEPTH: 30'

Monitoring ID #	TIME	DEPTH (ft)	AVG TURBIDITY (NTUs)	NOTES
071508-00-9-2	0925	2.0	-0.4	
071508-00-9-14	0936	14.0	-0.3	
071508-00-9-28	0937	28.0	0.5	

AVERAGE TURBIDITY:

TURBIDITY INCREASE*:

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: Steamship Authority
JOB NUMBER: 6588.006
DATE: 7/31/08
MONITORS: EL/
WEATHER CONDITIONS: 75°F Foggy Hazy
WIND: Calm
PRIOR STORM EVENTS:
DREDGE UPDATE: Steamship barge yesterday 7/30/08
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2691677	0710	14	2	-0.4	N/A	Flood	200ft	0
	818167	0710	14	6	-0.4				
		0710	14	12	-0.3				
			AVERAGE TURBIDITY:		-.36				
	2691970	0915	20	2	0.1	N/A	Ebb	200 ft.	2
	818834	0915	20	9	0.7				
		0915	20	18	25.8				
			AVERAGE TURBIDITY:		8.36				
	2691903	11:10	18	2	0.1	N/A	Ebb	125ft	4
	817873	11:11	18	9	0.5				
		11:12	18	16	1.1				
			AVERAGE TURBIDITY:						
	2691598	1416	8	2	0.1	N/A	Flood ~~Ebb~~ ~~Open~~	100 ft.	7
	818281	1420	8	4	-0.2				
		1421	8	6	0.7				
			AVERAGE TURBIDITY:						
	2691666	16:45	8	2	3.4	N/A	Flood	175ft.	9
	818223	16:45	8	4	3.2				
		16:45	8	6	0.7				
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2691944	0720	21	2	0.0	N/A	Flood	175ft	0
	817885	0720	21	9	0.2				
		0720	21	18	0.4				
			TURBIDITY INCREASE:		0.36				
	2691605	0925	8	2	-0.2	N/A	Ebb	200 ft.	2
	818368	0925	8	4	-0.4				
		0925	8	6	0.0				
			TURBIDITY INCREASE:						
	2691606	11:18	6	-0.3	2ft	N/A	Ebb	200ft	4
	818368	11:20	6	-0.5	3ft				
		11:21	6	0.0	4ft				
			TURBIDITY INCREASE:						
	2691944	1425	17	2	4.5	N/A	Flood ~~Ebb~~ ~~Open~~	200ft.	7
	817885	1427	17	8	4.7				
		1428	17	15	6.6				
			TURBIDITY INCREASE:						
	2692021	1635	17	2	0.1	N/A	Flood	150ft	9
	817961	1635	17	8	0.9				
		1635	17	15	0.8				
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: Steamship Authority
JOB NUMBER: 6588.006
DATE: 8/4/08
MONITORS: JER/EWP
WEATHER CONDITIONS: 78° F
WIND: 10mph NW
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2696189, 814743	12:00	40	2	-0.7	N/A	Ebb	75 ft	0
		12:02	40	21	0.1				
		12:08	40	39	6.8				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2695600, 814733	12:35	34	2	-0.2	N/A	Ebb	150 ft	0
		12:37	34	16	-0.4				
		12:40	34	32	2.2				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: Steamship Authority
JOB NUMBER: 6588.006
DATE: 8/5/08
MONITORS: JER/MB
WEATHER CONDITIONS: Sunny
WIND: 1-2 knots from N
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
080508-00-1-2	GPS not working	0725	6'	2'	0.0	N/A	Flood	200ft.	0
080508-00-1-8		0725	6'	8'	0.0				
080508-00-1-4		0725	6'	4'	0.8				
			AVERAGE TURBIDITY:		0.233				
080508-02-1-2	2691581 818266	09:40	11'	2'	3.2	N/A	Flood	150ft.	2
080508-02-1-8		09:42	11'	5'	0.4				
080508-02-1-9		09:44	11'	9'	-0.4				
			AVERAGE TURBIDITY:		1.07				
080508-04-1-2	2691935 818056	12:00	19'	2'	0.0	N/A	Ebb	200ft	4
080508-04-1-8		12:04	19'	8'	1.2				
080508-04-1-17		12:06	19'	17'	66.0				
			AVERAGE TURBIDITY:		22.4				
080508-06-1-2	2691936 818019	14:20	21'	2'	1.9	N/A	Ebb	200ft	4
080508-06-1-9		14:23	21'	9'	20.2				
080508-06-1-19		14:25	21'	19'	24.8				
			AVERAGE TURBIDITY:		16.23				
080508-D1-0-1-2	2696476 814665	16:46	17'	2'	0.9	N/A	Ebb	200ft	Disposal
080508-D1-2-1-8		16:48	17'	8'	0.7				
080508-D1-4-1-15		16:50	17'	15'	6.0				
			AVERAGE TURBIDITY:		2.5				

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
080508-00-9-2	Gps not working	07:40	20'	2'	0.0	N/A	Flood	200ft	0
080508-00-9-10		07:40	20'	10'	0.0				
080508-00-9-18		07:40	20'	18'	0.0				
			TURBIDITY INCREASE:		0				
080508-02-9-2	2691935 818055	0950	19'	2'	2.7	N/A	Flood	200ft	2
080508-02-9-8		0952	19'	8'	1.0				
080508-02-9-17		0954	19'	17'	1.2				
			TURBIDITY INCREASE:		.843				
080508-04-9-2	2691662 818397	12:10	8'	2	2.9	N/A	Ebb	150ft	4
080508-04-9-4		12:15	8'	4	0.4				
080508-04-9-6		12:17	8'	6	4.5				
			TURBIDITY INCREASE:		-19.86				
080508-06-9-2	2691661 818403	14:05	6'	2'	-0.4	N/A	Ebb	200ft	6
080508-06-9-8		14:07	6'	3'	1.2				
080508-06-9-4		14:10	6'	4'	1.9				
			TURBIDITY INCREASE:		-15.33				
080508-D1-9-9-2	2695612 814658	16:55	28'	2'	0.9	N/A	Ebb	150ft	Disposal
080508-D1-11-9-14		16:57	28'	14'	0.4				
080508-D1-13-9-26		16:59	28'	26'	0.7				
			TURBIDITY INCREASE:		-1.83				

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: Steamship Authority
JOB NUMBER: 6588.006
DATE: 8/5/08
MONITORS: JER/MB
WEATHER CONDITIONS: Sunny
WIND: 1-2 knots from N
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
080508-00-1-2	GPS not working	0725	6'	2'	0.0	N/A	Flood	200ft.	0
080508-00-1-5		0725	6'	5'	0.0				
080508-00-1-4		0725	6'	4'	0.8				
			AVERAGE TURBIDITY:		0.233				
080508-02-1-2	2691581	09:40	11'	2'	3.2	N/A	Flood	150ft.	2
080508-02-1-5	818266	09:42	11'	5'	0.4				
080508-02-1-9		09:44	11'	9'	-0.4				
			AVERAGE TURBIDITY:		1.07				
080508-04-1-2	2691995	12:00	19'	2'	0.0	N/A	Ebb	200ft	4
080508-04-1-8	818056	12:04	19'	8'	1.2				
080508-04-1-17		12:06	19'	17'	66.0				
			AVERAGE TURBIDITY:		22.4				
080508-06-1-2	2691936	14:20	21'	2'	1.7	N/A	Ebb	200ft	4
080508-06-1-9	818019	14:23	21'	9'	20.2				
080508-06-1-19		14:25	21'	19'	24.8				
			AVERAGE TURBIDITY:		16.28				
080508-D1-0-1-2	2696476	16:46	17'	2'	0.9	N/A	Ebb	200ft	Disposal
080508-D1-2-1-8	814665	16:48	17'	8'	0.7				
080508-D1-4-1-15		16:50	17'	15'	6.0				
			AVERAGE TURBIDITY:		2.5				

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
080508-00-9-2	Gps not working	07:40	20'	2'	0.0	N/A	Flood	200ft	0
080508-00-9-10		07:40	20'	10'	0.0				
080508-00-9-18		07:40	20'	18'	0.0				
			TURBIDITY INCREASE:		0				
080508-02-9-2	2691935	0950	19'	2'	2.7	N/A	Flood	200ft	2
080508-02-9-8	818055	0952	19'	8'	1.0				
080508-02-9-17		0954	19'	17'	1.2				
			TURBIDITY INCREASE:		.563				
080508-04-9-2	2691662	12:10	8'	2	2.7	N/A	Ebb	150ft	4
080508-04-9-4	818397	12:15	8'	4	0.4				
080508-04-9-6		12:17	8'	6	4.5				
			TURBIDITY INCREASE:		-19.86				
080508-06-9-2	2691661	14:05	6'	2'	-0.4	N/A	Ebb	200ft	6
080508-06-9-3	818403	14:07	6'	3'	1.2				
080508-06-9-4		14:10	6'	4'	1.4				
			TURBIDITY INCREASE:		-15.33				
080508-D1-9-2	2695612	16:55	28'	2'	0.9	N/A	Ebb	150ft	Disposal
080508-D1-11-9-14	814658	16:57	28'	14'	0.4				
080508-D1-13-9-26		16:59	28'	26'	0.7				
			TURBIDITY INCREASE:		-1.83				

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: Steamship Authority
JOB NUMBER: 6588.006
DATE: 8/7/08
MONITORS: Jen Martino + Warren B.
WEATHER CONDITIONS: Cloudy, Cold, light sprinkles - dark clouds
WIND: 15mph - cool
PRIOR STORM EVENTS: Rain
DREDGE UPDATE: 00 hr.
TYPE OF WATER QUALITY MONITORING: (DREDGE) / DISPOSAL

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
080708-00-1-2	2691582 N	1001	19'	2.0'	-0.1	080708-00-1-dredge	Flood	200'	00
080708-00-1-9	818083 E	1003	19'	9.0'	-0.3				
080708-00-1-17		1005	19'	17.0'	-0.9				
			AVERAGE TURBIDITY:						
080708-02-1-2	2691574 N	1144	11'	2'	0.7	080708	Flood	200'	02
080708-02-1-5	818255 E	1145	11'	5'	-0.8				
080708-02-1-9		1145	11'	9'	0.2				
			AVERAGE TURBIDITY:						
080708-04-1-2	2692061 N	1420	20'	2'	~~-24.8~~ 0.1	080708	Ebb	200'	04
080708-04-1-10	817789 E	1422	20'	10'	0.9				
080708-04-1-18		1424	20'		-1.4				
			AVERAGE TURBIDITY:						
080708-08-1-2	2691980	1710	20'	2.0	0.0	080708	Ebb	200'	08
080708-08-1-10	817844	1712	20'	10.0	-0.5				
080708-08-1-18		1713	20'	18.0	-1.4				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
080708-00-9-2	2691590 N	10:20	15'	2.0'	0.1		Flood	200'	00
080708-00-9-9	817763 E	12:00	15	9.0'	0.7				
080708-00-9-17			15'	17.0'	-1.0				
			TURBIDITY INCREASE:						
080708-02-9-2	2692017 N	12:00	20'	2'	~~-0.9~~	.7	Flood	200'	02
080708-02-9-10	817825 E	12:00	20'	10'	~~-0.8~~	~~37.7~~ 1.0			
080708-02-9-18		12:01	20'	18'					
			TURBIDITY INCREASE:						
080708-04-9-2	2691670 N		24'	2'	-0.3	3.1	Ebb	200'	04
080708-04-9-12	817959 E		24'	12'	~~-2.6~~				
080708-04-9-22			24'	22'	0				
			TURBIDITY INCREASE:						
080708-08-9-2	2691626	1715	18'	2'	-0.9	080708	Ebb	200'	08
080708-08-9-9	818055	1718	18'	9'	0.0				
080708-08-9-16		1720	18'	16'	-1.0				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

31 caps Freezing

calibrated YSI pio 080708-08-9-2 to sample

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: Steamship Authority
JOB NUMBER: 6588.006
DATE: 08/07/08
MONITORS: JM + WB
WEATHER CONDITIONS: Sunny (60s) 70°F - 75-
WIND: 15mph or less
PRIOR STORM EVENTS: rain
DREDGE UPDATE: dump of SEI-2000
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
080708-dl-06-1-2	2696347 N	1530	18'	2'	-0.4	080708	Ebb	200'	06
080708-dl-06-1-	814699 E	1533	18'	9'	-0.4				
080708-dl-06-1-		1535	18'	16'	0.0				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

Disposal of SEI-2000

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
one pocket missing from dump 080708-dl-06-9-2	2695733	1536	33'	2.0	-0.9	080708	Ebb	200'	06
080708-dl-06-9-15	814681	1538		19.0	-1.3				
080708-dl-06-9-30		1540		30.0	-1.2				
			TURBIDITY INCREASE:						
and casing all pockets dumped 080708-dl-06-9-2	2695784	1555	33	2.0	0.5	080708	Ebb	150'	06
080708-dl-06-9-16	814644	1600	33	16.0	5.9				
080708-dl-06-9-30		1602	33	30'	N/				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

APEX

PROJECT: Steamship Authority
JOB NUMBER: 6588.006
DATE: 8/8/08
MONITORS: JM & MB
WEATHER CONDITIONS: Sunny, clear, No wind ~70°F Mid-day-cool/wind cloudy w/some sun
WIND: No wind, clear skies
PRIOR STORM EVENTS: N/A
DREDGE UPDATE: 00 hr of dredge
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
080808-00-1-2	2691689	0715	9'	2'	-1.6	080808	Flood	200'	00
080808-00-1-5	818	0717	9'	5'	-1.4				
080808-00-1-7		0720	9'	7'	-1.4				
			AVERAGE TURBIDITY:						
080808-06-1-2	2691911	1330	7'	2'	0.4	080808	Ebb	200'	06
080808-06-1-4	817688	1333	7'	4'	0.1				
080808-06-1-5		1335	7'	5'	0.0				
			AVERAGE TURBIDITY:						
080808-08-1-2	2691929	1545	22'	2'	0.3	080808	Ebb	200'	08
080808-08-1-10	817964	1547	22'	10'	0.4				
080808-08-1-20		1549	22'	20'	0.2				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

Dredge stopped - just restarted up

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
080808-00-9-2	2691973	0726	20'	2'	-1.7	080808	Flood	200'	00
080808-00-9-10	817648	0728	20'	10'	-1.5				
080808-00-9-18		0730	20'	18'	-0.8				
			TURBIDITY INCREASE:						
080808-06-9-2	2691682	1345	8'	2'	0.6	080808	Ebb	200'	06
080808-06-9-	818398	1347	8'	4'	9.8				
080808-06-9-		1350	8'	6'	22.8				
			TURBIDITY INCREASE:						
080808-08-9-2	2691683	1601	6'	2'	1.0	080808	Ebb	200'	08
080808-08-9-3	818399	1603	6'	3'	0.9				
080808-08-9-4		1605	6'	4	0.9				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

Dredge was on hold

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

ring Form jer

Dredge Water Quality Monitoring Form

PROJECT: Steamship Authority
JOB NUMBER: 6588.006
DATE: 8/11/08
MONITORS: JM + JR
WEATHER CONDITIONS: RAIN!! Thunder + Lightening – Late afternoon skies cleared – sun
WIND: 10-15mph
PRIOR STORM EVENTS: Rain
DREDGE UPDATE: Filling Eddie Current
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
081108-00-1-2		0850	18'	2'	3.0	081108	Ebb	200'	00
081108-00-1-10		0853	18'	10'	4.0				
081108-00-1-16		0855	18'	16'	4.5				
			AVERAGE TURBIDITY:						

* Dredging continued between hrs. 02-06 however storm too strong for WQM.

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
081108-08-1-2	3 pilings from SW corner of steamship pier (GPS not connecting)	1715	20'	2'	7.3	081108	Ebb	150'	08
081108-08-1-		1716	20'	9'	0.6				
081108-08-1-		1717	20'	18'	-1.2				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
081108-00-9-2	2691579	0835	9'	2'	0.3	081108	Ebb	200'	00
081108-00-9-5	818353	0837	9'	5'	-0.1				
081108-00-9-7		0840	9'	7'	-0.9				
			TURBIDITY INCREASE:						
081108-08-9-2	Even w/ dock of steamship (100' S)	1725	7'	2'	3.2	081108	Ebb	150'	08
081108-08-9-4		1727	7'	4'	17.2				
081108-08-9-5		1729	7'	5'	24.2				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: Steamship Authority
JOB NUMBER: 6588.006
DATE: 8/11/08
MONITORS: JM + JR
WEATHER CONDITIONS: Rainy + Stormy - Second half of day was Sunny + few clouds - 7
WIND: 5-10 mph
PRIOR STORM EVENTS: Rain / thunder & lightening
DREDGE UPDATE: Disposal of Scow SEI-2000
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
081108-dl-00-1-2	S of scow SEI-2000	1630	34'	2'	4.3	081108	Flood	75' South of Scow	00 hr of disposal
081108-dl-00-1-16		1632	34'	16'	-1.7				
081108-dl-00-1-22		1633	34'	32'	1.1				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
081108-dl-00-9-2		1650	24'	2'	1.3	081108	Flood	100' N of scow toward I95 highway	00 hr of disposal
081108-dl-00-9-12		1651	24'	12'	-0.6				
081108-dl-00-9-22		1653	24'	22'	5.3				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex

PROJECT:	Steamship Authority
JOB NUMBER:	6588.006
DATE:	~~8/12/08~~ 8/12/08
MONITORS:	JER, ~~[illegible]~~ MB
WEATHER CONDITIONS:	Mid 50's in AM light rain, High 60's PM cleared up
WIND:	5-15 mph
PRIOR STORM EVENTS:	8/11/08 2.66 inches of rain, rain all night
DREDGE UPDATE:	
TYPE OF WATER QUALITY MONITORING:	DREDGE / DISPOSAL

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2691661, 818403	11:20	5	2	-0.8	N/A	Flood	200ft	02
		11:22	5	3	-0.6				
		11:24	5	4	-0.6				
			AVERAGE TURBIDITY:						
	2691661, 818403	1345	6	2	-0.6	N/A	Flood	200ft	04
		1345	6	3	-0.2				
		1348	6	4	-0.5				
			AVERAGE TURBIDITY:						
	2691661, 818403	1530	7	2	-0.7	N/A	Flood	200ft	06
		1531	7	4	-0.5				
		1533	7	5	-0.7				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2691933, 818091	1130	18	2	0.2	N/A	Flood	200ft	02
		1132	18	9	2.8				
		1134	18	16	1.2				
			TURBIDITY INCREASE:						
	2691938, 818094	13:30	20	2	0.7	N/A	Flood	200ft	04
		13:31	20	10	3.2				
		13:35	20	18	4.9				
			TURBIDITY INCREASE:						
	2691938, 818094	1540	20	2	3.0	N/A	Flood	200ft	06
		1541	20	9	9.6				
		1544	20	18	0.2				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: Steamship Authority
JOB NUMBER: 6588.006
DATE: 081808
MONITORS: RB, JM
WEATHER CONDITIONS: Sunny, 75°
WIND: 5 mph
PRIOR STORM EVENTS: NA
DREDGE UPDATE: Morning (1) side of dock / Afternoon (2) side of dock.
TYPE OF WATER QUALITY MONITORING: (DREDGE) / /DISPOSAL

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
081808-00-1-2	2691639	0840	20	2	1.0	081808	Flood	100'	00
081808-00-1-9	818432	0842	↓	9	-1.3				
081808-00-1-19		0844		19	-1.2				
			AVERAGE TURBIDITY:						
081808-02-1-2	2692192.89	1050	22	2	-1.6	081808	ebb	150'	02
081808-02-1-10	817720.89	1052	↓	10	23.6				
081808-02-1-20		1054		20	3.6				
			AVERAGE TURBIDITY:						
081808-04-1-2	2692143	1235	20'	2	3.1	081808	Ebb	200'	04
081808-04-1-10	817801	1237	↓	10'	7.5				
081808-04-1-18		1238		18'	7.2				
			AVERAGE TURBIDITY:						
081808-07-1-2	2691690	1528	8'	2'	4.2	081808	Flood	150'	07
081808-07-1-4	818406	1529	↓	4'	5.0				
081808-07-1-6		1530		6'	8.5				
			AVERAGE TURBIDITY:						
081808-09-1-2	2691690	1734	6'	2'	0.8	081808	Flood	150'	09
081808-09-1-3	818410	1736	↓	3'	1.0				
081808-09-1-4		1737		4'	0.7				
			AVERAGE TURBIDITY:						

* Dredging halted - changed side of dock + moved crew.

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
081808-00-9-2	269	0820	21	2	-1.4	081808	Flood	200'	00
081808-00-9-9	810	0825	↓	9	-1.1				
081808-00-9-19		0830		19	5.4				
			TURBIDITY INCREASE:						
081808-02-9-2	269	1049	22	2	-1.6	081808	ebb	100'	02
081808-02-9-10		1046	↓	10	-1.5				
081808-02-9-20		1048		20	0.3				
			TURBIDITY INCREASE:						
081808-04-9-2	269	1240	19'	2'	0.3	081808	Ebb	150'	04
081808-04-9-10		1242	↓	10'	6.7				
081808-04-9-16		1244		16'	1.9				
			TURBIDITY INCREASE:						
081808-07-9-2	2691945	1532	15'	2'	1.4	081808	Flood	200'	07
081808-07-9-	818152	1534	↓	9'	1.0				
081808-07-9-		1536		13	5.8				
			TURBIDITY INCREASE:						
081808-09-9-2	2691950	1740	14'	2'	3.4	081808	Flood	200'	09
081808-09-9-6	2818153	1742	↓	6'	4.2				
081808-09-9-12		1743		12'	1.3				
			TURBIDITY INCREASE:						

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

Monitoring Form.jpg

Turb. for 081808-02-1-10 = 23.6 NTU

Dredge Water Quality Monitoring Form

Apex

PROJECT: Steamship Authority
JOB NUMBER: 6588.006
DATE: 08/21/08
MONITORS: RB and JER
WEATHER CONDITIONS: Sunny, calm, no precip.
WIND: Calm
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
082108-00-	2691654	0950	7	2	1.3	NA	flood	150	0
082108-00-	818408	0952		4	0.9				
082108-00-		0955	↓	6	0.9				
			AVERAGE TURBIDITY:						
	2691988	12:45	22	2	2.8	NA	Ebb	175ft	3 *
	817915	12:45	22	10	5.0				
		12:49	22	20	3.8				
			AVERAGE TURBIDITY:						
	2691892	14:54	18	2	1.6	N/A	Ebb	175ft	5
	818221	15:00	18	8	7.5				
		15:01	18	16	11.5				
			AVERAGE TURBIDITY:						
	2691911	1733	21	2	9.4	N/A	Ebb	175'	7
	818023	1723		10	0.8				
		1733	↓	19	6.6				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

* Dredging stopped for GPS problem

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2691940	1017	16	2	0.1	N/A	Flood	175ft	0
	818101	17	16	8	0.1				
		20	16	14	0.2				
			TURBIDITY INCREASE:						
	2691755	1250	7	2	0.0	N/A	Ebb	100ft	3 *
	818353	52	7	4	0.0				
		55	7	6	1.1				
			TURBIDITY INCREASE:						
	2691765	14:50	~~8~~ 10	~~8~~ 2	0.3	N/A	Ebb	75ft	5
	818443	14:52	~~8~~ 10	~~8~~ 5	1.4				
		14:56	~~8~~ 10	~~8~~ 8	0.2				
			TURBIDITY INCREASE:						
	2691701	1726	7	2	0.7	N/A	Ebb	75'	7
	818275	1730	7	4	0.8				
		1737	7	6	1.0				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: Steamship Authority
JOB NUMBER: 6588.006
DATE: 8/21/08
MONITORS:
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	269630	16:15	22	2	1.8	NA	Ebb	200'	6
	814622	16:19	↓	10	2.3				
				20	2.8				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	269722	1704	33	2	2.2	NA	Ebb	150'	6
	814552		↓	16	1.9				
				31	4.5				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex

DATE: 8/26

6588.006

MONITORS:

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

Tides: Low @ 09:44, 23:47
High @ 04:13, 16:51

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2691931	0700	18	2	0.6	N/A	Ebb	180ft	00
	818054	0702	13	9	0.5				
		0704	18	16	11.2				
			AVERAGE TURBIDITY:						
	2691947	0902	17	2	16.6	N/A	Ebb	180ft	02
	818157	0902	17	8	19.5				
		0904	17	15	19.3				
			AVERAGE TURBIDITY:						
	2691654	11:05	5	2	5.6	N/A	Flood	150ft	04
	818416	11:08	5	3	5.8				
		11:10	5	4	3.5				
			AVERAGE TURBIDITY:						
*	GPS down	13:00	6	2	2.7	N/A	flood	180ft	06
		13:02	↓	3	2.9				
		13:04		4	2.9				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2691656	0710	6	2	0.4	N/A	Ebb	150ft	00
	818413	0711	6	3	0.5				
		0713	6	4	0.6				
			TURBIDITY INCREASE:						
	2691667	0855	5	2	0.3	N/A	Ebb	175ft	02
	818672	0858	5	3	0.3				
		0900	5	4	0.3				
			TURBIDITY INCREASE:						
	2691950	11:15	18	2	5.3	N/A	Flood	175ft	04
	818021	11:16	18	9	4.2				
		11:19	18	16	6.8				
			TURBIDITY INCREASE:						
*	GPS down	13:12	17	2	12.5	N/A	flood	100	06
		13:14	↓	8	10.7				
		13:16		15	6.0				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

* 13:00 sample (up-current) taken at blue and white mooring ball on S. side of pier. GPS battery dead

* 13:20 sample (down-current) taken at South corner of S. side of pier

Dredge Water Quality Monitoring Form

Apex Companies, LLC

PROJECT: [redacted] SS Authority
JOB NUMBER: [redacted] 6588.006.03
DATE: 8/28/08
MONITORS: JM + RB
WEATHER CONDITIONS: Sunny, trace clouds, clear
WIND: Clear calm w 5mph
PRIOR STORM EVENTS: N/A
DREDGE UPDATE: (A) side of pier in morning and (S) side of pier in afternoon
TYPE OF WATER QUALITY MONITORING: (DREDGE) / DISPOSAL

re-dredge WQM

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
082808-00-1-2	2692056	0730	18'	2'	3.4	N/A	Ebb	200'	00hrs
" -00-1-8	817802	0731	↓	8'	2.8				
" -00-1-16		0732		16'	5.1				
			AVERAGE TURBIDITY:						
082808-02-1-2	2692034	0930	19'	2'	5.0	N/A	Ebb	200'	02 hrs
" -02-1-8	817757	0931	↓	8'	5.6				
" -02-1-17		0932	↓	17'	4.7				
			AVERAGE TURBIDITY:						
082808-04-1-2	2692088	11:40	20'	2'	2.2	N/A	Ebb	200'	04 hrs
" -04-1-8	817849	11:41	↓	8'	2.6				
" -04-1-15		11:42	↓	15'	3.2				
			AVERAGE TURBIDITY:						
082808-08-1-2	2691717	1535	20'	2'	8.3	N/A	Flood	200'	08 hrs
" -08-1-10	817941	1536	↓	10'	10.5				
" -08-1-18		1537	↓	18'	11.5				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

re-dredge WQM

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
082808-00-9-2	2691882	0740	17'	2'	4.2	N/A	Ebb	200'	00 hrs
" -00-9-8	818010	0741	↓	8'	3.1				
" -00-9-15		0742	↓	15'	2.8				
			TURBIDITY INCREASE:						
082808-02-9-2	2691830	0935	21'	2'	5.6	N/A	Ebb	200'	02 hrs
" -02-9-10	817921	0936	↓	10'	6.3				
" -02-9-19		0937	↓	19'	7.0				
			TURBIDITY INCREASE:						
082808-04-9-2	2691947	11:35	18'	2'	4.9	N/A	Ebb	100'	04 hrs
" -04-9-8	818022	11:36	↓	8'	5.7				
" -04-9-16		11:37	↓	16'	8.2				
			TURBIDITY INCREASE:						
082808-08-9-2	2691985	15:28	19	2'	4.3	N/A	Flood	200'	08 hrs
" -08-9-8	816016	15:29	↓	8'	7.3				
" -08-9-17		15:30	↓	17'	7.9				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex Companies, LLC

PROJECT: ~~New Bedford Harbor, Bottom of Cove~~ Steamship Authority
JOB NUMBER: ~~0010-006.01~~ 6588.006.03
DATE: 8/28/08
MONITORS: JM + RB
WEATHER CONDITIONS: Sunny trace white clouds, calm, clear
WIND: Calm - 5mph
PRIOR STORM EVENTS: N/A
DREDGE UPDATE: Disposal of Eddie Carroll
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
082808-D1-00-1-2	2696054	0850	30'	2'	1.5	N/A	Ebb	200'	00 hrs
" - 14	815005	0851	↓	14'	9.9				
" - 28		0852	↓	28'	61.1				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
082808-D1-00-9-2	2695704	0857	32'	2'	2.9	N/A	Ebb	200'	00hrs
" - 15	814961	0858		15'	2.6				
" - 30		0859	↓	30'	23.4				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: Steamship Authority
JOB NUMBER: 6588.006
DATE: 9/3/08
MONITORS: JM + MB
WEATHER CONDITIONS: Sunny, cool, clear skies ~70°F
WIND: ~5mph, cool breeze
PRIOR STORM EVENTS: N/A - dew in morning
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDES: Hi: 1130s
Lo:

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
090308-00-1-2	2691648	0900	7'	2'	0.9	090308	Flood	200'	00 hrs
090308-00-1-4	818412	0901	↓	4'	1.0				
090308-00-1-6		0902	↓	6'	1.2				
			AVERAGE TURBIDITY:						
090308-02-1-2	2691608	1125	9'	2'	0.8	090308	Flood	200'	02 hrs
090308-02-1-4	818439	1126	↓	4'	0.9				
090308-02-1-7		1127	↓	7'	1.3				
			AVERAGE TURBIDITY:						
090308-04-1-2	2691955	1352	18'	2'	1.8	N/A	Ebb	200'	04 hrs
090308-04-1-	818068	1353	↓	9'	1.7				
090308-04-1-		1354	↓	16'	0.9				
			AVERAGE TURBIDITY:						
090308-07-1-2	269	17				N/A	Ebb	200'	07 hrs
090308-07-1-	818								
090308-07-1-									
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
090308-00-9-2	2691933	0911	20'	2'	5.3	090308	Flood	200'	00 hrs
090308-00-9-10	818059	0912	↓	10'	6.9				
090308-00-9-18		0913	↓	18'	8.0				
			TURBIDITY INCREASE:						
090308-02-9-2	2691982	1132	12'	2'	21.0	090308	Flood	200'	02 hrs
090308-02-9-	818044	1133	↓	5'	11.8				
090308-02-9-		1134	↓	10'	15.6				
			TURBIDITY INCREASE:						
090308-04-9-2	2691644	1344	9'	2'	1.1	N/A	Ebb	200'	04 hrs
090308-04-9-4	818404	1345	↓	4'	1.2				
090308-04-9-6		1346	↓	6'	1.5				
			TURBIDITY INCREASE:						
090308-07-9-2	269					N/A	Ebb	200'	07 hrs
090308-07-9-	818								
090308-07-9-									
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: ~~Steamship Authority~~ Bottom of CAD 2 - NBH
JOB NUMBER: 6615.006.01 ~~6509.000~~
DATE: 8/27/08
MONITORS: JM + RB
WEATHER CONDITIONS: Sunny, Hot, 10mph winds
WIND: 10 mph - cool/calm
PRIOR STORM EVENTS: None
DREDGE UPDATE: Disposal of Joe Verrochi
TYPE OF WATER QUALITY MONITORING: ~~DREDGE~~ / DISPOSAL DISPOSAL

TIDES: High = 0521, 17:56
Low = 10:57

UP-CURRENT

	Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
re-dump WQM	082708-D1-1-2	2695659	13:30	32'	2'	2.3	N/A	Flood	200'	00 hrs - D1 of J.V.
	082708-D1-1-15	814914.6	13:31	↓	15'	2.3				
	082708-D1-1-30		13:32		30'	2.1				
				AVERAGE TURBIDITY:						
st-dump WQM	082708-D1-1-2	2695836	13:47	38'	2'	2.8	N/A	Flood	150'	Post dump WQM - J.V.
	082708-D1-1-19	814918	13:48		19'	2.3				
	082708-D1-1-36		13:50	↓	36'	3.4				
				AVERAGE TURBIDITY:						
				AVERAGE TURBIDITY:						
				AVERAGE TURBIDITY:						
				AVERAGE TURBIDITY:						

DOWN-CURRENT

	Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
e-dump WQM	082708-D1-9-2	2696320	13:33	12'	2'	3.2	N/A	Flood	200'	D1 - ~~Post~~ Pre-dump of J.V.
	082708-D1-9-5	814870	13:35	↓	5'	4.0				
	082708-D1-9-10		13:37		10'	4.8				
				TURBIDITY INCREASE:						
st-mp WQM	082708-D1-9-2	2696194	13:40	19'	2'	9.8	N/A	Flood	100'	post dump of JV
	082708-D1-9-9	814934	13:42	↓	9'	7.8				
	082708-D1-9-17		13:45		17'	8.1				
				TURBIDITY INCREASE:						
				TURBIDITY INCREASE:						
				TURBIDITY INCREASE:						
				TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: ~~Steamship Authority~~ Bottom of CAD2 - NBH
JOB NUMBER: 6615.006 ~~6598.000~~
DATE: 8/27/08
MONITORS: JM + RB
WEATHER CONDITIONS: Sunny Warm, 80°F
WIND: ~~[illegible]~~ Cool ~ 10mph
PRIOR STORM EVENTS: N/A
DREDGE UPDATE: Afternoon
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

tides - high: 0521, 1756
low: 1057

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
082708-02-1-2	2695800	1542	36'	2'	2.4	N/A	Flood	150'	02 hrs ~~after 1st~~ WQM
" - " - 1-17	815170	1543	↓	17'	1.9				
" - " - 1-34		1545		34'	2.0				
			AVERAGE TURBIDITY:						
082708-04-1-2	2695841	1720	39'	2'	1.4	N/A	Flood	200'	04 hrs after 1st WQM
082708-04-1-18	815089	1733		18'	2.3				
082708-04-1-37		1735	↓	37'	3.0				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
082708-04-9-2	2696257	1535	11'	2'	4.3	N/A	Flood	150'	02 after 1st WQM
082708-04-9-5	815277	1537	↓	5'	3.4				
082708-04-9-9		1540		9'	5.0				
			TURBIDITY INCREASE:						
082708-04-9-2	2696287	1742	13'	2'	1.5	N/A	Flood	200'	04 after 1st WQM
082708-04-9-6	815429	1744		6'	1.4				
082708-04-9-11		1747	↓	11'	9.5				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: New Bedford Harbor: Bottom of CAD #2
JOB NUMBER: 6615.006.01
DATE: 8/28/08
MONITORS: JM + RB
WEATHER CONDITIONS: Sunny, trace clouds; some wind
WIND: Calm w 5 mph
PRIOR STORM EVENTS: N/A
DREDGE UPDATE: Dredge on pause throughout morning - started up @ 1:00pm
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

Dredge Water Quality Monitoring Form

Apex Companies, LLC

TIDE: High = 0620; 1852
Low = 1159

* Dredge paused in morning for survey + mechanical issues aboard A.S.

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
re-edge AM									
082808-00-1-2	2695826	0800	34'	2'	1.6	082808	Ebb	200'	00hrs 1st wqm of the day
082808-00-1-18	815241.4	0803	↓	18'	2.2				
082808-00-1-37		0805	↓	37'	1.9				
			AVERAGE TURBIDITY:						
082808-02-1-2	2696048	1030	31'	2'	2.4	082808	Ebb	200'	02 hrs
082808-02-1-15	815116.8	1031	↓	15'	3.2				
082808-02-1-29		1032	↓	29'	7.1				
			AVERAGE TURBIDITY:						
082808-04-1-2	2695766	1222	33'	2'	1.6	082808	Flood	100'	04 hrs
082808-04-1-15	815122	1223	↓	15'	3.8				
082808-04-1-31		1224	↓	31'	5.8				
			AVERAGE TURBIDITY:						
down-current 082808-06-1-2	2696418	1445	10'	2'	4.2	N/A	Flood	150'	06 hrs
082808-06-1-5	815459	1447	↓	5'	7.3				
082808-06-1-8		1449	↓	8'	15.5				
			AVERAGE TURBIDITY:						
082808-08-1-2	2695910	1640	34'	2'	1.6	N/A	Flood	200'	08hrs
082808-08-1-16	815205	1641	↓	16'	1.4				
082808-08-1-32		1642	↓	32'	1.8				
			AVERAGE TURBIDITY:						

range on hold

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
re-edge AM									
082808-00-9-2	2695672	0810	40'	2'	2.1	N/A	Ebb	200'	00hrs
" -00-9-20	815136	0811	↓	20'	1.3				
" -00-9-38		0813	↓	38'	1.2				
			TURBIDITY INCREASE:						
082808-02-9-2	2695593	1024	32'	2'	2.5	N/A	Ebb	200'	02 hrs
" -02-9-15	814981	1025	↓	15'	2.6				
" -02-9-30		1026	↓	30'	4.4				
			TURBIDITY INCREASE:						
082808-04-9-2	2696055	1227	21'	2'	2.0	N/A	Flood	200'	04 hrs
" -04-9-10	815196	1228	↓	10'	2.5				
" -04-9-19		1229	↓	19'	2.2				
			TURBIDITY INCREASE:						
current 082808-06-9-2	2695983	1450	11'	2'	1.8	N/A	Flood	200'	06 hrs
" -06-9-5	815301	1451	↓	5'	1.8				
" -06-9-9		1452	↓	9'	1.9				
			TURBIDITY INCREASE:						
082808-08-9-2	2696339	1650	12'	2'	7.0	N/A	Flood	200'	08 hrs
" -08-9-5	815423	1651	↓	5'	3.0				
" -08-9-10		1652	↓	10'	2.4				
			TURBIDITY INCREASE:						

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

PROJECT: New Bedford Harbor: Bottom of CAD #2
JOB NUMBER: 6615.006.01
DATE: 9/3/08
MONITORS: TM
WEATHER CONDITIONS: Sunny, clear skies, warm ~ 70°F - 75°F
WIND: cool breeze ~ 5mph
PRIOR STORM EVENTS: N/A
DREDGE UPDATE: Dredging started @ 800 am - disposal of material into scow "Mighty Quinn"
TYPE OF WATER QUALITY MONITORING: DREDGE DISPOSAL

Dredge Water Quality Monitoring Form

Apex Companies, LLC

re-dredge warm

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
090308-00-1-2	2695930	0810	10'	2'	2.5	N/A	Flood	100'	00
090308-00-1-5	815628	0812	↓	5'	3.3				
090308-00-1-8		0813		8'	4.8				
			AVERAGE TURBIDITY:						
090308-02-1-2	2695618	1054	15'	2'	4.1	N/A	Flood	200'	02
090308-02-1-6	815603	1055	↓	6'	4.2				
090308-02-1-13		1056		13'	4.0				
			AVERAGE TURBIDITY:						
090308-04-1-2	2696258	1305	10'	2'	1.7	N/A	Ebb	200'	04
090308-04-1-4	815241	1306	↓	4'	2.0				
090308-04-1-8		1307		8'	1.2				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
* 090308-00-9-2	2696257	0805	30'	2'	1.8	N/A	Flood	100'	00
090308-00-9-15	815472	0806	↓	15'	7.8				
090308-00-9-28		0807		28	48.2				
			TURBIDITY INCREASE:						
090308-02-9-2	2696430	1102	13'	2'	1.2	N/A	Flood	200'	02
090308-02-9-6	818244	1103	↓	6'	1.8				
090308-02-9-11		1104		11'	2.8				
			TURBIDITY INCREASE:						
090308-04-9-2	2695797	1317	39'	2'	10.2	N/A	Ebb	200'	04
090308-04-9-18	815299	1318		18'	4.7				
090308-04-9-37		1319	↓	37'	7.5				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex Companies, LLC

PROJECT: New Bedford Harbor: Bottom of CAD #2
JOB NUMBER: 6615.006.01
DATE: 9/11/09
MONITORS: SM & BB
WEATHER CONDITIONS: Sunny, cool, trace clouds ~ 60°F / 70's in afternoon
WIND: Cool, slight breeze
PRIOR STORM EVENTS: N/A
DREDGE UPDATE: Dredging
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

Tides - Hi: 0530; 1754
Lo: 11:12; N/A

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
091108-00-1-2		0822	11'	2'	1.2	N/A	Ebb	150'	00
091108-00-1-5		0824	↓	5'	1.1				
091108-00-1-9		0825	↓	9'	2.6				
			AVERAGE TURBIDITY:						
091108-02-1-2		1040	7'	2'	1.8	N/A	Ebb	200'	02
091108-02-1-4		1042	↓	4'	1.2				
091108-02-1-6		1043	↓	6'	2.0				
			AVERAGE TURBIDITY:						
091108-04-1-2		1300	30'	2'	1.9	N/A	Flood	200'	04
091108-04-1-15		1301	↓	15'	1.2				
091108-04-1-28		1302	↓	28'	0.9				
			AVERAGE TURBIDITY:						
091108-07-1-2		1642	32'	2'	1.7	N/A	Flood	200'	07
091108-07-1-15		1643	↓	15'	1.3				
091108-07-1-30		1644	↓	30'	4.0				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
091108-00-9-2		0849	35'	2'	8.2	N/A	Ebb	200'	00
091108-00-9-17		0851	↓	17'	3.9				
091108-00-9-33		0853	↓	33'	1.9				
			TURBIDITY INCREASE:						
091108-02-9-2		1032	36'	2'	1.8	N/A	Ebb	200'	02
091108-02-9-18		1033	↓	18'	2.0				
091108-02-9-34		1034	↓	34'	1.1				
			TURBIDITY INCREASE:						
091108-04-9-2		1305	7'	2'	2.3	N/A	Flood	200'	04
091108-04-9-4		1306	↓	4'	1.5				
091108-04-9-6		1307	↓	6'	1.4				
			TURBIDITY INCREASE:						
091108-07-9-2		1650	10'	2'	1.2	N/A	Flood	200'	07
091108-07-9-4		1651	↓	4'	1.5				
091108-07-9-8		1652	↓	8'	0.7				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex Companies, LLC

PROJECT: New Bedford Harbor: Bottom of CAD #2
JOB NUMBER: 6615.006.01
DATE: 9/16/08
MONITORS: JM + MB
WEATHER CONDITIONS: Cool, cloudy, 65°F
WIND: light breeze
PRIOR STORM EVENTS: N/A
DREDGE UPDATE: Disposal into CAD @ 1000 hrs
TYPE OF WATER QUALITY MONITORING: (DREDGE) / DISPOSAL

TIDES: Hi = 0901; 2125
Lo = 0224; 1454

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
091608-00-1-2	2695820	0950	35'	2'	1.8	N/A	Ebb	200'	00
091608-00-1-17	815384	0951	↓	17'	1.5				
091608-00-1-33		0952		33'	1.2				
			AVERAGE TURBIDITY:		1.5 NTU				
091608-02-1-2	2695930	1150	23'	2'	8.1	N/A	Ebb	200'	02
091608-02-1-11	816365	1151	↓	11'	9.2				
091608-02-1-21		1152		21'	9.1				
			AVERAGE TURBIDITY:		3.5 NTU				
091608-04-1-2	2695873	1441	6'	2'	10.9	N/A	Ebb	200'	04
091608-04-1-4	815402	1442	↓	4'	10.3				
091608-04-1-5		1443		5'	9.4				
			AVERAGE TURBIDITY:						
091608-06-1-2	2696074	16:20 ~~16:00~~	10'	2	3.0	N/A	Flood	200'	06
091608-06-1-	815433	16:21 ~~16:01~~	10'	5	6.3				
091608-06-1-		16:22 ~~16:02~~	10'	8	6.7				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
091608-00-9-2	2696556	1000	9'	2'	2.4	N/A	Ebb	200'	00
091608-00-9-4	815253	1000	↓	4'	2.2				
091608-00-9-6		1003		6'	2.2				
			TURBIDITY INCREASE:		2.3 NTU				
091608-02-9-2	2696552	1156	10'	2'	1.5	N/A	Ebb	200'	02
091608-02-9-4	815366	1157		4'	1.7				
091608-02-9-8		1158	↓	8'	1.8				
			TURBIDITY INCREASE:		1.7 NTU				
091608-04-9-2	2696548	1430	9'	2'	2.3	N/A	Ebb	200'	04
091608-04-9-4	815311	1431		4'	4.4				
091608-04-9-7		1432	↓	7'	4.1				
			TURBIDITY INCREASE:						
091608-06-9-2	2696485	1616	8'	2'	2.3	N/A	Flood	200'	06
091608-06-9-	815432	1618		4'	5.4				
091608-06-9-		1619	↓	6'	6.5				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex Companies, LLC

PROJECT: New Bedford Harbor: Bottom of CAD #2
JOB NUMBER: 6615.006.01
DATE: 9/18/08
MONITORS: JM + MB
WEATHER CONDITIONS: Windy, cloudy ~ 60°F
WIND: Windy - 10mph
PRIOR STORM EVENTS: N/A
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

Down-current

~~UP-CURRENT~~

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
091808-00-1-2	2695789	1140	38'	2'	1.3	N/A	Ebb	200'	00
091808-00-1-16	815295	1141	↓	16'	0.9				
091808-00-1-36		1142	↓	36'	1.2				
			AVERAGE TURBIDITY:						
09180804-1-2	2695792	1536	32'	2'	4.3	N/A	Ebb	200'	04
091808-04-1-16	815361	1537	↓	16'	3.1				
091808-04-1-30		1538	↓	30'	2.2				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

up-current

~~DOWN-CURRENT~~

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
091808-00-9-2	2695342	1150	10'	2'	2.2	N/A	Ebb	200'	00
091808-00-9-4	815058	1152	↓	4'	1.8				
091808-00-9-8		1153	↓	8'	2.3				
			TURBIDITY INCREASE:						
091808-04-9-2	2696291	1545	30'	2'	2.7	N/A	Ebb	200'	04
091808-04-9-	815359	1546	↓	15'	4.1				
091808-04-9-		1547	↓	28'	3.9				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex

PROJECT: 6615.007 New Bedford Harbor - Navigational Dredging @ NBRF
JOB NUMBER: 6615.007.01
DATE: 3/25/09
MONITORS: JER
WEATHER CONDITIONS: SUNNY 40°F Clear, 10-15 Mph winds from NE
WIND: 10-15 mph
PRIOR STORM EVENTS: Gusty winds yesterday
DREDGE UPDATE: First scow filled yesterday First dump today.
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: 07:49, 20:02 Low: 01:23, 13:30

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
032509_DI_000_1_03	2696591, 815343	11:25	10ft	2ft	1.38	N/A	Ebb	15ft N of silt curtain	0
032509_DI_000_1_05		11:25		5ft	0.70				
032509_DI_000_1_08		11:25		8ft	1.21				
			AVERAGE TURBIDITY:		1.10				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
032509_DI_010_9_02	2695978, 815546	12:25	8ft	2ft	1.00	N/A	Ebb	15ft S of silt curtain	0
032509_DI_010_9_04		12:25		4ft	0.64				
032509_DI_010_9_06		12:25		6ft	9.12				
			TURBIDITY INCREASE:		NTU AVG. 3.59 → 2.49				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex Companies, LLC

PROJECT: New Bedford Harbor - Navigational Dredging @ NBRF
JOB NUMBER: 6615.007.01
DATE: 3/27/09
MONITORS: JER / JM
WEATHER CONDITIONS: RAIN last night, overcast today
WIND: Very strong 20-25 gusts
PRIOR STORM EVENTS:
DREDGE UPDATE: Continuing Cut 1 @ NBRF
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: 0907 21:20 Low: 02:42 14:39

* Comments: After observing above normal readings up-current + predisposal, Apex re-calibrated YSI 6920. Readings appeared normal thereafter.

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
* 032709_DI_000_1_02	2696587, 815334	12:00	7ft	2ft	54.9	N/A	Ebb	15ft N of silt curtain	0
032709_DI_000_1_04		12:03		4ft	55.3				
032709_DI_000_1_05		12:05		5ft	59.1				
			AVERAGE TURBIDITY:						
032709_DI_000_1_02	2696580, 815326	12:20	10ft	2ft	0.2	N/A	Ebb	15ft N of silt curtain	0
032709_DI_000_1_05		12:21		5ft	0.3				
032709_DI_000_1_08		12:23		8ft	0.8				
			AVERAGE TURBIDITY:		0.4				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
032709_DI_000_9_02	2695981, 815346	12:15	9ft	2ft	0.0	N/A	Ebb	15ft S. of silt curtain	0
032709_DI_000_9_04		12:17		4ft	0.1				
032709_DI_000_9_07		12:18		7ft	0.2				
			TURBIDITY INCREASE:		0.1				
032709_DI_000_9_02	2695995, 815380	12:31	9ft	2ft	0.1	N/A	Ebb	15ft S of silt curtain	0
032709_DI_000_9_04		12:33		4ft	0.2				
032709_DI_000_9_07		12:35		7ft	0.7				
			TURBIDITY INCREASE:		0.3				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: New Bedford Harbor - Navigational Dredging @ upper harbor cc boat house

JOB NUMBER: 6615.007.01

DATE: 4/5/09

MONITORS: JM/JR

WEATHER CONDITIONS: sunny, windy trace clouds ~ 40°F

WIND: 10-15 mph east

PRIOR STORM EVENTS: N/A

DREDGE UPDATE: No dredging today (dump sat for a week)

TYPE OF WATER QUALITY MONITORING: DREDGE / (DISPOSAL)

TIDE: (Slack) (Flood) High: 5:02; 17:32 Low: 11:56; 23:41

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT (Pre-disposal)

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
040509-D1-1-2	2695847	11:40	10'	2	1.59	N/A	slack/flood	15' from silt curtain	No dredge today
040509-D1-1-4	815652	11:47		4	1.71				
040509-D1-1-8		11:52		8	1.35				
			AVERAGE TURBIDITY:		1.55 NTU				
040509-D1-1-2	2695847	11:42	10'	2	0.2	N/A	slack/flood	15'	N/A
040509-D1-1-4	815652	11:43		4	0.5				
040509-D1-1-8		11:44		8	0.6				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

Disposal @ 11:55 AM into CAD 2

DOWN-CURRENT (post-disposal)

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
040509-D1-9-2	2696576	13:00	11'	2	1.32	N/A	Flood	15' from silt curtain	No dredge today
040509-D1-9-5	815416	13:10		5	2.82				
040509-D1-9-9		13:20		9	1.06				
			TURBIDITY INCREASE:		1.93 NTU (Avg)				
(Turbidity increase = 1.93 - 1.55 = 0.18 NTU increase)									
040509-D1-9-2	2696576	13:02	11'	2	0.2	N/A	Flood	15'	N/A
040509-D1-9-5	815416	13:11		5	2.3				
040509-D1-9-9		13:21		9	3.8				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex Companies, LLC

PROJECT: New Bedford Harbor - Navigational Dredging @
JOB NUMBER: 6615.007.01
DATE: 4/8/09
MONITORS: JFR / JM / CM
WEATHER CONDITIONS: 40°F
WIND: 20-25 from the SW
PRIOR STORM EVENTS: RAIN Delivery 2 days
DREDGE UPDATE: No dredging 4/9/09, to resume 4/10/09
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: Low:

upstream

UP-CURRENT

Monitoring ID #	~~NORTHING/EASTING~~ LAT LONG	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	41 38 46.1	13:20	9ft	2 ft	3.42	N/A	Slack/ Flood	Disposal 15 ft	0
	070 55 02.9	13:20		5 ft	3.01				
		13:20		7 ft	2.39				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

downstream
turned direction
uncurrent

DOWN-CURRENT

Monitoring ID #	~~NORTHING/EASTING~~ LAT LONG	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	41 38 45.3	1335	10ft.	2 ft	2.05	N/A	Slack/ Flood	At silt curtain	0
	070 55 0.4	1335		5 ft	2.38				
		1335		8 ft	2.88				
			TURBIDITY INCREASE:						
	41 38 40	1358	10 ft	2 ft	1.54	N/A	Slack/ Flood	At silt curtain	0
	070 54 60	1358		5 ft	1.71				
		1358		8 ft	2.69				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: New Bedford Harbor - Navigational Dredging @ New Bedford Plowing Facility

JOB NUMBER: 6615.007.01

DATE: 4/10/09

MONITORS: JEK / JEK

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: Low:

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2696590, 815416	14:15	8ft	2 ft	1.01	N/A	Ebb	15 ft	N/A
		14:15		4 ft	0.95				
		14:15		6 ft	1.34				
			AVERAGE TURBIDITY:		1.1				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	41,38,40, 070,54,60	14:35	6ft	2 ft	0.95	N/A	Ebb	15 ft	N/A
		14:35		3 ft	0.87				
		14:35		4 ft	1.31				
			TURBIDITY INCREASE:		1.04				
	2696530, 815550	14:50	11ft	2ft	0.76	N/A	Ebb	15 ft	N/A
		14:50		5.5ft	1.89				
		14:50		9ft	1.38				
			TURBIDITY INCREASE:		1.33				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: New Bedford Harbor - Navigational Dredging @ NBRF

JOB NUMBER: 6616.007.01

DATE: 4/13/09

MONITORS: JER

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / ~~[illegible]~~

TIDE High: 11:16, 23:36 Low: 04:28, 16:18

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2701537 815055	14:20	5ft	2ft	0.67	N/A	Ebb	200ft	4
		14:20		3ft	0.97				
		14:20		4ft	1.49				
			AVERAGE TURBIDITY:		1.04				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2700876 815165	14:45	6ft	2ft	1.46	N/A	Ebb	200ft	4
		14:45		3ft	2.27				
		14:45		4ft	1.51				
			TURBIDITY INCREASE:		1.75				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: New Bedford Harbor - Navigational Dredging @ NBRF

JOB NUMBER: 6616.007.01

DATE: 4/14/09

MONITORS: JER/JEK

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: Low:

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2696002, 815431	17:00	6ft	2 ft	1.84	NA	Flood	15 ft	N/A
		17:00		3 ft	7.60				
		17:00		4 ft	1.46				
			AVERAGE TURBIDITY:		3.63				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2696590, 815416	17:30	9ft	2 ft	3.11	NA	Flood	15ft	N/A
		17:30		5 ft	2.09				
		17:30		7 ft	1.96				
			TURBIDITY INCREASE:		2.39				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: New Bedford Harbor - Navigational Dredging @ ~~NB~~ Gifford St.

JOB NUMBER: 6615.007.01

DATE: 4/21/09

MONITORS: EJR

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: Low:

Dredge Water Quality Monitoring Form

Apex Companies, LLC

Dump Time 10:50AM

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2696496, 815561	10:14	11ft	2ft	2.38	N/A	Ebb	15ft	0
		10:14		6ft	2.33				
		10:14		9ft	1.93				
			AVERAGE TURBIDITY:		2.21				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2695981, 815438	11:00	7ft	2ft	6.51	N/A	Ebb	15ft	0
		11:00		3.5ft	3.07				
		11:00		5ft	5.54				
			TURBIDITY INCREASE:		5.05				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex Companies, LLC

PROJECT: New Bedford Harbor - Navigational Dredging @ Gifford St
JOB NUMBER: 8615.007.01
DATE: 4/22/09
MONITORS: JER
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: (DREDGE) / (DISPOSAL)
TIDE High: Low:

Dump Time @ 08:20

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2696534 815509	0815	12ft	2	1.7	N/A	Ebb	Disposal 15ft	0
		0815		6	2.0				
		0815		10	1.4				
			AVERAGE TURBIDITY:		1.7				
	2688216, 816526	1335	8ft	2	2.2	N/A	Flood	Dredging 200ft	2
		1335		4	1.7				
		1335		6	2.8				
			AVERAGE TURBIDITY:		2.23				
	2688264, 816760	13:50	7ft	2	2.1	N/A	Flood	Dredging 200ft	2
		13:50		4	1.3				
		13:50		5	1.4				
			AVERAGE TURBIDITY:		1.6				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

additional up-current location

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2695979, 815541	0828	12ft	2	4.3	N/A	Ebb	Disposal 15ft	0
		0828		6	4.5				
		0828		10	3.7				
			TURBIDITY INCREASE:		4.07				
	2687447, 816561	14:10	6ft	2	1.4	N/A	Flood	Dredging 200ft	2
		14:10		3	2.0				
		14:10		4	3.1				
			TURBIDITY INCREASE:		2.17				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Gifford St/South Terminal

Dredge Water Quality Monitoring Form

Apex Companies, LLC

PROJECT: New Bedford Harbor - Navigational Dredging @

JOB NUMBER: 8615.007.01

DATE: 4/23/09

MONITORS: CMD

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: Low:

Dump C 07:35

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	41°38' 45.5" 70° 55' 03.2"		12ft	2	3.2	N/A			0
				6	1.8				
				10	1.5				
			AVERAGE TURBIDITY:		1.83				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	41° 38' 39.9" 070° 55' 02.6"		12ft	2	1.8	N/A			0
				6	2.0				
				10	2.2				
			TURBIDITY INCREASE:		2.0				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex Companies, LLC

PROJECT: New Bedford Harbor - Navigational Dredging @ Gifford St / South Terminal
JOB NUMBER: 6616.007.01
DATE: 4/24/09
MONITORS:
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: Low:

Dump Time @ 09:25

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2696565, 815460	0835	12ft	2	1.6	N/A	Ebb	15ft	0
		0835		6	1.6				
		0835		10	1.1				
			AVERAGE TURBIDITY:		1.43				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2695951, 815514	0935	8ft	2	1.5	N/A	Ebb	15ft	0
		0935		4	1.8				
		0935		6	1.9				
			TURBIDITY INCREASE:		1.73				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: New Bedford Harbor - Navigational Dredging @ Gifford St / South Terminal

Dredge Water Quality Monitoring Form

JOB NUMBER: 8615.007.01

DATE: 4/26/09

MONITORS: JER

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: Low:

Dump Time @ 12:45

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2696555, 815424	1225	8ft	2	0.85	N/A	Ebb	15ft	N/A
		1225		4	0.80				
		1225		6	0.85				
			AVERAGE TURBIDITY:		0.833				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2696112, 815663	1305	6ft	2	1.0	N/A	Ebb	15ft	N/A
		1305		3	1.5				
		1305		4	1.6				
			TURBIDITY INCREASE:		1.37				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex Companies, LLC

PROJECT: New Bedford Harbor - Navigational Dredging @
JOB NUMBER: 6615.007.01
DATE: 5/4/09
MONITORS: CMD
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: Low:

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
		1130	10ft	1.5	7.1	N/A			N.A
		1130		4	0.97				
		1130		9	1.0				
			AVERAGE TURBIDITY:		3.02				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
			11ft	3	2.7	NA			NA
				6	0.1				
				9	0.87				
			TURBIDITY INCREASE:		1.22				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex Companies, LLC

PROJECT: New Bedford Harbor - Navigational Dredging @ Gifford St
JOB NUMBER: 9615.007.01
DATE:
MONITORS: SEP
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: Low:

Dump Time 11:50

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2696505, 815523	11:45	9ft	2	2.3	NA	Ebb	Disposal 75ft	N/A
		11:45		5	1.5				
		11:45		7	1.3				
			AVERAGE TURBIDITY:		1.7				
	2687140, 816400	16:45	5ft	2	2.5	N/A		Dredge 200ft	4
		16:45		3	2.7				
		16:45		4	2.3				
			AVERAGE TURBIDITY:		2.5				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2696001, 815563	12:01	10ft	2	1.4	NA	Ebb	Disposal 75ft	NA
		12:01		5	1.2				
		12:01		8	2.5				
			TURBIDITY INCREASE:		1.8				
	2686910, 816474	16:58	6ft	2	13	NA		Dredge 200ft	4
		16:58		3	14				
		16:58		4	16				
			TURBIDITY INCREASE:		14.3				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: New Bedford Harbor - Navigational Dredging @ South Terminal

JOB NUMBER: 6616.007.01

DATE: [illegible]

MONITORS: JEG.

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: Low:

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	3rd piling South of Apex pk nail at South boundary of Schuster prop.	1500	10ft	2	11	N/A	Flood	200ft	
		1500		5	13				
		1500		8	15				
			AVERAGE TURBIDITY:		13				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	Third Cleat North of Schuster prop. boundary fence.	1520	18ft	2	1.9	N/A	Flood	200ft	
		1520		9	1.8				
		1520		16	4.5				
			TURBIDITY INCREASE:		2.73				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Tonnesson Park

Dredge Water Quality Monitoring Form

Apex Companies, LLC

PROJECT: New Bedford Harbor - Navigational Dredging @

JOB NUMBER: 6615.007.01

DATE: 5/13/09

MONITORS: JER / GXD

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: Low:

Up & Down Same Position (No other outlet) during dredging

Dump Time @ 13:36

UP-CURRENT / Down-Current (SAME)

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2692827, 814866	1037	31'	2	1.7	N/A	Flood	200ft	1
		1037		16	1.2				
		1037		29	1.1				
			AVERAGE TURBIDITY:		1.33				
			AVERAGE TURBIDITY:						
	2696532, 815465	1330	10ft	2	1.8	N/A	Ebb	15 ft Disposal	N/A
		1330		5	1.3				
		1330		8	1.0				
			AVERAGE TURBIDITY:		1.37				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
	2696040, 815593	1350	13ft	2	1.4	N/A	Ebb	15ft Disposal	N/A
		1350		7	1.4				
		1350		11	1.6				
			TURBIDITY INCREASE:		1.47				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

PROJECT:	New Bedford Harbor - Navigational Dredging @
JOB NUMBER:	6615.007.01
DATE:	5/14/09
MONITORS:	EIC
WEATHER CONDITIONS:	
WIND:	
PRIOR STORM EVENTS:	
DREDGE UPDATE:	
TYPE OF WATER QUALITY MONITORING:	DREDGE / DISPOSAL
TIDE High:	Low:

Dump Time @ 08:35

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2695994, 815492	0820	10 ft	2	0.20	N/A	Flood	25 ft	N/A
		0820		5	1.0				
		0820		8	0.60				
			AVERAGE TURBIDITY:		0.60				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2696544, 815417	0845	10 ft	2	0.5	N/A	Flood	15 ft	N/A
		0845		5	2.5				
		0845		8	3.8				
			TURBIDITY INCREASE:		2.27				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

PROJECT: New Bedford Harbor - Navigational Dredging @ Union Wharf
JOB NUMBER: 8615.007.01
DATE: 5/16/09
MONITORS:
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE DISPOSAL
TIDE High: Low:

Two Down Current locations Taken

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2692082, 817859	12:30	20ft	2	0.52	N/A	Flood	Dredge 200 ft	2
		12:30		9	1.65				
		12:30		18	4.09				
			AVERAGE TURBIDITY:		2.09				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
		13:15	6ft	2	0.27	N/A	Flood	200 ft	2
		13:15		4	0.81				
		13:15		5	0.75				
			TURBIDITY INCREASE:		0.61				
	2692385, 817660	1325	23ft	2	0.48	N/A	Flood	200 ft	2
		1325		10	0.65				
		1325		21	0.70				
			TURBIDITY INCREASE:		0.61				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: New Bedford Harbor - Navigational Dredging @ Gifford St. (G1)
JOB NUMBER: 6615.007.01
DATE: 5/20/09
MONITORS:
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: Low:

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2687551, 816571	1400	6ft	2	5.95	N/A	Flood	200ft	6
		1400		3	6.95				
		1400		4	52.0				
			AVERAGE TURBIDITY:		21.6				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2688188, 816578	1420	9ft	2	4.38	N/A	Flood	200ft	6
		1420		5	1.23				
		1420		7	3.55				
			TURBIDITY INCREASE:		3.19				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

Apex Companies, LLC

PROJECT: New Bedford Harbor - Navigational Dredging @
JOB NUMBER: 6615.007.01
DATE: 5/22/09
MONITORS: JR and JM
WEATHER CONDITIONS: Sunny, 70°F, clear
WIND: 5mph
PRIOR STORM EVENTS: N/A
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: 06:50 Low:

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
052209-D1-1-2	2696530	0800	11'	2'	1.25	N/A	Ebb	5'	00
052209-D1-1-5	815461	0801		5'	6.73				
052209-D1-1-9		0802		9'	8.44				
			AVERAGE TURBIDITY:						
Disposal @ 8:05 AM									
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
052209-D1-9-2	2696007	08:15	12'	2'	0.60	N/A	Ebb	5'	00
052209-D1-9-	815544	08:17		6'	0.05				
052209-D1-9-		08:18		10'	0.29				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @ LINBERG MARINE

JOB NUMBER: 6615.007.01

DATE: 3/28/07

MONITORS: JK / MB

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: 11:55, — Low: 0550 : 1449 (7:11)

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	818006, 2693407	1013	18ft	2 ft	0.80	N/A	Flood	< 200 ft from dredge	< 1
		1013		9 ft	0.64				
		1013		16 ft	7.84				
			AVERAGE TURBIDITY:						
	2696681 815506	1400	12ft	2 ft	0.32	N/A	Ebb	Tied to silt curtain	N/A Disposal
		1400		6 ft	1.55				
		1400		10 ft	1.10				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2693690 817838	1025	16ft	2 ft	1.60	N/A	Flood	<200 ft from dredge	< 1
		1025		8 ft	2.11				
		1025		14 ft	1.85				
			TURBIDITY INCREASE:						
	2695489, 815375	1445	10ft	2 ft	1.22	N/A	Ebb	Tied to silt curtain	N/A Disposal
		1445		5 ft	0.65				
		1445		8 ft	3.27				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: [illegible] New Bedford Harbor - Navigational Dredging @ Lindberg Marine
JOB NUMBER: 5615.007.01
DATE: [illegible]
MONITORS: JSE
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: Low:

Dredge Water Quality Monitoring Form

Atlantic dredging @ Lindberg Marine

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2695965, 817998	1435 1435 1435	18ft	2 7 16	1.4 1.8 1.6	N/A	Flood	←	<15ft from silt curtain ← 4
			AVERAGE TURBIDITY:		1.6				
	2695984, 815501	1620 1620 1620	12ft	2 6 10	2.2 1.4 2.1	N/A	Flood	<15 from curtain	Disposal
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGER/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2693747, 817884	1452 1452 1452	12ft	2 6 10	1.4 2.1 6.1	N/A	Flood	<15 ft	4
			TURBIDITY INCREASE:						
	2696542, 816460	1655 1655 1655	13ft	2 7 11	4.2 1.8 3.4	N/A	Flood	<15 ft from curtain	Disposal
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6605 New Bedford Harbor - Navigational Dredging @ LINBERG MARINE

JOB NUMBER: 0615.007.01

DATE: 6/16/09

MONITORS: JER

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: (DREDGE) / DISPOSAL

TIDE High: 07:41, 2003 Low: 01:20, 12:42

Omega Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2693349 818016	1405	19ft	2	1.5	N/A	Flood	<15 ft from curtain	<1
		1405		10	1.1				
		1405		17	1.8				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2693626, 817905	1430	13ft	2 ft	2.4	N/A	Flood	<15 ft from silt curtain	<1
		1430		6 ft	6.9				
		1430		11 ft	2.0				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @ Disposal
JOB NUMBER: 6615.007.01
DATE: 6/12
MONITORS: JER
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: 11:48, 23:59 Low: 05:03, 17:02

Dredge Water Quality Monitoring Form

Apex Companies, LLC

Disposal

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2695988, 815498	8:40	11ft	2 ft	2.2	N/A	Flood	Tied to silt curtain	N/A
		8:40		5 ft	2.0				
		8:40		9 ft	5.0				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2696518, 815512	0915	12ft	2 ft	2.5	N/A	Flood	Tied to silt curtain	N/A
		0915		6 ft	2.1				
		0915		10 ft	4.9				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @ Warren Alexander - South

JOB NUMBER: 6615.007.01

DATE: 6/17/09

MONITORS: MB

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: 2:14, 14:46 Low: 9:58, 21:00

Dredging @ Warren Alexander South

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2692093, 818052	15:25	20ft	2 ft	2.68	N/A	Ebb	< 200 ft from dredge	2
		14:25		10 ft	2.90				
		15:25		18 ft	2.92				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2692020, 818005	15:40	20ft	2 ft	5.60	N/A	Ebb	< 200 ft from dredge	2
		15:40		10 ft	2.74				
		15:40		18 ft	3.80				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

Dredge Water Quality Monitoring Form

PROJECT:	New Bedford Harbor - Navigational Dredging @
JOB NUMBER:	6615.007.01
DATE:	061809
MONITORS:	MLG
WEATHER CONDITIONS:	COOL CLOUDY 60°
WIND:	5-10 Knots southwest
PRIOR STORM EVENTS:	
DREDGE UPDATE:	
TYPE OF WATER QUALITY MONITORING:	DREDGE / (DISPOSAL)
TIDE High:	Low:

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION (NOSC)	NUMBER OF HOURS DREDGING
061809-20'	2692082	0830	20'	2	.68			50'	
061809-10'		0835		9	1.22				
061809-20'	817869	0840		18	.71				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN (NOSC)	NUMBER OF HOURS DREDGING
061809-DC	2692261	0910	23'	2'	.58			50'	
061809-DC		0915		12.5'	1.61				
061809-DC	817632	0925		21'	1.72				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @ Old North Wharf (North Bridge)

Dredge Water Quality Monitoring Form

JOB NUMBER: 6615.007.01

DATE: 6/22

MONITORS:

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: 8:01, 16:24 Low: 01:50, 13:20

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2693532, 818082	11:19	17ft	2ft	2.29	N/A	Ebb	~200 ft from dredge	1
		11:15		9ft	0.32				
		11:16		15ft	1.80				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2693488, 818090	11:35	18ft	2ft	0.90	N/A	Ebb	~200 ft from dredge	1
		11:35		9ft	1.26				
		11:35		16ft	0.85				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @ Clifford St. (G2)
JOB NUMBER: 6615.007.01
DATE: 6/24
MONITORS: JEP
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: 9:47, 22:09 Low: 03:36, 15:13

Dredge Water Quality Monitoring Form

APEX Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2687124, 816392	1010	5ft	2 ft	4.23	N/A	Ebb	< 200 ft from dredge	
		1010		3 ft	2.85				
		1010		4 ft	6.55				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2687451, 816412	1025	7ft	2 ft	10.94	N/A	Ebb	< 200 ft from dredge	
		1025		4 ft	8.72				
		1025		5 ft	12.33				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 0015 New Bedford Harbor - Navigational Dredging @ Gifford St. (G1)
JOB NUMBER: 8616.007.01
DATE: 7/1
MONITORS:
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: 03:40, 16:12 Low: 09:23, 23:05

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2687826, 816517	1440	10ft	2ft	1.60	N/A	Flood	~200 ft from dredge	
		1440		5ft	2.90				
		1440		8ft	4.15				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2687296, 816515	1517	11ft	2ft	3.80	N/A	Flood	~200 ft from dredge	
		1517		5ft	3.65				
		1517		9ft	4.05				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 605 New Bedford Harbor - Navigational Dredging @ Coffin St (G-1)
JOB NUMBER: 6616.007.01
DATE: 7/2/09
MONITORS:
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: 04:40, 17:10 Low: 10:09, 23:49

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2087527, 816470	16:45	12ft	2ft	0.65	N/A	Flood	<200 ft from bridge	1
		16:45		6ft	1.88				
		16:45		10ft	4.30				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2087121, 816415	17:15	11ft	2ft	5.58	N/A	Flood	<200 ft from bridge	1
		17:15		6ft	4.89				
		17:15		9ft	5.23				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @
JOB NUMBER: 6615.007.01
DATE: 7/8/07
MONITORS: JER
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: 9:20, 21:59 Low: 02:52, 14:37

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2696529, 815466	11:55 11:55 11:55	12ft	2 ft 6 ft 10 ft	2.2 1.8 1.8	N/A	Ebb	< 200 ft	N/A - Disposal
			AVERAGE TURBIDITY:						
	2697848, 814584	14:33 14:33 14:33	9ft	2 ft 5 ft 9 ft	3.9 3.2 3.7	N/A	Ebb	< 200 ft	2
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2696040, 815316	12:15 12:15 12:15	14ft	2 ft 7 ft 12 ft	2.0 1.6 1.9	N/A	Ebb	< 200 ft	N/A Disposal
			TURBIDITY INCREASE:						
	2697225, 814583	14:40 14:40 14:40	12ft	2 ft 6 ft 10 ft	16 NTU 20 NTU 18 NTU	N/A	Ebb	< 200 ft	2
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @ Packer Marine
JOB NUMBER: 6615.007.01
DATE: 7/10/09
MONITORS: JCL
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: 1036, 22:49 Low: 04:02, 16:01

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2697438, 814452	0930	18ft	2 ft	0.30	N/A	Flood	<200 ft from dredge	1
		0930		9 ft	1.22				
		0930		16 ft	0.68				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2697663 814524	1015	16ft	2 ft	1.02	N/A	Flood	≈200 ft from dredge	1
		1015		8 ft	1.15				
		1015		14 ft	0.98				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @ C-1 Gifford St.
JOB NUMBER: 6615.007.01
DATE: 7/15/09
MONITORS: JFR
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL
TIDE High: 1:42, 15:24 Low: 07:06, 20:08

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	816454, 2687223	1358	6ft	2 ft	1.6	N/A	Flood	<200 ft from dredge	<1
		1358		3 ft	2.0				
		1358		4 ft	2.3				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	816413, 2687594	1405	8ft	2 ft	4.7	N/A	Flood	<200 ft from dredge	<1
		1405		4 ft	5.2				
		1405		6 ft	6.8				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @ Warren Alexander South

JOB NUMBER: 6615.007.01

DATE: 7/17/09

MONITORS:

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: 03:36, 16:07 Low: 09:07, 22:44

Dredge Water Quality Monitoring Form

APEX

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2697401, 814498	1346	19ft	2ft	1.46	N/A	Flood	<200ft from dredge	2
		1346		9ft	1.82				
		1346		17ft	3.11				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2697641, 814482	1405	17ft	2ft	2.61	NA	Flood	~200 ft from dredge	2
		1405		8ft	0.96				
		1405		15ft	1.21				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @ South Terminal
JOB NUMBER: 6615.007.01
DATE: 7/22/09
MONITORS:
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: (DREDGE) / DISPOSAL
TIDE High: 0836, 2100 Low: 0227, 1407

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME (1335)	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2689034, 816181	1335	19ft	2ft	0.62	N/A	Ebb	≤200 ft from dredge	< 1
		1335		9ft	1.89				
		1335		17ft	5.27				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME (1400)	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2688796, 816234	1400	21ft	2ft	2.84	NA	Ebb	≤200 ft from dredge	< 1
		1400		10ft	2.35				
		1400		19ft	3.71				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6015 New Bedford Harbor - Navigational Dredging @ South Terminal

JOB NUMBER: 6615.007.01

DATE: 7/23/09

MONITORS:

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: (DREDGE) / DISPOSAL

TIDE High: 9:28, [redacted] 21:51 Low: 03:14, 15:05

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	2688892, 876242	1530	22ft	2ft	2.16	NA	Ebb SLACK?	<200ft	<1
		1530		11ft	3.40				
		1530		20ft	6.89				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	2688596, 876326	1540	21ft	2ft	3.09	N/A	Ebb SLACK?	<200ft	<1
		1540		10ft	2.53				
		1540		19ft	3.48				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @ South Terminal

JOB NUMBER: 5615.007.01

DATE: 7/28/09

MONITORS:

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: 1:18, 13:53 Low: 6:38, 20:01

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	816145, 2688807	0855	22ft	2ft	4.55	N/A	Flood	<200ft	<1
		0855		10ft	4.28				
		0855		20ft	5.03				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	816399, 2688456	0910	14ft	2 ft	5.61	N/A	Flood	<200ft	<1
		0910		7ft	3.28				
		0910		12ft	4.23				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @ Gifford ST Cal

JOB NUMBER: 6615.007.01

DATE: 8/12/09

MONITORS:

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: 11:27, 12:24 Low: 5:42, 18:25

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	816380, 2687522	13:40	11 ft	2 ft	2.73	N/A	Flood	<200	<1
		13:40		5 ft	2.94				
		13:40		9 ft	3.03				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	816373, 2687136	14:30	8 ft	2 ft	4.30	N/A	Flood	<200	<1
		14:30		4 ft	4.36				
		14:30		6 ft	4.87				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @ SOUTH TERMINAL

JOB NUMBER: 6615.007.01

DATE: 8/13/09

MONITORS:

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: 1:17, 13:47 Low: 6:28, 19:31

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	816152, 2688962	17:48	21ft	2ft	0.75	N/A	Ebb	~200 ft from dredge	2
		17:48		10ft	0.84				
		17:48		19ft	2.11				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	816253, 2688671	18:05	20ft	2ft	1.84	N/A	Ebb	~200 ft from dredge	2
		18:05		10ft	2.02				
		18:05		18ft	2.84				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @ PARCEL

JOB NUMBER: 6615.007.01

DATE: 8/17/09

MONITORS:

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: 05:31, 18:02 Low: 11:00,

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	814459, 2697627	10:10	12ft	2ft	0.37	N/A	Ebb	<200ft	2
		10:10		6ft	0.67				
		10:10		10ft	1.25				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	814482, 2697425	10:25	18ft	2ft	2.01	N/A	Ebb	<200f	2
		10:25		9ft	1.87				
		10:25		16ft	2.32				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PACKER MARINE

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @ ~~[illegible]~~

JOB NUMBER: 9615.007.01

DATE: 8/20/09

MONITORS:

WEATHER CONDITIONS:

WIND:

PRIOR STORM EVENTS:

DREDGE UPDATE:

TYPE OF WATER QUALITY MONITORING: DREDGE / DISPOSAL

TIDE High: ~~[illegible]~~ Low:

8:18, 20142 2:01, 18:59

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	814583, 2697355	1425	18ft	2ft	3.15	N/A	Flood	<200 ft from dredge	4
		1425		9ft	2.47				
		1425		16ft	1.21				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	814529, 2697589	1445	16ft	2ft	2.26	N/A	Flood	<200 ft from dredge	4
		1445		8ft	2.89				
		1445		14ft	3.21				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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

PROJECT: 6615 New Bedford Harbor - Navigational Dredging @ SOUTH TERMINAL
JOB NUMBER: 6815.007.01
DATE: 8/25/09
MONITORS:
WEATHER CONDITIONS:
WIND:
PRIOR STORM EVENTS:
DREDGE UPDATE:
TYPE OF WATER QUALITY MONITORING: (DREDGE) / DISPOSAL
TIDE High: 12:28, Low: 5:12, 18:02

Dredge Water Quality Monitoring Form

Apex Companies, LLC

UP-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	TYPE OF WQM & DISTANCE FROM LOCATION	NUMBER OF HOURS DREDGING
	~~816219~~, 816308, 2688520	~~16:46~~ 16:46	17ft	2ft	6.01	N/A	Ebb	~200. ft from dredge	<1
				8ft	5.26				
				15ft	5.58				
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						
			AVERAGE TURBIDITY:						

DOWN-CURRENT

Monitoring ID #	NORTHING/ EASTING	TIME	TOTAL WATER DEPTH (ft)	SAMPLE DEPTH (ft)	TURBIDITY (NTUs)	GPS FILE NAME	TIDAL STAGE	DISTANCE FROM DREDGE/SILT CURTAIN	NUMBER OF HOURS DREDGING
	816219, 2688795	17:00	21ft	2ft	2.89	N/A	Ebb	~200 ft from dredge	< 1
		17:00		10ft	3.14				
		17:00		19ft	3.67				
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						
			TURBIDITY INCREASE:						

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