

REDACTED VERSION FOR PUBLIC RELEASE

Phase I Archaeological Survey at Twelve Sites for Proposed Construction of Wind Turbines at Naval Station Newport Located in Newport, Rhode Island

Contract No. N62470-10-D-3008
Task Order No. WE06



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PHASE I ARCHAEOLOGICAL SURVEY

Twelve Sites for Proposed Construction of Wind Turbines at Naval Station Newport Newport, Rhode Island

Contract N62470-10-D-3008, Task Order WE06

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The Department of the Navy has determined that the disclosure of information on the location or character of certain cultural resources at Naval Station Newport may create a substantial risk of harm, theft, or destruction of such resources, invasion of privacy, trespass on government property, interference with military mission, and/or interference with the rights guaranteed to tribal grounds under 42 U.S.C Part 1996. Therefore, this information is redacted from this version of the report in accordance with Department of Defense Instruction 4715.16.

Management Summary

During October of 2011, AECOM archaeologists conducted a Phase I Archaeological Investigation of 12 sites for proposed construction of wind turbines at Naval Station Newport, in Newport, Rhode Island. This study was performed under contract to the Naval Facilities Engineering Command Mid-Atlantic (NAVFAC MIDLANT). The project's Area of Potential Effect (APE) consisted of seven hectares (17.2 acres) and included Katy Field, Prichard Field North, Prichard Field South, Navy Lodge, Coddington Point, Derecktor Shipyard, Naval Undersea Warfare Center (NUWC), Tank Farm 5, Tank Farm 4A, Tank Farm 4B, Tank Farm 3, and Bishops Rock test areas. No systematic archaeological testing was performed within Katy Field or Bishops Rock due to on-going remediation of hazardous materials.

Testing determined that the Derecktor Shipyard, Navy Lodge, Prichard Field South, and Coddington Point APEs are made-land created through the filling of marsh lands along the edge of Narragansett Bay in order to extend the shoreline. No artifacts were recovered during testing of these four areas. Potential for prehistoric resources at these locations is considered low and testing within the four test areas identified no historic features. No further testing at these locations is recommended.

Prichard Field North, Katy Field and NUWC displayed heavy grading and fill disturbances. The only intact subsoil horizons at these locations consisted of alluvial deposited sands directly above decaying shale bedrock. Testing within Prichard Field North recovered a total of 10 modern/historic artifacts from fill likely deposited during activities that took place on the field or the artifacts were present within the fill materials when they were transported and re-deposited on the field. No artifacts were recovered from NUWC during testing. Katy Field was not tested due to remediation activities. Potential for prehistoric resources at these locations was considered low and testing within the three test areas identified no prehistoric or historic features. No further testing at these locations is recommended.

The Bishops Rock test area is currently undergoing remediation for asbestos contamination and no testing was conducted within the APE. Observation of an open backhoe trench indicated that there was no natural soil stratigraphy present on Bishops Rock. The construction of a sewer line and remediation activities have caused significant disturbances to the Bishops Rock APE. Potential for prehistoric or historic resources is considered low within the Bishops Rock APE and, therefore, no further testing at the location is recommended.

Nine prehistoric artifacts were recovered during testing of Tank Farm 4A [REDACTED]

Given the high proportion of tools compared to debitage and the presence of fire cracked rock (FCR), the site could be a small prehistoric resource processing camp. Seven modern/historic artifacts were also recovered from the plow zone during excavations within the Tank Farm 4A APE. The historic artifacts were likely deposited during construction/remediation activities within Tank Farm 4. No prehistoric or historic features were identified within the Tank Farm 4A APE during testing. If Tank Farm 4A is selected for wind turbine construction, additional testing should be undertaken at the Site to determine if intact features are present under the plow zone. Testing should only be conducted once design plans have advanced sufficiently to include all areas of ground disturbance.

An isolated prehistoric find consisting of a quartzite mid-stage biface was recovered from the plow zone in Tank Farm 4B and close interval radials excavated around the positive STP were negative. This biface is considered an isolated find recovered from a disturbed plow zone context. Four modern/historic bottle glass fragments were also recovered from the plow zone and were likely deposited during

construction/remediation activities within Tank Farm 4. No prehistoric or historic features were identified within the Tank Farm 4B APE during testing and no further testing at Tank Farm 4B is recommended.

Testing within Tank Farm 5 identified an isolated prehistoric find consisting of a quartz secondary flake recovered from the subsoil and close interval radials excavated around the positive STP were negative. The flake was likely deposited during a past flood event. A total of 173 modern/nineteenth century historic artifacts were recovered from fill and plow zone contexts in Tank Farm 5. The nineteenth century artifacts are likely related to the [REDACTED] [REDACTED]. The [REDACTED] a middle- to late-nineteenth century farmstead belonging to [REDACTED], was identified outside of the APE during pedestrian reconnaissance. A collapsed cellar hole and a portion of a stone wall were observed along [REDACTED] and are likely the remnants of buildings associated with [REDACTED], labeled [REDACTED] by the [REDACTED]. No historic features related to the [REDACTED] were identified during testing of the Tank Farm 5 APE. No further work is recommended for the Tank Farm 5 APE, however, if design plans change to impact north of the current Tank Farm 5 APE along [REDACTED], a Phase I Survey of the [REDACTED] would be necessary to determine the extent of the site.

Testing of Tank Farm 3 recovered three fragments of modern bottle glass and no prehistoric materials. Potential for prehistoric resources at Tank Farm 3 is considered low and testing within the APE identified no prehistoric or historic features. No further testing is recommended at Tank Farm 3. Fuel Tanks Nos. 32-36 are still extant on the property (consisting of concrete, underground tanks constructed in 1942 for Tank Farm 3) and were evaluated in the *Cultural Resources Survey U.S. Naval Complex Newport, Rhode Island* prepared by the Louis Berger Group, in November of 1998 and recommended not eligible for the National Register of Historic Places due to lack of significance (Berger 1998).

Table of Contents

Number	Title	Page
1	INTRODUCTION	1-1
1.1	Location and Description of Project Area.....	1-1
1.2	Regulatory Framework	1-3
1.3	Area of Potential Effect (APE)	1-3
2	ENVIRONMENTAL BACKGROUND	2-1
2.1	Geologic Setting	2-1
2.2	Soils	2-1
3	SURVEY METHODOLOGY.....	3-1
3.1	Archaeological Field Methods.....	3-1
3.2	Laboratory Methods.....	3-2
4	BACKGROUND CULTURAL CONTEXTS.....	4-1
4.1	Tank Farm 5.....	4-1
4.1.1	[REDACTED]	4-2
4.2	Tank Farm 4A and 4B	4-3
5	RESULTS OF SURVEY	5-1
5.1	Previous Investigations	5-1
5.1.1	Identified Sites Near the Project Area Vicinity	5-1
5.1.2	Previous Archaeological Surveys Near the Project Area.....	5-3
5.2	Results of Current Phase I Survey	5-7
5.2.1	Katy Field	5-9
5.2.2	Prichard Field North	5-10
5.2.3	Prichard Field South	5-15
5.2.4	Navy Lodge	5-18
5.2.5	Coddington Point	5-18
5.2.6	Derecktor Shipyard	5-23
5.2.7	NUWC	5-23
5.2.8	Tank Farm 5.....	5-28

5.2.9	Tank Farm 4A.....	5-33
5.2.10	Tank Farm 4B.....	5-37
5.2.11	Tank Farm 3.....	5-37
5.2.12	Bishops Rock.....	5-43

6 CONCLUSIONS AND RECOMMENDATIONS.....6-1

6.1	[REDACTED].....	6-1
6.2	Tank Farm 4A [REDACTED].....	6-1
6.3	Recommendations.....	6-2

7 BIBLIOGRAPHY7-1

8 LIST OF PREPARERS.....8-1

Appendices

- Appendix A: Bore Log
- Appendix B: Phase I Artifact Catalog
- Appendix C: Phase I Excavation Log
- Appendix D: Air Monitoring Results Phase I - Archaeological Investigation – Newport, Rhode Island
- Appendix E: Rhode Island Historical Preservation and Heritage Commission Archaeological Site Forms
- Appendix F: Rhode Island Historical Preservation and Heritage Commission Correspondence

List of Figures

Number	Title	Page
1-1	Project Location Map.....	1-2
2-1	Physiographic Provinces of New England.....	2-2
2-2	Soil Unit Map.....	2-4
4-1	Tank Farm 3 1942 Construction Photographs	4-4
4-2	Tank Farm 4A and 4B 1942 Construction Photographs	4-5
4-3	Tank Farm 5 1942 Construction Photographs	4-6
4-4	1892 USGS Topographic Map, Narragansett Bay 15-Minute Quad	4-7
4-5	1942 USGS Topographic Map, Prudence Island 7.5-minute Quad	4-8
4-6a	South Half, 1887 U.S. Coast and Geodetic Map for Newport Harbor and the Entrance to Narragansett Bay.....	4-9
4-6b	North Half, 1887 U.S. Coast and Geodetic Map for Newport Harbor and the Entrance to Narragansett Bay.....	4-10
5-1	.....	5-11
5-2	.....	5-13
5-3	.....	5-16
5-4	.....	5-19
5-5	.....	5-21
5-6	.....	5-24
5-7	.....	5-26
5-8	.....	5-29
5-9	.....	5-32
5-10	.....	5-34
5-11	.....	5-38
5-12	.....	5-41
5-13	.....	5-44

List of Tables

Number	Title	Page
1-1	Test Area Size	1-4
2-1	Test Area Soil Types.....	2-3
5-1	Summary of Identified Archaeological Sites within the Naval Station Newport	5-2
5-2	Summary of Phase I Testing by Area	5-7

List of Photos

Number	Title	Page
5-1	Katy Field Overview, View Northwest.....	5-12
5-2	Katy Field Overview, View Northeast.....	5-12
5-3	Prichard Field North Overview, View Northwest	5-14
5-4	Prichard Field North Overview, View Northeast.....	5-14
5-5	Prichard Field South Overview, View East	5-17
5-6	Prichard Field South, Concrete Pad Disturbance, View North.....	5-17
5-7	Navy Lodge Overview, View Southwest Along Beach.....	5-20
5-8	Navy Lodge Overview, View Southwest.....	5-20
5-9	Coddington Point Overview, View Southwest	5-22
5-10	Coddington Point Overview, View Southeast	5-22
5-11	Derektor Shipyard Overview, View Northeast	5-25
5-12	Derektor Shipyard Overview, View Northwest	5-25
5-13	NUWC Overview, View West.....	5-27
5-14	NUWC Overview, View North.....	5-27
5-15	.....	5-30
5-16	.....	5-30
5-17	Tank Farm 5 Isolated Prehistoric Find, Quartz Secondary Flake	5-31
5-18	.....	5-31
5-19	.....	5-35
5-20	Tank Farm 4A Overview, View Northeast	5-35
5-21	Tank Farm 4A Overview of Wetland Area, View North.....	5-36
5-22	Sample of Prehistoric Artifacts Recovered from the Tank Farm 4A	5-36
5-23	Tank Farm 4B Overview, View Northeast	5-39
5-24	Tank Farm 4B, Isolated Prehistoric Artifact Location, View East	5-39
5-25	Tank Farm 4B Isolated Prehistoric Find, Quartzite Biface.....	5-40
5-26	Tank Farm 3 Overview, View North	5-42
5-27	Tank Farm 3 Tank Location, View Southwest	5-42
5-28	Bishops Rock Overview, View West.....	5-45
5-29	Bishops Rock Overview, View North.....	5-45
5-30	Bishops Rock Trench Profile, View Northwest.....	5-46

1 INTRODUCTION

In October 2011, under contract to the Naval Facilities Engineering Command Mid-Atlantic (NAVFAC MIDLANT), AECOM conducted a Phase I archaeological investigation of 12 sites for proposed construction of wind turbines at Naval Station (NAVSTA) Newport, in Newport, Rhode Island (Figure 1-1). The purpose of the survey was to locate archaeological resources that may be eligible for listing on the National Register of Historic Places. An Executive Summary for the project was submitted to the Rhode Island Historical Preservation and Heritage Commission (RIHPHC) for comment in December of 2011 (Mikolic 2011) (Appendix F). AECOM, on behalf of the Navy, has conducted this Phase I survey in compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, the National Environmental Policy Act (NEPA) of 1969, and the *Performance Standards and Guidelines for Archaeological Projects* of the RIHPHC, 2011.

1.1 Location and Description of Project Area

Phase I testing was completed within 12 areas located on Naval Station Newport (Figure 1-1). These areas include:

- Katy Field
- Prichard Field North
- Prichard Field South
- Navy Lodge
- Coddington Point
- Derecktor Shipyard
- Naval Undersea Warfare Center (NUWC)
- Tank Farm 5
- Tank Farm 4A
- Tank Farm 4B
- Tank Farm 3
- Bishops Rock

Work was conducted in or near areas of known contamination by hazardous waste; the areas identified as specifically containing hazardous materials were Tank Farms 3, 4A, 4B and 5, the Derecktor Shipyard, NUWC, and Katy Field. A certified Site Safety Officer was present when work was completed within all 12 of the potential wind turbine locations to monitor site conditions and identify any hazardous situations or settings. Safety monitoring data is present within Appendix D of this report.

A member of the Narragansett Indian Tribe (NIT) was present during all Phase I testing. The NIT representative worked in consultation with archaeologists to assess the presence or absence of Narragansett tribal artifacts; as members of the NIT are qualified to make this assessment. NIT representatives assisted and consulted on the layout of test pit locations, the archaeological excavation, and on preliminary artifact analysis.

The proposed undertaking includes the construction, operation, maintenance, and decommissioning of wind turbines and associated support facilities at up to 12 site locations at NAVSTA Newport. Turbines would produce up to nine megawatts (MW) of wind generated energy, a quantity equal to the average



Figure 1-1 Project Location Map

base load of NAVSTA Newport. The placement, size, and number of turbines constructed will be determined based on an analysis of which combination would result in a project best suiting the purpose and need within the constraints of the each site.

Phase I survey was completed within 12 areas located on Naval Station Newport property. These areas included Katy Field, Prichard Field North, Prichard Field South, Navy Lodge, Coddington Point, Derecktor Shipyard, NUWC, Tank Farm 5, Tank Farm 4A, Tank Farm 4B, Tank Farm 3, and Bishops Rock. The project is a design build project, and as such, specific impacts of the wind turbine construction will not be known until the project is awarded and the design is completed. NAVFAC MIDLANT understands that additional archaeological investigations may be warranted within areas where archaeological sites were identified and will continue to consult with the RIHPHC and NIT throughout the design process.

1.2 Regulatory Framework

The survey was conducted in accordance with pertinent guidelines: Rhode Island Historical Preservation and Heritage Commission's (RIHPHC) (2011) *Performance Standards and Guidelines for Archaeological Projects*. In addition, all cultural resource evaluations were conducted in accordance with National Environmental Policy Act (NEPA) of 1969, Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended; the Procedures for the Protection of Historic and Cultural Properties set forth in 36 CFR 800, as amended; 36 CFR 60, as amended; 23 CFR 771, as amended; guidance published by the Advisory Council on Historic Preservation (ACHP); Sections 1(3) and 2(b) of Executive Order 11593; and the National Environmental Policy Act of 1966. This legislation requires that the effect(s) of any federally assisted undertaking on historically significant buildings, structures, objects, or sites be taken into account during the project planning process. Significant sites are those listed in or eligible for listing in the National Register of Historic Places.

AECOM conducted the archaeological field testing in October 2011. Frank Mikolic served as Principal Investigator and Field Director during this project. Hilary Powell, Jack Cresson, Matt Cotter, and Shawn Carney served as archaeological field technicians. AECOM Safety Officers were Jennifer Pfeiffer and Keith Robinson. NIT monitors present during the survey were John Brown IV and Ella Miles.

1.3 Area of Potential Effect (APE)

The Area of Potential Effect (APE) for archaeology encompasses a total area of seven hectares (17.2 acres) for the 12 wind turbine locations (Table 1-1).

Areas that contained standing water, shoreline, paved surfaces, or heavy disturbances were not tested during this survey.

Design plans for the turbines have not advanced to the point where all ground surface impacts associated with construction are known. Nor is it currently known which of the 12 proposed locations will be selected for construction. Once the sites have been selected and the design plans have been finalized, review will be required to determine whether additional areas may be added to the APE and further archaeological testing required.

**Table 1-1
Test Area Size**

Test Area	Size of APE
Katy Field	0.65 hectares (1.6 acres)
Prichard Field North	0.65 hectares (1.6 acres)
Prichard Field South	0.5 hectares (1.3 acres)
Navy Lodge	0.6 hectares (1.5 acres)
Coddington Point	0.5 hectares (1.3 acres)
Derecktor Shipyard	0.4 hectares (1.1 acres)
NUWC	0.5 hectares (1.2 acres)
Tank Farm 5	0.65 hectares (1.6 acres)
Tank Farm 4A	0.65 hectares (1.6 acres)
Tank Farm 4B	0.65 hectares (1.6 acres)
Tank Farm 3	0.65 hectares (1.6 acres)
Bishops Rock	0.5 hectares (1.2 acres)
Total:	7 hectares (17.2 acres)

2 ENVIRONMENTAL BACKGROUND

The Katy Field, Prichard Field North, Prichard Field South, Navy Lodge, Coddington Point, Derecktor Shipyard, NUWC, Tank Farm 5, Tank Farm 4A, Tank Farm 4B, Tank Farm 3 and Bishops Rock test areas are located within Newport Naval Facility property in Newport County, Rhode Island. The 12 selected testing locations are located along the west coast of Aquidneck Island in Narragansett Bay. The area has been heavily disturbed by various construction activities on the Naval Station Newport.

2.1 Geologic Setting

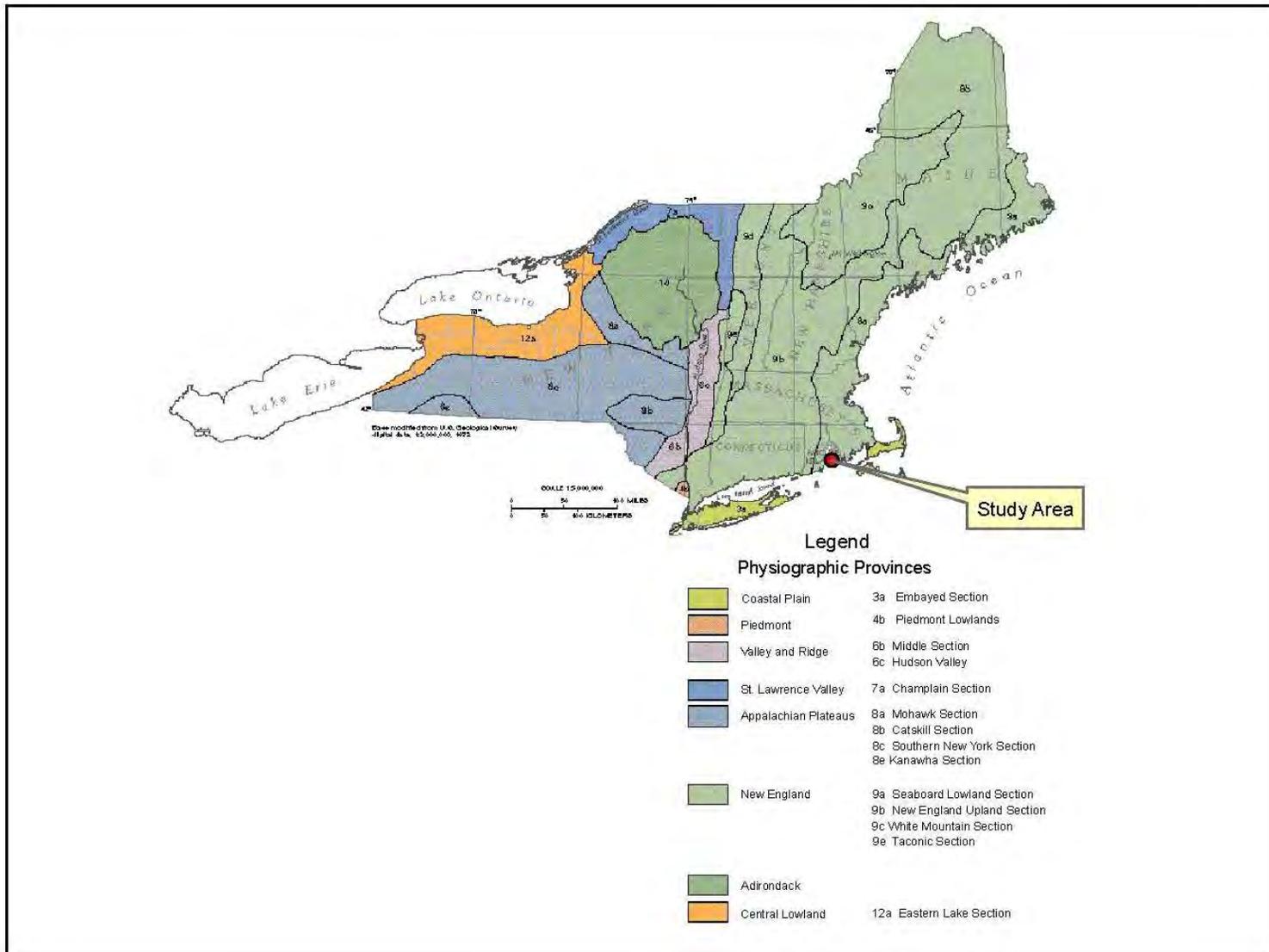
The west side of Aquidneck Island slopes up from sea level to an average elevation of about 31 m (100 ft) within 0.8 km (0.5 mi) of the shoreline. At the north end of NAVSTA Newport, elevations exceed 46 m (150 ft), within 610 m (2,000 ft) of the shore. These relatively steep hillsides were carved for the installation of underground fuel tanks at the Melville area. NUWC, in Middletown, encompasses the crest and flanks of a modest hill rising to about 24 m (80 ft) above sea level. In contrast, the Naval Hospital, Coddington Point, and the shore-side portions of Coddington Cove and Melville lie on nearly flat terrain. Coasters Harbor Island is essentially a large outcropping of bedrock that slopes upward to an elevation of approximately 15 m (50 ft) near the center of the island.

The APE is located within the Embayed Section of the Coastal Plain Physiographic Province, a region characterized by features acquired during the Wisconsin Glaciation (Figure 2-1). The advance of glaciers across the state of Rhode Island during this period carved out many of the landscape features including the Narragansett Bay, an irregularly shaped, 161 km (100 mi) long basin. As sea waters rose following the retreat of the glaciers, many areas of formerly dry land were inundated, including the bay, and left the area of present-day Aquidneck Island.

2.2 Soils

Soils underlying the proposed sites are mapped as Newport silt loam (NeB), Pittstown silt loam (PmA), Stissing silt loam (Se), Urban land (Ur), and Udorthents-Urban land complex (UD) (Web Soil Survey 2010) (Table 2-1; Figure 2-2). The predominant soil type is Udorthents, which underlies Katy Field, Prichard Field North, Prichard Field South, Navy Lodge, Coddington Point, Derecktor Shipyard, Tank Farm 4A, Tank Farm 4B, Tank Farm 3 and Bishops Rock. The Udorthents soil is described as human transported materials that consist of a silty loam changing to coarse, gravelly sand. These soils typically occur on outwash plains or terraces and have a slope of less than 15 percent (USDA Web Soil Survey 2011) (Table 2). The soils observed in most of these areas matched the Udorthents description, as the majority of soils encountered during testing was heavily disturbed by urban development.

The Tank Farm 5 area contained two different soil types including Newport silt loam (NeB) and Pittstown silt loam (PmA) (Table 2-1; Figure 2-2). The northwest portion of the APE is made up of the Pittstown silt loam soil series, which is a very stony silt loam that becomes a channery silt loam at around 20 cm (4 in) below the ground surface. These soils are located on upland landforms with slopes under three percent and are moderately well drained. The Newport silt loam series makes up the southeast portion of the Tank Farm 5 APE. The soil is well drained with slopes between three to eight percent, as it occurs on drumlins



Source: USGS

Figure 2-1 Physiographic Provinces of New England

**Table 2-1
Test Area Soil Types**

Test Area	Soils Present Within Test Area	% Slope	Topographic Setting	Drainage Class	Portion of APE
Katy Field	Udorthents	0-15	Outwash plain or Terrace	-	All
Prichard Field North	Udorthents	0-15	Outwash plain or Terrace	-	All
Prichard Field South	Udorthents	0-15	Outwash plain or Terrace	-	All
Navy Lodge	Udorthents	0-15	Outwash plain or Terrace	-	All
Coddington Point	Udorthents	0-15	Outwash plain or Terrace	-	All
Derecktor Shipyard	Urban Land	-	-	-	All
NUWC	Stissing Silt Loam	0-3	Depression	Poorly drained	All
Tank Farm 5	Newport Silt Loam	3-8	Drumlin	Well drained	Southwest portion of APE
	Pittstown Silt Loam	0-3	Drumlin	Moderately well drained	Northeast portion of APE
Tank Farm 4A	Udorthents	0-15	Outwash plain or Terrace	-	All
Tank Farm 4B	Udorthents	0-15	Outwash plain or Terrace	-	All
Tank Farm 3	Udorthents	0-15	Outwash plain or Terrace	-	All
Bishops Rock	Udorthents	0-15	Island	-	All

(USDA Web Soil Survey 2011). Similar to Pittstown loam, it is a silt loam that becomes more of a channery silt loam with depth. The NUWC area contains exclusively poorly drained Stissing silt loam soils (Table 2-1; Figure 2-2). The Stissing series consists of coarse-loamy, mixed, mesic Aeric Fragiaquepts. These soils are located in depression landforms and contain slopes under three percent (Rector 1981).

Soils on Aquidneck Island are underlain by rock of the Pennsylvanian clastic sedimentary and meta-sedimentary Rhode Island Formation (Pnbr) and in some places, including north-south oriented ridgetops on the island, small areas of the folded Purgatory conglomerate (Pnbpu). These areas are dominated by glacial till or outwash deposits over bedrock and capped by fine sand or Aeolian silt deposits (Gould and Leedecker 2007).

3 SURVEY METHODOLOGY

The following section presents the testing rationale and methods employed during the Phase I archaeological survey. A discussion of the methods employed in the initial site assessment, archaeological field methods, and laboratory analysis is also presented.

3.1 Archaeological Field Methods

Prior to the initiation of Phase I field excavations; staff members of AECOM conducted an initial site assessment of the APE in order to assess the potential for both prehistoric and historic archaeological resources, and to define areas requiring subsurface testing. This assessment consisted of a literature review and a field view.

The site assessment began with a literature review, including an examination of site files and archaeological reports filed at NAVSTA Newport and the RIHPHC. Historic maps and aerials of the area were also examined to assist in identifying any potential historic resources. A preliminary pedestrian review of the APE was subsequently conducted to assess existing surface conditions. Staff archaeologists observed areas containing potentially intact deposits and areas of obvious ground disturbance. All test areas during the Phase I Survey were tested at a 15 m (50 ft) interval. A geo-probe core (boring) was taken at each of the test locations before archaeological testing was initiated, except for Bishops Rock, where a large backhoe trench was observed for stratigraphy. These geo-probe cores were used to determine the soil stratigraphy for each site, the depth of fill materials, and the potential for deeply buried intact cultural deposits.

Phase I testing involved the excavation of shovel test pits (STPs) within 10 of 12 wind turbine locations. Katy Field and Bishops Rock had on-going remediation activities taking place for hazardous materials and were not tested during this survey. The 10 test areas where systematic testing occurred were sampled with STPs at a 15 m (50 ft) interval with radials only excavated around STPs that were positive for prehistoric artifacts at a 5 m (13 ft) interval. Radials were not excavated around STPs positive for historic artifacts. Some STPs could not be excavated due to standing water, paved surfaces, areas where large fill piles were present, or areas where tests were located on a beach setting. Field work was coordinated with the NIT representative who was present with field crew during excavations in all of the test areas. An AECOM Site Safety Officer was also present during the field survey to monitor and identify hazardous conditions.

All excavated soils were screened through 0.64 cm (0.25 in) hardware cloth to maintain uniform recovery and maintain comparable data sets. STP information was recorded on standardized forms. STPs were excavated at least 10 cm (3.9 in) into subsoil, when possible, to confirm that sterile deposits had been reached. When dense fill materials were encountered, STPs were excavated as deep as possible in an attempt to reach potentially intact soils. Geo-probe cores were taken to a depth where refusal on solid bedrock was reached. A log of the geo-probe cores is attached to this report as Appendix A.

Each artifact collected was bagged and removed to the AECOM archaeology laboratory for processing. Processing included cleaning and cataloging all artifacts. The catalog includes descriptive information for each artifact, noting its cultural affiliation, function, material of manufacture, decoration, and date range of manufacture, when known.

3.2 Laboratory Methods

Laboratory processing consisted of cleaning and cataloging all artifacts as per the Secretary of the Interior's Standards and Guidelines for Curation, 36 CFR 79 (revised 2007). Artifact descriptions included: artifact group, material, artifact type, artifact function, decorative treatment, and date of manufacture and/or use. A complete catalog of the artifacts recovered during testing can be found in Appendix B. At the conclusion of the project, all artifacts and associated records will be transferred to NAVFAC Midlant for curation.

4 BACKGROUND CULTURAL CONTEXTS

Extensive historic and prehistoric contexts are fully developed in the Final Report for the Historical Resources Assessment for the Naval Station Newport Viewshed Study completed by Gray and Pape in January of 2011 and the reader is referred to that report for full background contextualization of the Project APE. Historic maps ranging from 1887 to 1942 (Figures 4-1 through 4-3) indicate that portions of the APE in Katy Field, Coddington Point, and Navy Lodge were located within the Narragansett Bay or coastal marshlands before historic filling occurred during the nineteenth and twentieth centuries. Historic maps indicate that the Derecktor's Shipyard APE was located within the Narragansett Bay until filling occurred in the mid-twentieth century. NUWC appears to have been used as agricultural land until naval base development occurred in the mid-twentieth century. Bishops Rock was a natural outcrop of rock within the Bay until the mid-twentieth century when a fill causeway was connected to the island. Prichard Field North and Prichard Field South also served as agricultural land until naval base development in the early twentieth century.

Tank Farms 3, 4A, 4B, and 5 were all used as agricultural land until the U.S. Navy constructed petroleum storage tank yards in the early 1940s. Construction of these tank yards caused significant disturbances to the natural landscape at Tank Farms 3, 4A, 4B, and 5. Figures 4-4 through 4-6b contain historic photographs illustrating the type of disturbances present at the tank yard locations resulting from construction activities. The background sections below discuss specific historic background for Tank Farm 5 and Tank Farm 4A. [redacted] sites were identified during the Phase I Survey. [redacted]

All historic maps, Figures 4-1 through 4-6b, appear at the end of Chapter 4.

4.1 Tank Farm 5

Tank Farm 5 was constructed in the early 1940s and was used between WWII and 1970. Eleven tanks were constructed in blasted bedrock sockets and were approximately 35 m (116 ft) in diameter and 10 m (33 ft) deep (Tetra Tech 2011). Approximately 1 m (4 ft) of soil covered the tanks, and they were surrounded by a 1 m (4 ft) wide, crushed-rock ring drain system. The ring drain system was installed to remove groundwater from around the tank and to prevent tank damage caused by hydraulic stresses and tank flotation. Tank Farm 5 was composed of eleven 60,000-barrel Underground Storage Tanks (USTs) that were used for storage of fuel and waste oils (ibid). The tank farm also contained a system of access roads and pipes to transport the petroleum. All tanks in Tank Farm 5 were cleaned and ballasted between 1994 and 1997 (Navy 2002). The tanks were then demolished from late 1998 through early 1999 as part of UST closure activities conducted by the Navy under Rhode Island Department of Environmental Management (RIDEM) UST regulations (Tetra Tech 2011). The Tank Farm 5 APE has been fallow fields since the removal of the USTs in the late 1990s.

4.1.1 | _____ **Site (Site # 2519)**

7 7

4.2 Tank Farm 4A and 4B

The Tank Farm 4A and 4B survey areas were used as agricultural fields until the construction of a petroleum storage tank yard in the mid-twentieth century by the U.S. Navy. The tank farm was constructed in the early 1940s and was used between WWII and 1970. Twelve 60,000-barrel USTs were used for storage of fuel (Navy 2002). The tank farm also contained a system of access roads and pipes to transport the petroleum. All tanks in Tank Farm 4 were cleaned and ballasted between 1994 and 1997 and were demolished between 1997 and 1998 as part of UST closure activities conducted by the Navy under RIDEM UST regulations (Tetra Tech 2011). Following tank demolition, each tank site was backfilled with clean borrow material (Foster and Wheeler 1999). The Tank Farm 4A and 4B areas have been fenced fallow fields since the destruction of the USTs in the late 1990s.



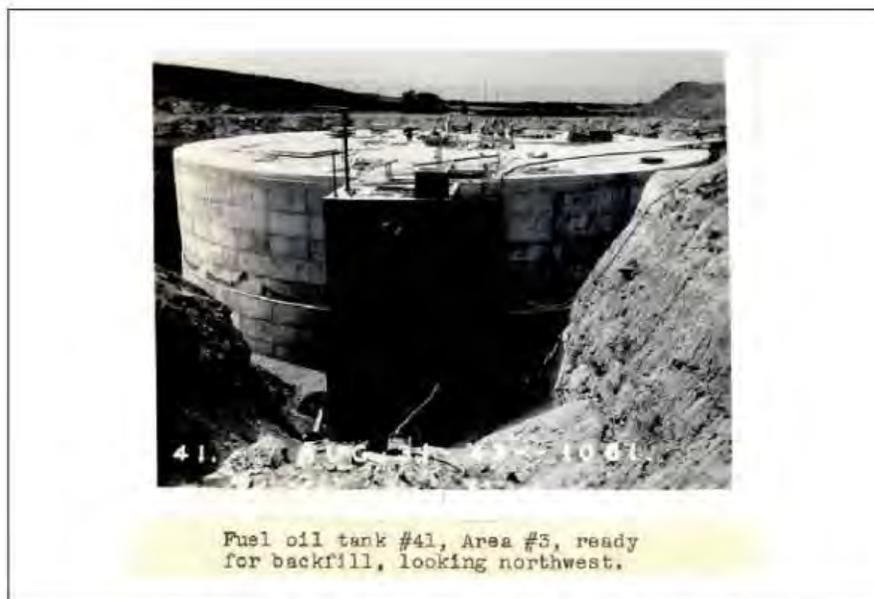
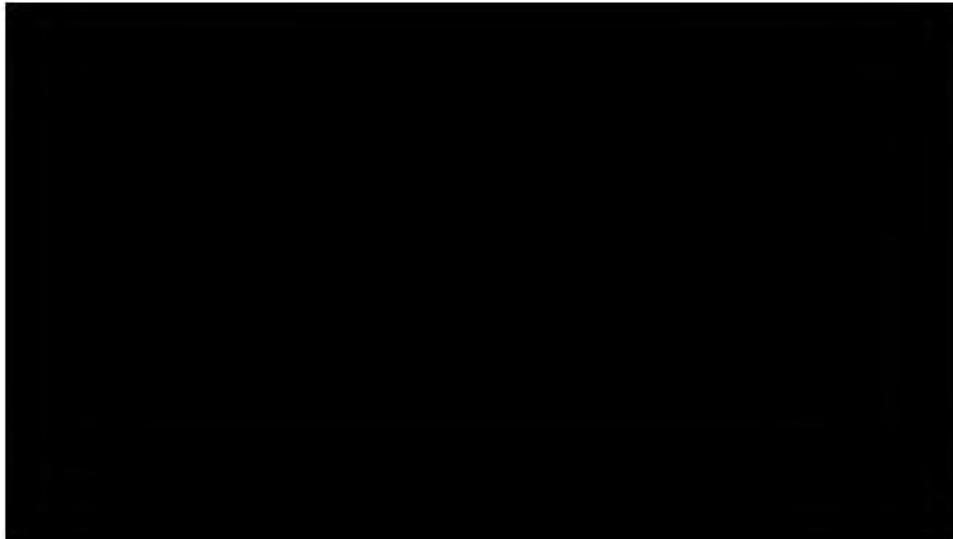
Aerial Photograph of the Tank Farm 3 Test Area (1942)



Photograph of Typical Tank Construction within Tank Farm 3 (1942)

Historic Photographs provided by NAVSTA

Figure 4-1 Tank Farm 3 1942 Construction Photographs



Photograph of Typical Tank Construction within Tank Farm 4A and 4B (1942)

Historic Photographs provided by NAVSTA

Figure 4-2 Tank Farm 4A and 4B 1942 Construction Photographs



First stages of Excavation showing typical rock foundations underlying the soil mantle.

Overview Photograph of the Tank Farm 5 Test Area During Tank Construction (1942)



Interior of typical fuel oil tank ready for filling.

Photograph of Tank Interior within Tank Farm 5 (1942)

Historic Photographs provided by NAVSTA

Figure 4-3 Tank Farm 5 1942 Construction Photographs



Legend

 Test Area Limits

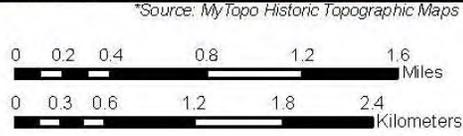


Figure 4-4 1892 USGS Topographic Map, Narragansett Bay 15-Minute Quad



Legend

 Test Area Limits

**Source: Mytopo Historic Topographic Maps*

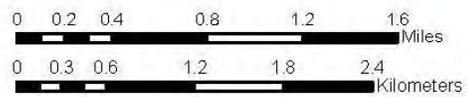


Figure 4-5 1942 USGS Topographic Map, Prudence Island 7.5-Minute Quad

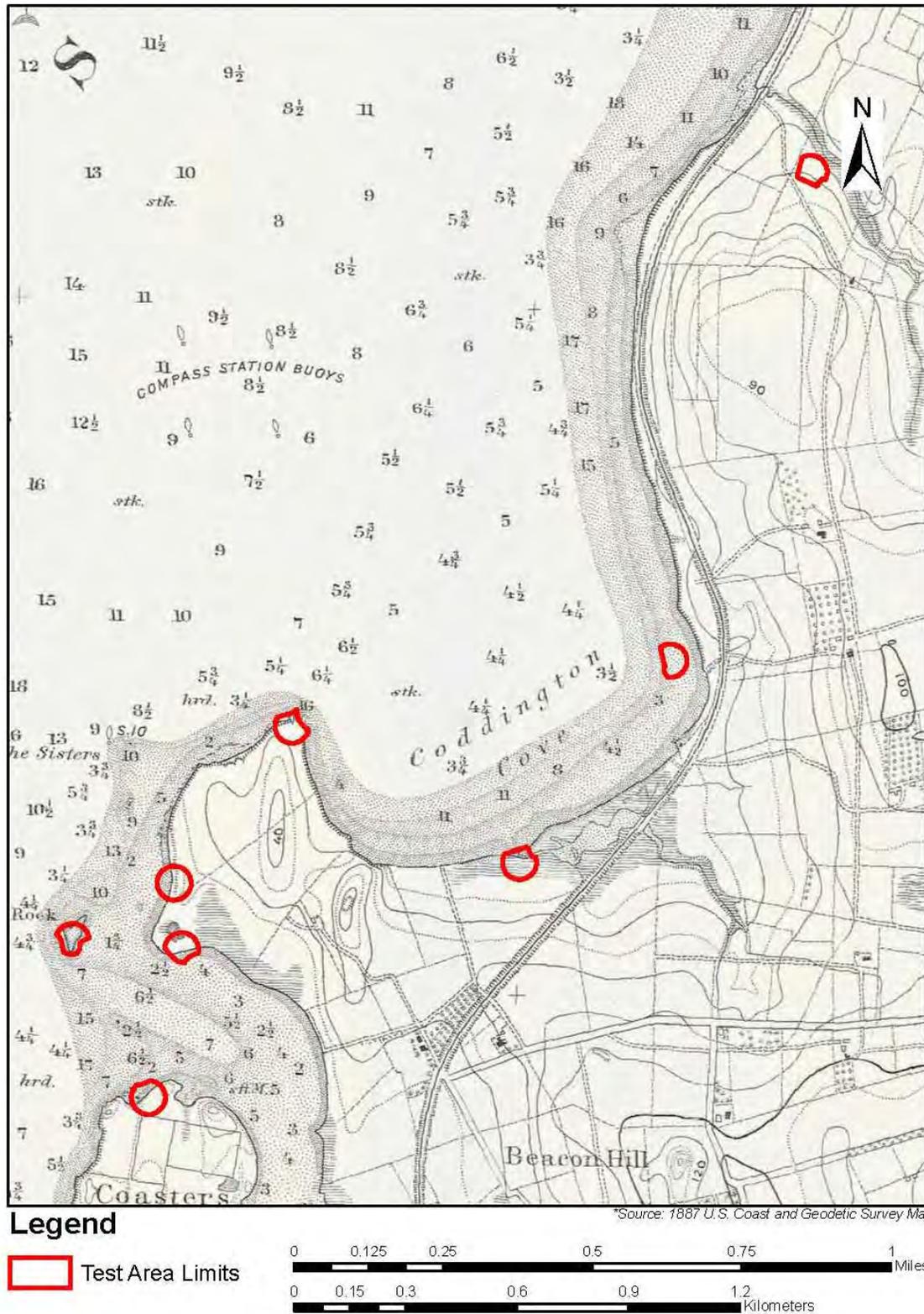


Figure 4-6a South Half, 1887 US Coast and Geodetic Map for Newport Harbor and the Entrance to Narragansett Bay

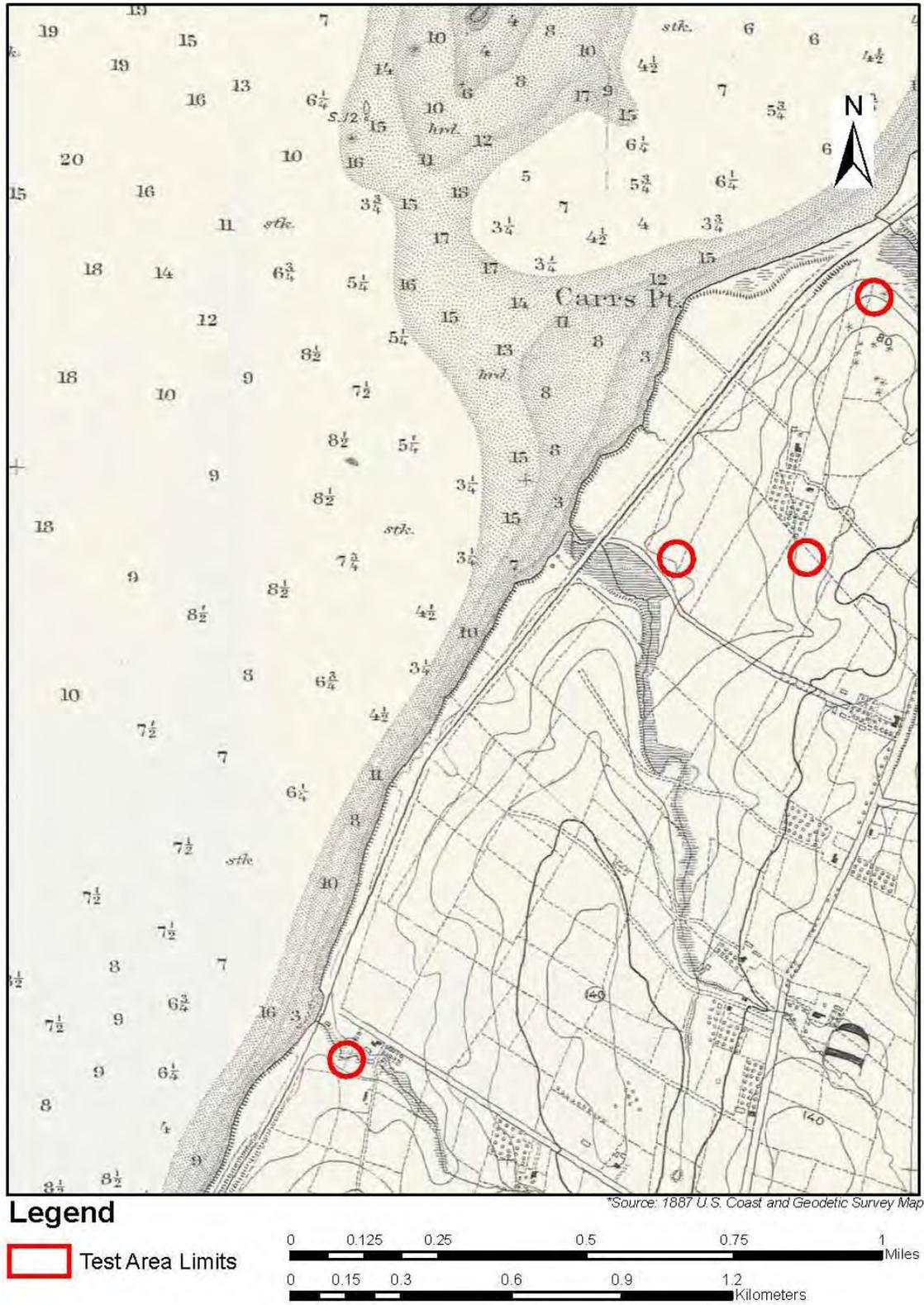


Figure 4-6b North Half, 1887 US Coast and Geodetic Map for Newport Harbor and the Entrance to Narragansett Bay

5 RESULTS OF SURVEY

5.1 Previous Investigations

5.1.1 Identified Sites Near the Project Area Vicinity

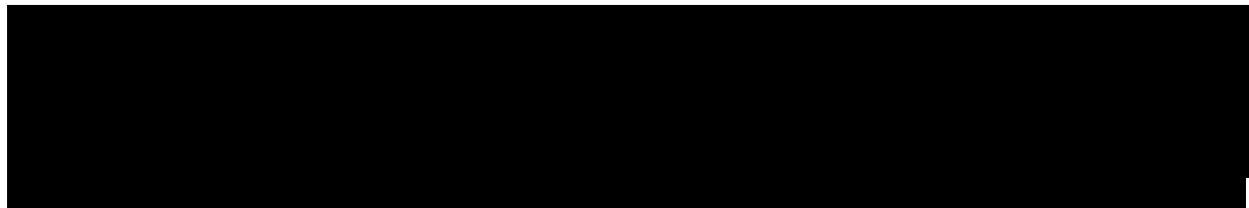
AECOM performed a review of the archaeological site forms and cultural resource survey reports for the study area. A total of 15 archaeological sites have been reported within NAVSTA Newport (Table 5-1), which occupies land along a 9.7 km (6 mi) stretch of shoreline on the west side of Aquidneck Island within the towns of Newport, Middletown and Portsmouth, all of which are located in Newport County, Rhode Island.



A total of 15 archaeological sites have been previously identified within Naval Station Newport (Table 5-1). Analysis of site data indicates that the majority of the recorded archaeological sites are low-density lithic scatters, small camps of unknown or Late Archaic/Early Woodland affiliation or historic farmsteads.



There are relatively few known archaeological resources within the NAVSTA Newport property, but the lower Narragansett Bay area does have a rich archaeological record. The relative scarcity of archaeological resources within the NAVSTA Newport property is generally attributable to the intensive landscape alteration that has occurred with expansion of naval facilities since the late-nineteenth century. Prior to Colonial expansion and subsequent development of NAVSTA Newport, the landscape would have been well suited for Native American use, and the historical record indicates continuous settlement along the lower Narragansett Bay from the mid-seventeenth century (Department of the Navy 2010).



**Table 5-1
Summary of Identified Archaeological Sites within the Naval Station Newport**

Site Number	Site Name	Components	Site Type	Location	Source
RI-154/941	King Grant Subdivision	Late Archaic, possible Woodland	[REDACTED]	[REDACTED]	PAF 1982; PAST 1990, 1991
RI-362	Mott Farm Site	Historic (17 th - to 20 th -century)	[REDACTED]	[REDACTED]	Bowen 1978; Brown 1978; PAST 1990, 1991
RI-382	Fort Adams	Historic (19 th - to 20 th -century)	[REDACTED]	[REDACTED]	Senulis 1973; Senulis & Heines 1976; Adams 1976
RI-940	Newport Bridge	Late Archaic	[REDACTED]	[REDACTED]	PAF 1982
RI-942.1	Burma Road 1	Unknown Prehistoric	[REDACTED]	[REDACTED]	PAF 1982; Berger 1998a
RI-942.2	Burma Road 2	Unknown Prehistoric	[REDACTED]	[REDACTED]	PAF 1982; Berger 1998a
RI-942.3	Burma Road 3	Unknown Prehistoric	[REDACTED]	[REDACTED]	PAF 1982; Berger 1998a
RI-942.4	Burma Road 4	Unknown Prehistoric	[REDACTED]	[REDACTED]	PAF 1982; Berger 1998a
RI-942.5	Burma Road 5	Unknown Prehistoric	[REDACTED]	[REDACTED]	PAF 1982; Berger 1998a
RI-942.6	Burma Road 6	Unknown Prehistoric	[REDACTED]	[REDACTED]	PAF 1982; Berger 1998a
RI-1362	Railroad I	Unknown Prehistoric	[REDACTED]	[REDACTED]	Gilpin 1863; Chapin 1927; Cook 1985
RI-1363	Railroad II	Unknown Prehistoric	[REDACTED]	[REDACTED]	Gilpin 1863; Chapin 1927; Cook 1985
RI-1745	Weaver Cove	Early/Middle Woodland	[REDACTED]	[REDACTED]	Van Couyghen & Leveillee 1988; Mowchan 1989
RI-1899	Adam Mott, Jr.	Historic (late 17 th - to early 18 th - century)	[REDACTED]	[REDACTED]	PAST 1991
RI-2462	E.Anthony	Historic (Early 19 th to 20 th century)	[REDACTED]	[REDACTED]	Chilton et al. 2010

5.1.2 Previous Archaeological Surveys Near the Project Area

Eighteen cultural resource surveys have been conducted near the current project's APE (PAF 1982; Van Couyghen & Leveillee 1988; Mowchan 1989; PAST 1990; PAST 1991; Berger 1995a; Borstel 1996a & 1996b; Berger 1995b; Berger 1998a; Berger 1998b; PAL 1999; Schmookler & Cadzow 2005; Ecology and Environment, Inc. 2005a; Ecology and Environment, Inc. 2005b; Berger 2007; Chilton et al. 2010; TEC, Inc. 2011).

Of the eight localities or sites, PAF (1982) argued that only one, the Newport Bridge Site (RI-940), was eligible for listing in the National Register.

Phase I and Phase II investigations were completed for the Kings Grant Subdivision, in conjunction with a 40 hectare (100 acre) residential housing project that is adjacent to the Melville North facility and historically included in the Mott Farm property (PAST 1990, 1991). Prior to the PAST investigations a series of academic research studies had been conducted on the Motts Farm Site (RI-362) (Bowen 1978; Brown 1978). Investigations at the Mott Farm historic archeological site (RI-362) (now occupied by the Kings Grant Subdivision) began in the early 1970s. From 1639 to 1895, the farm was in the possession of eight generations of one family, so the site was viewed as an ideal opportunity for studying interrelationships among archaeological data, documents, and oral history (Bowen 1978; Brown 1978). This combination of sources provided a rich picture of seventeenth through early twentieth century rural lifeways on Aquidneck Island. The Mott Farm Site is considered eligible for listing in the National Register (PAST 1990:2).

In addition to the Jacob Mott Farm Site (RI-362), two prehistoric sites (Kings Grant Subdivision Locus 3-Melville Recreation Area Site, RI-159 and RI-941) have been recorded in the project area. The Phase I study concluded with a recommendation for intensive Phase II testing of RI-159 and RI-941, but no work was recommended at the Mott Farm site, as it was believed that additional archaeological work was unlikely to provide new information (Past 1990). Subsequently, a new locus of the Jacob Mott Farm Site (RI-362) was defined the Adam Mott, Jr. Site and assigned site number RI-1899. The Phase II testing

covered the prehistoric locus (RI-154/941) and the historic locus (Adam Mott, Jr., Dwelling Site, RI-1899) with a single contiguous grid. The prehistoric locus (RI-154/941) yielded an assortment of lithic debitage and a triangular projectile point, but the investigators concluded that it was unlikely to yield additional, important information. Testing at RI-1899 confirmed the presence of a well-preserved occupation dating from the late seventeenth to the early eighteenth centuries, believed to be associated with the Adam Mott, Jr. household. The Adam Mott, Jr. Site is considered National Register-eligible (Past 1991) because it contains well-preserved architectural features and midden deposits.

Van Couyghen and Leveillee (1988) of the Public Archaeology Lab, Inc. (PAL) investigated a portion of the Melville North facility, prior to its redevelopment as a recreational boat basin. The study included archival research and a walkover survey, supplemented by a series of randomly placed 50 cm x 50 cm (1.6 ft x 1.6 ft) shovel tests. The study determined that much of the 28 hectare (69 acre) parcel was severely disturbed but that some areas should be considered archaeologically sensitive. Area I, near the shoreline of Weaver Cove, was considered sensitive, and subsurface testing resulted in the recovery of a few fragments of lithic debitage. Area II, near the mouth of Lawton Valley, is the presumed location of a Revolutionary War-era British fortification, but no subsurface testing was carried out in this area to confirm its presence.

The location of the Civil War era Lovell General Hospital, including its associated cemetery, was also considered sensitive during the 1988 PAL survey, although this area exhibited obvious severe disturbance. Van Couyghen and Leveillee (1988:48) stated that individuals buried in the hospital cemetery were later removed, but they recommended confirmation of this report through additional documentary research. One prehistoric site (RI-1745) was also identified during this survey and it received a Phase II investigation. The Phase II study included excavation of a series of 0.5 m x 0.5 m (1.6 ft x 1.6 ft) and 11 m x 1 m (36 ft x 3 ft) test units, resulting in the recovery of a few stone tools and an assortment of lithic debitage. The study characterized the site as an Early/Middle Woodland camp that had apparently lost integrity as a result of shoreline erosion, powerline construction, and railroad construction (Mowchan 1989).

The proposed Strategic Maritime Research Center received a Phase IA archaeological investigation in 1994, followed by a field reconnaissance. The project area was located on Coasters Harbor Island in the vicinity of a purported Revolutionary War fortification. Surface inspection and soil auguring within the building footprint in November 1994 indicated that prior ground disturbance was severe. A second surface inspection, coupled with selected shovel testing, was conducted in 1996 at Hampshire Field and in the area behind Founders Hall. Extensive ground disturbance was encountered at Hampshire Field. Portions of the area to the rear of Founders Hall, however, were judged to possess potential for historic period archaeological resources (Berger 1995a; Borstel 1996a, 1996b).

Berger (1995b) completed a cultural resources inventory of Naval Undersea Warfare Center (NUWC), Newport, which included a Phase I archaeological survey. The areas encompassed by this study included the northern portion of Gould Island as well as the Main NUWC Facility at Coddington Cove. Following a program of archival research, a field survey confirmed that major landscape alterations had occurred in the past 50 years, eliminating the likelihood that significant prehistoric or historic archaeological resources would be present. Subsurface testing included auger tests and shovel tests in selected areas, but in all cases, the subsurface tests were culturally sterile or exhibited disturbed or waterlogged soils. The study suggested that there may be some potential for historic archaeological resources in undisturbed areas associated with the Chase and Bailey farms; these areas correspond to what is now Quarters NB-1 (also known as the Taylor-Chase-Smythe House) and the cluster of Buildings 126, 127, and 1302.

The 1996-1998 cultural resource survey (Berger 1998a) of NAVSTA Newport included a Phase IA archaeological investigation that was designed to assess the potential of Navy property to contain prehistoric and/or historic archaeological resources. That study did not include the previously surveyed areas of NAVSTA Newport occupied by NUWC or the Navy-owned property at Fort Adams. Historical research and archaeological reconnaissance at NAVSTA Newport showed that extensive ground disturbance has taken place over large portions of the Navy's property during its landownership tenure, thereby limiting the potential for preservation of archaeological sites in many areas of the facility. Field investigations focused on a systematic survey of the entire 17 km (11 mi) shoreline and concluded that no large archaeological sites were then being exposed by erosion. Despite the intensity of ground disturbance and the probable poor preservation conditions in most parts of the complex, a number of localities were determined to be archaeologically sensitive.

As an element of the 1996-1998 study, a geoarchaeological reconnaissance study was undertaken to re-assess the sensitivity of these areas, as a basis for a development of work plans for future archaeological survey or site evaluation (Berger 2007). The objective of the study was to assess the surficial and subsurface integrity of these areas, based on pedestrian inspection and hand auger testing. As documented in Berger's 1998 survey, intensive ground disturbance has taken place over large portions of the naval properties during the Navy's landownership tenure, thereby limiting the potential for preservation of archaeological sites in many areas of the facility. As a result, some areas that were previously identified archaeologically sensitive are now considered too disturbed to merit additional investigation.



Of the areas of sensitivity identified for prehistoric, only one (P-5) of the five previously identified areas (P-1, P-2, P-3, P-4, P-5) was found to have any remaining potential.

Construction of the Defense Highway Bike Lane was monitored by archaeologists from the PAL,

he field investigations demonstrated that most of the area was disturbed by pre-existing utility lines; no sites were identified within the project area, but the field results suggested that



In 2002 a program of archeological monitoring was completed at the Taylor-Chase-Smythe House (NUWC Quarters NB-1), in conjunction with a maintenance and repair project. Monitoring of soil-disturbing activity was conducted by the NIT to insure documentation or avoidance of significant features or deposits. No significant archaeological resources were encountered, so there is no formal report of the monitoring.

Ecology and Environment, Inc. completed an archaeological survey for a 1.4 hectare (3.5 acre) area for a community center, in the Midway area. The project area was not considered archaeologically sensitive, but it was investigated as a result of consultation with the NIT because of Native American concerns. The field investigations included shovel testing on a 10 m (33 ft) grid, following by the excavation of two trenches across the site to search for possible burial shafts. Much of the area had been disturbed by prior military use of the property and deposition of fill. No evidence of archaeological sites or human burials were identified, although one prehistoric artifact was recovered from one of the trenches (Schmookler and Cadzow 2005).

Ecology and Environment, Inc., also completed a Phase I survey for the Rainbow Heights Housing Area, which encompassed one hectare (two acres) within an existing housing development (Ecology and Environment, Inc. 2005a). There was no archival evidence indicating archaeological sensitivity for this project, and the shovel testing demonstrated that the landscape had been disturbed. No archaeological resources were identified, and no further work was recommended. In conjunction with planned redevelopment or disposal of six housing areas, Ecology and Environment, Inc., monitored a program of sediment coring. While each of the six housing areas appeared to have suffered extensive prior disturbance, monitoring of the sediment coring provided information on the actual subsurface conditions. Four of the housing areas (Anchorage, Cimarron Drive, Melville, and Old Navy Hospital) were so extensively disturbed that no further work was recommended.

Testing at the Greene Lane area identified a four hectare (eight acre) area that appeared to be an old agricultural field that was recommended for formal Phase I survey prior to new development. Investigations at the Rainbow Heights area were the most interesting of the six tested areas; although most of the housing area was disturbed, survey in the yard of Melville Quarters A identified a number of archaeological features that led the investigators to recommend additional investigation. This area corresponds to the H-7 area identified in the 2000 HARP Plan (Berger 2000). Quarters A is an extant house with an elaborately landscaped yard. The most unusual find was a large pitted stone exposed at the ground surface that was identified as a prehistoric grinding stone. The Quarters A property also contained a filled, rock-lined well, a 5 m (18 ft) long rock wall, and a 22 m (73 ft) rock wall with an apparent entryway; all of these features were believed to date to the nineteenth century or earlier. Phase I survey was recommended prior to redevelopment or disturbance of the Quarters A property (Ecology and Environment, Inc. 2005b).

The recommended Phase I survey for the Melville Quarters A property was conducted in 2009/2010 by the NAVFAC Atlantic Cultural Resources Section. A total of 67 STPs were excavated within the project area. One new archaeological site, Site RI 2462, was identified during the survey. The newly identified Site RI 2462 was identified by a concentration of historic kitchen and architectural artifacts (Chilton et al. 2010). The artifacts were interpreted to be a domestic occupation and included early nineteenth to twentieth century ceramic vessel fragments and kaolin clay pipe fragments. No historic features were identified during testing of the site.

A stone wall bordering the Melville Quarters A property and a possible remnant stone flower bed were observed during the survey. A rectangular stone feature measuring 3 meters x 1.5 meters was uncovered during the investigation in the northwestern corner of the yard north of Quarters A. This feature was interpreted to be the flooring of a small outbuilding; possibly a garden shed. The modified stone recorded as a possible prehistoric mortar by Ecology and Environment, Inc in 2005 was re-examined and determined to be historic in origin. Due to its limited research potential, site RI 2462 was recommended as ineligible for inclusion in the National Register (Chilton et al. 2010). No further archaeological survey was recommended for the Melville Quarters A property.

TEC, Inc. (2011) conducted a Phase I survey of the proposed Navy Family Housing Development at Fort Adams. A total of 152 STPs were placed within the project APE. A low-density of late eighteenth through mid-nineteenth century artifacts were recovered from the Victorian-era houses, as well as low proportions of late nineteenth through early twenty-first century artifacts associated with the occupation of these homes. The site was designated the Jackson Road Victorian Homes Site (RI-2492). However, due to the nature of the soils, the site was not recommended eligible for listing on the National Register of Historic Places. Therefore, no archaeological sites eligible for the National Register of Historic Places were discovered and no further work was recommended for the APE.

5.2 Results of Current Phase I Survey

As noted above, the Phase I STP excavation took place within 10 of the 12 wind turbine locations. Testing of these areas involved the excavation of 149 STPs and 37 close-interval radial STPs (Table 5-2). A total of 11 prehistoric artifacts and 197 modern/historic artifacts were recovered during testing. A total of nine prehistoric artifacts, [REDACTED]

[REDACTED] None of the other nine test areas produced prehistoric artifacts. A middle to late nineteenth century historic archaeological site, [REDACTED]

[REDACTED] No prehistoric or historic features were identified within any of the 12 test locations. Test pit locations are depicted on attached project base maps.

Table 5-2
Summary of Phase I Testing by Area

Area	Number of STPs	Number of Radial STPs	Geo-Probe Cores	Prehistoric Artifacts Recovered	Historic Artifacts Recovered	Findings/Comments
Katy Field	-	-	1	-	-	Due to disturbances a low potential exists for prehistoric and historic resources. No further testing is recommended.
Prichard Field North	20	-	1	-	10	Due to heavy disturbances resulting from grading and fill activities there is a low potential for buried, intact cultural resources. No further testing is recommended.

Area	Number of STPs	Number of Radial STPs	Geo-Probe Cores	Prehistoric Artifacts Recovered	Historic Artifacts Recovered	Findings/Comments
Prichard Field South	11	-	1	-	-	The test area is made-land that was created out of former marsh areas and has a low potential for buried, intact cultural resources. No further testing is recommended.
Navy Lodge	7	-	1	-	-	The test area is made-land that was created out of former marsh and bay areas and has a low potential for buried, intact cultural resources. No further testing is recommended.
Coddington Point	4	-	1	-	-	The test area is made-land that was created out of former marsh and bay areas and has a low potential for buried, intact cultural resources. No further testing is recommended.
Derecktor Shipyard	10	-	1	-	-	The test area is made-land that was created out of former marsh and bay areas and has a low potential for buried, intact cultural resources. No further testing is recommended.
NUWC	10	-	1	-	-	The site has been extensively graded over time and the likelihood of buried, intact cultural resources is low. No further testing is recommended.
Tank Farm 5	19	8	1	1	173	Additional Phase I work is recommended if site is impacted. One isolated prehistoric flake was recovered. If the current APE does not change to impact site [REDACTED], then no further testing is recommended.
Tank Farm 4A	18	25	1	9	7	[REDACTED] site was identified within a portion of the APE. A Phase II Survey is recommended at site [REDACTED] in order to determine the presence or absence of cultural features. The remaining APE (outside of the site limits) has been impacted

Area	Number of STPs	Number of Radial STPs	Geo-Probe Cores	Prehistoric Artifacts Recovered	Historic Artifacts Recovered	Findings/Comments
Tank Farm 4A (con't)						by historic plowing and the construction of an access road in the southern half. Extensive wetland areas are also present within the northern half of the APE.
Tank Farm 4B	23	4	1	1	4	One isolated prehistoric projectile point was recovered within the APE. The APE has been impacted by historic plowing and large portions of the APE have also been disturbed due to tank construction/destruction. No further testing is recommended.
Tank Farm 3	27	-	2	-	3	No prehistoric or historic features were identified during testing. The area has been disturbed due to historic plowing and during the construction of petroleum tanks. No prehistoric artifacts were recovered and no further testing is recommended.
Bishops Rock	-	-	-	-	-	The island appears to have no natural soils present and the potential for prehistoric or historic resources is considered low.
Total:	149	37	12	11	197	

5.2.1 Katy Field

The Katy Field APE is located along Cushing Road, between the roadway and the Narragansett Bay to the north, and measures approximately 0.65 hectares (1.6 acres) in size (Figure 5-1; Photos 5-1 to 5-2). The site is undergoing hazardous waste remediation activities that involve the removal and disposal of contaminated soils. A former fire fighting training facility was located within the test area from 1944 to 1972 (Tetra Tech 2011). The facility was demolished and the Katy Field Site served as the location for a child daycare center and a recreational park until 1998. The APE has been heavily disturbed over the last 67 years through past construction activities and during past and present remediation activities. Currently, a large fill pile is located within the Katy Field wind turbine APE.

One geo-probe core (Bore #1) was located within the central portion of the test area at the base of a large fill pile. The bore identified fill material to a depth of 64 cm (2.1 ft) below ground surface (bgs). This fill material consisted of gravel laid down on the surface for a parking and staging area and a sand lens laid

down underneath the gravel as a base for the gravel lot. Natural alluvial deposited sands were located under the fill material and measured to a depth of 198 cm (6.5 ft). Core refusal at shale bedrock occurred at 198 cm (6.5 ft) bgs. No buried historic or prehistoric A-horizons were identified within the Katy Field APE, and therefore, little potential exists for intact deposits.

No STPs were excavated within Katy Field as the area displays a highly disturbed profile and also because of on-going remediation activities. Shale bedrock was reached at a relatively shallow depth with only fill material and alluvial sands deposited above. Any intact surfaces located within the Katy Field APE were likely removed during excavation activities associated with construction or remediation activities. Due to these disturbances a low potential exists for prehistoric and historic resources within the Katy Field APE.

5.2.2 Prichard Field North

The Prichard Field North APE is located along the northern limits of the Prichard Field-NAPS Baseball Diamond, near the intersection of Barschow Street and Capodanno Drive, and measures approximately 0.65 hectares (1.6 acres) in size (Figure 5-2, Photos 5-3 and 5-4). The area consists of an open field with a large antenna located within the center of the APE. Several large concrete blocks were also present within the test area serving as anchors for the antenna. Two buildings are located within the southwestern corner of the APE and a paved portion of Barschow Street runs through the southern portion of the APE. Utilities are located along the southern side of Barschow Street bordering the baseball field.

Phase I testing of Prichard Field North consisted of a total of 20 STPs excavated at 15 m (50 ft) intervals, and one geo-probe core (Bore #2) was located within the center of the test area. Bore #2 displayed a relatively modern Ao-horizon that consisted of the organic root matt, atop of two layers of dense fill material which extended to a depth of 74 cm (2.4 ft). The fill lay atop naturally-occurring alluvial deposited sands to a depth of 88 cm (2.9 ft) bgs. These sands were present above decaying shale bedrock. Core refusal occurred at solid shale bedrock at a depth of 152 cm (5 ft) bgs. STP excavations were not able to penetrate below the dense fill layers and only obtained a depth of 52 cm (1.7 ft) bgs. No buried historic or prehistoric A-horizons were identified within the Prichard Field North APE, and therefore, little potential exists for intact deposits.



Photo 5-1 Katy Field Overview, View Northwest.



Photo 5-2 Katy Field Overview, View Northeast.



Photo 5-3 Prichard Field North Overview, View Northwest.



Photo 5-4 Prichard Field North Overview, View Northeast.

A total of 10 modern/historic artifacts were recovered from the fill material, including whiteware (n=1), bottle glass fragments (n=4), nail fragments (n=2), a washer (n=1), a brass belt buckle (n=1), and a U.S. dime dated 1980 (n=1). The artifacts were likely deposited during activities that took place on the field or were present within the fill materials when they were transported and re-deposited on the field. No prehistoric or historic features were identified during excavations within the Prichard Field North APE. The APE has suffered heavy disturbances due to grading and fill activities and has a low potential for buried, intact cultural resources.

5.2.3 Prichard Field South

The Prichard Field South APE is located along the southern limits of the Prichard Field-NAPS Baseball Diamond, near the intersection of Barschow Street and Capodanno Drive, and measures approximately 0.5 hectares (1.3 acres) in size (Figure 5-3; Photo 5-5). The test area consisted of an open field with the northern portion of the APE within a baseball field. The central portion of the APE contained two light posts and the southwestern tip contained a large concrete pad (Photo 5-6). A paved/gravel walking path also traverses the test area. The southern portion of the APE was located within the beach and open water. The area has been heavily disturbed due to grading and fill activities associated with the adjacent parking lot and baseball field.

Phase I testing of the Prichard Field South consisted of a total of 11 STPs excavated at 15 m (50 ft) intervals, and one geo-probe core (Bore #3) located within the central portion of the test area. Bore #3 contained a relatively recent Ao-horizon consisting of an organic root matt, atop several layers of dense fill. The fill material extends to a depth of 74 cm (2.4 ft) and lies atop filled-in marsh land. The filled-in marsh extended to alluvial sands, likely representing the former bay bottom, at a depth of 136 cm (4.5 ft) bgs. The alluvial sands were directly above decaying shale bedrock which extended to core refusal at solid shale bedrock at a depth of 457 cm (15 ft) bgs. STP excavations could only penetrate the dense fill to a maximum depth of 65 cm (2.1 ft) bgs, however, one STP, (PFS-18) did encounter the filled-in marsh soils at 35 cm (1.1 ft) bgs.

No artifacts were recovered during excavations, although slag and coal were observed in the fill materials during testing. No prehistoric or historic features were identified during excavations within the Prichard Field South APE. Soil borings indicate that the Prichard Field South APE was once marsh land filled in with dense fill materials. According to historic maps the filling appears to have occurred sometime before the late nineteenth century (Figure 4-6A). The test area is made-land that was created out of former marsh areas and has a low potential for buried, intact cultural resources.



Photo 5-5 Prichard Field South Overview, View East.



Photo 5-6 Prichard Field South, Concrete Pad Disturbance, View North.

5.2.4 Navy Lodge

The Navy Lodge APE is located along Whipple Street between the roadway and Narragansett Bay and measures approximately 0.6 hectares (1.5 acres) in size (Figure 5-4; Photos 5-7 and 5-8). The APE is located within an open grass area adjacent to a paved parking lot. The southern portion of the APE contains a paved parking lot, a raised steam line, and a paved/gravel walking path crosses the center of the test area. The northern portion of the APE is located within a beach area and open water. The area has been heavily disturbed due to grading and fill activities associated with construction of the adjacent parking lot and steam line construction.

Phase I testing of the Navy Lodge consisted of a total of seven STPs excavated at 15 m (50 ft) intervals within the central portion of the APE, and one geo-probe core (Bore #4) located within the southwestern portion of the test area. Bore #4 contained an Ao-horizon consisting of an organic root matt, atop several layers of dense fill. The fill materials extend to a depth of 35 cm (1.2 ft) bgs where filled marsh lands were encountered. The filled-in marsh land extends to a depth of 152 cm (5 ft) bgs where alluvial deposited sands are present. These alluvial sands likely represent the former bay bottom and extend to a depth of 457 cm (15 ft) bgs, where decaying shale bedrock is encountered. Core refusal at solid shale bedrock occurred at 610 cm (20 ft) bgs.

STP excavations were only able to penetrate the dense fill to a maximum depth of 55 cm (1.8 ft) bgs. No artifacts were recovered and no prehistoric or historic features were identified during excavations within the Navy Lodge APE. The test area is made-land that was created out of former marsh and bay areas and has a low potential for buried, intact cultural resources.

5.2.5 Coddington Point

The Coddington Point APE is located along Capodanno Drive north of the U.S. Marine Detachment building and measures 0.5 hectares (1.3 acres) in size (Figure 5-5; Photos 5-9 and 5-10). The southern portion of the test area is within a paved parking lot and the entire test area has been heavily disturbed from the construction of the parking lot and associated drainage improvements. A former gravel walking path is located within the central portion of the test area. The area has been heavily disturbed by grading and trenching activities.

Phase I testing of Coddington Point consisted of a total of four STPs excavated at 15 m (50 ft) intervals within the center of the test area, and one geo-probe core (Bore #5) within the southwestern corner of the test area. Bore #5 indicated fill materials to 76 cm (2.5 ft) where the surface of filled-in marsh land was identified. The filled marsh sits atop alluvial sands representing the former bay bottom, with bore refusal on shale bedrock at 457 cm (15 ft) bgs. STPs were only able to penetrate the dense fill material to a maximum depth of 40 cm (1.3 ft). No artifacts were recovered and no prehistoric or historic features were identified during testing of the Coddington Point APE. The test area is made-land that was created out of former marsh and bay areas and has a low potential for buried, intact cultural resources.



Photo 5-7 Navy Lodge Overview, View Southwest Along Beach.



Photo 5-8 Navy Lodge Overview, View Southwest.



Photo 5-9 Coddington Point Overview, View Southwest.



Photo 5-10 Coddington Point Overview, View Southeast.

5.2.6 Derecktor Shipyard

The Derecktor Shipyard APE is located just to the west of the Defense Highway and Anderson Avenue intersection, between Defense Highway and the Narragansett Bay, and measures approximately 0.4 hectares (1.1 acres) in size (Figure 5-6; Photos 5-11 and 5-12). A paved parking area and access road is present within the western and central portions of the APE. A sewer line and other utilities run down the middle of the access road.

Phase I testing of the Derecktor Shipyard APE consisted of 10 STPs excavated at 15 m (50 ft) intervals, and one geo-probe core (Bore #6) located within the center of the test area. Bore #6 displayed fill material to a depth of 155 cm (5.1 ft) bgs, where filled marsh land was encountered atop of alluvial sands. The sands likely represent the former bay bottom at 396 cm (13 ft) bgs. Decaying shale bedrock was encountered within the core at 732 cm (24 ft) bgs with core refusal on shale bedrock at 914 cm (30 ft) bgs. Dense fill was encountered within all of the excavated STPs, and tests were only able to penetrate the fill to a maximum of 50 cm (1.6 ft) bgs. Modern twentieth century clear bottle glass, brick, slag, and coal were observed within STPs but were not collected in the field. No prehistoric or historic features were identified during testing of the Derecktor Shipyard APE. The test area is made-land that was created out of former marsh and bay areas and has no potential for buried, intact cultural resources.

5.2.7 NUWC

The NUWC APE is located within the NUWC Complex Area along Cunningham Street, between the roadway and an unnamed pond, and measures approximately 0.5 hectares (1.2 acres) in size (Figure 5-7; Photos 5-13 and 5-14). The APE is an open lot with a large fill pile within the center of the test area. The fill pile is surrounded by a gravel lot, with a building located within the southeastern corner of the APE. The northern portion of the APE slopes steeply down to a small pond. The area has been heavily disturbed by grading and dumping activities.

Phase I testing of NUWC consisted of a total of 10 STPs excavated at 15 m (50 ft) intervals, and one geo-probe core (Bore #7) located within the southeastern portion of the test area. Bore #7 was located at the base of the large fill pile and contained an initial gravel layer measuring 20 cm (0.7 ft) bgs, likely laid down for a parking lot/staging area. This gravel was located above dense fill material that extended to a depth of 168 cm (5.5 ft) bgs where core refusal on shale bedrock occurred. STPs were excavated around the radius of the large fill pile and STPs were only able to penetrate the dense fill to a maximum depth of 32 cm (1 ft) bgs. The area has been used as a dump site from the 1950s to the present (Tetra Tech 2011). No artifacts were recovered and no prehistoric or historic features were identified during testing of the NUWC APE. The shallowness of the shale bedrock indicates that the site has been extensively graded over time and the likelihood of buried, intact cultural resources is low.



Photo 5-11 Derecktor Shipyard Overview, View Northeast.



Photo 5-12 Derecktor Shipyard Overview, View Northwest.



Photo 5-13 NUWC Overview, View West.



Photo 5-14 NUWC Overview, View North.

5.2.8 Tank Farm 5

Phase I testing of Tank Farm 5 consisted of 19 STPs excavated at 15 m (50 ft) intervals within the APE. An additional eight radial STPs were excavated [REDACTED]. One geo-probe core (Bore #8) was also taken within the central portion of the APE. Bore #8 was taken near the adjacent roadway and displayed associated roadway gravel fill to a depth of 101 cm (3.3 ft) bgs. This fill was present above an intact B-horizon which extended to a depth of 171 cm (5.6 ft) bgs where decaying shale bedrock was encountered. Core refusal at shale bedrock occurred at 366 cm (12 ft) bgs. STP excavations further away from the roadway displayed a much more intact soil profile. These tests indicated a 13 cm (5 in) thick Ap-horizon (plow zone) atop two stacked B-horizons (subsoil).

Several other possible prehistoric artifacts were recovered during excavations, but after further analysis, these artifacts were determined to be natural in origin. Radials excavated around STP TF5-23 were negative for additional prehistoric artifacts, and the quartz secondary flake represents an isolated find, likely deposited by a past flood event.

A total of 173 modern/historic artifacts were also recovered during excavation of the northeastern portion of the APE. The artifacts included transfer-printed whiteware (n=8), buff-bodied earthenware (n=1), Ironstone (n=3), mason jar liner fragments (n=2), bottle glass (n=43), leather strapping (n=3), coal (n=1), metal loop (n=1), window glass (n=67), nail fragments (n=29), metal fragments (n=8), a pipe clamp (n=1), and terra cotta drainage pipe fragments (n=6). These historic artifacts range in date from the mid-nineteenth century to the present day.

A [REDACTED] is located within the northeastern portion of the APE and indicated that the area was likely used as a pasture for domesticated animals at some point in the past.

Field reconnaissance outside of the APE along [REDACTED] identified a stone wall and filled-in cellar hole (Photo 5-18; Appendix E). These historic ruins, dating to the middle to late nineteenth century, are identified as the [REDACTED] and have been assigned [REDACTED].

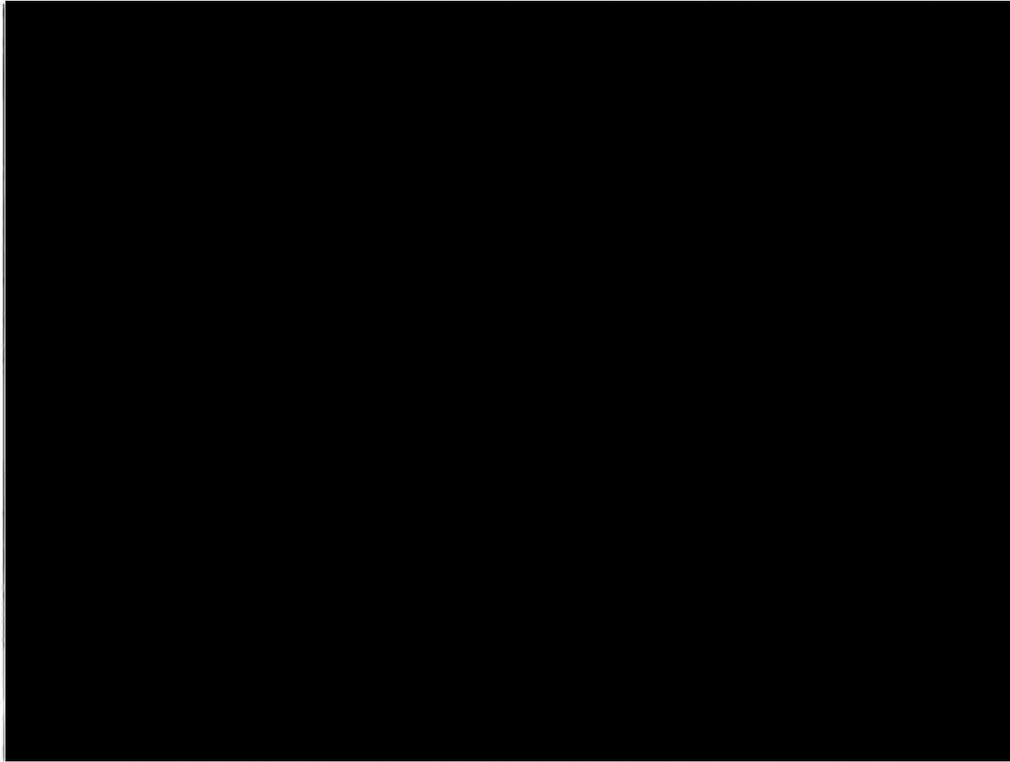


Photo 5-15 Tank Farm 5 Isolated Prehistoric Find Location, View West.

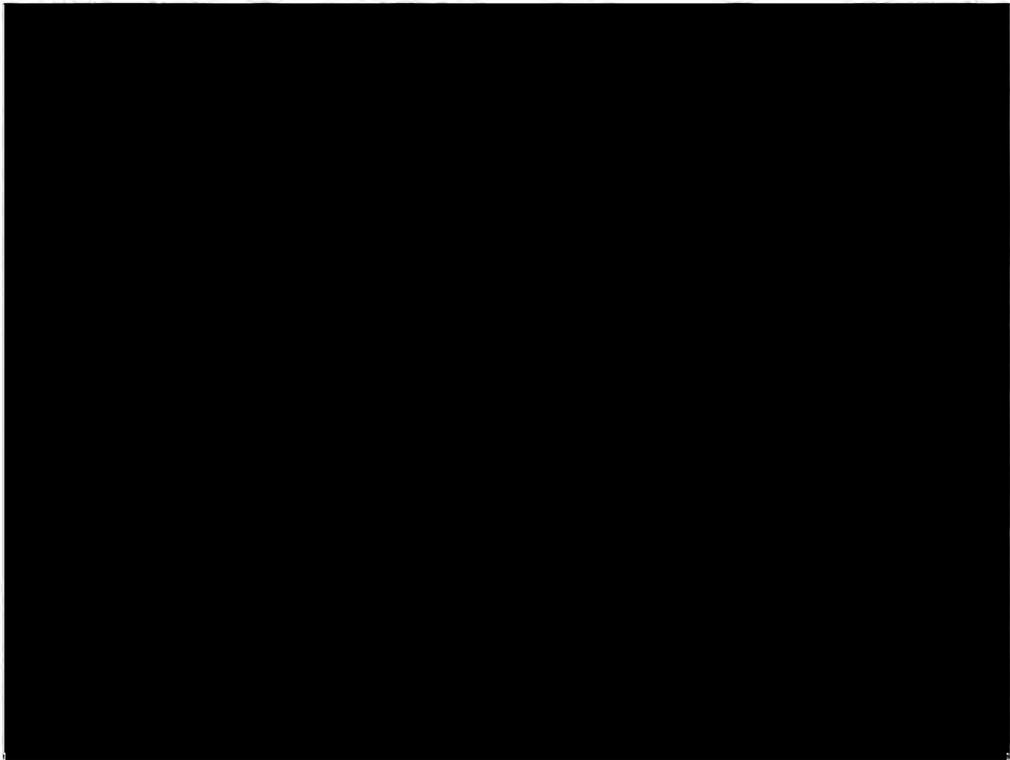


Photo 5-16 Tank Farm 5 Isolated Prehistoric Find Location, View West.



Photo 5-17 Tank Farm 5 Isolated Prehistoric Find, Quartz Secondary Flake

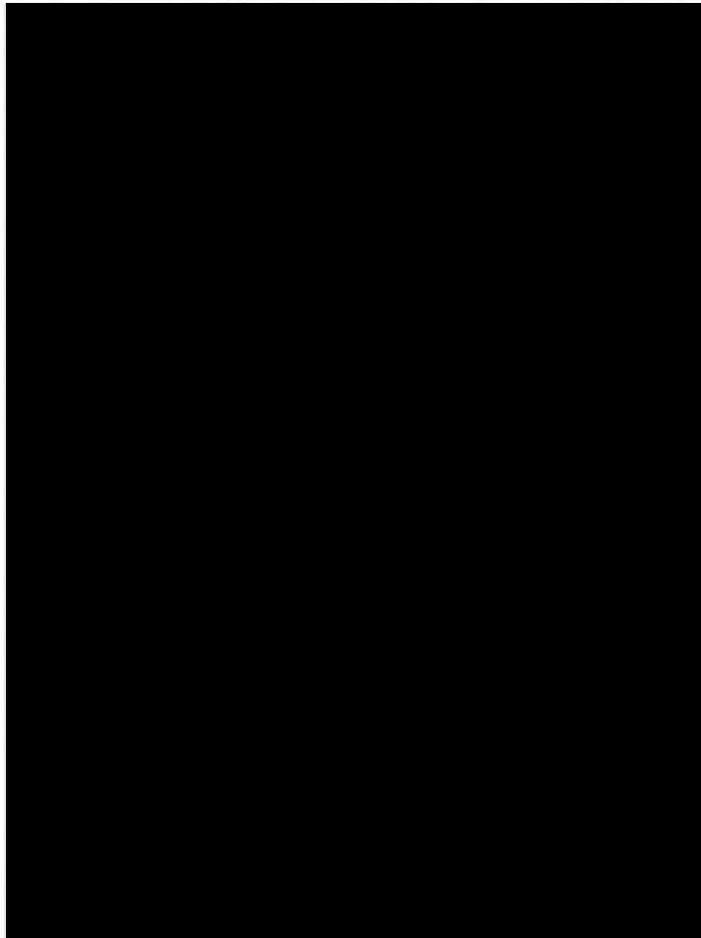


Photo 5-18 Tank Farm 5 Greensdale Site Wall, View North.

5.2.9 Tank Farm 4A

Phase I testing of Tank Farm 4A consisted of 18 STPs excavated at 15 m (50 ft) intervals within the APE. Twenty-five radial STPs were excavated at 5 m (16 ft) intervals around test pits [REDACTED]. One geo-probe core (Bore #9) was also taken within the southern portion of the APE. Bore #9 identified a thin Ao-horizon representing the organic root matt above two layers of roadway fill. An Ap-horizon (plow zone) was encountered below the fill at 128 cm (4.2 ft) bgs and extended to a B1-horizon (subsoil) at 168 cm (5.5 ft) bgs. A B2-horizon was encountered below the B1-horizon at 207 cm (6.8 ft) bgs and extended to decaying shale bedrock at 433 cm (14.2 ft) bgs. Core refusal occurred at 610 cm (20 ft) bgs on shale bedrock. STPs located further away from the former roadway encountered a relatively intact plow zone horizon atop subsoil.

A total of nine prehistoric artifacts were recovered within the plow zone from tests located [REDACTED]. These artifacts included an argillite primary flake and biface; a quartz tested cobble, shatter, and preform; and a quartzite biface, flake tool, and two fire cracked rocks (FCR) (Photo 5-22). The artifacts recovered represent the Tank Farm 4A Site (Site # 2520) (Appendix E). The artifacts were recovered within a disturbed plow zone context, however the presence of FCR within the artifact assemblage suggests the possibility of hearth features below the plow zone. Potentially intact prehistoric resources may be present within the Tank Farm 4A Site. Additional testing would need to be conducted in order to confirm that the site is located entirely within the plow zone and that no intact cultural features are present within the subsoil.

A total of seven modern/historic artifacts were also recovered during excavations. The artifacts included whiteware (n=1), red earthenware (n=2), nail fragments (n=3), and bottle glass (n=1). These artifacts were recovered within the plow zone and were likely deposited during construction/remediation activities within Tank Farm 4. No prehistoric or historic features were identified within the Tank Farm 4A APE during testing.



Photo 5-19 Tank Farm 4A, Tank Farm 4A Site Location, View North.

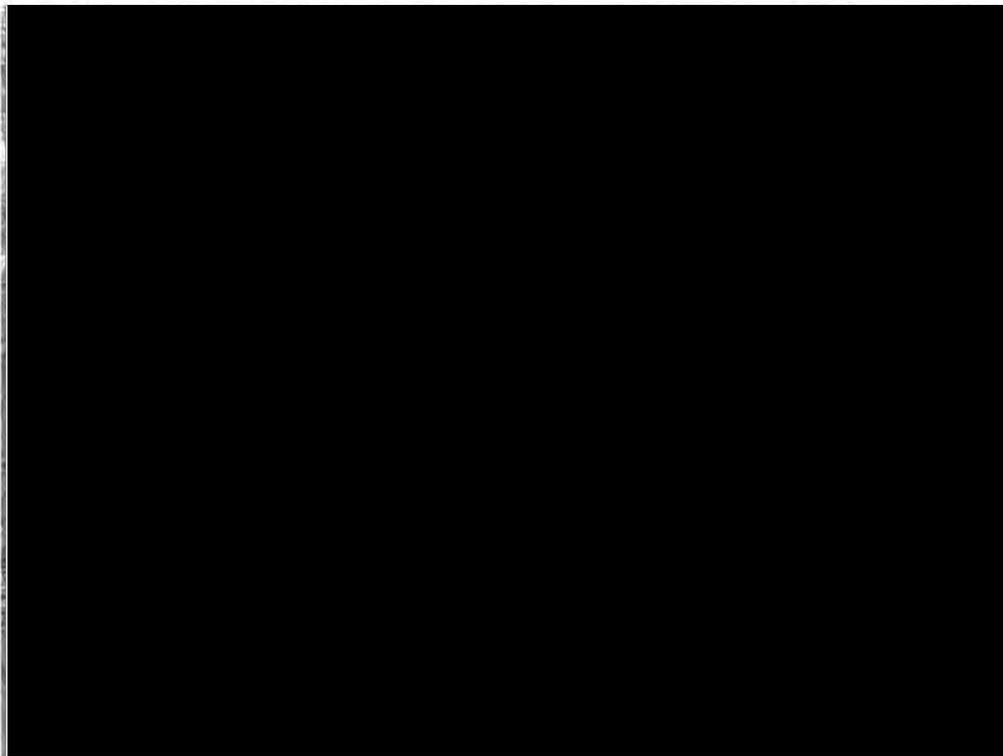


Photo 5-20 Tank Farm 4A, Overview, View Northeast.

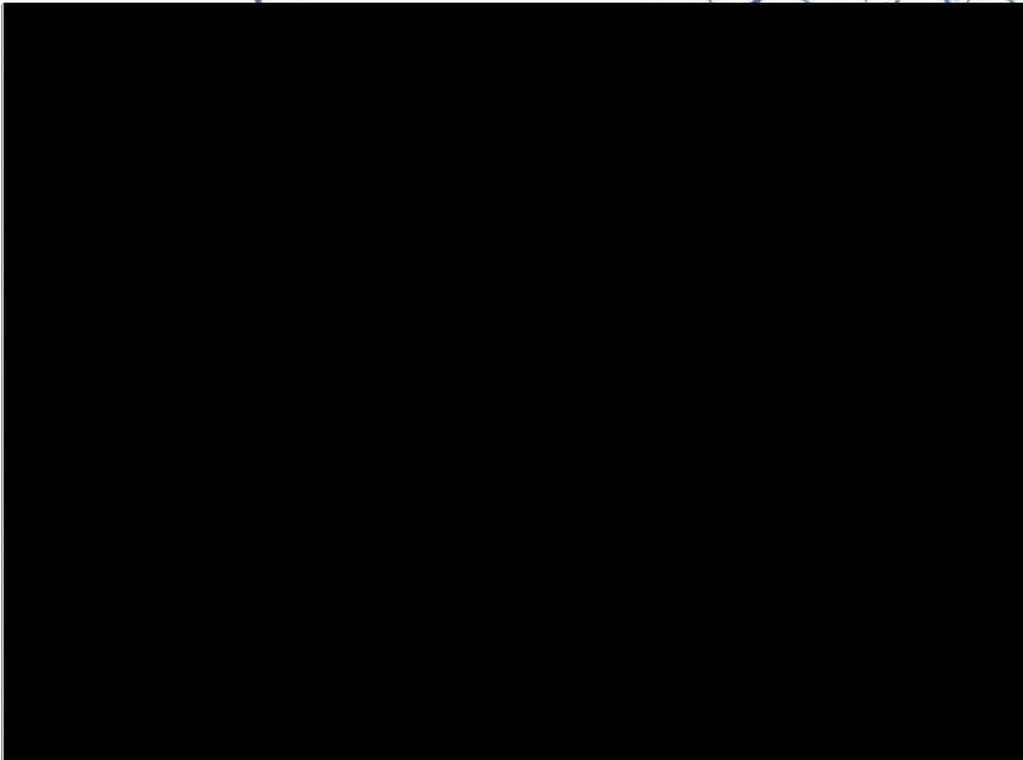


Photo 5-21 Tank Farm 4A Overview of Wetland Area, View North.



Photo 5-22 Sample of Prehistoric Artifacts Recovered from Tank Farm 4A.

5.2.10 Tank Farm 4B

The APE measures approximately 0.65 hectares (1.6 acres) in size (Figure 5-11; Photos 5-23 and 5-24). [REDACTED] of the APE. The construction and demolition of the former petroleum tank has severely disturbed the center portion of the test area.

Phase I testing of Tank Farm 4B consisted of 23 STPs excavated at 15 m (50 ft) intervals within the APE. Four radial STPs were excavated at 5 m (16 ft) intervals [REDACTED]. One geo-probe core (Bore #10) was also taken within the central portion of the APE. Bore #10 identified an initial fill layer above an Ap-horizon (plow zone) at 20 cm (0.7 ft) bgs. The plow zone extended to a depth of 52 cm (1.7 ft) bgs where a series of stacked B-horizons (subsoil) was encountered. The subsoil extended to decaying shale bedrock at 390 cm (13 ft) and core refusal occurred on solid shale bedrock at a depth of 610 cm (20 ft) bgs. STPs encountered a similar, relatively intact plow zone horizon atop subsoil.

STP TF4B-12 yielded one mid-stage triangular quartzite biface from the plow zone horizon (Photo 5-25). Radial STPs recovered no additional prehistoric artifacts, and the biface represents an isolated prehistoric find. A total of four modern/historic bottle glass fragments were recovered from STP TF4B-24 within the plow zone. The glass fragments are from one bottle, likely deposited during construction/remediation activities at Tank Farm 4. No prehistoric or historic features were identified within the Tank Farm 4B APE during testing. Based on the negative test results within the Tank Farm 4B APE, there is no potential for intact prehistoric resources within the APE.

5.2.11 Tank Farm 3

The Tank Farm 3 APE is located within Melville, just to the east of Defense Highway and is surrounded by undeveloped wooded areas. The APE measures approximately 0.65 hectares (1.6 acres) in size (Figure 5-12; Photo 5-26). The area is an overgrown field with a former tank location located within the northwestern portion of the APE (Photo 5-27). Paved access roads traverse the central portion of the APE. The Tank Farm 3 APE was located approximately 171 m (560 ft) [REDACTED], as determined within the Integrated Cultural Resource Plan for Naval Station Newport in 2010. The 2010 report noted a relatively intact soil profile at the P5 location and the area was considered to have limited potential for prehistoric resources. The large concrete, below-ground petroleum tanks (Tank Nos. 32-36) constructed within the APE in 1942 are still extant and were determined not eligible for listing on the National Register of Historic Places during a 1998 survey conducted by Louis Berger (Berger 1998).

Phase I testing of Tank Farm 3 consisted of a total of 27 STPs excavated at 15 m (50 ft) intervals, and two geo-probe cores (Bores #11 and #12) located within the western portion of the test area. Bores #11 and #12 identified an initial Ao-horizon containing the organic root matt atop an Ap-horizon (plow zone) located at 10 cm (0.3 ft) bgs. The plow zone extended to a depth of 31 to 42 cm (1 to 1.4 ft) bgs where a series of stacked B-horizons (subsoil) was encountered. The subsoil extended to decaying shale bedrock at 390 cm (13 ft) bgs and core refusal occurred on solid shale bedrock at a depth of 310 cm (10.2 ft) bgs in Bore #11 and 405 cm (18 ft) bgs in Bore #12. STPs encountered a similar, relatively intact plow zone horizon atop subsoil. Testing recovered three modern/historic bottle glass fragments from the plow zone



Photo 5-23 Tank Farm 4B Overview, View Northeast.

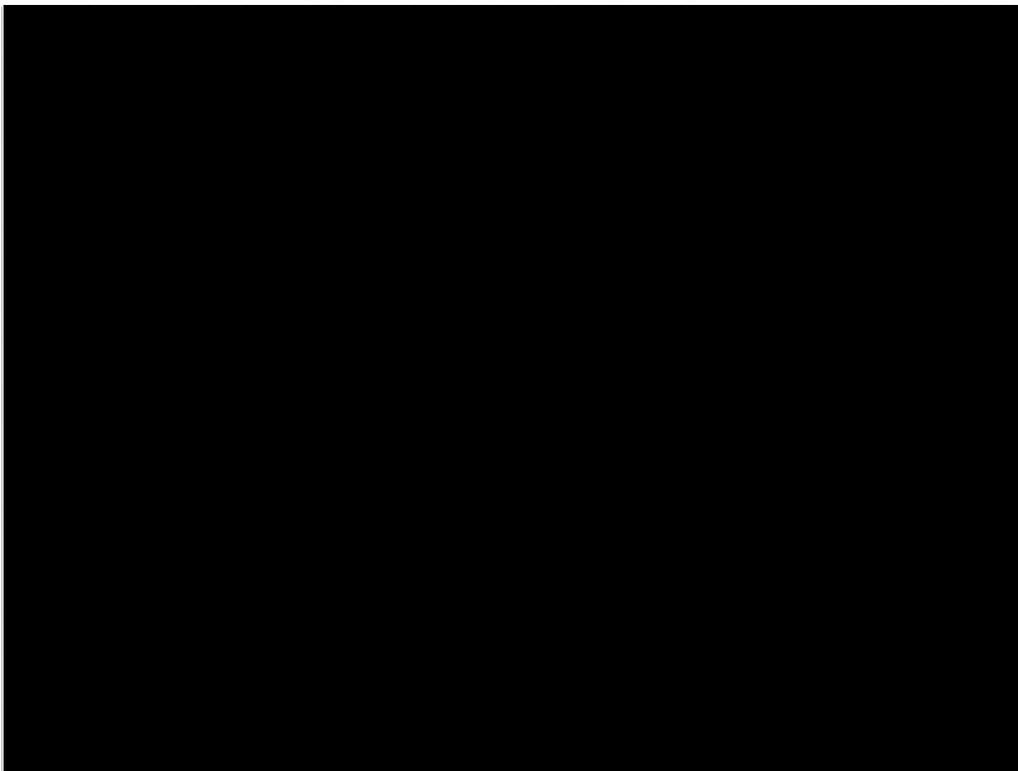


Photo 5-24. Tank Farm 4B, Isolated Prehistoric Artifact Location, View East.

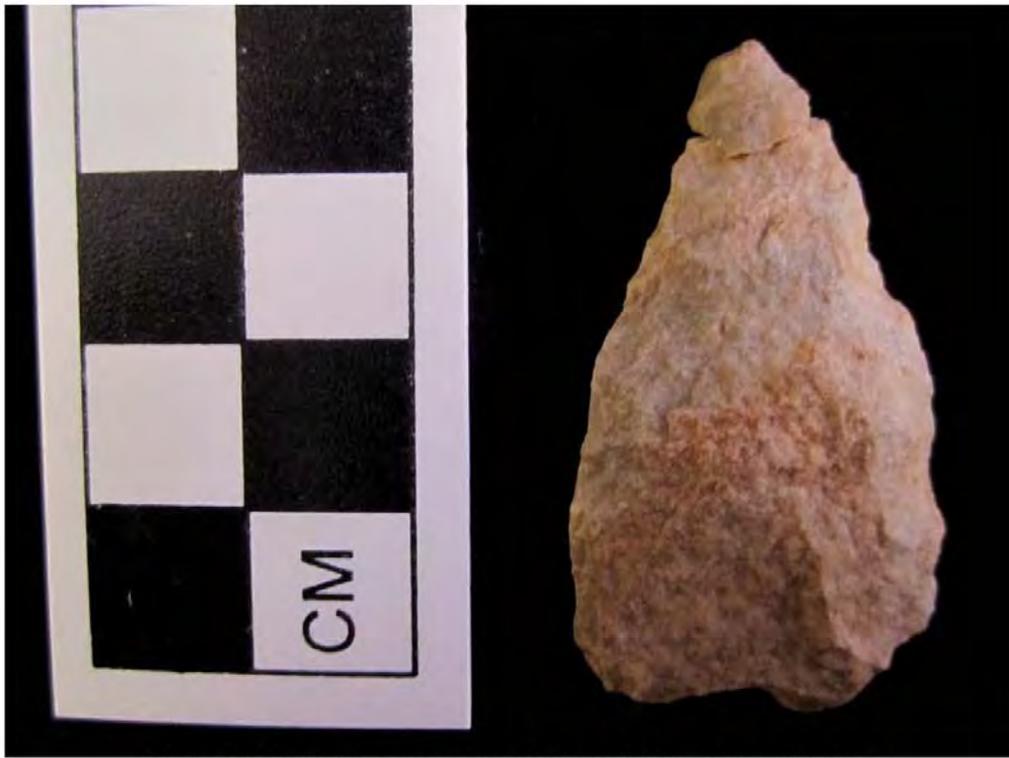


Photo 5-25 Tank Farm 4B Isolated Prehistoric Find, Quartzite Biface.



Photo 5-26 Tank Farm 3 Overview, View North.



Photo 5-27 Tank Farm 3 Tank Location, View Southwest.

in STP TF3-6. The glass fragments are from one bottle, likely deposited during construction/remediation activities at Tank Farm 3. No prehistoric or historic features were identified within the Tank Farm 3 APE during testing. Regardless of the presence of stacked subsoils, the lack of prehistoric artifacts in the overlying plow zone from the Tank farm 3 APE indicates that there is no potential for intact prehistoric resources within the test area.

5.2.12 Bishops Rock

The Bishops Rock APE is located on an island connected to the mainland by a fill causeway at the terminus of Barschow Street, and measures approximately 0.5 hectares (1.2 acres) in size (Figure 5-13; Photos 5-28 and 5-29). The test area is currently undergoing remediation for asbestos contamination and no geo-probe core was taken within the APE. The APE is an open, graded area with several large fill piles. A large, above ground, concrete sewer access point is located within the central portion of the APE. The profile of a large trench excavated by backhoe during remediation activities was observed to gather information on island stratigraphy (Photo 5-30). The backhoe trench was excavated to a depth of 137 cm (4.5 ft) bgs and the profile displayed a 31 cm (1 ft) thick gravel and rock layer that was directly above shale bedrock. The island appears to have no natural soils present, only a gravel/rock layer over solid shale bedrock. Potential for prehistoric or historic resources is considered low within the Bishops Rock APE.



Photo 5-28 Bishop Rock Overview, View West.



Photo 5-29 Bishop Rock Overview, View North.



Photo 5-30 Bishop Rock Trench Profile, View Northwest.

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6.3 Recommendations

Phase I survey was completed within 12 areas located on Naval Station Newport property. These areas included Katy Field, Prichard Field North, Prichard Field South, Navy Lodge, Coddington Point, Derektor Shipyard, NUWC, Tank Farm 5, Tank Farm 4A, Tank Farm 4B, Tank Farm 3, and Bishops Rock. Systematic archaeological testing could not be completed within the Katy Field and Bishops Rock APEs due to ongoing remediation activities for hazardous materials.

Testing determined that the Derektor Shipyard, Navy Lodge, Prichard Field South, and Coddington Point APEs are made-land created through the filling of marsh lands along the edge of Narragansett Bay in order to extend the shoreline. Potential for prehistoric resources at these locations is considered low and testing within the four test areas identified no prehistoric or historic features. No further testing at these locations is recommended.

Prichard Field North, Katy Field and NUWC displayed heavy grading and fill disturbances. The only intact subsoil horizons at these locations consisted of alluvial deposited sands directly above decaying shale bedrock. Potential for prehistoric resources at these locations is considered low and testing within the three test areas identified no prehistoric or historic features. No further testing at these locations is recommended.

Bishops Rock displayed gravel fill over solid bedrock and contained no natural soil stratigraphy. Potential for prehistoric and historic resources within the Bishops Rock APE is considered low and no further testing is recommended.

Testing of Tank Farm 3 recovered three fragments of modern bottle glass and no prehistoric materials. The Tank Farm 3 APE has been disturbed by historic plowing and the construction of a petroleum tank farm in 1942. Therefore, potential for prehistoric resources at Tank Farm 3 is considered low and testing within the APE identified no prehistoric or historic features. No further testing is recommended at Tank Farm 3. Fuel Tanks Nos. 32-36 are still extant on the property (consisting of concrete, underground tanks constructed in 1942 for Tank Farm 3) and were evaluated in the *Cultural Resources Survey U.S. Naval Complex Newport, Rhode Island* prepared by the Louis Berger Group, in November of 1998 and recommended not eligible for the National Register of Historic Places due to lack of significance (Berger 1998).

Nine prehistoric artifacts were recovered during testing of Tank Farm 4A and [REDACTED] of the Tank Farm 4A APE was designated the Tank Farm 4A [REDACTED]. Even though all of the artifacts were recovered within a plow zone context, FCR and tools made up a large percentage of the artifacts recovered during testing. Much of the area within Tank Farm 4A, located outside the Tank Farm 4A Site, consisted of wetland areas and areas disturbed by plowing and the construction of access roads. Few prehistoric archaeological sites have been identified near NAVSTA Newport and additional archaeological survey is recommended to determine if intact features exist below the plow zone if construction plans move forward at this location. A Phase II archaeological testing plan should be developed only after design plans have advanced to the point where all areas of ground disturbance related to wind turbine construction are known.

An isolated prehistoric find consisting of a quartzite mid-stage biface was recovered [REDACTED] and close interval radials excavated around the artifact were negative. This biface is considered an isolated find recovered from a disturbed plow zone context and no further work is

recommended [REDACTED]. An isolated prehistoric find consisting of a quartz secondary flake was recovered from the subsoil [REDACTED] and close interval radials excavated around the artifact were negative. The flake was likely deposited during a past flood event, and no further work is recommended for [REDACTED]. No prehistoric or historic features were identified during testing of the Tank Farm 4B and Tank Farm 5 APEs. The Tank Farm 4B APE has been disturbed by historic plowing and the construction of a petroleum tank farm in 1942. Tank Farm 5 also contains a large amount of wetlands along the eastern and western portions of the APE.

[REDACTED] Historic artifacts recovered within the northern portion of the Tank Farm 5 APE, dating to the nineteenth century, are likely related to this structure. Since the structural remains of the historic residence were located outside the APE only limited reconnaissance was performed on the site, identifying a partial stone wall and likely a collapsed cellar hole. [REDACTED]

The project is a design build project, and as such, specific impacts of the wind turbine construction will not be known until the project is awarded and the design is completed. The Navy understands that additional archaeological investigations may be warranted within the Tank Farm 4A and Tank Farm 5 APEs and will continue to consult with the RIHPHC and the NIT throughout the design process if these sites are chosen.

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8 LIST OF PREPARERS

Frank G. Mikolic, RPA, Principal Investigator: over 13 years experience in archaeology throughout the eastern United States. In his capacity as Principal Investigator, he has conducted, directed, and managed more than 40 archeological field projects in Maryland, Delaware, New Jersey, Pennsylvania, Virginia, Rhode Island, and New York. These projects have ranged from initial scoping efforts to monitoring projects, to large-scale archeological data recovery excavations of multi-component prehistoric and historic sites. As Principal Investigator, he has developed, implemented, and coordinated field, laboratory, research, technical report, and public involvement methods. Also has knowledge of prehistoric and historic artifact types. Clarion University of Pennsylvania, 1999, BA, Anthropology; Pennsylvania State University, MA, American Studies.

Hilary J. Powell, RPA, Archaeologist and Archaeological Lab Director: Over four years of experience in cultural resource management, including artifact analysis and curation, archival research, field survey and preparing cultural resource compliance documents. Concordia University, Nebraska, 2003, BS, Education (Biology & History endorsements); Iowa State University, 2010, MA, Anthropology.

Paul W. Schopp, Historian: Over 35 years experience in local history work and 22 years of significant experience in cultural resources management throughout the eastern United States. In his capacity as Historian, he has conducted wide ranging historical research into a diverse collection of topics and themes. Mr. Schopp possesses an excellent working knowledge of source materials and repositories and holds extensive experience in compiling property titles. He has compiled historic contexts for many Section 106 of the National Historic Preservation Act historic preservation planning studies for a wide variety of resources, ranging from historic urban properties and historic farmsteads to various transportation modalities. Burlington College, AS, History.

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AECOM Safety Officers: Jennifer Pfeiffer and Keith Robinson

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Appendix A: Bore Log

Appendix A: Bore Log

Bore #	Test Area	Stratum	Depth Opening(ft)	Depth Closing(ft)	Depth Opening(cm)	Depth Closing(cm)	Munsell	Soil Description	Comments
1	Katy Field	Fill I	0	1	0	31	-	Gravel Lense w/ 40% Gravels	Gravel lense laid down for staging area
		Fill II	1	2.1	31	64	2.5Y4/1	Sand Lense w/ 20% Gravels	Sand lense laid down as base for gravel lense
		B	2.1	6.5	64	198	2.5Y5/1	Sand w/decaying shale bedrock	Alluvial deposited sands, water line @ 64cm
2	Prichard Field North	Ao	0	0.4	0	13	10YR4/3	Silt Loam	Relatively modern organic horizon, root zone
		Fill I	0.4	1.2	13	36	10YR6/4	Coarse Sand	Sand Lense
		Fill II	1.2	2.4	36	74	10YR3/2 mottled	Sandy Loam w/10% gravels	Fill Layer
		B	2.4	2.9	74	88	10YR3/3	Sand w/decaying shale bedrock	Alluvial deposited sands, water line @ 78cm
		Decaying Bedrock	2.9	5	88	152	-	Decayed shale bedrock	Bedrock
3	Prichard Field South	Ao	0	0.4	0	13	10YR4/3	Silt Loam	Relatively modern organic horizon, root zone
		Fill I	0.4	1.3	13	39	-	Gravel Lense w/ 40% Gravels	Gravel lense, likely former parking lot remnants
		Fill II	1.3	2.4	39	74	Gley 1 5/10Y	Sand Lense	Sand lense laid down as base for gravel lense
		Fill III	2.4	2.7	74	82	7.5YR3/2 mottled w/7.5YR4/6	Sandy Silt w/15% Gravels	Filled in marsh, water line @ 75cm
		Fill IV	2.7	4.5	82	136	Gley 1 5/10GY	Clay Sand	Filled in marsh
		B	4.5	7.1	136	216	Gley 1 4/5G	Sand	Bay deposited sands
		Decaying Bedrock	7.1	15	216	457	-	Decayed shale bedrock	Bedrock
								* Refusal @ 15ft (457cm)- Bedrock	
4	Navy Lodge	Ao	0	0.3	0	10	10YR4/3	Sandy Loam	Relatively modern organic horizon, root zone
		Fill I	0.3	0.8	10	23	mottled w/10YR2/1	Sandy Silt w/5% gravels	Mixed Fill
		Fill II	0.8	1.2	23	35	mottled w/10YR6/4	Sandy Silt w/5% gravels	Mixed Fill
		Fill III	1.2	2.2	35	68	10YR5/6	Sand	Filled in marsh
		Fill IV	2.2	5	68	152	10YR6/1	Sandy Clay	Filled in marsh
		B1	5	15	152	457	10YR5/6	Sand w/degrading shale	Bay deposited sands
		Decaying Bedrock	15	20	457	610	-	Decayed shale bedrock	Bedrock
								* Refusal @ 20ft (610cm)- Bedrock	
5	Coddington Point	Fill I	0	0.3	0	10	10YR4/2	Sandy Loam	Relatively modern organic horizon, root zone
		Fill II	0.3	2.5	10	76	10YR5/2 mottled	Sandy Silt w/10% gravels	Mixed Fill
		Fill III	2.5	4.7	76	143	10YR6/1	Sandy Clay	Filled in marsh
		B1	4.7	9.2	143	280	10YR5/6	Sand w/degrading shale	Bay deposited sands
		B2	9.2	15	280	457	-	Decayed shale bedrock	Bedrock
								* Refusal @ 15ft (457cm)- Bedrock	
6	Derektor Shipyard	Fill I	0	0.5	0	15	10YR2/2	Sandy Loam	Relatively modern organic horizon, root zone
		Fill II	0.5	1.2	15	35	2.5YR4/1	Sand w/10% Gravels	Fill material
		Fill III	1.2	2.1	35	65	5Y5/1	Sand w/10% Gravels	Fill material
		Fill IV	2.1	5.1	65	155	2.5Y5/3	Sandy Clay w/10% Gravels	Fill material
		Fill V	5.1	6.5	155	197	10YR4/1 mottled	Sand	Filled in marsh

Bore #	Test Area	Stratum	Depth Opening(ft)	Depth Closing(ft)	Depth Opening(cm)	Depth Closing(cm)	Munsell	Soil Description	Comments
		B1	6.5	8.1	197	247	10YR2/1	Sand	Filled in marsh
		B2	8.1	13	247	396	2.5Y5/3	Sandy Clay	Filled in marsh
		B3	13	24	396	732	Gley 1 3/10GY	Sand w/degrading shale	Bay deposited sands
		Decaying Bedrock	24	30	732	914	-	Decayed shale bedrock	Bedrock
									* Refusal @ 30ft (914cm)- Bedrock
7	NUWC	Fill I	0	0.7	0	20	-	Gravel Lense	Gravel Lot
		Fill II	0.7	5.5	20	168	mottled w/10YR6/8	Sand w/30% Gravels and Degrading Shale	Fill
									* Refusal @ 5.5ft (168cm)- Bedrock
8	Tank Farm 5	Fill I	0	2.1	0	64	5Y3/1	Gravel Lense w/ some shale	Fill material
		Fill II	2.1	3.3	64	101	10YR7/1	Shale Lense	Fill material
		B	3.3	5.6	101	171	10YR5/4	Silty Sand w/ degrading shale	Fill material
		Decaying Bedrock	5.6	12	171	366	-	Decayed shale bedrock	Bedrock
									* Refusal @ 12ft (366cm)- Bedrock
9	Tank Farm 4A	Ao	0	0.3	0	10	10YR3/1	Silt Loam	Relatively modern organic horizon, root zone
		Fill I	0.3	2.8	10	85	10YR7/1	Sandy Silt w/20% gravels	Fill material
		Fill II	2.8	4.2	85	128	10YR5/1 mottled	Silty Clay	Fill material
		Apb	4.2	5.5	128	168	10YR3/4	Silt Loam	Plow Zone
		B1	5.5	6.8	168	207	10YR6/8	Silt Loam w/degrading shale	-
		B2	6.8	14.2	207	433	Gley 1 6/5G	Sandy Clay w/degrading shale	-
		Decaying Bedrock	14.2	20	433	610	-	Decayed shale bedrock	Bedrock
									* Refusal @ 20ft (610cm)- Bedrock
10	Tank Farm 4B	Fill	0	0.7	0	20	-	Gravel Lense	Former roadway
		Apb	0.7	1.7	20	52	10YR3/2	Silt Loam	Plow Zone
		B1	1.7	5.8	52	177	10YR5/3	Silty Sand w/ 10% rock	-
		B2	5.8	6.6	177	200	5Y4/1	Coarse Sand w/ Slate	-
		B3	6.6	9	200	275	10YR7/1	Sand w/degrading shale	-
		B4	9	13	275	390	10YR7/6	Sandy Clay w/degrading shale	-
		Decaying Bedrock	13	20	390	610	-	Decayed shale bedrock	Bedrock
									* Refusal @ 20ft (610cm)- Bedrock
11	Tank Farm 3	Ao	0	0.3	0	9	10YR3/2	Silt Loam w/ shale	Relatively modern organic horizon, root zone
		Ap	0.3	1	9	31	2.5Y5/3	Silt Loam w/ shale	Plow Zone
		B1	1	3	31	95	2.5Y5/6	Silt Loam w/ shale	-
		B2	3	5.1	95	155	10YR6/8	Sandy Silt w/shale	-
		B3	5.1	10.2	155	310	10YR5/1	Sandy Silt w/shale	-
		Decaying Bedrock	10.2	16	310	487	-	Decayed shale bedrock	Bedrock
									* Refusal @ 16ft (487cm)- Bedrock
12	Tank Farm 3	Ao	0	0.3	0	10	10YR3/2	Silt Loam w/ shale	Relatively modern organic horizon, root zone
		Ap	0.3	1.4	10	42	2.5Y5/3	Silt Loam w/ shale	Plow Zone
		B1	1.4	3	42	93	2.5Y5/6	Silt Loam w/ shale	-
		B2	3	5.3	93	162	10YR6/8	Sandy Silt w/shale	-
		B3	5.3	13.3	162	405	10YR5/1	Sandy Silt w/shale	-
		B4	13.3	18	405	549	2.5Y3/1	Sandy Silt w/shale	-
		Decaying Bedrock	18	24	549	732	-	Decayed shale bedrock	Bedrock
									* Refusal @ 24ft (732cm)- Bedrock

**Appendix B:
Phase I Artifact Catalog**

Appendix B: Artifact Catalog

Cat#	Test Area	STP #	Radial	Strat	Level	Depth Open	DepthClose	Period	Material Class	Artifact Type	Material	Count	Object	Color	MaxLength	Description	Manufacture Date
PFN NonSite 1	Prichard Field North	PFN-15	-	Fill I	2	10	30	Modern	Metal	Nail	Iron	1	Proximal Fragment		50-55		
PFN NonSite 1	Prichard Field North	PFN-15	-	Fill I	2	10	30	Modern	Metal	Washer	Steel	1	Complete	Silver	10	Modern washer	
PFN NonSite 1	Prichard Field North	PFN-15	-	Fill I	2	10	30	Modern	Metal	Coin	Copper & Nickel	1	Complete		17.7	U.S. Dime	1980
PFN NonSite 1	Prichard Field North	PFN-15	-	Fill I	2	10	30	Modern	Glass	Bottle	Glass	1	Fragment	Brown	30-35	Burned	
PFN NonSite 1	Prichard Field North	PFN-15	-	Fill I	2	10	30	Modern	Glass	Bottle	Glass	2	Fragment	Clear	20-25		
PFN NonSite 2	Prichard Field North	PFN-16	-	Fill I	2	12	25	Historic	Glass	Bottle	Glass	1	Fragment	Clear	50-55		
PFN NonSite 2	Prichard Field North	PFN-16	-	Fill I	2	12	25	Historic	Ceramic	Whiteware		1	Body Sherd	White	15-20		
PFN NonSite 3	Prichard Field North	PFN-20	-	Fill I	2	12	40	Historic	Metal	Nail	Iron	1	Complete		110-115	Long square nail	
PFN NonSite 4	Prichard Field North	PFN-27	-	Fill I	1	0	35	Historic	Metal	Buckle loop	Copper/Brass	1	Complete		65-70		
TF4B NonSite 1	TF4B	TF4B-12	-	Ap	1	0	30	Prehistoric	Lithic	Biface	Quartzite	1	Complete	Tan-Gray	30-35	Tip broken during transport	
TF4B NonSite 2	TF4B	TF4B-24	-	Ap	1	0	30	Historic	Glass	Bottle	Glass	1	Base	Aqua	45-50	Bottle base with letters	
TF4B NonSite 2	TF4B	TF4B-24	-	Ap	1	0	30	Historic	Glass	Bottle	Glass	1	Fragment	Aqua	20-25	"VIDE" visible on base	
TF4B NonSite 2	TF4B	TF4B-24	-	Ap	1	0	30	Historic	Glass	Bottle	Glass	1	Fragment	Aqua	25-30		
TF4B NonSite 2	TF4B	TF4B-24	-	Ap	1	0	30	Historic	Glass	Bottle	Glass	1	Fragment	Aqua	10		
TF3 NonSite 1	TF3	TF3-6	-	Ap	1	0	24	Historic	Glass	Bottle	Glass	3	Fragment	Clear	25-30		
2	TF4A	TF4A-3	-	Ap	2	5	55	Prehistoric	Lithic	Preform	Quartz	1	Complete	White	25-30		
3	TF4A	TF4A-7	-	Ap	1	0	8	Prehistoric	Lithic	FCR	Quartzite	1	Complete	Red	45-50		
3	TF4A	TF4A-7	-	Ap	1	0	8	Prehistoric	Lithic	FCR	Quartzite	1	Complete	Gray-Red	65-70		
3	TF4A	TF4A-7	-	Ap	1	0	8	Prehistoric	Lithic	Tested Cobble	Quartz	1	Complete	White	45-50	Quartz cobble with a couple possible flake scars	
4	TF4A	TF4A-8	-	Ap	1	0	32	Prehistoric	Lithic	Flake tool	Quartzite	1	Complete	Gray	50-55	Flake tool with unifacial retouch on the distal edge	
4	TF4A	TF4A-8	-	Ap	1	0	32	Historic	Metal	Nail	Iron	1	Distal Fragment		25-30	Square cut nail	
TF4A NonSite 1	TF4A	TF4A-15	-	Ap	1	0	30	Historic	Metal	Nail	Iron	1	Complete		85-90	Square cut nail	
TF4A NonSite 1	TF4A	TF4A-15	-	Ap	1	0	30	Historic	Ceramic	Redware		2	Fragment	Reddish Orange	20-25		
5	TF4A	TF4A-18	-	Ap	1	0	25	Prehistoric	Lithic	Biface	Argillite	1	Complete	Dark Gray	65-70	Argillite biface with cortex still present on one side	
6	TF4A	TF4A-18	R	Ap	1	0	38	Prehistoric	Lithic	Primary flake	Argillite	1	Complete	Dark Gray	50-55	Cortical primary flake	
TF4A NonSite 2	TF4A	TF4A-18	CC	Ap	1	0	19	Historic	Metal	Nail	Iron	1	Proximal Fragment		40-45	Square cut nail	
TF4A NonSite 2	TF4A	TF4A-18	CC	Ap	1	0	19	Historic	Ceramic	Whiteware		1	Body Sherd	White	20-25		1830+
7	TF4A	TF4A-21	-	Ap	1	0	33	Prehistoric	Lithic	Shatter	Quartz	1	Complete	White	45-50		
7	TF4A	TF4A-21	-	Ap	1	0	33	Prehistoric	Lithic	Biface	Quartzite	1	Complete	Gray-Gold	50-55	Mid-stage biface	
TF4A NonSite 3	TF4A	TF4A-22	-	Ap	1	0	25	Historic	Glass	Bottle	Glass	1	Fragment	Clear	45-50	Flat glass, 5mm thick	
2	TF5	TF5-23	-	Ap	2	5	20	Historic	Glass	Window glass	Glass	1	Fragment	Clear	15		
3	TF5	TF5-23	A	Ap	2	9	34	Historic	Ceramic	Drainage pipe		3	Fragment	Orange	60-65	Unglazed ceramic pipe	
3	TF5	TF5-23	A	Ap	2	9	34	Historic	Metal	Nail	Iron	2	Complete		55-60	Square cut nail	
3	TF5	TF5-23	A	Ap	2	9	34	Historic	Glass	Bottle	Glass	1	Finish & neck fragment	Brown	55-60	Mouth-blown bottle, double ring neck finish	1840-1920
3	TF5	TF5-23	A	Ap	2	9	34	Historic	Glass	Bottle	Glass	4	Fragment	Green	15-30		1860s-present

Appendix B: Artifact Catalog

FS#	Test Area	STP #	Radial	Strat	Level	Depth Open	DepthClose	Period	Material Class	Artifact Type	Material	Count	Object	Color	MaxLength	Description	Manufacture Date
3	TF5	TF5-23	A	Ap	2	9	34	Historic	Glass	Window glass	Glass	10	Fragment	Clear	15-35		
3	TF5	TF5-23	A	Ap	2	9	34	Historic	Ceramic	Ironstone		1	Body Sherd	White	20-25		1842+
TF5 NonSite 1	TF5	TF5-23	B	B	3	30	54	Prehistoric	Lithic	Secondary flake	Quartz	1	Complete	White-Clear	30-35		
4	TF5	TF5-23	B	Ap	2	5	30	Historic	Metal	Nail	Iron	2	Fragment		30-35	Square cut nail	
4	TF5	TF5-23	B	Ap	2	5	30	Historic	Glass	Bottle	Glass	1	Fragment	Green	25-30		
4	TF5	TF5-23	B	Ap	2	5	30	Historic	Glass	Bottle	Glass	2	Fragment	Clear	45-50		
4	TF5	TF5-23	B	Ap	2	5	30	Historic	Glass	Window glass	Glass	1	Fragment	Clear	13.3		
5	TF5	TF5-23	C	Ap	2	4	40	Historic	Fabric	Strap	Leather	3	Fragment	Brown-Black	90-95	Leather strap with 2 buckle holes	
6	TF5	TF5-23	C	B	3	40	64	Historic	Glass	Window glass	Glass	5	Fragment	Clear	20-30		
6	TF5	TF5-23	C	B	3	40	64	Historic	Glass	Bottle	Glass	2	Fragment	Brown	20-30	Air bubbles in glass	
7	TF5	TF5-23	E	Ap	2	7	47	Historic	Metal	Pipe clamp/bracket		1	Complete		80-85		
7	TF5	TF5-23	E	Ap	2	7	47	Historic	Metal	Nail	Iron	2	Fragment		65-70	Square cut nail	
7	TF5	TF5-23	E	Ap	2	7	47	Historic	Metal	Loops		1	Complete		55-60		
7	TF5	TF5-23	E	Ap	2	7	47	Historic	Glass	Window glass	Glass	4	Fragment	Clear	0-15		
8	TF5	TF5-23	F	Fill	2	7	40	Historic	Glass	Mason Jar Liner	Glass	1		White	12	http://www.sha.org/bottle/closures.htm#Masons Patent	
8	TF5	TF5-23	F	Fill	2	7	40	Historic	Metal	Nail	Iron	2	Fragment		2	Square cut nail	
9	TF5	TF5-23	H	Ap	2	8	40	Historic	Ceramic	Drainage pipe		3	Fragment	Orange	25-45	Unglazed ceramic pipe	
9	TF5	TF5-23	H	Ap	2	8	40	Historic	Glass	Bottle	Glass	1	Fragment	Olive Green	13		
9	TF5	TF5-23	H	Ap	2	8	40	Historic	Glass	Bottle	Glass	7	Fragment	Green	0-35		
9	TF5	TF5-23	H	Ap	2	8	40	Historic	Glass	Bottle	Glass	1	Fragment	Brown	16	Air bubbles in glass	
9	TF5	TF5-23	H	Ap	2	8	40	Historic	Glass	Window glass	Glass	44	Fragment	Clear	0-40		
9	TF5	TF5-23	H	Ap	2	8	40	Historic	Glass	Bottle	Glass	8	Fragment	Clear	14-35		
9	TF5	TF5-23	H	Ap	2	8	40	Historic	Ceramic	Transfer printed, whiteware		8	Body Sherd	White/Blue	15-25		1830-1860+
9	TF5	TF5-23	H	Ap	2	8	40	Historic	Metal	Nail	Iron	2	Complete		70-80	Square cut nail	
9	TF5	TF5-23	H	Ap	2	8	40	Historic	Metal	Nail	Iron	6	Fragment		25-55	Square cut nail, 3 proximal and 3 distal	
9	TF5	TF5-23	H	Ap	2	8	40	Historic	Metal	Metal Fragment		1	Fragment		70-75		
10	TF5	TF5-23	G	Ap	2	5	27	Historic	Glass	Bottle glass	Glass	1	Fragment	Blue	15-20		
11	TF5	TF5-23	I	Ap	2	3	30	Historic	Glass	Bottle glass	Glass	4	Fragment	Clear	15-40		
11	TF5	TF5-23	I	Ap	2	3	30	Historic	Coal	Fuel	Coal	1	Fragment	Black	0-5		
11	TF5	TF5-23	I	Ap	2	3	30	Historic	Metal	Nail	Iron	1	Complete		75-80	Square cut nail	
11	TF5	TF5-23	I	Ap	2	3	30	Historic	Metal	Nail	Iron	2	Distal Fragment		30-60	Square cut nail	
11	TF5	TF5-23	I	Ap	2	3	30	Historic	Metal	Nail	Iron	3	Proximal Fragment		25-40	Square cut nail	
11	TF5	TF5-23	I	Ap	2	3	30	Historic	Metal	Metal Fragment		6	Fragment		35-45	Metal weaved wire	
11	TF5	TF5-23	I	Ap	2	3	30	Historic	Metal	Metal Fragment		1	Fragment		70-75	Large circular metal piece	
12	TF5	TF5-23	J	Fill	2	12	60	Historic	Glass	Window glass	Glass	1	Fragment	Clear	15-20		
12	TF5	TF5-23	J	Fill	2	12	60	Historic	Metal	Nail	Iron	1	Fragment		40-45	Square cut nail	
13	TF5	TF5-25	-	A	1	0	28	Historic	Ceramic	Ironstone		1	Body Sherd	Ivory	20-25		1842+
13	TF5	TF5-25	-	A	1	0	28	Historic	Ceramic	Ironstone		1	Rim Sherd	Ivory	55-60	Rim of a plate with orange flower detailing	
13	TF5	TF5-25	-	A	1	0	28	Historic	Glass	Mason Jar Liner	Glass	1	Complete	White	64.5		
13	TF5	TF5-25	-	A	1	0	28	Historic	Glass	Bottle	Glass	5	Body fragment	Clear	25-75		
14	TF5	TF5-28	-	Ap	2	9	50	Historic	Glass	Bottle	Glass	6	Body fragment	Clear	20-30		
14	TF5	TF5-28	-	Ap	2	9	50	Historic	Metal	Nail	Iron	1	Complete		70-75	Square cut nail, bent in half	
14	TF5	TF5-28	-	Ap	2	9	50	Historic	Metal	Nail	Iron	5	Proximal Fragment		20-60	Square cut nail	
14	TF5	TF5-28	-	Ap	2	9	50	Historic	Ceramic	Buff bodied earthenware		1	Body Sherd	See Description	15.5	Brown and blue decoration on exterior, cream colored interior	
15	TF5	TF5-29	-	Ap	2	11	27	Historic	Glass	Window glass	Glass	1	Fragment	Clear	25-30		

**Appendix C:
Phase I Excavation Log**

Appendix C: Phase I Excavation Log

Prichard Field North

STP	Horizon	Depths (cmBS)	Munsell	Texture	Radial
PFN-1	-	-	NOT EXCAVATED	Under Paved Surface	
PFN-2	-	-	NOT EXCAVATED	Building Location	
PFN-3	-	-	NOT EXCAVATED	Utilities	
PFN-4	-	-	NOT EXCAVATED	Utilities	
PFN-5	-	-	NOT EXCAVATED	Utilities	
PFN-6	Ao	0-7	10YR3/2	Silt Loam	
	Fill	7-26	10YR3/3	Sandy Loam w/ 20% compact gravels	
PFN-7	Ao	0-5	10YR3/2	Silt Loam	
		5-20	10YR3/3	Sandy Loam w/ 20% compact gravels	
PFN-8	Fill	0-57	10YR4/2	Sandy Loam	
PFN-9	Ao	0-7	10YR4/3	Silt Loam	
	Fill	7-45	10YR6/4	Sandy Silt w/ 10% gravels	
PFN-10	-	-	NOT EXCAVATED	Under Paved Surface	
PFN-11	-	-	NOT EXCAVATED	Gravel Bar	
PFN-12	Fill	0-25	10YR3/3	Sandy Loam w/ 10% gravels	
PFN-13	Fill I	0-20	10YR3/3	Sandy Loam w/ 10% gravels	
	Fill II	20-32	10YR5/3	Coarse Sand	
	Fill III	32-40	10YR3/4	Coarse Sand	
PFN-14	Ao	0-9	10YR4/3	Silt Loam	
	Fill I	9-30	10YR6/4	Coarse Sand	
	Fill II	30-35	10YR3/2	Silt Loam w/10% gravels	
	Fill III	35-50	10YR3/3	Silty Sand	
				*Hit Cast Iron Pipe @ Base	
PFN-15	Ao	0-10	10YR4/3	Silt Loam	
	Fill I	10-30	10YR6/4	Silty Sand w/ 10% gravels	
	Fill II	30-50	10YR6/6	Silty Sand w/ 15% degraded slate	
PFN-16	Ao	0-12	10YR4/3	Silt Loam	
	Fill I	12-25	10YR6/4	Silty Sand w/ 10% gravels	
	Fill II	25-46	10YR6/6	Sandy Silt w/ 15% degraded slate	
PFN-17	Ao	0-5	10YR4/3	Silt Loam	
	Fill	5-34	10YR3/3	Sandy Loam	
PFN-18	Fill	0-35	10YR3/2	Sandy Loam w/ 10% gravels	
PFN-19	Fill	0-28	10YR3/2	Sandy Loam w/ 10% gravels	
PFN-20	Ao	0-12	10YR4/3	Silt Loam	
	Fill I	12-40	10YR6/4	Silty Sand w/ 10% gravels	
	Fill II	40-52	10YR6/6	Sandy Silt w/ 15% degraded slate	
PFN-21	Ao	0-5	10YR4/3	Silt Loam	
	Fill	5-36	10YR6/4	Silty Sand w/ 10% gravels	
PFN-22	Fill	0-43	10YR2/2	Silt Loam w/ 10% gravels	
PFN-23	Ao	0-5	10YR4/3	Silt Loam	
	Fill	5-27	10YR3/3	Silt Loam w/ 10% gravels	
PFN-24	Fill I	0-36	10YR3/2	Silt Loam w/ 10% gravels	
PFN-25	Fill I	0-17	10YR3/2	Silt Loam w/ 10% gravels	
	Fill II	17-26	Gley 2 6/1	Lense of Broken Slate	
	Fill III	26-70	10YR4/2	Coarse Sand	
PFN-26	Ao	0-15	10YR4/3	Silt Loam	
	Fill	15-42	10YR6/4	Silty Sand w/ 10% gravels	
PFN-27	Fill	0-35	10YR3/2	Silt Loam w/ 10% gravels	

Prichard Field South

STP	Horizon	Depths (cmBS)	Munsell	Texture	Radial
PFS-1	-	-	NOT EXCAVATED	Water	
PFS-2	-	-	NOT EXCAVATED	Gravel Bar	
PFS-3	-	-	NOT EXCAVATED	Gravel Bar	
PFS-4	-	-	NOT EXCAVATED	Gravel Bar	
PFS-5	-	-	NOT EXCAVATED	Gravel Bar	
PFS-6	-	-	NOT EXCAVATED	Gravel Bar	
PFS-7	-	-	NOT EXCAVATED	Gravel Bar	
PFS-8	Fill	0-30	10YR4/1	Coarse Sand and 10% Gravels	
PFS-9	Ao	0-9	10YR3/4	Silty Sand w/ 2% gravels	
	Fill	9-40	10YR4/1	Coarse Sand and 10% Gravels	
PFS-10	Fill I	0-10	10YR3/2	Sandy Loam	
	Fill II	10-65	10YR4/1 mottled w/ 10YR5/4	Coarse Sand and 10% Gravels	
PFS-11	-	-	NOT EXCAVATED	Under Sea Wall	
PFS-12	-	-	NOT EXCAVATED	Under Pavement	
PFS-13	Fill	0-40	10YR4/1	Coarse Sand and 10% Gravels	
PFS-14	Ao	0-9	10YR3/4	Silty Sand w/ 2% gravels	
	Fill	9-35	10YR4/1	Coarse Sand and 10% Gravels	
PFS-15	Fill	0-16	10YR3/2	Sandy Loam w/ 10% gravels	
PFS-16	Fill I	0-12	10YR4/2	Coarse Sand and 10% Gravels	
	Fill II	12-22	10YR5/1 mottled w/ 10YR6/4	Coarse Sand and 10% Gravels	
PFS-17	-	-	NOT EXCAVATED	Under Pavement	
PFS-18	Fill I	0-35	10YR4/2	Silt Loam w/ 10% gravels	
	Fill II	35-72	Gley 1 4/N mottled w/ 10YR2/2 and Gley 1 5/N	Mottled Organic Clay and Sands (Filled-in wetlands)	
PFS-19	Fill I	0-15	10YR3/2	Silt Loam w/ 10% gravels	
	Fill II	15-55	10YR6/4	Silty Sand w/ 10% gravels	
PFS-20	Ao	0-5	10YR3/4	Silt Loam	
	Fill I	5-23	10YR3/2	Sandy Loam w/ 10% gravels	
	Fill II	23-37	2.5YR4/1	Compact Gravel Lense	
PFS-21	Ao	0-9	10YR3/4	Silt Loam w/ 2% gravels	
	Fill	9-35	10YR6/4	Silty Sand w/ 10% gravels	

Derecktor Shipyard

STP	Horizon	Depths (cmBS)	Munsell	Texture	Radial
DS-1	Fill	0-17	10YR3/2	Silt Loam w/ 10% gravels	
DS-2	-	-	NOT EXCAVATED	Under Pavement	
DS-3	Fill	0-27	10YR4/2	Silt Loam w/coarse sands and 10% gravels	
DS-4	Fill	0-26	10YR3/2	Coarse Sand	
DS-5	Fill	0-30	10YR5/1	Silt Loam w/ coarse sands and 15% gravels and rock	
DS-6	Fill	0-15	10YR3/2	Sandy Loam w/10% gravels	
DS-7	Fill	0-19	10YR4/2	Silt Loam w/coarse sands and 10% gravels	
DS-8	Fill	0-23	2.5YR4/1	Silt Loam w/coarse sands and 10% gravels	
DS-9	Fill	0-50	10YR5/1	Silt Loam w/ coarse sands and 15% gravels and rock	
DS-10	Ao	0-8	10YR2/2	Sandy Loam	
	Fill I	8-33	2.5YR4/1	Sand Lense	
	Fill II	33-44	5Y5/1	Sand Lense	
DS-11	-	-	NOT EXCAVATED	Under Pavement	
DS-12	Fill	0-11	10YR4/1	Coarse Sand Lense	
DS-13	-	-	NOT EXCAVATED	Under Pavement	
DS-14	-	-	NOT EXCAVATED	Under Pavement	
DS-15	-	-	NOT EXCAVATED	On Pier	
DS-16	-	-	NOT EXCAVATED	Under Pavement	
DS-17	-	-	NOT EXCAVATED	Under Pavement	
DS-18	-	-	NOT EXCAVATED	Under Pavement	
DS-19	-	-	NOT EXCAVATED	Water	
DS-20	-	-	NOT EXCAVATED	Under Pavement	
DS-21	-	-	NOT EXCAVATED	Under Pavement	
DS-22	-	-	NOT EXCAVATED	Under Pavement	
DS-23	-	-	NOT EXCAVATED	Under Pavement	

Navy Lodge

STP	Horizon	Depths (cmBS)	Munsell	Texture	Radial
NL-1	Fill	0-26	10YR3/1	Silt Loam w/ 10% gravels	
NL-2	Ao	0-5	10YR3/3	Silt Loam	
	Fill	5-24	10YR3/2	Silt Loam w/ 10% gravels	
NL-3	Fill	0-13	10YR3/2	Silt Loam w/ 10% gravels	
NL-4	Fill I	0-18	10YR3/2	Silt Loam w/ 10% gravels	
	Fill II	18-55	2.5Y5/3	Coarse Sand w/ 10 rock	
NL-5	-	-	NOT EXCAVATED	Under Pipe	
NL-6	-	-	NOT EXCAVATED	Under Pavement	
NL-7	Fill I	0-13	7.5YR3/1	Sandy Loam w/ 5% gravels	
	Fill II	13-20	7.5YR2.5/1	Silt loam w/ 5% gravels	
	Fill III	20-29	10YR4/1	Coarse Sand w/ slate	
NL-8	Ao	0-20	10YR2/2	Silt Loam w/ 2% gravels	
	Fill	20-42	7.5YR3/3	Coarse Sand w/ slate	
NL-9	Ao	0-20	10YR2/2	Silt Loam w/ 2% gravels	
	Fill	20-30	7.5YR3/3	Coarse Sand w/ slate	
NL-10	-	-	NOT EXCAVATED	Gravel Bar	
NL-11	-	-	NOT EXCAVATED	Gravel Bar	
NL-12	-	-	NOT EXCAVATED	Gravel Bar	
NL-13	-	-	NOT EXCAVATED	Gravel Bar	
NL-14	-	-	NOT EXCAVATED	Gravel Bar	
NL-15	-	-	NOT EXCAVATED	Gravel Bar	
NL-16	-	-	NOT EXCAVATED	Gravel Bar	
NL-17	-	-	NOT EXCAVATED	Gravel Bar	
NL-18	-	-	NOT EXCAVATED	Gravel Bar	
NL-19	-	-	NOT EXCAVATED	Gravel Bar	
NL-20	-	-	NOT EXCAVATED	Gravel Bar	

Coddington Point

STP	Horizon	Depths (cmBS)	Munsell	Texture	Radial
CP-1	-	-	NOT EXCAVATED	Within Drainage Basin	
CP-2	-	-	NOT EXCAVATED	Within Drainage Basin	
CP-3	-	-	NOT EXCAVATED	Gravel Bar	
CP-4	-	-	NOT EXCAVATED	Within Drainage Basin	
CP-5	-	-	NOT EXCAVATED	Within Drainage Basin	
CP-6	-	-	NOT EXCAVATED	Within Drainage Basin	
CP-7	Fill	0-22	10YR3/3	Silty Sand w/ 10% gravels	
CP-8	-	-	NOT EXCAVATED	Gravel Bar	
CP-9	-	-	NOT EXCAVATED	Gravel Bar	
CP-10	Fill I	0-20	10YR4/2	Silty Sand w/ 10% gravels	
	Fill II	20-38	10YR5/2	Silty Sand w/ 10% gravels	
CP-11	Fill I	0-10	10YR3/2	Silty Sand w/ 10% gravels	
	Fill II	10-40	10YR5/1	Silty Sand w/ 10% gravels	
CP-12	Fill I	0-10	10YR3/2	Silty Sand w/ 10% gravels	
	Fill II	10-35	10YR5/1	Silty Sand w/ 10% gravels	
CP-13	-	-	NOT EXCAVATED	Gravel Bar	
CP-14	-	-	NOT EXCAVATED	Gravel Bar	
CP-15	-	-	NOT EXCAVATED	Gravel Bar	
CP-16	-	-	NOT EXCAVATED	Gravel Bar	
CP-17	-	-	NOT EXCAVATED	Gravel Bar	
CP-18	-	-	NOT EXCAVATED	Gravel Bar	
CP-19	-	-	NOT EXCAVATED	Gravel Bar	
CP-20	-	-	NOT EXCAVATED	Gravel Bar	
CP-21	-	-	NOT EXCAVATED	Gravel Bar	
CP-22	-	-	NOT EXCAVATED	Gravel Bar	

NUWC

STP	Horizon	Depths (cmBS)	Munsell	Texture	Radial
NU-1	Fill	0-3	10YR5/1	Coarse Sand and Gravel Fill	
NU-2	-	-	NOT EXCAVATED	Building and Paved Area	
NU-3	Fill	0-21	10YR3/2	Silt Loam w/ 10% gravels	
NU-4	-	-	NOT EXCAVATED	Under Large Fill Pile	
NU-5	-	-	NOT EXCAVATED	Under Large Fill Pile	
NU-6	Fill	0-10	10YR5/1	Coarse Sand and Gravel Fill	
NU-7	-	-	NOT EXCAVATED	Under Paved Area	
NU-8	Fill	0-25	10YR3/3	Silt Loam w/ 10% gravels	
NU-9	-	-	NOT EXCAVATED	Under Large Fill Pile	
NU-10	-	-	NOT EXCAVATED	Under Large Fill Pile	
NU-11	Fill I	0-5	10YR5/1	Coarse Sand and Gravel Fill	
	Fill II	5-7	10YR5/3	Dense Gravel Fill	
NU-12	Fill I	0-12	10YR4/3	Coarse Sand and Gravel Fill	
	Fill II	12-20	10YR5/3	Coarse Sand and Gravel Fill	
	Fill III	20-32	10YR5/1	Coarse Sand and Gravel Fill	
NU-13	Fill	0-17	10YR3/2	Silt Loam w/ 10% gravels	
NU-14	-	-	NOT EXCAVATED	Under Large Fill Pile	
NU-15	-	-	NOT EXCAVATED	Under Large Fill Pile	
NU-16	Fill	0-25	10YR4/1	Sandy Silt w/ 20% Gravel and rock	
NU-17	-	-	NOT EXCAVATED	Slope	
NU-18	Fill	0-28	10YR5/1	Coarse Sand and Gravel Fill	
NU-19	Fill I	0-10	10YR5/1	Coarse Sand and Gravel Fill	
	Fill II	10-22	10YR5/3	Coarse Sand and Gravel Fill	
NU-20	-	-	NOT EXCAVATED	Slope	

Tank Farm 3

STP	Horizon	Depths (cmBS)	Munsell	Texture	Radial
TF3-1	Ao	0-10	2.5Y3/2	Silt Loam	
	Fill	10-45	2.5Y6/4	Coarse Sand Lense	
	B	45-55	2.5Y3/3	Silt Loam	
TF3-2	-	-	NOT EXCAVATED	Within Tank Location	
TF3-3	Ao	0-12	2.5Y3/2	Silt Loam	
	Apb	12-30	2.5Y5/3	Silt Loam w/ 5% slate	
	B	30-43	2.5Y5/6	Silt Loam w/ 15% slate	
TF3-4	Ao	0-6	10YR4/2	Silt Loam	
	Fill I	6-50	10YR4/4 mottled w/ Gley 1 4/5	Silty Sand w/ 5% slate	
	Fill II	50-100	7.5YR4/4	Silty Sand w/ 5% slate	
TF3-5	Ap	0-29	10YR3/4	Silt Loam	
	B	29-54	5YR4/3	Silt Loam	
TF3-6	Ap	0-24	10YR3/4	Silt Loam	
	B	24-46	10YR3/6	Silt Loam	
TF3-7	-	-	NOT EXCAVATED	Within Tank Location	
TF3-8	Ao	0-10	10YR3/2	Silt Loam w/ 2% gravels	
	Apb	10-30	2.5Y5/3	Silt Loam w/ 5% slate	
	B	30-45	2.5Y5/6	Silt Loam w/ 15% slate	
TF3-9	Ao	0-10	10YR4/3	Silt Loam	
	Fill	10-100	10YR4/4 mottled w/ Gley 1 4/5	Silty Sand w/ 5% slate	
TF3-10	Ao	0-10	10YR3/3	Silt Loam w/ 2% gravels	
	Apb	10-59	10YR3/4	Silt Loam w/ 5% gravels	
	B	59-70	10YR4/2	Silt Loam w/ 5% gravels	
TF3-11	Ap	0-34	10YR3/4	Silt Loam w/ 5% slate	
	B	34-44	2.5Y4/4	Silt Loam w/ 15% slate	
TF3-12	Ao	0-17	10YR3/2	Silt Loam w/ 2% gravels	
	Apb	17-40	2.5Y5/3	Silt Loam w/ 5% slate	
	B	40-62	2.5Y5/6	Silt Loam w/ 15% slate	
TF3-13	Ao	0-16	10YR3/2	Silt Loam w/ 2% gravels	
	Apb	16-35	2.5Y5/3	Silt Loam w/ 5% slate	
	B	35-55	2.5Y5/6	Silt Loam w/ 15% slate	
TF3-14	Ao	0-10	10YR3/2	Silt Loam w/ 2% gravels	
	Apb	10-30	2.5Y5/3	Silt Loam w/ 5% slate	
	B	30-50	2.5Y5/6	Silt Loam w/ 15% slate	
TF3-15	Ao	0-20	7.5YR4/4	Sandy Loam	
	Apb	20-45	2.5Y5/3	Sandy Loam	
	B	45-55	7.5YR4/6	Sandy Loam	
TF3-16	Ao	0-12	10YR3/3	Silt Loam w/ 2% gravels	
	Apb	12-56	10YR3/4	Silt Loam w/ 5% slate	
	B	56-66	10YR4/1	Silt Loam w/ 15% slate	
TF3-17	Fill I	0-12	10YR4/4 mottled w/ 10YR5/6	Silt Loam	
	Fill II	12-22	10YR3/3	Silt Loam w/ 5% rock	
TF3-18	Ap	0-8	10YR3/4	Silt Loam	
	B	8-25	10YR3/6	Silt Loam	
TF3-19	Ao	0-13	10YR3/2	Silt Loam w/ 2% gravels	
	Apb	13-39	2.5Y5/3	Silt Loam w/ 5% slate	
	B	39-55	2.5Y5/6	Silt Loam w/ 15% slate	
TF3-20	Ao	0-12	10YR3/2	Silt Loam w/ 2% gravels	
	Apb	12-26	2.5Y5/3	Silt Loam w/ 5% slate	
	B	26-44	2.5Y5/6	Silt Loam w/ 15% slate	
TF3-21	Ao	0-19	7.5YR3/2	Silt Loam	
	Fill I	19-50	7.5YR4/4	Sandy Loam	
	Fill II	50-100	10YR4/6 mottled w/ Gley 1 5/10G	Sandy Loam	
TF3-22	Ap	0-24	10YR4/4	Silt Loam	
				*Large Rocks @ Base	
TF-23	Ap	0-28	10YR3/6	Silt Loam	
	B	28-70	10YR4/6	Silt Loam	
TF3-24	Ao	0-12	10YR3/2	Silt Loam w/ 2% gravels	
	Apb	12-34	2.5Y5/3	Silt Loam w/ 5% slate	
	B	34-55	2.5Y5/6	Silt Loam w/ 15% slate	
TF3-25	Ao	0-14	10YR3/2	Silt Loam w/ 2% gravels	

	Apb	14-40	2.5Y5/3	Silt Loam w/ 5% slate	
	B	40-65	2.5Y5/6	Silt Loam w/ 15% slate	
TF3-26	Ao	0-12	10YR3/2	Silt Loam w/ 2% gravels	
	Apb	12-36	10YR3/3	Sandy Loam w/ 5% slate	
	B	36-56	10YR4/6	Sandy Loam w/ 15% slate	
TF3-27	Ao	0-22	7.5YR4/6	Silt Loam w/ 2% gravels	
	Apb	22-42	2.5Y5/3	Sandy Loam w/ 5% slate	
	B	42-52	5Y6/2	Sandy Loam w/ 15% slate	
TF3-28	Ao	0-20	7.5YR4/6	Silt Loam w/ 2% gravels	
	Apb	20-50	2.5Y5/3	Sandy Loam w/ 5% slate	
	B	50-65	5Y6/2	Sandy Loam w/ 15% slate	
TF3-29	Fill	0-20	10YR4/2	Silt Loam w/ 2% gravels	
	Ao	20-42	7.5YR4/6	Silt Loam w/ 2% gravels	
	Apb	42-66	2.5Y5/3	Silty Sand w/ 5% slate	
	B	66-72	2.5Y4/2	Coarse Sand	

Tank Farm 4A

STP	Horizon	Depths (cmBS)	Munsell	Texture	Radial
TF4A-1	Fill	0-15	10YR4/2	Sandy Loam w/ 10% gravels	
TF4A-2	Ap	0-40	10YR3/2	Silt Loam	
	B	40-55	10YR5/2	Silt Loam	
				*Water Table @40 cm	
TF4A-3	Ao	0-5	10YR3/1	Silt Loam	
	Apb	5-55	10YR3/4	Silt Loam	
	B	55-65	10YR5/2	Silt Loam	
				*Water Table @55 cm	
TF4A-3 A	Fill	0-15	10YR3/2 mottled w/ 10YR4/6	Coarse Sand w/ gravels, Roadway	X
TF4A-3 B	Fill	0-14	10YR3/2	Coarse Sand w/ gravels, Roadway	X
	Ap	14-37	10YR3/4	Silt Loam	
	B	37-48	10YR5/2	Silt Loam	
				*Water Table @57cm	
TF4A-4	Ap	0-29	2.5Y3/3	Silt Loam	
				*Bedrock hit @Base	
TF4A-4 C	Ap	0-29	10YR4/2	Silt Loam	X
	B	29-35	Gley 2.4/10bg	Coarse Sand and degraded slate bedrock	
TF4A-4 D	Ap	0-31	10YR4/2	Silt Loam	X
				*Bedrock hit @Base	
TF4A-4 U	Ap	0-30	10YR3/4	Silt Loam w/ 2% rock	X
		30-45	10YR6/6	Silt Loam w/ 5% rock	
TF4A-4 V	Ap	0-8	10YR3/1	Silt Loam	X
	B1	8-29	10YR5/2	Silt Loam	
	B2	29-42	Gley 2.4/10bg	Coarse Sand and degraded slate bedrock	
TF4A-4 X	Ap	0-24	10YR3/4	Silt Loam w/ 2% rock	X
		24-50	10YR6/6	Silt Loam w/ 10% rock	
TF4A-5	Ap	0-33	10YR3/2	Silt Loam	
				*Bedrock hit @Base	
TF4A-5 E	Ap	0-28	10YR4/2	Silt Loam	X
				*Bedrock hit @Base	
TF4A-5 F	Ap	0-20	10YR4/2	Silt Loam	X
	B	20-22	Gley 2.4/10bg	Coarse Sand and degraded slate bedrock	
TF4A-5 G	Ap	0-24	10YR4/2	Silt Loam	X
				*Bedrock hit @Base	
TF4A-6	Ap	0-22	10YR4/2	Silt Loam	
				*Bedrock hit @Base	
TF4A-7	Ap	0-8	10YR3/1	Silt Loam	
	B	8-55	10YR5/4	Silt Loam	
TF4A-7 J	Ao	0-15	7.5YR2.5/2	Silt Loam	X
	Apb	15-44	10YR3/2	Silt Loam	
	B	44-54	10YR5/1	Silt Loam	
TF4A-7 K	Ap	0-30	10YR3/4	Silt Loam	X
	B	30-55	10YR6/6	Silt Loam	
TF4A-7 L	Ap	0-18	10YR3/4	Silt Loam w/ 2% rock	X
	B1	18-40	10YR6/1	Silt Loam w/ 5% rock	
	B2	40-50	10YR6/6	Silt Loam	
TF4A-8	Ap	0-32	10YR3/4	Silt Loam	
	B1	32-45	10YR5/2	Silt Loam	
	B2	45-60	10YR6/4	Silt Loam	
TF4A-8 H	Ao	0-5	7.5YR2.5/2	Silt Loam	X
	Apb	5-26	10YR3/2	Silt Loam	
	B	26-41	10YR5/1	Silt Loam	
TF4A-8 I	Ap	0-35	10YR3/4	Silt Loam w/ 2% rock	X
	B1	35-45	10YR5/1	Silt Loam w/ 5% rock	
	B2	45-62	10YR6/6	Silt Loam	
TF4A-9	Ap	0-29	10YR4/2	Silt Loam	
	B	29-37	Gley 2.4/10bg	Coarse Sand and degraded slate bedrock	
TF4A-10	Ap	0-37	10YR4/2	Silt Loam	
	B	37-39	Gley 2.4/10bg	Coarse Sand and degraded slate bedrock	
TF4A-11	Ap	0-25	10YR3/4	Silt Loam	

	B	25-39	Gley 2 4/10bg	Fine Sand and degraded slate bedrock	
TF4A-12	Ap	0-12	10YR3/1	Silt Loam	
	B	12-68	10YR5/1	Silt Loam	
TF4A-15	Ap	0-30	10YR3/4	Silt Loam	
	B1	30-35	10YR5/2	Silt Loam w/ 5% slate bedrock	
	B2	35-55	2.5Y6/3	Silt Loam w/ 10% slate bedrock	
TF4A-16	Ap	0-22	10YR4/2	Silt Loam	
	B	22-25	Gley 2 4/10bg	Coarse Sand and degraded slate bedrock	
TF4A-17	Ap	0-22	10YR4/2	Silt Loam *Bedrock hit @Base	
TF4A-18	Ap	0-25	10YR4/2	Silt Loam	
	B	25-28	Gley 2 4/10bg	Coarse Sand and degraded slate bedrock	
TF4A-18 Q	Ap	0-25	10YR4/3	Silt Loam *Bedrock hit @Base	X
TF4A-18 R	Ap	0-38	10YR4/3	Silt Loam	X
	B	38-40	Gley 2 4/10bg	Coarse Sand and degraded slate bedrock	
TF4A-18 S	Ap	0-30	10YR3/2	Silt Loam	X
	B	30-40	10YR6/6	Silt Loam w 5% rock	
TF4A-18 T	Ap	0-28	10YR4/3	Silt Loam	X
	B	28-32	Gley 2 4/10bg	Coarse Sand and degraded slate bedrock	
TF4A-18 Y	Ap	0-28	10YR4/3	Silt Loam	X
	B	28-30	Gley 2 4/10bg	Coarse Sand and degraded slate bedrock	
TF4A-18 Z	Ap	0-20	10YR3/2	Silt Loam	X
	B1	20-35	5YR3/2	Silt Loam w/ 2% rock	
	B2	35-40	10YR5/1	Degraded Slate Bedrock	
TF4A-18 AA	Ap	0-10	10YR3/2	Silt Loam	X
	B1	10-20	5YR3/2	Silt Loam w/ 2% rock	
	B2	20-30	10YR6/6	Silt Loam w/ 5% rock	
TF4A-18 BB	Ap	0-28	10YR4/3	Silt Loam *Bedrock hit @Base	X
TF4A-18 CC	Ap	0-19	10YR3/2	Silt Loam	X
	B	19-45	10YR6/6	Silt Loam w/ 5% rock	
TF4A-19	-	-	NOT EXCAVATED	Wetland	
TF4A-20	-	-	NOT EXCAVATED	Wetland	
TF4A-21	Ap	0-33	10YR3/4	Silt Loam w/ 2% rock	
	B	33-56	10YR6/6	Silt Loam	
TF4A-21 M	Ap	0-30	10YR3/4	Silt Loam w/ 2% rock	X
	B	30-50	10YR6/6	Silt Loam *Water Table @30cm	
TF4A-21 N	Ap	0-25	10YR3/4	Silt Loam w/ 2% rock	X
	B	25-50	10YR6/6	Silt Loam *Water Table @25cm	
TF4A-21 O	Ap	0-34	10YR3/4	Silt Loam w/ 2% rock	X
	B	34-53	10YR6/6	Silt Loam	
TF4A-21 P	Ap	0-36	10YR3/2	Silt Loam	X
	B	36-57	10YR4/6	Silt Loam	
TF4A-22	Ap	0-25	10YR3/4	Silt Loam w/ 2% rock	
	B	25-47	10YR5/6	Silt Loam	
TF4A-23	-	-	NOT EXCAVATED	Wetland	
TF4A-24	-	-	NOT EXCAVATED	Wetland	
TF4A-25	-	-	NOT EXCAVATED	Wetland	
TF4A-26	-	-	NOT EXCAVATED	Wetland	
TF4A-27	-	-	NOT EXCAVATED	Wetland	
TF4A-28	-	-	NOT EXCAVATED	Wetland	
TF4A-29	-	-	NOT EXCAVATED	Wetland	

Tank Farm 4B

STP	Horizon	Depths (cmBS)	Munsell	Texture	Radial
TF4B-1	Fill	0-32	10YR3/3	Gravel Lense	
TF4B-2	Ap	0-22	10YR3/2	Silt Loam *Rock @ Base	
TF4B-3	Ap	0-27	10YR3/2	Silt Loam *Rock @ Base	
TF4B-4	Ap B	0-9 9-38	10YR3/2 10YR5/4	Silt Loam Sandy Silt w/ 10% rock	
TF4B-5	Ap B	0-10 10-42	10YR3/2 10YR5/4	Silt Loam Sandy Silt w/ 10% rock	
TF4B-6	Ap B1 B2	0-20 20-40 40-45	10YR4/2 10YR5/2 10YR6/3	Silt Loam Sandy Silt w/ 10% rock Sandy Silt w/ 10% rock	
TF4B-7	Ap B	0-13 13-29	10YR3/4 10YR5/2	Sandy Loam Sandy Silt w/ 10% rock	
TF4B-8	Fill	0-17	10YR3/1	Gravel Lense	
TF4B-9	Ap B1 B2 B3	0-13 13-20 20-30 30-40	10YR4/2 10YR5/3 10YR5/2 10YR6/3	Silt Loam Sandy Silt w/ 5% rock Sandy Silt w/ 10% rock Sandy Silt w/ 10% rock	
TF4B-10	-	-	NOT EXCAVATED	Tank Location	
TF4B-11	-	-	NOT EXCAVATED	Tank Location	
TF4B-12	Ap B	0-30 30-35	10YR3/1 10YR5/2	Silt Loam Sandy Silt w/ 10% rock	
TF4B-12 A	Ap B	0-32 32-37	10YR3/2 10YR5/2	Silt Loam Sandy Silt w/ 10% rock	X
TF4B-12 B	Ap B	0-28 28-35	10YR3/2 10YR5/2	Silt Loam Sandy Silt w/ 10% rock	X
TF4B-12 C	Ap B1 B2	0-9 9-28 28-52	10YR3/1 10YR5/1 10YR5/3	Silt Loam Sandy Silt w/ 10% rock Sandy Silt w/ 20% rock	X
TF4B-12 D	Ap B	0-29 29-36	10YR3/2 10YR5/2	Silt Loam Sandy Silt w/ 10% rock	X
TF4B-13	Ap B	0-41 41-46	10YR3/2 10YR5/2	Silt Loam Sandy Silt w/ 10% rock	
TF4B-14	Fill	0-22	10YR3/1	Gravel Lense	
TF4B-15	-	-	NOT EXCAVATED	Tank Location	
TF4B-16	-	-	NOT EXCAVATED	Tank Location	
TF4B-17	Fill	0-72	10YR3/1	Sandy Silt w/ 10% gravels	
TF4B-18	Ap B	0-20 20-29	10YR3/2 10YR5/2	Sandy Loam Sandy Silt w/ 10% rock	
TF4B-19	Ap	0-40	10YR3/2	Silt Loam *Rock @ Base	
TF4B-20	Ap B	0-29 29-37	10YR3/2 10YR5/2	Silt Loam Sandy Silt w/ 10% rock	
TF4B-21	-	-	NOT EXCAVATED	Tank Location	
TF4B-22	-	-	NOT EXCAVATED	Tank Location	
TF4B-23	Ao Fill I Fill II	0-8 8-23 23-39	10YR3/4 2.5Y5/3 2.5Y3/2	Silt Loam Sandy Gravel Coarse Sand w/ Slate	
TF4B-24	Ap	0-30	10YR3/2	Silt Loam *Rock @ Base	
TF4B-25	Ap B	0-33 33-44	10YR3/2 10YR5/2	Silt Loam Sandy Silt w/ 10% rock	
TF4B-26	Ap B1	0-25 25-40	10YR3/2 10YR5/3	Silt Loam Silty Sand w/ 10% rock	

	BZ	40-43	5Y4/1	Coarse Sand w/ Slate	
TF4B-27	Ap	0-18	10YR3/2	Silt Loam	
	B	18-36	10YR5/2	Sandy Silt w/ 10% rock	
TF4B-28	Ap	0-7	10YR4/2	Silt Loam	
	B1	7-13	10YR5/3	Silty Sand w/ 10% rock	
	B2	13-45	10YR5/1	Sandy Silt w/ 10% rock	
TF4B-29	Ap	0-13	10YR4/2	Silt Loam	
	B1	13-24	10YR5/3	Silty Sand w/ 10% rock	
	B2	24-41	10YR5/1	Sandy Silt w/ 10% rock	

Tank Farm 5					
STP	Horizon	Depths (cmBS)	Munsell	Texture	Radial
TF5-1	Ap	0-20	10YR3/2	Silt Loam	
	B	20-32	10YR5/4	Silt Loam w/ 10% rock	
TF5-2	Ap	0-30	10YR3/2	Silt Loam	
	B1	30-65	10YR4/2	Silty Sand w/ 10% rock	
	B2	65-90	10YR4/3	Fine Sand w/ 10% rock	
TF5-3	Ap	0-36	10YR3/2	Silt Loam	
	B1	36-65	10YR4/2	Silty Sand w/ 10% rock	
	B2	65-90	1YR4/3	Coarse Sand w/ 10% rock	
TF5-4	A	0-20	10YR3/2	Silt Loam, Slope Wash	
	Apb	20-42	10YR3/4	Silt Loam	
	B1	42-60	10YR4/4	Silty Sand w/ 10% rock	
	B2	60-90	1YR4/1	Coarse Sand w/ 10% rock	
TF5-5	Ao	0-5	10YR3/2	Silt Loam	
	Apb	5-65	10YR4/3	Silt Loam *Rock @ Base	
TF5-6	Ap	0-5	10YR3/2	Silt Loam	
	B	5-27	5Y3/2	Silt Loam w/ 5% gravels	
TF5-7	-	-	NOT EXCAVATED	Wetland	
TF5-8	Fill	0-50	5Y3/1	Gravel Lense	
	B	50-70	5Y3/2	Silt Loam w/ 5% gravels	
TF5-9	Fill	0-49	5Y3/1	Gravel Lense	
TF5-10	Ap	0-13	10YR3/2	Silt Loam	
	B1	13-50	2.5Y4/2	Clay Loam	
	B2	50-63	2.5Y4/2 mottled w/ Gley 2 3/10bg	Clay Loam	
TF5-11	Ap	0-13	10YR3/2	Silt Loam	
	B1	13-52	2.5Y4/2	Clay Loam	
	B2	52-65	2.5Y4/2 mottled w/ Gley 2 3/10bg	Clay Loam	
TF5-12	-	-	NOT EXCAVATED	Wetland	
TF5-13	-	-	NOT EXCAVATED	Wetland	
TF5-14	-	-	NOT EXCAVATED	Wetland	
TF5-15	Fill I	0-30	10YR3/1	Sandy Silt w/ 10% gravels	
	Fill II	30-60	10YR5/1	Sandy Silt w/ dense slate rock	
	Fill III	60-74	10YR7/1	Silt w/ 15% slate *In Roadway	
TF5-16	-	-	NOT EXCAVATED	Wetland	
TF5-17	-	-	NOT EXCAVATED	Wetland	
TF5-18	-	-	NOT EXCAVATED	Wetland	
TF5-19	-	-	NOT EXCAVATED	Wetland	
TF5-20	-	-	NOT EXCAVATED	Wetland	
TF5-21	-	-	NOT EXCAVATED	Wetland	
TF5-22	Ap	0-51	10YR4/2	Silt Loam *Bedrock @ Base	
TF5-23	Ao	0-5	10YR2/2	Silt Loam	
	Apb	5-20	10YR3/4	Silt Loam	
	B	20-55	10YR4/4	Silty Sand *Bedrock @ Base	
TF5-23 A	Ao	0-9	10YR2/2	Silt Loam	X
	Apb	9-34	10YR3/4	Silt Loam	
	B	34-84	10YR5/4	Silty Sand *Bedrock @ Base	
TF5-23 B	Ao	0-5	10YR2/2	Silt Loam	X
	Apb	5-30	10YR3/4	Silt Loam	
	B	30-54	10YR5/4	Silty Sand *Bedrock @ Base	
TF5-23 C	Ao	0-4	10YR2/2	Silt Loam	X
	Apb	4-40	10YR3/2	Silt Loam	
	B	40-64	2.5Y3/2	Coarse Sand w/ slate	

TF5-23D	Ao	0-5	10YR2/2	Silt Loam	X
	Apb	5-50	10YR3/4	Silt Loam	
	B	50-67	10YR4/4	Silty Sand	
TF5-23 E	Ao	0-7	10YR3/1	Silt Loam	X
	Apb	7-47	10YR3/3	Silt Loam	
	B	47-56	2.5Y3/2	Sandy Silt w/ slate	
TF5-23 F	Ao	0-7	7.5YR3/2	Silt Loam	X
	Fill	7-40	10YR4/6	Silt Loam w/ 10% rock	
	Apb	40-53	10YR5/3	Silt Loam w/ 10% rock	
	B	53-73	10YR6/6	Sandy Silt w/ 10% rock	
TF5-23 G	Ao	0-5	10YR2/2	Silt Loam	X
	Apb	5-27	10YR3/2	Silty Sand	
	B	27-33	2.5Y4/2	Coarse Sand w/ slate	
TF5-23 H	Ao	0-8	10YR2/2	Silt Loam	X
	Apb	8-40	10YR3/2	Silty Sand	
	B	40-50	2.5Y4/2	Coarse Sand w/ slate	
TF5-23 I	Ao	0-3	10YR3/2	Silt Loam	X
	Apb	3-30	10YR4/2	Sandy Loam	
	B	30-41	2.5Y4/2	Coarse Sand w/ slate	
TF5-23 J	Ao	0-12	7.5YR3/2	Silt Loam	X
	Fill	12-60	2.5Y5/1	Silt Loam w/ 10% rock	
	Apb	60-75	2.5Y5/3	Silt Loam w/ 10% rock	
	B	75-95	2.5Y6/6	Sandy Silt w/ 10% rock	
TF5-24	-	-	NOT EXCAVATED	Wetland	
TF5-25	A	0-28	10YR3/1	Silt Loam	
	Apb	28-35	10YR4/3	Silt Loam	
	B	35-46	10YR6/6	Sandy Silt w/ 10% rock	
TF5-26	Ao	0-10	7.5YR3/2	Silt Loam	
	Apb	10-26	10YR5/3	Silt Loam	
	B	26-62	10YR6/6	Sandy Silt w/ 10% rock	
TF5-27	Ao	0-10	10YR3/2	Silt Loam	
	Fill I	10-30	10YR5/2	Silt Loam w/ sand and 10% gravels	
	Fill II	30-72	10YR5/2 mottled w/ 10YR6/6	Silt Loam w/ sand and 10% gravels	
	Fill III	72-95	10YR7/1	Silt w/ dense rock	
				*In Roadway	
TF5-28	Ao	0-9	10YR3/2	Silt Loam	
	Apb	9-50	10YR3/1	Silt Loam	
	B	50-75	10YR6/2	Sandy Silt w/ 10% rock	
TF5-29	Ao	0-11	10YR3/1	Silt Loam	
	Apb	11-27	10YR3/2	Silt Loam	
	B	27-62	10YR6/4	Sandy Silt w/ 10% rock	

**Appendix D:
Air Monitoring Results-Phase I Archaeological
Investigation- Newport, Rhode Island**

Appendix D: Air Monitoring Results - Phase I - Archaeological Investigation - Newport Rhode Island

Date	Time (A.M to P.M.)	VOCs (ppm)	Comments
October 21, 2011	820	0.0	Katy Field Geoprobe
	825	0.0	
	830	0.0	
	847	0.0	
	852	0.0	Prichard's Field North Geoprobe
	857	0.0	
	905	0.0	
	910	0.0	Prichard's Field South Geoprobe
	945	0.0	
	940	0.0	
	945	0.0	Navy Lodge Geoprobe
	950	0.0	
	957	0.0	
	1002	0.0	
	1007	0.0	
	1024	0.0	
	1029	0.0	
	1033	0.0	Coddington Point Geoprobe
	1040	0.0	
	1103	0.0	
	1108	0.0	
	1113	0.0	Derector Shipyard Geoprobe
	1118	0.0	
	1123	0.0	
	1128	0.0	
	1134	0.0	
	1235	0.0	
	1240	0.0	NUWC Geoprobe
	1245	0.0	
	1315	0.0	Tank Farm #5 Geoprobe
	1320	0.0	
	1325	0.0	
	1351	0.0	Tank Farm #4B Geoprobe
	1357	0.0	
	1402	0.0	
	1407	0.0	
	1411	0.0	
	1425	0.0	Tank Farm #4A Geoprobe
	1435	0.0	
	1440	0.0	
	1450	0.0	
	1511	0.0	Tank Farm #3 Geoprobe
	1516	0.0	
	1521	0.0	
	1526	0.0	
	1530	0.0	
	1542	0.0	
	1547	0.0	
1552	0.0		
1557	0.0		
1602	0.0		
October 22, 2011	735	0.0	Tank Farm #5 - Archeological Investigation
	750	0.0	
	805	0.0	
	820	0.0	
	835	0.0	
	818	0.0	
	900	0.0	
	915	0.0	
	930	0.0	
	945	0.0	
	1000	0.0	
	1015	0.0	
	1030	0.0	
	1100	0.0	
	1115	0.0	
	1130	0.0	
	1145	0.0	
	1200	0.0	
	1215	0.0	
	1230	0.0	
	1245	0.0	
	1300	--	No Intrusive Work
	1315	0.0	Tank Farm #5 - Archeological Investigation
	1330	0.0	
	1400	0.0	
	1415	0.0	
	1430	0.0	
	1445	0.0	Tank Farm #4B - Archeological Investigation
	1500	0.0	
	1515	0.0	
	1530	0.0	
	1545	0.0	
1600	0.0		
1615	0.0		
1630	0.0		
1645	0.0		

Appendix D: Air Monitoring Results - Phase I - Archaeological Investigation - Newport Rhode Island

Date	Time (A.M to P.M.)	VOCs (ppm)	Comments
October 23, 2011	--	--	No Intrusive Work
October 24, 2011	--	--	No Intrusive Work
October 25, 2011	745	0.0	Tank Farm #4B - Archeological Investigation
	800	0.0	
	815	0.0	
	830	0.0	
	845	0.0	
	900	0.0	
	915	0.0	
	930	0.0	
	945	0.0	
	1000	0.0	
	1015	0.0	
	1030	0.0	
	1045	0.0	
	1100	0.0	
	1115	0.0	
	1130	0.0	
	1145	0.0	
	1200	0.0	
	1215	0.0	
	1230	0.0	
	1245	0.0	
	1300	0.0	
	1315	0.0	
	1330	0.0	
	1345	0.0	
	1400	0.0	
	1415	0.0	
	1430	0.0	
	1445	0.0	
	1500	0.0	
	1515	0.0	
	1530	0.0	
1545	0.0		
1600	0.0		
1615	0.0		
1630	0.0		
October 26, 2011	745	0.0	Tank Farm #3 - Archeological Investigation
	800	0.0	
	815	0.0	
	830	0.0	
	845	0.0	
	900	0.0	
	915	0.1	
	930	0.1	
	945	0.1	
	1000	0.5	
	1015	0.1	
	1030	0.1	
	1130	0.0	
	1145	0.0	
	1200	0.2	
	1215	0.2	
	1230	--	
	1245	--	
	1300	0.2	
	1315	0.2	
	1330	0.5	
	1345	0.5	
	1400	0.7	
	1415	0.7	
	1430	0.7	
	1445	1.3	
	1500	1.1	
	1515	1.4	
	1530	1.4	
	1545	--	
	1600	1.6	
	1615	1.4	
1630	1.2		
October 27, 2011	745	0.1	NUWC - Archeological Investigation
	800	0.0	
	815	0.2	
	830	1.7	
	845	1.2	

Appendix E:
Rhode Island Historical Preservation and
Heritage Commission Archaeological Site Forms

State of RI Archaeological Site Form

RI Historical Preservation & Heritage Commission
150 Benefit Street
Providence RI 02903

SITE IDENTIFICATION

[REDACTED] [REDACTED]
[REDACTED] [REDACTED]
[REDACTED] [REDACTED]

Present land use: Unused, open field with dense brush and trees (Restricted Access/Fenced Area)

Historic land use: Used for agriculture until the mid-twentieth century, then used as a tank farm (Tank Farm 5) by the U.S. Navy for refueling ships docking at the Newport Naval Base; however no tank construction took place within the site. This tank farm was constructed in 1942 and was used between World War II and 1970. Eleven 60,000-barrel storage tanks were used for the storage of fuel and all of the tanks were demolished in late 1998 through early 1999. An access road constructed during the areas use as a tank farm traverses the center of the site and has caused an unknown level of disturbance. A large natural gas line parallels the access road and has also caused an unknown level of disturbance to the site.

Owners: private town state federal (please specify agency: U.S. Navy)

How located (if through informant, please give name):

Pedestrian reconnaissance

SITE DESCRIPTION

Site Type: Historic Dwelling

Period: Middle to Late Nineteenth Century

Approximate size and boundaries, if known:

Approximately 0.9 acres (Full extent of site limits still unknown as no systematic testing has taken place)

Stratigraphy:

Surface finds Plowed Stratified Major Disturbance Other (please specify)

Site Integrity:

Undisturbed Good Fair Destroyed

Threats to Site:

None known Private Erosion Highways Vandalism Other *

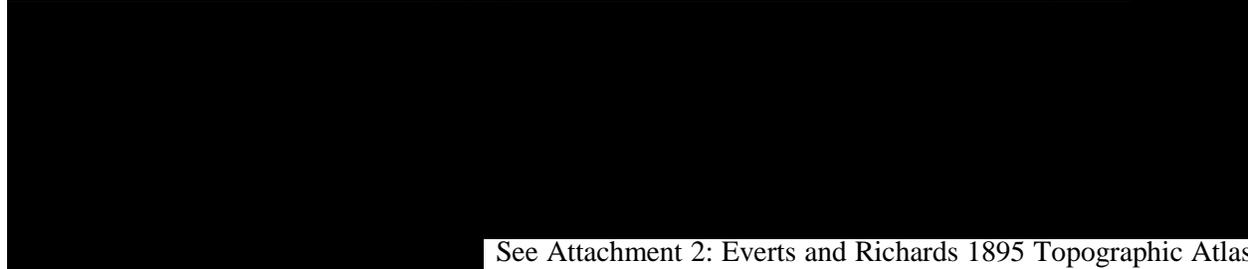
(*Site may be impacted by construction of a wind turbine, however, the site is currently outside of the construction APE)

Recovered Data—please describe artifacts (type, quantity, raw materials, and any diagnostics), features, dates); please use extra sheets as needed.

Stone wall remnants were identified along with a possible collapsed cellar hole. Phase I Archaeological Survey of Tank Farm 5 [REDACTED] identified historic field scatter likely related to the [REDACTED]. These artifacts consisted of cut nails, transfer-printed whiteware, ironstone, window glass, and buff-bodied earthenware. No systematic testing was done within the Greendale Site as it was located outside the survey APE.

Archaeological or Historical Importance (if any):

The Everts and Richards 1895 Topographic Atlas indicates that the structure belonged to [REDACTED]



See Attachment 2: Everts and Richards 1895 Topographic Atlas

Map)

ENVIRONMENT

USDA Soil Type: NeB—Newport silt loam, 3 to 8 percent slopes

Present Vegetation: Heavy brush, trees

Contour Elevation: 50



EXCAVATION/PUBLICATION HISTORY:

Level of Testing

By whom/affiliation: **AECOM**

Date: **10/24/2011**

Surface artifacts observed

Surface collected

Tested Phase Ia

Phase Ib

Phase Ic

Phase II

Phase III

Machine stripping

Excavated

Pot hunted

Monitored

Repository: Currently artifact collections are located at the AECOM, Trenton Office, artifacts will be transported to, and curated by, NAVSTA at conclusion of project.

Report title(s): Phase I Archaeological Investigation of 12 sites for proposed construction of wind turbines at Naval Station Newport, in Newport, Rhode Island by Frank G Mikolic, Hilary J. Powell, and Paul Schopp (February 2012).

Other references:

(Ruins are mentioned in two previous cultural survey reports)

Avery, Nicolas C., and Jacob Freedman
2011 Historical Resources Assessment for the Naval Station Newport Viewshed Study,
Newport County, Rhode Island

Department of the Navy
2010 Integrated Cultural Resource Management Plan (2008-2012), Naval Station Newport,
Newport, Rhode Island.

ADDITIONAL INFORMATION:

Reported by (name, address, organization, date):

Frank Mikolic
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Archaeology
T 609-310-3201
frank.mikolic@aecom.com

Date Submitted: 1/30/2012



516 East State Street
Trenton, NJ 08609
T 609.599.4261 F 609.392.3785
www.aecom.com

Please attach a section of USGS topo map showing the exact location of the site, and also include a map of the site itself, showing the location of excavated units, if available.

(See Attachments 3 and 4)

State of RI Archaeological Site Form

RI Historical Preservation & Heritage Commission
150 Benefit Street
Providence RI 02903

SITE IDENTIFICATION

[REDACTED] [REDACTED]
[REDACTED] [REDACTED]
[REDACTED] [REDACTED]

Present land use: Unused, open field with dense brush and trees (Restricted Access/Fenced)

Historic land use: Used for agriculture until the mid-twentieth century, then used as a tank farm (Tank Farm 4A) by the U.S. Navy for refueling ships docking at the Newport Naval Base. The tank farm was constructed in the early 1940s and was used between World War II and 1970. Twelve 60,000-barrel tanks were used for storage of fuel and were demolished between 1997 and 1998. An access road constructed during the areas use as a tank farm traverses the southern portion of the APE and has caused significant grading damage there. [REDACTED]

Owners: private town state federal (please specify agency U.S. Navy)

How located (if through informant, please give name):
Pedestrian reconnaissance

SITE DESCRIPTION

Site Type: Open habitation site

Period: Unknown Prehistoric

Approximate size and boundaries, if known: Approximately 0.12 acres

Stratigraphy:

Surface finds Plowed Stratified Major Disturbance Other (please specify)

Site Integrity:

Undisturbed Good Fair Destroyed

Threats to Site:

None known Private Erosion Highways Vandalism Other*

* Site is located within the APE of a proposed wind turbine project.

Recovered Data—please describe artifacts (type, quantity, raw materials, and any diagnostics), features, dates); please use extra sheets as needed.

A total of nine prehistoric artifacts were recovered within the plow zone from tests [REDACTED]
[REDACTED] These artifacts included an argillite primary flake and biface; a quartz tested cobble, shatter, and preform; and a quartzite biface, flake tool, and two fire cracked rocks (FCR).

Archaeological or Historical Importance (if any):

N/A

ENVIRONMENT

USDA Soil Type: UD—Udorthents-Urban land complex

Present Vegetation: Heavy brush, trees Contour Elevation: 50



EXCAVATION/PUBLICATION HISTORY:

Level of Testing

By whom/affiliation: **AECOM**

Date: **10/24/2011**

Surface artifacts observed

Surface collected

X Tested Phase Ia

X Phase Ib

Phase Ic

Phase II

Phase III

Machine stripping

Excavated

Pot hunted

Monitored

Repository: Currently artifact collections are located at the AECOM, Trenton Office, artifacts will be transported to, and curated by, NAVSTA at conclusion of project.

Report title(s): Phase I Archaeological Investigation of 12 sites for proposed construction of wind turbines at Naval Station Newport, in Newport, Rhode Island by Frank G Mikolic, Hilary J. Powell, and Paul Schopp (February 2012).

Other references:

N/A

ADDITIONAL INFORMATION:

Reported by (name, address, organization, date):

Frank Mikolic
Principal Investigator
Archaeology
T 609-310-3201
frank.mikolic@aecom.com

Date Submitted: 1/30/2012



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T 609.599.4261 F 609.392.3785
www.aecom.com

Please attach a section of USGS topo map showing the exact location of the site, and also include a map of the site itself, showing the location of excavated units, if available.

(See Attachments 1 and 2)

**Appendix F:
Rhode Island Historical Preservation and
Heritage Commission Correspondence**



STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
HISTORICAL PRESERVATION & HERITAGE COMMISSION

Old State House • 150 Benefit Street • Providence, R.I. 02903-1209

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19 December 2011

Captain J.P. Voboril, USN
Commanding Officer
Naval Station Newport
690 Peary Street
Newport, Rhode Island 02841-1522

Re: Proposed Wind Turbine Locations
Comments for Environmental Assessment
Naval Station Newport
Newport, Middletown, and Portsmouth, Rhode Island

Dear Captain Voboril:

U.S. Naval Station Newport has conducted an Environmental Assessment of the impacts resulting from potential installation of up to 12 wind turbines ranging in height from 459 feet to as little as 211 feet to be located at one or more of 12 sites that were investigated. The Rhode Island Historical Preservation and Heritage Commission (RIHPHC) staff has reviewed reports for "Historical Resources Assessment for the Naval Station Newport Viewshed Study, Newport County, Rhode Island" prepared by Gray & Pape, Inc. for Tetra-Tech, Inc. The reports, which summarized viewshed analyses regarding sites proposed by the Navy for the location of wind turbines, have been well done and thorough.

In a letter to you dated 22 July 2011, the RIHPHC informed you that we had begun to share the revised photographic simulation information for this project with our peers whose properties are located in the area around the project. We also stated that following our receipt of comments from those groups, we would evaluate the project based on the Criteria of Adverse Effect as defined in Section 106 and issue our Section 106 determinations of effect for the project.

As you are aware, most of the groups that we contacted requested the opportunity to have representatives attend information sessions on the project that you had previously offered to conduct. We thank you for conducting these meetings on 28 October and 17 November 2011. We received responses from five of the eight groups to whom we sent information. The responses were generally in favor of a wind energy project, however, there were concerns expressed, mostly about the southernmost sites, including multiple single turbines versus one or more clusters, and the potentially out-of-scale relationship between the turbines and the built and natural environment of the area.

Based on the photographic simulations that have been provided by the Navy and in consideration of the comments that we have received from our peers, we have made a preliminary determination that the installation of wind turbines at the 12 locations under consideration will have a visual effect on the following properties:

- United States Naval War College, a National Register of Historic Places (NR) -listed and National Historic Landmark (NHL) district which includes Luce Hall, an NR-listed property: as illustrated by the photographic simulation from Battery Park (#11);
- Newport Historic District, an NR-listed and NHL district: as illustrated by photographic simulations from Battery Park (#11), Island Cemetery (#13, 13a), and Bowen's Wharf (#3);
- Bellevue Avenue National Historic Landmark District, an NR-listed and NHL district, and Ochre Point-Cliffs Historic District, an NR-listed district, both in Newport: as illustrated by photographic simulations from the Breakers (#10, 10a);
- Bellevue Avenue-Casino Historic District and the Newport Casino (and the Van Alen Casino Theatre and Newport Performing Arts Center) in Newport, an NR-listed and an NR-listed and NHL property, respectively: as illustrated by the photographic simulation from Bellevue Avenue at Casino Terrace (#5);
- Ocean Drive Historic District in Newport, an NR-listed and NHL district: as illustrated by a photographic simulation from Ida Lewis Yacht Club in Newport (#6);
- Fort Adams Historic District in Newport, an NR-listed and NHL district: as illustrated by photographic simulations from both outside and inside the Fort (#7, 8, 9);
- Windmill Hill Historic District and Jamestown Windmill in Jamestown, both of which are listed in the NR: as illustrated in two photographic simulations from the Windmill property (#25, 25a);
- Rose Island Lighthouse off the west coast of Newport, an NR-listed property: as illustrated by photographic simulations from Narragansett Bay (#12, 12a);
- Shoreby Hill Historic District in Jamestown, an NR-listed district: as illustrated by the photographic simulation from Jamestown Harbor (#26);
- Newport Naval Hospital Historic District in Newport, which is considered eligible for listing in the NR: as illustrated by photographic simulations from Cypress Street in Newport (#1, 2);
- Agricultural District at Green Lane and West Main Road in Middletown, which is considered potentially eligible for listing in the NR: as illustrated by photographic simulations from 1942 West Main Road, in Middletown (#20, 20a).

It is possible that there will also be visual effects on other historic properties within the above-listed districts.

The southernmost six proposed turbines (Katy Field, Bishop Rock, Prichard Field South, Prichard Field North, Navy Lodge, and Coddington Point), due in part to their proximity to the large number of National Register of Historic Places-listed and -eligible and National Historic Landmark-designated properties, have the greatest possibility of causing adverse visual effects to historic resources. If constructed, turbines at these locations would have adverse effects on views of the United States Naval War College NHL District, of Luce Hall, of the President's House (aka Quarters AA), of the

Point section of the Newport NHL District, and of Rose Island Lighthouse, and views within the Common Burying Ground and Island Cemetery, which is individually listed in the NR and within the bounds of the Newport NHL district, and from the Fort Adams Historic NHL District.

Additionally, the construction of the proposed turbine at Tank Farm 5 would have an adverse visual effect on the Agricultural District at Green Lane and West Main Road in Middletown, located just to the east of the turbine. Even at its FAA-maximum allowed height of 211 feet, the photographic simulations of the proposed turbine show a significant presence in this sparsely built agricultural district.

In order to reach our conclusion that the undertaking would result in adverse effects to historic properties, RIHPHC carefully considered the comments of the interested public, and we considered the visual qualities that are integral to the properties' historical significance and historical character. We concluded that simple visibility of a proposed wind turbine from a historic property would not, by itself, constitute an adverse effect. However, when the visual impact of one turbine or the cumulative effect of multiple turbines diminished the integrity of the historic property's setting, feeling, and association, we concluded that an adverse effect would result as described in the federal Procedures of the Advisory Council on Historic Preservation (36 CFR Part 800.5(a)). For example, the southernmost turbines significantly intrude on the historic waterfront character of the Point section of the Newport NHL District, and they seriously alter the visual setting of historic properties on Coasters Island, Rose Island, and Fort Adams. The visibility of any turbines would significantly intrude on the historic landscape character of the Common Burying Ground and Island Cemetery.

In addition to identifying visual impacts to specific historic properties, RIHPHC agrees with comments of the Preservation Society of Newport County that: "The viewshed of Newport and its Harbor, its component landscapes and structures represents a globally significant cultural resource. This year nearly ten million vehicles will have crossed the Bridge onto or off the island, and approximately 121,000 visitors arrived by cruise ship to tour Newport. We believe their view of historic Newport would have been adversely impacted if wind turbines were installed on the proposed sites 6-12 [Building 6CC aka Derecktor Shipyard, Building 1112 aka Coddington Point, Building 1285 aka Navy Lodge, Bishops Rock, Prichard Field – North, Prichard Field – South, and Katy Field, respectively]." Acceptance of adverse visual effects from Navy turbines not only would diminish the integrity of significant historic properties, but could also affect Newport's attractiveness as a destination for cultural tourism.

We understand that the Navy is in the process of gathering information for consolidation in an environmental assessment, after which it will review and evaluate the document in order to make a decision whether or not to construct wind turbines at these locations. At such time that the Navy decides to pursue and construct wind turbines, we will expect to review those plans under the regulations set forth in Section 106 of the National Historic Preservation Act.

Based on the information that has been provided by the Navy, we have made a preliminary determination that the project will not have a direct, physical impact to any above-ground historic property.

We have reviewed the draft of the Phase I archaeological investigation that was transmitted to our office; we assume that the final version will include information on who did the work, information on the project impacts, and additional historical and archaeological context for the areas investigated.

We concur that no additional archaeological survey is required at the following areas:

- Tank Farm 3
- Tank Farm 4 Turbine Site B
- NUWC
- Derecktor Shipyard
- Coddington Point
- Navy Lodge
- Bishops Rock
- Prichard Field North
- Prichard Field South
- Katy Field

At Tank Farm 5, a historical site, RI 2519, was discovered to the north of the proposed wind turbine. We concur that no further survey is need for this site at the present time. However, if the wind turbine location should shift to the north, additional survey would be needed to determine the spatial extent of RI 2519, and, depending on the results of that survey, a Phase II investigation might be necessary to determine if RI 2519 is eligible for listing on the National Register of Historic Places.

At Tank Farm 4 Turbine Site A, prehistoric artifacts were recovered from the plow zone. It is our opinion that this site, designated RI 2520, could potentially be eligible for listing on the National Register. A Phase II survey should be conducted to determine if this is the case.

These comments are provided in accordance with Section 106 of the National Historic Preservation Act. We look forward to working with the Navy and its team to complete this important project. If you have any questions, please contact Jeffrey Emidy, Project Review Coordinator, or Charlotte Taylor, Staff Archaeologist, of this office.

Very truly yours,



Edward F. Sanderson
Executive Director
State Historic Preservation Officer

cc: John Brown, NITHPO
D.D. Dorocz, Environmental Department Head, Naval Station Newport
Shannon Kam, Naval Station Newport
Keith Stokes, Executive Director, RI Economic Development Corporation

To: Captain J.P. Voboril
Re: Navy Wind Turbines

5

19 December 2011

cc, cont:

Dana Corson, Preservation Planner, Newport Historic District Commission, by email
Trudy Coxe, Chief Executive Officer, Preservation Society of Newport County, by email
Beth Cullen, President, The Point Association, by email
Grover Fugate, Executive Director, RI Coastal Resources Management Council, by email
John Grosvenor, Commissioner, RIHPHC, by email
Eric Hertfelder, Executive Director, Fort Adams Trust, by email
David McCurdy, Executive Director, Rose Island Foundation, by email
Ronald Onorato, Commissioner, RIHPHC, by email
Linnea Petersen, President, Jamestown Historical Society
Pieter Roos, Executive Director, Newport Restoration Foundation, by email
Mark Stenning, Chief Executive Officer, Int'l Tennis Hall of Fame & Museum, by email
Valerie Talmage, Executive Director, Preserve Rhode Island, by email



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12 April, 2012

Captain D.W. Mikatarian
Commanding Officer
Naval Station Newport
690 Peary Street
Newport, Rhode Island 02841-1522

Re: Phase I Archaeological Survey--Twelve Sites for Proposed Wind Turbine Construction
Naval Station Newport

Dear Captain Mikatarian:

We have reviewed the draft report of the Phase I archaeological investigation conducted by AECOM, and have the following comments.

We concur that no additional archaeological survey is required at the following locations:

- Tank Farm 3
- Tank Farm 4 Turbine Site B
- NUWC
- Derecktor Shipyard
- Coddington Point
- Navy Lodge
- Bishops Rock
- Prichard Field North
- Prichard Field South
- Katy Field

At Tank Farm 5, a historical site, RI 2519, was discovered to the north of the proposed wind turbine. We concur that no further survey is needed for this site at the present time. However, if the wind turbine location should shift to the north, additional survey would be needed to determine the spatial extent of RI 2519, and, depending on the results of that survey, a Phase II investigation might be necessary to determine if RI 2519 is eligible for listing on the National Register of Historic Places.

At Tank Farm 4 Turbine Site A, prehistoric artifacts were recovered from the plow zone. We concur that if this site is chosen for construction, it would be necessary to conduct additional archaeological survey to determine if this site, RI 2520, is eligible for listing on the National Register of Historic Places.

These comments are provided in accordance with Section 106 of the National Historic Preservation Act. We look forward to working with the Navy and its team to complete this important project. If you have any questions, please contact Charlotte Taylor, Senior Archaeologist at this office.

Very truly yours,

Edward F. Sanderson
Executive Director
State Historic Preservation Officer

cc: John Brown, NITPC
D.D. Dorocz, Environmental Department Head, Naval Station Newport
Shannon Kam, Naval Station Newport

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