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Final
No Action Decision Document
PI-14 and PAOC FF
Former Vieques Naval Training Range (VNTR)
Vieques, Puerto Rico



Prepared for
Department of the Navy
NAVFAC ATLANTIC

Contract No.
N62470-08-D-1000
CTO-0037

December 2010

Prepared by

CH2MHILL®

Final

**No Action Decision Document
PI-14 and PAOC FF**

**Former Vieques Naval Training Range (VNTR)
Vieques, Puerto Rico**

Contract Task Order 0037

December 2010

Prepared for

**Department of the Navy
Naval Facilities Engineering Command
Atlantic**

Under the

**NAVFAC CLEAN 1000 Program
Contract N62470-08-D-1000**

Prepared by



CH2MHILL

Virginia Beach, Virginia

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Acronyms and Abbreviations

amsl	above mean seal level
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CLEAN 1000	Comprehensive Long-term Environmental Action - Navy
EBS	Environmental Baseline Survey
EEUU	Estados Unidos
ERA/SI	Expanded Range Assessment/Site Inspection
ERI	Environmental Research, Inc.
ERP/MRP	Environmental Restoration Program/Munitions Response Program
ft	foot/feet
NAVFACENGCOM	Naval Facilities Engineering Command
PAOC	potential area of concern
PI	photo identified
PREQB	Puerto Rico Environmental Quality Board
SI/ESI	Site Inspection/Expanded Site Inspection
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
US NAVY	United States Department of the Navy
VNTR	Vieques Naval Training Range

Declaration

The United States Department of the Navy (US Navy), in partnership with the United States Environmental Protection Agency (USEPA), Puerto Rico Environmental Quality Board (PREQB), and United States Department of Interior Fish and Wildlife Service (USFWS), has determined, based on the information contained within this Decision Document, that no further investigative activities are warranted and that no action is necessary to be protective of human health and the environment at the following site screening areas:

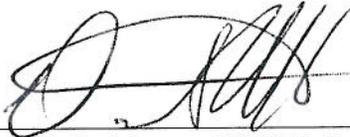
- Photo Identified site (PI) 14 - Possible Miscellaneous Debris Disposal Area
- Potential Area of Concern (PAOC) FF - Former Artillery Gun Area



Kevin Cloe, US Navy Remedial Project Manager

12/15/10

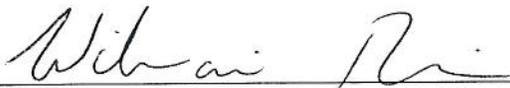
Date



Daniel Rodriguez, USEPA Remedial Project Manager

12/15/2010

Date



Wilmarie Rivera, PREQB Remedial Project Manager

12/15/10

Date



Richard Henry, USFWS Remedial Project Manager

12/15/10

Date

Executive Summary

This Decision Document memorializes formal concurrence among the stakeholder agencies (US Navy, USEPA, PREQB, and USFWS) that no action is necessary two site screening areas located within the former Vieques Naval Training Range (VNTR) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Figure ES-1 shows the geographic location of Vieques, including the former VNTR, in relation to mainland Puerto Rico and the surrounding islands. The locations of the sites contained within this Decision Document are shown in Figure ES-2. The sites included in this Decision Document are:

- PI 14 - Possible Miscellaneous Debris Disposal Area
- PAOC FF - Former Artillery Gun Area

The no action determinations made for these sites is based on an understanding of historical site uses, potential contaminant sources, and site visit observations. Table ES-1 summarizes the information upon which the no action determinations have been made for each of the sites. More detailed discussion is presented in each of the site-specific sections contained in this Decision Document.

TABLE ES-1
 Summary of No Action Determinations
No Action Decision Document
PI 14 and PAOC FF Sites
Vieques, Puerto Rico

Site Name	Site Description	Site History	Potential Source(s)	Rationale for No Action Determination
PI 14	Possible Miscellaneous Debris Disposal Area	Identified in aerial photographic analysis as possible debris disposal area. Interviews suggested it might be the disposal area for scrap metal, ammunition boxes, shell casings, and miscellaneous debris. However, subsequent site visits found no evidence for disposal at the site; rather, a few isolated slap flares, several pounds of metal banding, and several spools of communications wire likely accidentally discarded were observed. This debris has been removed and appropriately disposed.	None	There is no evidence that the site was used for debris disposal and no evidence of a CERCLA-related release was observed at the site. Only a few innocuous items were observed and they were subsequently removed as part of general housekeeping at the site.
PAOC FF	Former Artillery Gun Area	A former employee interview indicated that a former artillery gun placement existed at PAOC FF.	None	There is no evidence that the site was used as a gun placement position and no evidence of a CERCLA-related release was observed at the site. Historical aerial photographs from the 1930s through 2004 show no artillery gun placement features and the site's proximity to the end of the runway indicates it would not have been used for artillery gun placement. Transects of the area identified only a few innocuous items (fencing material).

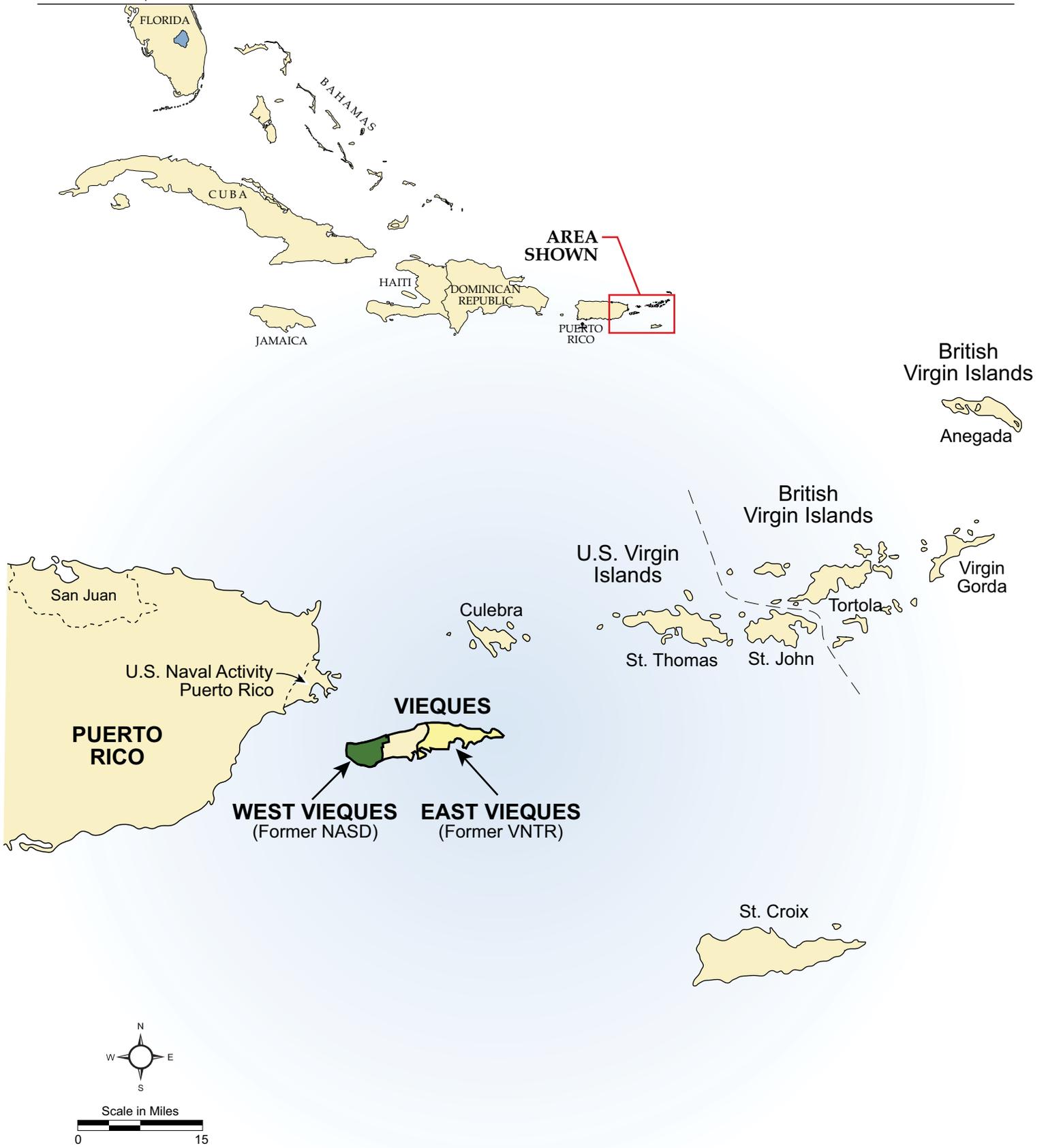


FIGURE ES-1
 Regional Location Map
 No Action Decision Document
 PI 14 and PAOC FF Sites
 Vieques, Puerto Rico



PAOC FF

PI 14

LEGEND

Transect Items

-  Communications wire and metal banding (removed)
-  Expended slap flares, removed, inspected, demilitarized and appropriately disposed
-  Unexpended slap flares, removed, demilitarized, and appropriately disposed
-  Fencing material
-  PI/PAOC boundary

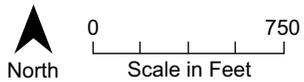


FIGURE ES-2
 PI 14 and PAOC FF
No Action Decision Document
 PI 14 and PAOC FF Sites
 Vieques, Puerto Rico

Resumen Ejecutivo

Este Documento de Decisión formaliza la determinación entre los representantes de las agencias (la Marina, la Agencia de Protección Ambiental de los EEUU, la Junta de Calidad Ambiental de Puerto Rico y el Servicio de Pesca y Vida Silvestre de los EEUU) de que no es necesaria ninguna acción en dos sitios dentro del Antiguo Campo de Adiestramiento Naval de Vieques (VNTR por sus siglas en inglés) que se encuentran bajo investigación bajo la Ley de Respuesta, Responsabilidad y Compensación Ambiental (CERCLA). La Figura ES-1 muestra la ubicación geográfica de Vieques, incluyendo el Antiguo VNTR, en relación a la Isla de Puerto Rico e islas circundantes. La Figura ES-2 muestra la localización de los sitios mencionados en este Documento de Decisión. Los sitios incluidos en este Documento de Decisión son:

- PI 14 - Posible Área de Disposición de Escombros Misceláneos
- PAOC FF - Antigua Área de Ubicación de Cañón de Artillería

La determinación de Ninguna Acción para estos sitios se basa en el estudio de los usos históricos del sitio, posibles fuentes de contaminación y visitas de observación al sitio. La Tabla ES-1 resume la información sobre la cual se tomó la determinación de ninguna acción para cada uno de los sitios. Una discusión más detallada se presenta en cada una de las secciones del sitio específico que se presentan en este Documento de Decisión.

TABLA ES-1

Resumen de la Determinación de Ninguna Acción
Documento de Decisión de Ninguna Acción
Sitios PI 14 y PAOC FF
Vieques, Puerto Rico

Nombre del Sitio	Descripción del Sitio	Historia del Sitio	Fuente (s) Potenciales	Racional para Determinación de Ninguna Acción
PI 14	Posible Área de Disposición de Escombros Misceláneos	Se identificó como un área potencial de disposición de escombros misceláneos a través de análisis de fotografías aéreas el sitio. Las entrevistas sugieren que ésta podría ser el área de disposición de escombros de metal, cajas de municiones, casquillos de municiones y escombros misceláneos. Sin embargo, visitas subsecuentes al sitio no encontraron evidencia de disposiciones en el sitio; en vez de eso, se observaron algunos vestigios de bengala aislados, varias libras de bandas de metal y varios carretes de cables de comunicación, posiblemente descartados accidentalmente. Estos escombros fueron removidos y se dispuso de ellos adecuadamente.	Ninguna	No hay evidencia de que el sitio haya sido utilizado para disposición de desperdicios y no se observó ninguna evidencia de escapes relacionados a CERCLA en el sitio. Solamente se observaron algunos artículos inofensivos y éstos fueron removidos como parte de la limpieza general del sitio.
PAOC FF	Antigua Área de Ubicación de Cañón de Artillería	Un antiguo empleado entrevistado indicó que en el PAOC FF existió la ubicación de un cañón de artillería.	Ninguna	No existe evidencia de que el sitio haya sido la ubicación de un cañón de artillería y no se observó ninguna evidencia de escapes relacionados a CERCLA en el sitio. Las fotografías aéreas históricas desde los años 1930s hasta el 2004 no muestran ninguna característica de ubicación de un cañón de artillería y la proximidad del sitio al final de la pista indica que éste no hubiera podido usarse para posicionar cañones. Los transeptos del área identificaron solamente algunos artículos inofensivos (material de verjas).

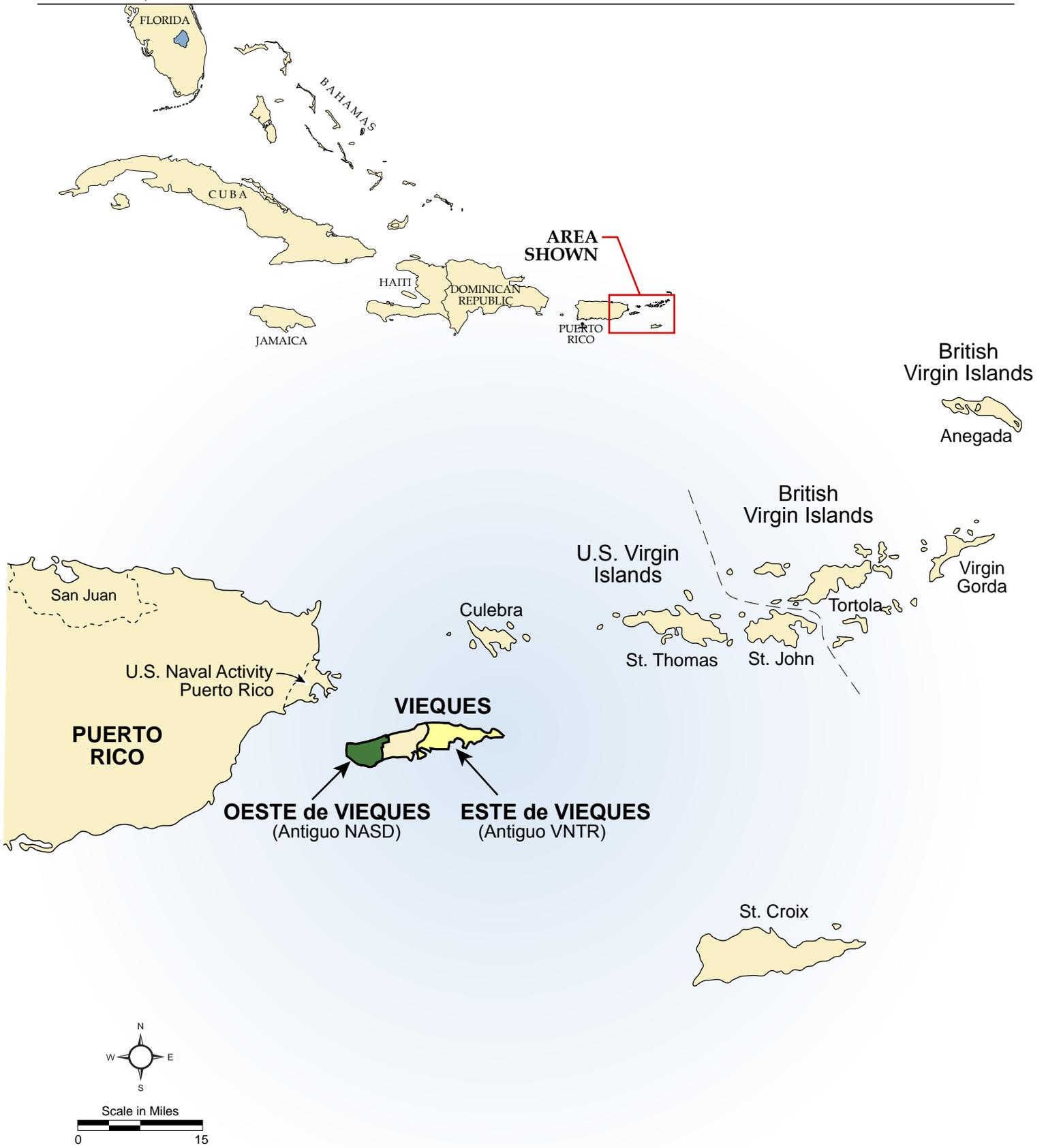


FIGURA ES-1
 Mapa de Ubicación Regional
Documento de Decisión de Ninguna Acción
Sitios PI 14 y PAOC FF
Vieques, Puerto Rico



PAOC FF

PI 14

LEYENDA

Artículos en Transeptos

- ▲ Conexión de Comunicaciones y banda metálica (removidos)
- ▲ Vestigios de Bengala Usados, removidos, inspeccionados, desmilitarizados y dispuestos adecuadamente
- ◆ Vestigios de Bengala no Usados, removidos, inspeccionados, desmilitarizados y dispuestos adecuadamente
- Material para verjas
- Límite de PI/PAOC

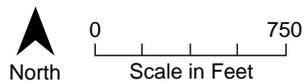


FIGURA ES-2
 PI 14 and PAOC FF
Documento de Decisión de Ninguna Acción
Sitios PI 14 y PAOC FF
Vieques, Puerto Rico

SECTION 1

Introduction

This Decision Document provides formal concurrence among the stakeholder agencies (Navy, USEPA Region 2, PREQB, and USFWS) that no action is necessary at PI 14 and PAOC FF, located within the former VNTR under the CERCLA. **Figure 1-1** shows the geographic location of Vieques, including the former VNTR, in relation to mainland Puerto Rico and the surrounding islands. The locations of PI 14 and PAOC FF are shown in **Figure 1-2**.

PI 14 was photographically identified in the 2000 Environmental Research, Inc. (ERI) photographic evaluation (ERI, 2000). The photographic evaluation noted two pits with light toned debris and possible debris on an air photograph taken in the mid-1970s. CH2M HILL conducted a visual site inspection in 2001. No evidence of human activities and no environmental releases were observed. In 2002 as part of the Environmental Baseline Survey (EBS) for the VNTR (NAVFACENCOM, 2003), site inspectors on PI 14 observed a semi-cleared area with possible deposited material, but no evidence of metal debris or other waste. As part of the Expanded Range Assessment/Site Inspection (ERA/SI) (CH2M HILL, 2009) walking transects were conducted across PI-14; items found consisted of slap flares, metal banding and communications wire. These items have since been removed from the site as a general housekeeping activity.

PAOC FF was identified as a PAOC site during the 2002 EBS interviews, when one of the interviewees suggested that it was the site of a former artillery gun placement. As part of the ERA/SI (CH2M HILL, 2009), walking transects were conducted across PAOC FF; items found consisted of rebar, fencing debris and a partially intact fence. As discussed in the July 14, 2010 Environmental Restoration Program/Munitions Response Program (ERP/MRP) subcommittee meeting, there is no evidence to substantiate the interviewee's suggestion that the site was formerly an artillery gun placement.

The remainder of this Decision Document presents site-specific detail for each site. Each section summarizes pertinent historical information for a site, followed by the rationale upon which the no action determination is based. Details of the Former VNTR including the facility description and environmental history are provided in the Final Site Inspection/Expanded Site Inspection (SI/ESI) Report (CH2M HILL, 2010).

This No Action Decision Document was prepared on behalf of the Navy by CH2M HILL under Navy Contract N62470-08-D-1000, Comprehensive Long-term Environmental Action - Navy (CLEAN 1000), Contract Task Order 0037.

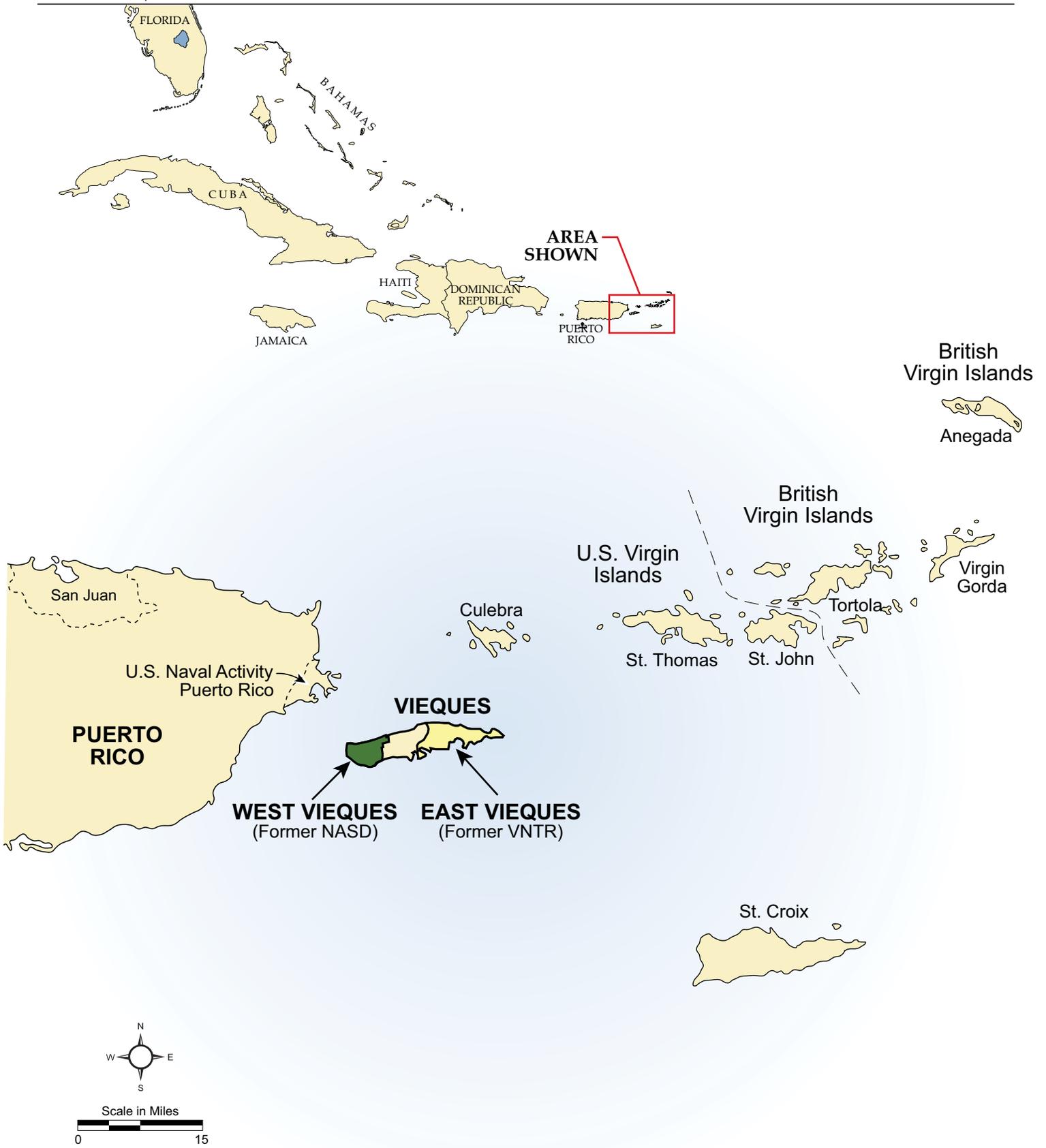


FIGURE 1-1
 Regional Location Map
 No Action Decision Document
 PI 14 and PAOC FF Sites
 Vieques, Puerto Rico



PAOC FF

PI 14

LEGEND

Transect Items

-  Communications wire and metal banding (removed)
-  Expended slap flares, removed, inspected, demilitarized and appropriately disposed
-  Unexpended slap flares, removed, demilitarized, and appropriately disposed
-  Fencing material
-  PI/PAOC boundary

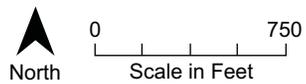


FIGURE 1-2
 PI 14 and PAOC FF
No Action Decision Document
 PI 14 and PAOC FF Sites
 Vieques, Puerto Rico

SECTION 2

PI 14—Possible Miscellaneous Debris Disposal Area

This section presents a summary of the pertinent historical information and rationale for the no action determination for PI 14—Possible Miscellaneous Debris Disposal Area at the Former VNTR.

2.1 Conceptual Site Model

2.1.1 Site Description

PI 14 was identified in historical aerial photographic analysis as having two pits with light toned material and possible debris in the mid 1970s (**Figure 2-1**) (ERI, 2000). It is important to note that features identified by ERI on the aerial photographs are not necessarily accurate because ERI did not perform a site visit to substantiate the features they noted in the aerial photographs, and their photographic analysis was done many years after the aerial photographs were taken. During a visual site inspection by CH2M HILL in 2001, no evidence was found of human activities in the area and no environmental releases were observed. Interviews conducted during the VNTR EBS (NAVFACENGCOM, 2003) identified the possibility of PI 14 as being a disposal area for scrap metal, ammunition boxes, shell casings, and miscellaneous debris. Site visits conducted as part of the EBS observed a semi cleared area, with possible deposited material, but no evidence of metal debris or other waste. The EBS recommended no further action. Walking transects were conducted across PI 14 as part of the 2009 ERA/SI for visual inspection of the site (CH2M HILL 2009) (**Figure 2-2**). The survey identified slap flares, several pounds of metal banding and communications wire (**Figure 2-3**). These items have since been removed from the site. However, no evidence of buried debris was observed at the site. In fact, the site would not have been conducive for burial due to the steep grade leading off the road into area and because of the presence of rock at/near ground surface over much of the area.

2.1.2 Physical Setting

PI 14 lies just north of Bahía Corcho (Cork bay) on a small hill between Cerro Playuela (Beach hill) to the west and Cerro Caracas (Caracas hill) to the east (**Figure 2-4**), with a maximum elevation of approximately 33 ft (foot/feet) above mean sea level (amsl). The land containing PI 14 is heavily vegetated and slopes upward to the south from the access road on the north side of the site. The hill crests in the center of the site where the site widens out, and then drops moderately steeply to Bahía Corcho. The topography also drops east and west of the site then raises into the aforementioned hills.

2.2 Conclusions and No Action Determination

As noted previously, there is no evidence that the site was used for debris disposal and no evidence of a CERCLA-related release was observed at the site. In fact, the site's topography relative to access roads would not make it conducive for general disposal. Only a few innocuous items (several slap flares, several pounds of metal banding, and several spools of communications wire) indicative of incidental or accidental discarding were observed. These items have since been removed as part of general housekeeping at the site. Based on this information, no action is warranted for PI 14.



PI 14

ERI Reported:
Pits
Possible Debris
Light-Toned Material

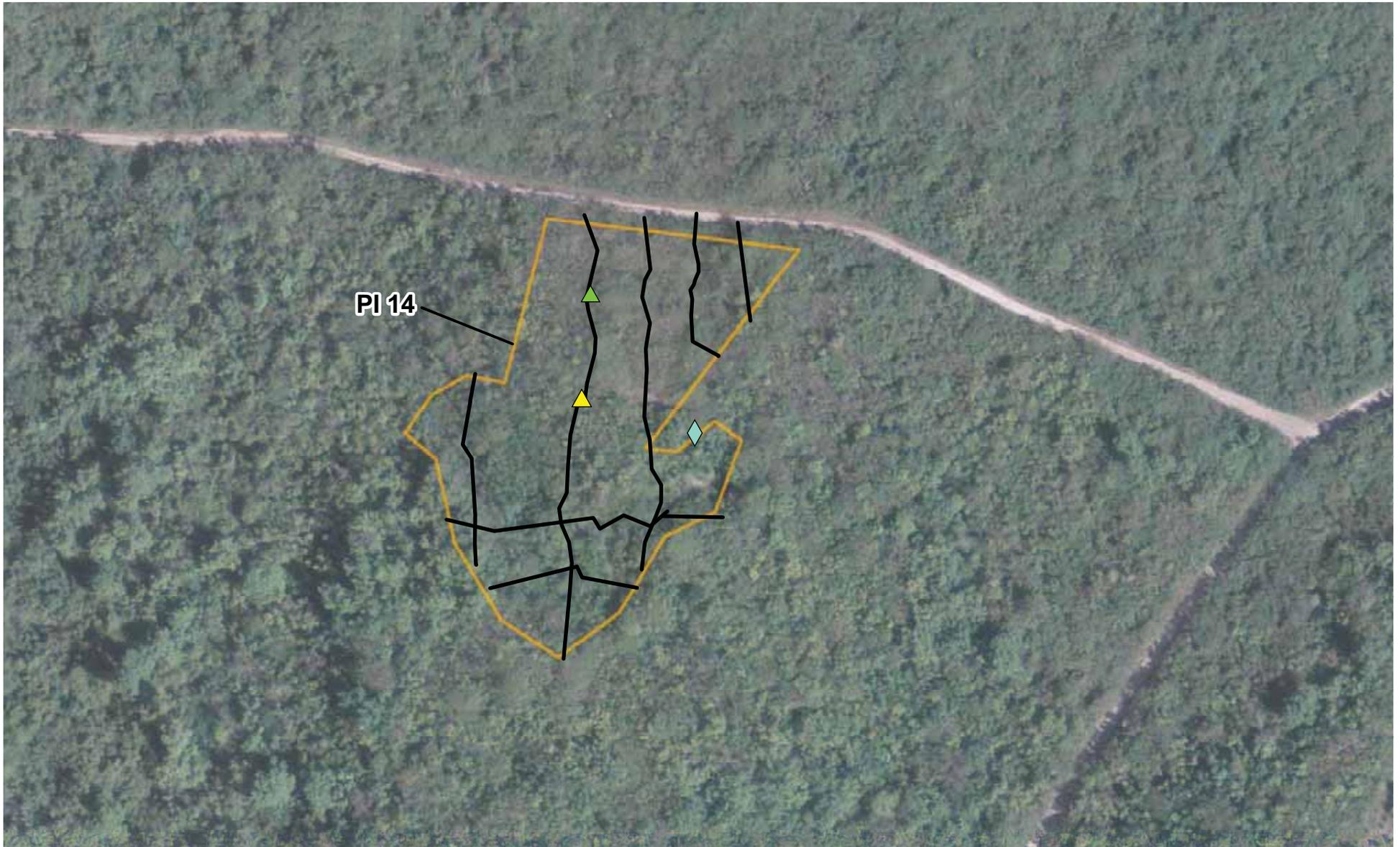
LEGEND

-  Aerial Photograph Observation Made by ERI (2000)
-  PI-14



0 150
Scale in Feet

FIGURE 2-1
1970 Aerial Photograph of PI 14
No Action Decision Document
PI 14 and PAOC FF Sites
Vieques, Puerto Rico



PI 14

LEGEND
Transect Items

- ▲ Communications wire and metal banding (removed)
- ▲ Expended slap flares, removed, inspected, demilitarized, and appropriately disposed
- ◆ Unexpended slap flares, removed, demilitarized, and appropriately disposed

- Transect
- PI Boundary

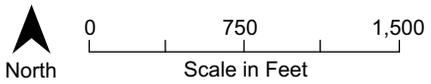


FIGURE 2-2
Location of Transects on PI 14
No Action Decision Document
PI 14 and PAOC FF Sites
Vieques, Puerto Rico



Expended slap flare

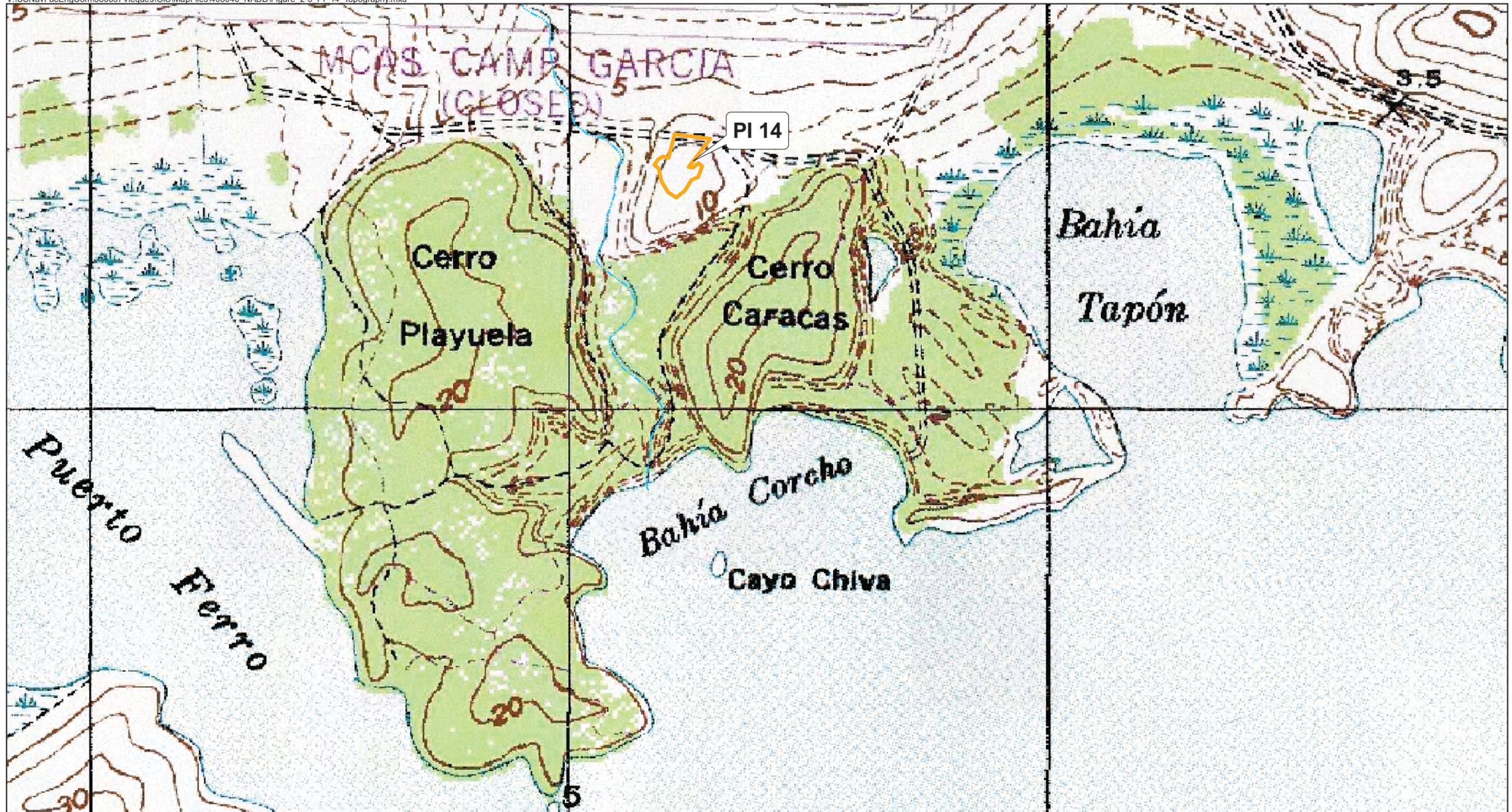


Expended slap flare



Communications wire

FIGURE 2-3
PI 14 Slap Flares and Communications Wire
No Action Decision Document
PI 14 and PAOC FF Sites
Vieques, Puerto Rico



- Legend**
-  Ephemeral Stream
 -  Topographic Contour
 -  PI 14

Note:
Elevation in meters above mean sea level
Contour interval is 10 meters where solid, 1 meter where dashed

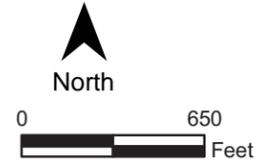


FIGURE 2-4
PI 14 Topography
No Action Decision Document
PI 14 and PAOC FF Sites
Vieques, Puerto Rico

SECTION 3

PAOC FF—Former Artillery Gun Area

This section presents a summary of the pertinent historical information and rationale for the no action determination for PAOC FF – Former Artillery Gun Area.

3.1 Conceptual Site Model

3.1.1 Site Description

An interview conducted in October 2002 as part of the former VNTR EBS (NAVFACENCOM, 2003) indicated that a former artillery gun placement existed immediately north of the west end of the Camp Garcia runway at the location shown on **Figures 1-2 and 3-1** through **3-8**. A review of historical aerial photographs suggests there was no gun placement at PAOC FF. In fact, the aerial photographs show the only observable feature to be a drainage ditch that traversed the area and terminated in a small depression just to the south (**Figure 3-3**). In addition, the site's position at the end of the runway would not have been a reasonable location for a gun placement due to the takeoff and landing of aircraft. Further, a historical aerial photographic analysis conducted by ERI identified several artillery gun placements within the VNTR, but did not identify one at the location of PAOC FF (ERI, 2000).

During the ERA/SI conducted in 2009, transects through the site (**Figure 3-9**) encountered only rebar, fencing debris, and a partly intact fence, likely part of the fence surrounding the runway (**Figure 3-10**) (CH2M HILL, 2009).

3.1.2 Physical Setting

The site slopes very gently to the south, with the highest elevation at approximately 33 ft amsl. The land around the site is heavily vegetated. There are no surface water bodies at or immediately adjacent to the site; Puerto Ferro lies more than 1,000 ft south of PAOC FF.

3.2 Conclusions and No Action Determination

As noted previously, there is no evidence that the site was used as a gun placement position and no evidence of a CERCLA-related release was observed at the site. Historical aerial photographs from the 1930s through 2004 show no artillery gun placement features and the site's proximity to the end of the runway indicates it would not have been used for artillery gun placement. Transects of the area identified only a few innocuous items (fencing material). Based on this information, no action is warranted for PAOC FF.



FIGURE 3-1
1937 Aerial Photograph of the PAOC FF Site
No Action Decision Document
PI 14 and PAOC FF Sites
Vieques, Puerto Rico



North



FIGURE 3-2
1959 Aerial Photograph of the PAOC FF Site
No Action Decision Document
PI 14 and PAOC FF Sites
Vieques, Puerto Rico





FIGURE 3-3
1964 Aerial Photograph of the PAOC FF Site
No Action Decision Document
PI 14 and PAOC FF Sites
Vieques, Puerto Rico



North



FIGURE 3-4
1983 Aerial Photograph of the PAOC FF Site
No Action Decision Document
PI 14 and PAOC FF Sites
Vieques, Puerto Rico





FIGURE 3-5
1985 Aerial Photograph of the PAOC FF Site
No Action Decision Document
PI 14 and PAOC FF Sites
Vieques, Puerto Rico





FIGURE 3-6
1994 Aerial Photograph of the PAOC FF Site
No Action Decision Document
PI 14 and PAOC FF Sites
Vieques, Puerto Rico





FIGURE 3-7
2000 Aerial Photograph of the PAOC FF Site
No Action Decision Document
PI 14 and PAOC FF Sites
Vieques, Puerto Rico



North

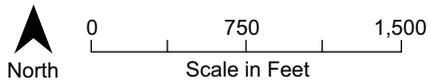


FIGURE 3-8
2004 Aerial Photograph of the PAOC FF Site
No Action Decision Document
PI 14 and PAOC FF Sites
Vieques, Puerto Rico





PAOC FF



- LEGEND**
Transect Items
- Fencing Material
 - Transect
 - PAOC boundary

FIGURE 3-9
 Location of Transects on PAOC FF
No Action Decision Document
PI 14 and PAOC FF Sites
Vieques, Puerto Rico



FIGURE 3-10
PAOC FF Fence and Fencing Material
No Action Decision Document
PI 14 and PAOC FF Sites
Vieques, Puerto Rico

SECTION 4

References

CH2M HILL. 2009. *Draft Expanded Range Assessment/Site Inspection Report, Former Vieques Naval Training Range (VNTR), Vieques Puerto Rico*. October.

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