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**FINAL UNEXPLODED ORDNANCE 13 (UXO 13) NON TIME CRITICAL
REMOVAL ACTION AFTER ACTION REPORT ATLANTIC FLEET WEAPONS
TRAINING AREA, FORMER NAVAL AMMUNITION SUPPORT DETACHMENT
AND FORMER VIEQUES NAVAL TRAINING RANGE VIEQUES PUERTO RICO**

03/01/2019
CH2M HILL

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Atlantic
Norfolk, Virginia

Final

UXO 13

**Non-Time-Critical Removal Action
After Action Report**

Atlantic Fleet Weapons Training Area – Vieques
Former Vieques Naval Training Range
Vieques, Puerto Rico

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March 2019

Prepared for NAVFAC Atlantic
by CH2M HILL, Inc.
Virginia Beach, Virginia
Contract N62470-16-D-9000
CTO 0004

ch2m

Executive Summary

This After Action Report (AAR) documents the completion of a Non-Time-Critical Removal Action (NTCRA) conducted to reduce the explosive hazard associated with potential munitions and explosives of concern (MEC)/material potentially presenting an explosive hazard (MPPEH) at munitions response site UXO 13 at the former Vieques Naval Training Range (VNTR), Vieques, Puerto Rico. The NTCRA was initiated following investigations that indicated that explosive hazards were present in areas of UXO 13. These investigations included:

- **October 2003 - February 2004:** Preliminary Range Assessment (PRA); personnel interviews, an archive records search (ARS), and ground-truthing field investigations were performed to gather data for the PRA. The PRA concluded that additional investigations were needed to characterize the nature and extent of MEC at each UXO site.
- **January 2005 - June 2005, March 2008 - June 2008, and October 2008 - August 2009:** Expanded Range Assessment/Site Inspection (ERA/SI); transect inspections
- **July 2005:** Light Imaging Detection and Ranging Survey; high resolution orthophotography
- **November 2008 - December 2008:** Aerial Magnetometry Survey

Based on the findings of the four investigations listed above, the objective of the NTCRA was to reduce the potential explosive hazard due to the presence of surface MEC/MPPEH within areas of UXO 13 that had been identified as having shown evidence of munitions-related use during the time when the facility was actively being used for training.

The following activities were included in the NTCRA:

- Vegetation cutting; was coordinated with the United States Fish and Wildlife Service (USFWS), the land management agency, were utilized to protect habitat during munitions clearance
- Removal action activities, during which the following were removed:
 - 101,248 MPPEH from approximately 326 acres throughout the NTCRA area were recovered, which included the 590 MEC.

Ongoing activities at the site will include the Navy monitoring, repairing, and/or replacing damaged UXO warning signs and completion of a Remedial Investigation (RI) to characterize the nature and extent of contamination (if present) associated with historical military training activities within or that may have affected UXO 13.

NOTE: THIS SUMMARY IS PRESENTED IN ENGLISH AND SPANISH FOR THE CONVENIENCE OF THE READER. EVERY EFFORT HAS BEEN MADE FOR THE TRANSLATIONS TO BE AS ACCURATE AS REASONABLY POSSIBLE. HOWEVER, READERS SHOULD BE AWARE THAT THE ENGLISH VERSION OF THE TEXT IS THE OFFICIAL VERSION.

Resumen Ejecutivo

Este Informe Luego de la Acción (AAR, por sus siglas en inglés) documenta la finalización de una Acción de Remoción de Tiempo No Crítico (NTCRA, por sus siglas en inglés) que se llevó a cabo para reducir el peligro de explosión asociado con municiones y explosivos de preocupación (MEC, por sus siglas en inglés)/material que potencialmente presenta un peligro de explosión (MPPEH, por sus siglas en inglés) en el sitio de respuesta a municiones UXO 13 en el antiguo Campo de Adiestramiento Naval de Vieques (VNTR, por sus siglas en inglés), Vieques, Puerto Rico. El NTCRA se inició después de que las investigaciones indicaron que peligros relacionados a explosivos estaban presentes en algunas áreas de UXO 13.

Estas investigaciones incluyeron:

- **Octubre 2003 - febrero 2004:** Evaluación Preliminar del Campo de Tiro (PARA, por sus siglas en inglés); se llevaron a cabo entrevistas con el personal, una Investigación de Récores Históricos (ARS, por sus siglas en inglés) e investigaciones de campo para recopilar datos para la PRA. La PRA concluyó que se necesitaban más investigaciones para poder caracterizar la naturaleza y el alcance de MEC en cada sitio UXO.
- **Enero de 2005 - junio de 2005, marzo de 2008 - junio de 2008, y octubre de 2008 - agosto de 2009:** Evaluación Expandida del Campo de Tiro/Inspección del Sitio; inspecciones de transectos
- **Julio de 2005:** Estudio de Imágenes con Luz para Detección y Rango; y Orto-fotografía de alta resolución
- **Noviembre 2008 - diciembre 2008:** Estudio de Magnetometría Aérea

En base a los hallazgos de las cuatro investigaciones mencionadas anteriormente, el objetivo de la NTCRA fue reducir el riesgo potencial de explosión como resultado de la presencia de MEC/MPPEH superficial dentro de las áreas de UXO 13 para las cuales se había demostrado un uso relacionado con municiones durante el tiempo en que la instalación se utilizó activamente para adiestramiento.

Las siguientes actividades se incluyeron en el NTCRA:

- Para proteger el hábitat durante la remoción de municiones se coordinó el corte de la vegetación con el Servicio de Pesca y Vida Silvestre de los Estados Unidos (USFWS, por sus siglas en inglés), que es la agencia que maneja los terrenos.
- Durante las actividades de la Acción de Remoción, se eliminó lo siguiente:
 - Se recuperaron 101,248 MPPEH de aproximadamente 326 acres a través de toda el área NTCRA, los cuales incluyeron 590 MEC.

Las actividades continuas de la Marina en el sitio incluirán el monitoreo, la reparación y/o el reemplazo de los letreros de advertencia para UXO dañados, y la finalización de una Investigación para la Remediación (RI, por sus siglas en inglés) para caracterizar la naturaleza y la extensión de la contaminación (si está presente) asociada con las actividades de adiestramiento militar históricas dentro, o que pudieran haber afectado a la UXO 13.

NOTA: ESTE RESUMEN SE PRESENTA EN INGLÉS Y EN ESPAÑOL PARA LA CONVENIENCIA DEL LECTOR. SE HAN HECHO TODOS LOS ESFUERZOS PARA QUE LA TRADUCCIÓN SEA PRECISA EN LO MÁS RAZONABLEMENTE POSIBLE. SIN EMBARGO, LOS LECTORES DEBEN ESTAR AL TANTO QUE EL TEXTO EN INGLÉS ES LA VERSIÓN OFICIAL.

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Acronyms and Abbreviations

AAR	After Action Report
AMS	Aerial Magnetometer Survey
ARS	archive records search
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CIP	Community Involvement Plan
CLEAN	Comprehensive Long-term Environmental Action—Navy
DMM	discarded military munitions
DoD	Department of Defense
DOI	Department of the Interior
ECA	Eastern Conservation Area
EIS	Environmental Impact Statement
EMA	Eastern Maneuver Area
EPA	Environmental Protection Agency
ERA/SI	Expanded Range Assessment/Site Inspection
ERP	Environmental Restoration Program
LIA	Live Impact Area
LIDAR	Light Imaging Detection and Ranging
LUC	land use control
LUCIP	Land Use Control Implementation Plan
MD	munitions debris
MEC	munitions and explosives of concern
mm	millimeter(s)
MPPEH	material potentially presenting an explosive hazard
MRA	Munitions Response Area
NASD	Naval Ammunition Support Detachment
NAVFAC	Naval Facilities Engineering Command
NTCRA	Non-Time-Critical Removal Action
OB/OD	open burn/open detonation
PRA	Preliminary Range Assessment
PRDNER	Puerto Rico Department of Natural and Environmental Resources
PREQB	Puerto Rico Environmental Quality Board
QA	quality assurance
QC	quality control
RAB	Restoration Advisory Board
RI	Remedial Investigation
SHPO	State Historical Preservation Office
SIA	Surface Impact Area
T&E	threatened and/or endangered
USFWS	United States Fish and Wildlife Service
UXO	unexploded ordnance
VNTR	Vieques Naval Training Range
VNWR	Vieques National Wildlife Refuge

Introduction

This After-Action Report (AAR) documents the completion of a Non-Time-Critical Removal Action (NTCRA) conducted to reduce the explosive hazard associated with munitions and explosives of concern (MEC)/material potentially presenting an explosive hazard (MPPEH) at munitions response site UXO 13 at the former Vieques Naval Training Range (VNTR), Vieques, Puerto Rico (**Figure 1-1 and Figure 1-2**). The NTCRA was initiated following the completion of a Light Imaging Detection and Ranging (LIDAR) Survey, an Aerial Magnetometry Survey (AMS), Preliminary Range Assessment (PRA), and an Expanded Range Assessment/Site Inspection (ERA/SI) that indicated there were explosive hazards present in areas within UXO 13, due to past military training activities, that are accessible or potentially accessible, primarily to the United States Fish and Wildlife Service (USFWS) and trespassers. There are several well-known trails utilized by trespassers on horseback, foot, and on occasion all-terrain vehicles/motorcycles. This AAR demonstrates that the objective of explosive hazard reduction for the interim removal action has been met by reducing the potential exposure of agency personnel/trespassers to MEC.

This report was prepared under the Naval Facilities Engineering Command (NAVFAC) Atlantic, Comprehensive Long-term Environmental Action—Navy (CLEAN) Contract N62470-16-D-9000, Contract Task Order 0004, for submittal to NAVFAC, the Environmental Protection Agency (EPA) Region 2, the Commonwealth of Puerto Rico Environmental Quality Board (PREQB), Puerto Rico Department of Natural and Environmental Resources (PRDNER), and USFWS. NAVFAC, EPA, PREQB, PRDNER, and USFWS work jointly as the Vieques Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Environmental Restoration Program (ERP) Technical Subcommittee.

The NTCRA was conducted in accordance with the following documents:

- Non-Time-Critical Removal Action Work Plan for Munitions Response Site UXO 13 (CH2M, 2012)
- Explosives Safety Submission for Former Vieques Naval Training Range (VNTR) and the Former Naval Ammunition Support Detachment (NASD), Amendment 2 (CH2M, 2011)

In order to help expedite the review of this document, the appropriate and relevant information from previously reviewed documents has been included in the text as bulleted lists and this document has been prepared in accordance with the *Department of Defense (DoD)/EPA Joint Guidance on Streamlined Site Closeout and NPL Deletion Process for DoD Facilities* (DoD and EPA, 2006).

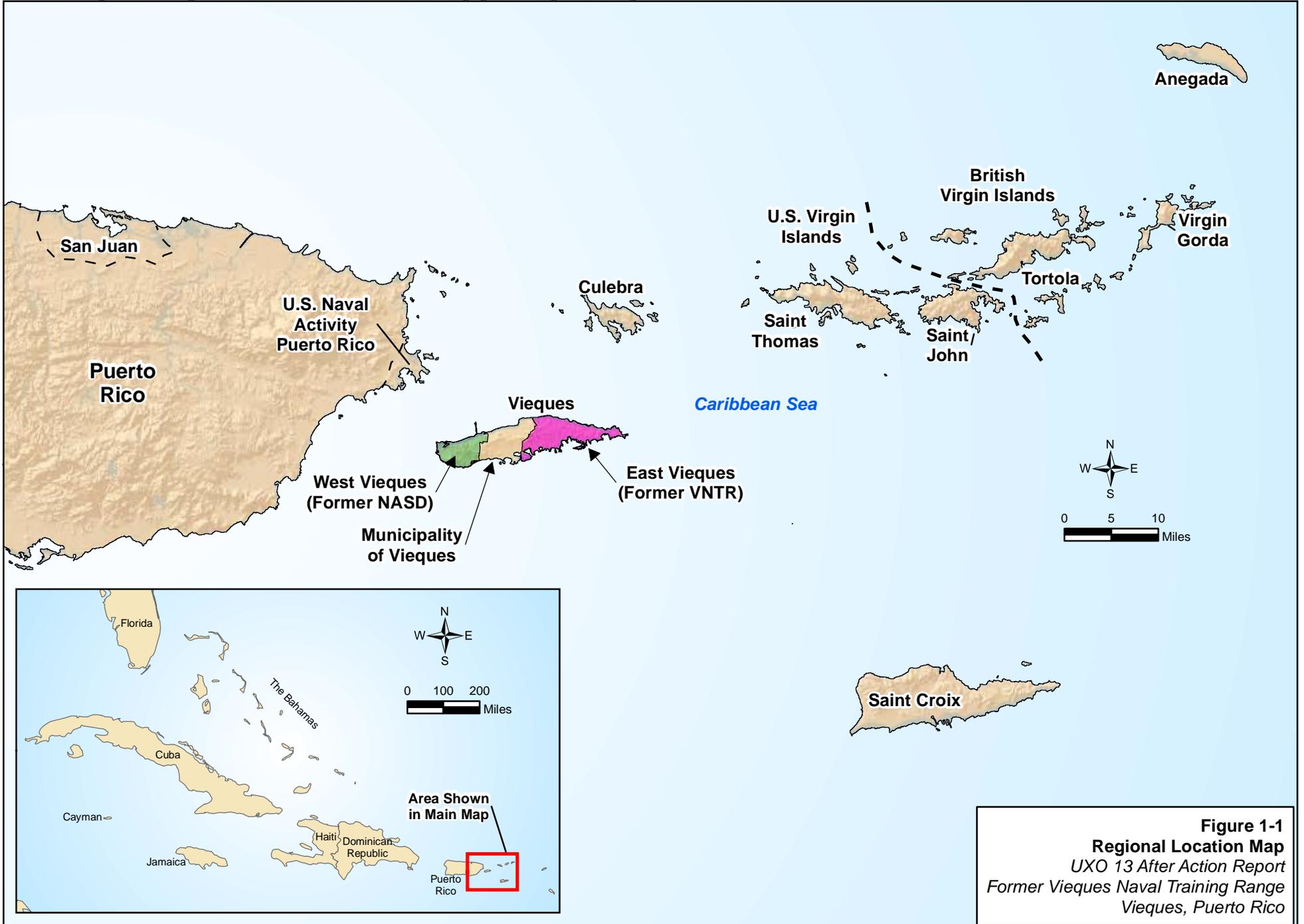
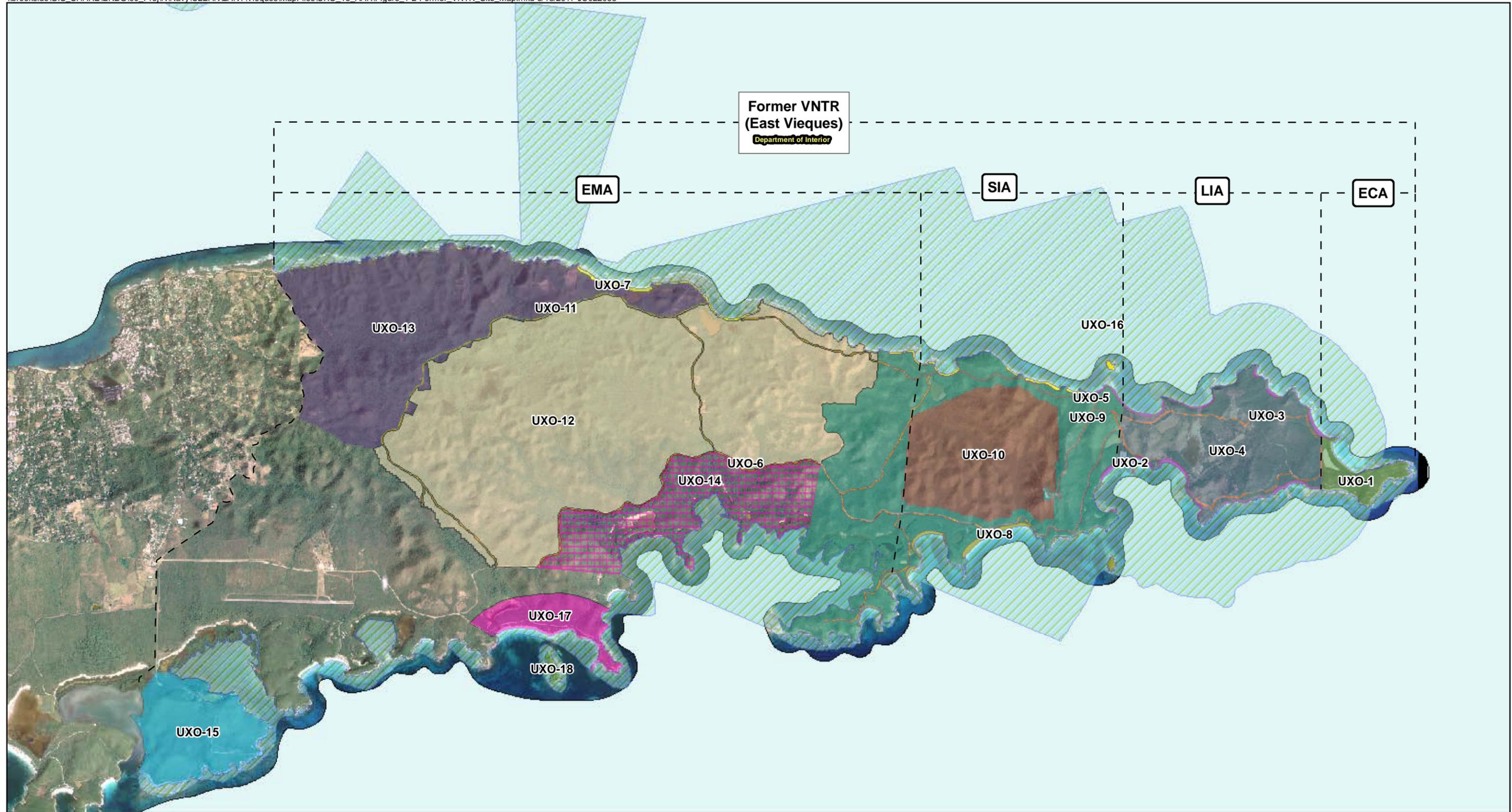


Figure 1-1
Regional Location Map
UXO 13 After Action Report
Former Vieques Naval Training Range
Vieques, Puerto Rico



Legend

UXO 1 - ECA	UXO 10 - SIA Interior
UXO 2 - LIA Beaches	UXO 11 - EMA Public Roads
UXO 3 - LIA Roads	UXO 12 - EMA Interior
UXO 4 - LIA Interior	UXO 13 - EMA West
UXO 5 - SIA Restricted Roads	UXO 14 - EMA South
UXO 6 - EMA/SIA Public Roads	UXO 15 - Puerto Ferro (Expanded Site Inspection)
UXO 7 - EMA/SIA North Beaches	UXO 16 - Underwater Areas
UXO 8 - SIA South Beaches	UXO 17 - PAOC EE
UXO 9 - SIA Exterior	UXO 18 - Cayo de la Chiva

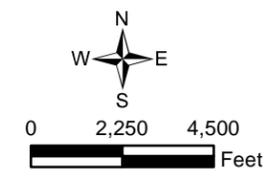
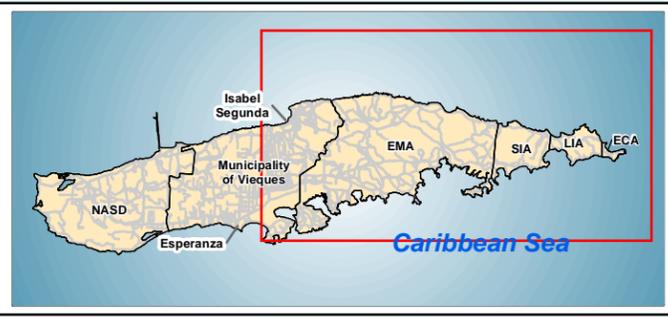


Figure 1-2
Former VNTR Site Map
 UXO 13 After Action Report
 Former Vieques Naval Training Range
 Vieques, Puerto Rico

Site Information

This section presents a general summary of the background information provided in the NTCRA Work Plan (CH2M, 2012).

2.1 Site Description and Background

Vieques is located in the Caribbean Sea and is the largest island of the Commonwealth of Puerto Rico other than mainland Puerto Rico; it is approximately 20 miles long and 4.5 miles wide (**Figure 1-1**).

The former VNTR is situated in the eastern half of Vieques and is bordered on the west by the community of Isabel Segunda, to the north by the Vieques Sound, and to the south by the Caribbean Sea. The former VNTR consists of approximately 14,600 acres that were divided operationally into four Munitions Response Areas (MRAs) that from west to east comprise: the 11,000-acre Eastern Maneuver Area (EMA); the 2,500-acre Surface Impact Area (SIA); the 900-acre Live Impact Area (LIA), and the 200-acre Eastern Conservation Area (ECA) on the easternmost tip of Vieques (CH2M, 2006) (**Figure 1-2**).

The EMA (**Figure 1-2**), encompassing 11,000 acres (4,320 hectares), was established in 1947 and provided maneuvering areas and ranges for the training of Marine amphibious units and battalion landing teams in exercises that included amphibious landings, small-arms fire, artillery and tank fire, shore fire control, and combat engineering tasks. The heaviest training events occurred from the mid-1950s until the early 1960s.

In 1966, eleven ranges were established along the northern coast of the EMA and are described in Table 2-1. The location and description of the range operations are also described in the 1972 Environmental Impact Statement (EIS) and 1979 EIS of the VNTR. The PRA Report (NAVFAC, 2003) included an aerial photo analysis that assessed the configuration of the ranges over time and identified the likely target areas for each of the ranges. In addition, up to three additional ranges and five gun positions were identified within UXO 13. A comparison of the 1972 range locations and the PRA range locations is shown on **Figure 2-1**; the comparison shows the orientation and shape of the ranges varied over time and the safety fans for several of the ranges overlapped. The NTCRA was designed to address only areas where MEC was suspected to be present, no small arms ranges were anticipated to have significant MEC contamination.

The aerial photo analysis also identified five artillery gun positions within UXO 13 from which Marine artillery gunfire was directed toward the SIA and LIA. The artillery fired from the gun positions ranged from 60- to 175-millimeter (mm) rounds. A detailed field reconnaissance for each of these gun positions was completed and is summarized in the PRA Report (NAVFAC, 2003).

The former VNTR was transferred to the Department of the Interior (DOI) in 2003 to be operated and managed by USFWS as a National Wildlife Refuge.

2.2 Previous MEC/MPPEH Investigations at UXO 13

2.2.1 Preliminary Range Assessment/Expanded Range Assessment/Site Inspection UXO 13

Completion of a PRA, AMS, and LIDAR Survey resulted in the identification of several areas that were previously used for training activities within UXO 13. To determine the extent of MEC/MPPEH present at the site, an ERA/SI was performed.

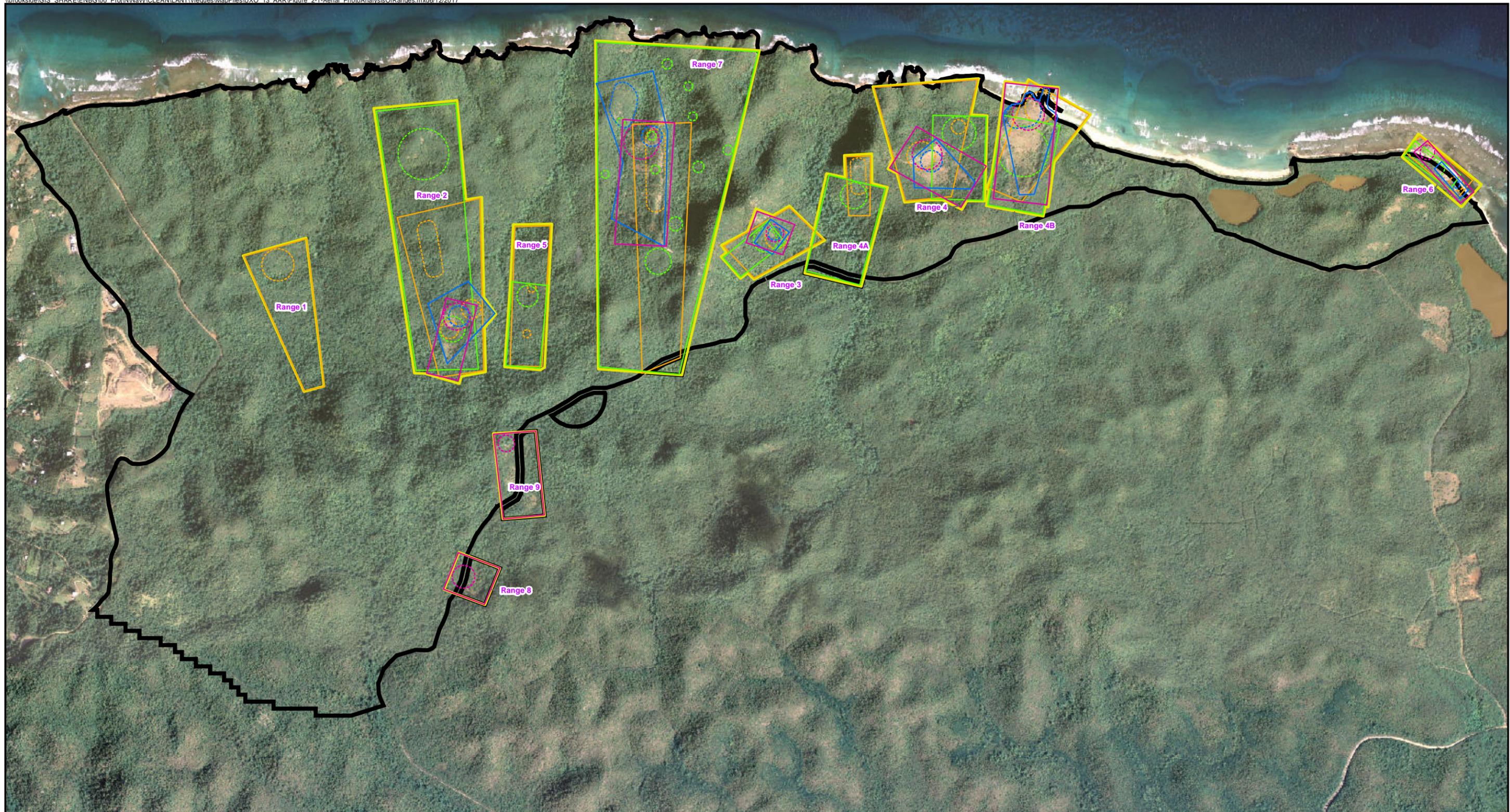
As part of the ERA/SI, transect surveys were conducted in approximately 5 percent (116 acres) of the EMA, which included UXO 13. Over 40 MEC and over 300 munitions debris (MD) were identified at UXO 13. Areas outside the range areas were found to contain minimal evidence for the presence of MEC/MPPEH (**Figure 2-2**). As a result of these findings, an NTCRA WP was developed to conduct a removal action within the UXO 13 areas where historical ranges were located and MEC/MPPEH was found. As no MEC/MPPEH was located on or near Ranges 1, 5, 8 or 9 during the site inspection and historical records defined these ranges as being used for small arms training these areas were not included as part of the NTCRA.

TABLE 2-1
EMA Ranges

Range 1	Small Arms Range	Service rifle, M-16s, submachine guns, pistols
Range 2	Small Arms Range	M-60 machine guns, service rifle, M-16s, submachine guns, pistols
Range 3	Hand Grenade Range	Hand grenades
Range 4	40-mm Projected Grenade Range	40-mm projected grenade fire
Range 4A	Rocket Range	M-60, M-16 rifles, rocket fire, antitank weapons
Range 4B	Rocket Range	M-60, M-16 rifles, rocket fire, antitank weapons
Range 5	Small Arms Range	M-60 machine guns, service rifle, M-16s, submachine guns, pistols
Range 6	Open Detonation range	OB/OD, small arms fire
Photo-identified Ranges 7, 8, 9	Small Arms Range	M-60 machine guns, service rifle, M-16s, submachine guns, pistols

mm = millimeter(s)

OB/OD = open burn/open detonation



Ranges	Impact Areas	Range
1962 Aerial Photo Analysis	1962 Aerial Photo Analysis	UXO 13 Boundary
1967 Aerial Photo Analysis	1967 Aerial Photo Analysis	
1983 Aerial Photo Analysis	1983 Aerial Photo Analysis	
1994 Aerial Photo Analysis	1994 Aerial Photo Analysis	

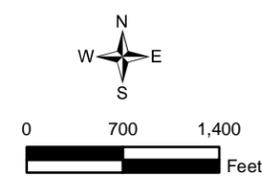
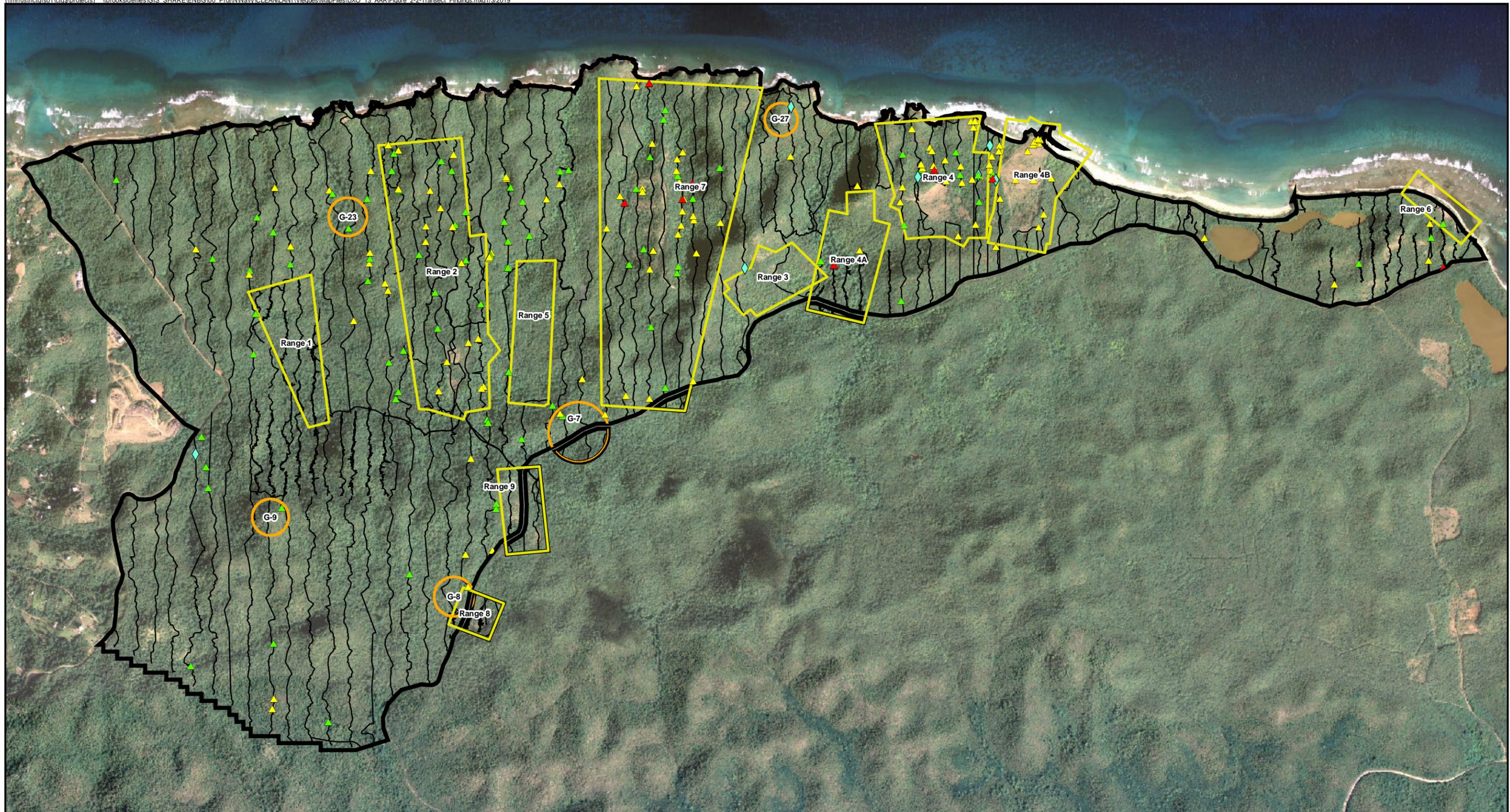


Figure 2-1
Aerial Photo Analysis of Ranges
 UXO 13 After Action Report
 Former VNTR
 Vieques, Puerto Rico



- ▲ Range Related Debris
 - ▲ Munitions Debris
 - ◆ Material Potentially Presenting an Explosive Hazard
 - ▲ Unexploded Ordnance
-
- Transect
 - Gun Positions
 - Range
 - UXO 13 Boundary

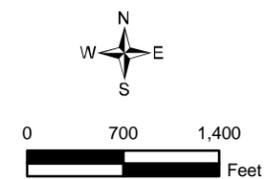
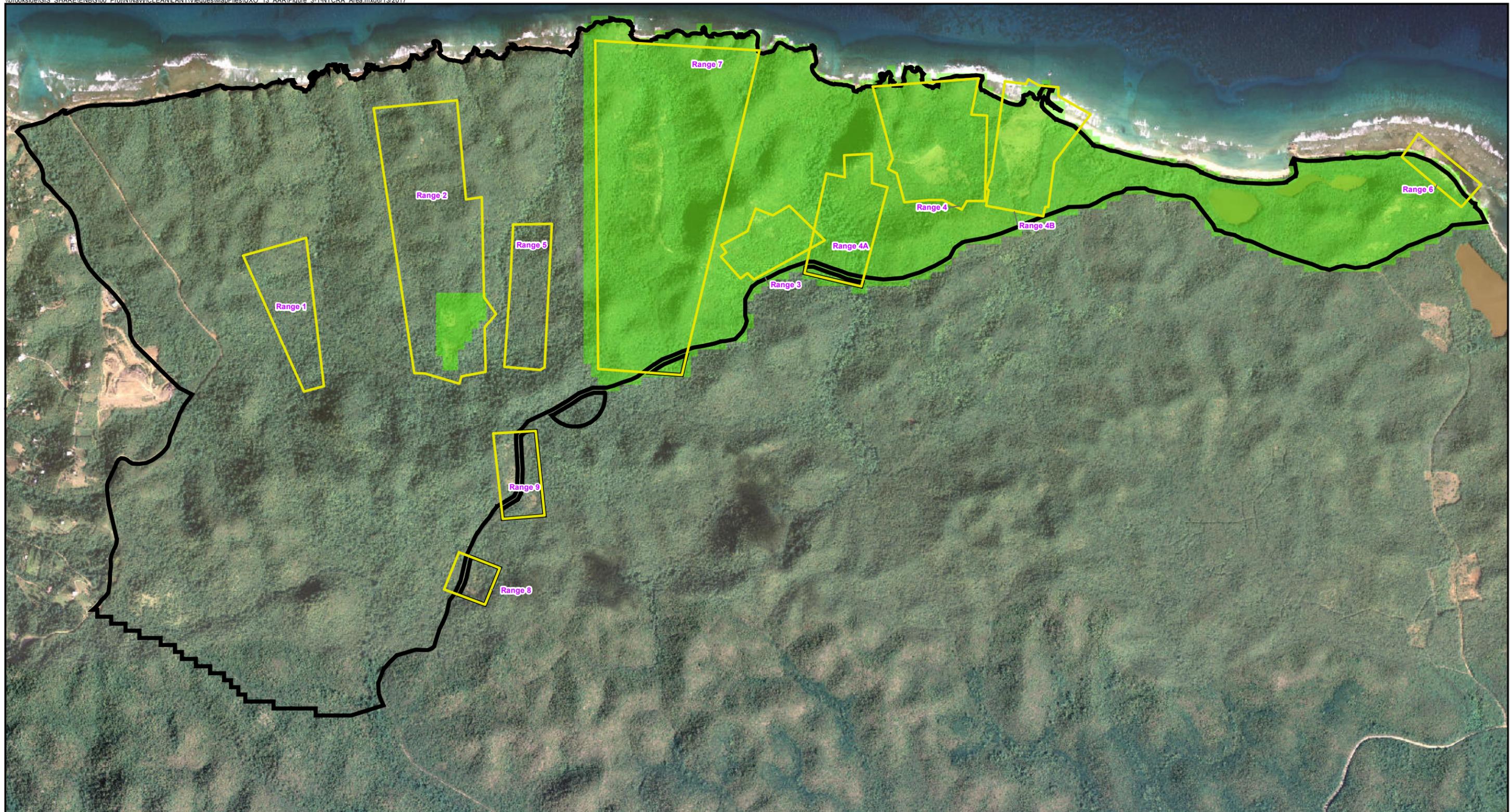


Figure 2-2
ERA/SI Transect Findings
 UXO 13 After Action Report
 Former VNTR
 Vieques, Puerto Rico

SECTION 3

Non-Time-Critical Removal Action Objectives

The objective of this NTCRA was to reduce the explosive hazard due to the presence of surface MEC/MPPEH within the “NTCRA Area” shown in **Figure 3-1**.



- Range
- Area where NTCRA was performed
- UXO 13 Boundary

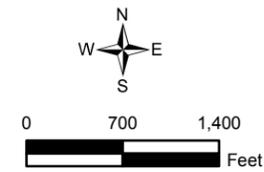


Figure 3-1
NTCRA Area
 UXO 13 After Action Report
 Former VNTR
 Vieques, Puerto Rico

Removal Action

This section provides the details of the NTCRA, including implementing protective measures for threatened and/or endangered (T&E) species and cultural resources, and MEC clearance activities. Representative photographs are provided in **Appendix A**.

4.1 Biological Avoidance for Terrestrial MEC and Munitions Constituent Investigations and Interim Removal Actions

Biological avoidance was completed by utilizing published information on T&E species and resources deemed important to the management of the Vieques National Wildlife Refuge (VNWR) within the former VNTR, which described the individual species and habitats, their statuses, and known or potential locations of occurrence. Frequent coordination with the USFWS was conducted to inform them of areas where work was to be completed during the NTCRA. MEC Clearance and Associated Activities

4.1.1 Vegetation Cutting

Prior to conducting the vegetation removal, the areas were reviewed and USFWS personnel consulted to determine what vegetation could be removed and the extent of the vegetation removal. The potential presence of T&E species and/or sensitive habitats required certain areas to be evaluated by determining the density of MEC in adjacent areas prior to completing the area. This evaluation resulted in some areas not being cleared as part of the NTCRA; however, due to the low densities in the adjacent areas, MEC clearance was not required to meet the NTCRA objective. Many areas within the removal action areas have a dense shrub canopy that must be removed to safely gain access to the area. Vegetation removal was conducted by hand (manual) utilizing hand carried tools (e.g., weed eaters). Unless necessary, cutting trees larger than 3 inches in diameter was prohibited. Trees were felled into areas that had already been surface swept for MEC. The vegetation was typically cut to a height of approximately 6 inches above ground surface to eliminate interference with MEC detection or survey activities. All cut vegetation was accumulated onsite and left in place within areas that had previously been cleared of MEC.

4.1.2 Surface MEC Clearance

All removal activities were monitored by the appropriate unexploded ordnance (UXO) qualified personnel described in this section.

- A magnetometer assisted visual survey was performed to locate surficial MEC. All ferrous metal items present at ground surface or partially exposed at the surface were removed.
- Magnetometer sweeps were employed (“mag and flag”) for identification and clearance of all ferrous metal items at the surface within the 30-meter-by-30-meter square grids shown in **Figure 4-1**. UXO Technicians worked in individual search lanes approximately 3-feet to 5-feet wide that were defined by ropes or some other visual cue and a search of each lane using a hand-held magnetometer (e.g., Schonstedt Model GA-52Cx), or similar approach was completed to accomplish 100 percent coverage. UXO Technicians began at one end of each lane and moved forward toward the opposing base line. During the forward movement, the technician moved the magnetometer back and forth from one side of the lane to the other. Both forward movement and the swing of the magnetometer were performed at a pace which ensured the entire lane was searched and that the instrument was able to appropriately respond to anomalies. Whenever a ferrous metal surface object was encountered the technician stopped and investigated the anomaly real-time. Throughout this operation, the UXO Technician III closely monitored individual performance to ensure the procedures were being performed with due diligence and attention to detail. If field teams determined an area was inaccessible or unsafe to work utilizing the work approaches prescribed the area was not cleared.

- Information was collected for each surface item located and entered into the project database. MEC which were safe to move were consolidated for disposal/demilitarization within a grid, or several adjacent grids.
- MEC that were not safe to move were clearly marked and all information was gathered for the item in accordance with the Work Plan.
- Non-MEC metallic items were removed from the grid and consolidated onsite in a designated and established holding area. These metallic items were thoroughly screened for MEC. The NTCRA identified and removed 101,248 MPPEH from approximately 326 acres throughout the NTCRA area. Of these items 590 were MEC.

Figure 4-1 shows the distribution of the items found and removed at the site. **Table 4-1** summarizes the MEC found and removed.

- All recovered MEC were destroyed through controlled detonation at consolidated locations along with other items recovered during the ongoing NTCRAs within the former VNTR
- The quality control (QC) and quality assurance (QA) inspections conducted verified the removal action was conducted in accordance with the NTCRA Work Plan (CH2M, 2012). No QC/QA failures occurred during this NTCRA.
- Completion of QA in each grid where QA was performed has been accepted as complete for surface clearance by the Navy
- None of the items found exhibited readily discernable visible indications or other evidence of potential releases of munitions constituents.

4.1.3 Ecological Site Protection

Several areas were identified during the site information review and through coordination with the USFWS that potentially contained T&E species or habitats important to the VNWR management goals (**Figure 4-2**). These areas were identified and avoided to the extent practicable.

4.1.4 Archaeological Site Protection

Archaeological sites were identified (**Figure 4-2**) and avoided as follows. When archaeological sites were found, the use of wheeled/tracked equipment was not permitted on or near the site and all vegetation removal was done by hand to allow for a surface clearance to occur while not impacting any potential artifacts in the area.

- On April 30, 2013, vegetation teams located an archaeological site named La Campana, identified as Vi076. The site was a former sugarcane processing site and was determined to be eligible for listing in 1980 (nomination form was submitted); however, to date the archaeological site has not been listed by the Puerto Rico State Historical Preservation Office (SHPO). Archaeological Sites Vi226, Vi179, and Vi182 are also believed to be associated with Vi076. The archaeological site was hand cleared of vegetation and a surface clearance was performed in the area. An archaeologist from RC Goodwin & Associates, Inc. visited the archaeological site and documented its condition after the clearance was complete. A photo of the archaeological site is included in **Appendix A**.

Table 4-1

MEC/MPPEH Identified at UXO 13

UXO 13 Non-Time-Critical Removal Action After Action Report

Former VNTR, Vieques, Puerto Rico

ITEMID	ItemGroup	ItemClass	ItemCatego	Filler	Fuze	Quantity	Depth	Weight	DemoReq	Location	FindDate	OpsType	TeamName
58339	UXO	Rockets / Guided Missiles	3.5" Rocket	HE	Unfuzed	2	0	5	Demo	20Q 248142.38 E 2009420.23 N	3/31/2011	Surface MEC Clearance	USA UXO6
63893	Other MEC	Grenades	40mm Projected Grenade	Inert Material	Unfuzed	1	0	1	Demo	20Q 248772.89 E 2009039.16 N	8/8/2011	Surface MEC Clearance	USA UXO5
66351	Other MEC	Flares-Pyrotechnics	Other (see comments)	Unknown	Unfuzed	1	0	2	Demil	20Q 249025.11 E 2008909.21 N	9/27/2011	Surface MEC Clearance	USA UXO5
70604	Other MEC	Flares-Pyrotechnics	Other (see comments)	N/A	N/A	1	0	2	Demo	20Q 246280.72 E 2008321.84 N	3/8/2012	Surface MEC Clearance	USA UXO6
58335	UXO	Rockets / Guided Missiles	3.5" Rocket	HE	Unfuzed	1	0	5	Demo	20Q 248112.59 E 2009456.30 N	3/31/2011	Surface MEC Clearance	USA UXO6
67389	UXO	Flares-Pyrotechnics	Other (see comments)	Illum	Unfuzed	1	0	1	Demo	20Q 247101.89 E 2008855.01 N	10/27/2011	Surface MEC Clearance	USA UXO5
67495	Other MEC	Grenades	40mm Projected Grenade	Inert Material	Unfuzed	1	0	1	Demil	20Q 247029.10 E 2008829.35 N	10/28/2011	Surface MEC Clearance	USA UXO5
70381	Other MEC	MEC Component	Other (see comments)	Unknown	Unfuzed	1	0	3	None	20Q 246459.47 E 2008389.03 N	3/6/2012	Surface MEC Clearance	USA UXO6
71072	UXO	Grenades	Hand Grenade	Unknown	Fuzed	1	0	3	Demo	20Q 245919.23 E 2008174.99 N	3/19/2012	Surface MEC Clearance	USA UXO6
75556	DMM	Flares-Pyrotechnics	Other (see comments)	Illum	Unfuzed	1	0	1	Demo	20Q 249847.96 E 2009130.80 N	9/17/2012	Surface MEC Clearance	USA UXO5
75557	UXO	Flares-Pyrotechnics	Other (see comments)	Illum	Unfuzed	1	0	1	Demo	20Q 249848.29 E 2009130.80 N	9/17/2012	Surface MEC Clearance	USA UXO5
75607	UXO	Mortars	81mm Mortar	White Phosphorus	Unfuzed	1	0	10	Demo	20Q 249252.85 E 2008859.92 N	9/21/2012	Surface MEC Clearance	USA UXO5
75614	Other MEC	MEC Component	Other (see comments)	Illum	Unfuzed	2	0	5	Demo	20Q 249794.87 E 2009155.67 N	9/25/2012	Surface MEC Clearance	USA UXO4
75693	Other MEC	MEC Component	Other (see comments)	Illum	Unfuzed	1	0	5	Demo	20Q 249632.20 E 2009044.97 N	9/27/2012	Surface MEC Clearance	USA UXO4
75674	UXO	Flares-Pyrotechnics	Other (see comments)	Illum	Fuzed	1	0	1	Demo	20Q 249433.34 E 2008866.69 N	9/26/2012	Surface MEC Clearance	USA UXO5
75703	Other MEC	Flares-Pyrotechnics	Other (see comments)	Illum	Fuzed	1	0	1	Demo	20Q 249435.60 E 2008893.79 N	9/28/2012	Surface MEC Clearance	USA UXO4
75779	UXO	Rockets / Guided Missiles	2.75" Rocket	Unknown	Unfuzed	1	0	10	Demo	20Q 249721.30 E 2009085.81 N	10/3/2012	Surface MEC Clearance	USA UXO4
75784	UXO	Projectiles	3"/50 (MK-27, MK-29, MK-33)	HE	Fuzed	1	0	15	Demo	20Q 249766.11 E 2009051.72 N	10/3/2012	Surface MEC Clearance	USA UXO4
75791	Other MEC	MEC Component	Other (see comments)	Illum	Unfuzed	2	0	5	Demo	20Q 249738.18 E 2009155.39 N	10/4/2012	Surface MEC Clearance	USA UXO4
76265	Other MEC	MEC Component	Other (see comments)	HE	Unfuzed	1	0	1	Demo	20Q 249719.84 E 2009205.30 N	10/23/2012	Surface MEC Clearance	USA UXO9
76283	Other MEC	MEC Component	Other (see comments)	Illum	Unfuzed	1	0	5	Demo	20Q 249746.41 E 2009101.76 N	10/24/2012	Surface MEC Clearance	USA UXO4
76269	Other MEC	Projectiles	105mm Projo	HE	Unfuzed	1	0	25	Demo	20Q 249705.50 E 2009241.26 N	10/24/2012	Surface MEC Clearance	USA UXO9
76270	Other MEC	Mortars	60mm Mortar	HE	Unfuzed	1	0	5	Demo	20Q 249700.56 E 2009227.67 N	10/24/2012	Surface MEC Clearance	USA UXO9
76271	Other MEC	MEC Component	Other (see comments)	HE	Unfuzed	1	0	1	Demo	20Q 249720.32 E 2009230.76 N	10/24/2012	Surface MEC Clearance	USA UXO9
76280	Other MEC	Flares-Pyrotechnics	MK-24 Flare (Parachute)	Illum	Unfuzed	1	0	1	Demo	20Q 249660.50 E 2009272.02 N	10/24/2012	Surface MEC Clearance	USA UXO9
76504	Other MEC	MEC Component	Other (see comments)	HE	N/A	1	0	3	Demo	20Q 249728.13 E 2009197.33 N	11/7/2012	Surface MEC Clearance	USA UXO8
76532	Other MEC	MEC Component	Other (see comments)	Other (see comments)	Unfuzed	1	0	1	Demo	20Q 248363.50 E 2009204.06 N	7/2/2007	Surface MEC Clearance	USA UXO4
76550	UXO	Projectiles	5" Projo	HE	Unfuzed	1	0	30	Demo	20Q 249672.72 E 2009274.29 N	11/14/2012	Surface MEC Clearance	USA UXO5
76566	Other MEC	MEC Component	Other (see comments)	Smoke	Unfuzed	1	0	3	Demo	20Q 249119.55 E 2009113.63 N	11/7/2012	Surface MEC Clearance	USA UXO4
76594	UXO	Mortars	60mm Mortar	Illum	Fuzed	1	0	5	Demo	20Q 248057.48 E 2009085.06 N	11/12/2012	Surface MEC Clearance	USA UXO4
76705	Other MEC	MEC Component	Other (see comments)	HE	Fuzed	4	0	4	Demo	20Q 247919.88 E 2009238.74 N	11/21/2012	Surface MEC Clearance	USA UXO4
76706	Other MEC	MEC Component	Other (see comments)	HE	Unfuzed	1	0	1	Demo	20Q 247914.55 E 2009227.08 N	11/21/2012	Surface MEC Clearance	USA UXO4
76680	UXO	Grenades	Hand Grenade	HE	Fuzed	1	0	3	Demo	20Q 247689.60 E 2008917.68 N	11/21/2012	Surface MEC Clearance	USA UXO8
76683	UXO	Grenades	40mm Projected Grenade	Illum	Unfuzed	1	0	2	Demo	20Q 248499.83 E 2009255.88 N	11/21/2012	Surface MEC Clearance	USA UXO8
76882	Other MEC	MEC Component	Other (see comments)	HE	Unfuzed	1	0	5	Demo	20Q 249479.65 E 2009265.59 N	12/7/2012	Surface MEC Clearance	USA UXO5
76885	Other MEC	MEC Component	Other (see comments)	HE	Unfuzed	1	0	5	Demo	20Q 249323.36 E 2009018.78 N	12/7/2012	Surface MEC Clearance	USA UXO5
76886	Other MEC	Mortars	81mm Mortar	HE	Unknown	1	0	15	Demo	20Q 249341.93 E 2009038.33 N	12/7/2012	Surface MEC Clearance	USA UXO5
76906	UXO	Projectiles	5" Projo	HE	Unfuzed	1	0	70	Demo	20Q 247775.43 E 2009194.82 N	12/10/2012	Surface MEC Clearance	USA UXO4
76923	Other MEC	MEC Component	Other (see comments)	Illum	Unfuzed	1	0	1	Demo	20Q 247859.34 E 2009234.53 N	12/11/2012	Surface MEC Clearance	USA UXO4
76975	Other MEC	MEC Component	Other (see comments)	HE	N/A	1	0	1	Demo	20Q 247693.24 E 2009188.39 N	1/22/2013	Surface MEC Clearance	USA UXO8
76976	Other MEC	Grenades	40mm Projected Grenade	HE	Unfuzed	1	0	1	Demo	20Q 247693.60 E 2009188.86 N	1/22/2013	Surface MEC Clearance	USA UXO8
76970	UXO	Projectiles	106mm Projo	HE	Fuzed	1	0	35	Demo	20Q 249684.43 E 2009136.28 N	1/22/2013	Surface MEC Clearance	USA UXO4
76971	Other MEC	MEC Component	Other (see comments)	Illum	Unfuzed	2	0	3	Demo	20Q 249684.67 E 2009131.61 N	1/22/2013	Surface MEC Clearance	USA UXO4
76981	Other MEC	Grenades	40mm Projected Grenade	Smoke	Unfuzed	8	0	8	Demo	20Q 249662.98 E 2009188.17 N	1/23/2013	Surface MEC Clearance	USA UXO4
76985	Other MEC	MEC Component	Other (see comments)	HE	N/A	1	0	1	Demo	20Q 247398.29 E 2008938.97 N	1/23/2013	Surface MEC Clearance	USA UXO8
76988	Other MEC	MEC Component	Other (see comments)	HE	N/A	1	0	1	Demo	20Q 247394.55 E 2008936.05 N	1/23/2013	Surface MEC Clearance	USA UXO8
76990	Other MEC	MEC Component	Other (see comments)	HE	Fuzed	1	0	1	Demo	20Q 247758.98 E 2009093.38 N	1/23/2013	Surface MEC Clearance	USA UXO5
76453	UXO	Rockets / Guided Missiles	3.5" Rocket	HE	Fuzed	8	0	40	Demo	20Q 247978.37 E 2009266.09 N	10/30/2012	Surface MEC Clearance	USA UXO9
76572	UXO	Projectiles	5" Projo	White Phosphorus	Fuzed	1	0	50	Demo	20Q 249707.03 E 2009258.92 N	11/15/2012	Surface MEC Clearance	USA UXO4
76599	UXO	Grenades	Hand Grenade	HE	Fuzed	1	0	1	Demo	20Q 247975.93 E 2009224.61 N	11/19/2012	Surface MEC Clearance	USA UXO4
76622	UXO	Grenades	Hand Grenade	Illum	Fuzed	1	0	1	Demo	20Q 247744.34 E 2008958.95 N	11/19/2012	Surface MEC Clearance	USA UXO8
76644	Other MEC	MEC Component	Other (see comments)	Illum	N/A	1	0	1	Demo	20Q 247577.48 E 2008946.68 N	11/20/2012	Surface MEC Clearance	USA UXO8

Table 4-1

MEC/MPPEH Identified at UXO 13

UXO 13 Non-Time-Critical Removal Action After Action Report

Former VNTR, Vieques, Puerto Rico

ITEMID	ItemGroup	ItemClass	ItemCatego	Filler	Fuze	Quantity	Depth	Weight	DemoReq	Location	FindDate	OpsType	TeamName
77025	UXO	Projectiles	40mm Projo	HE	Fuzed	1	0	1	Demo	20Q 247679.75 E 2009268.56 N	1/29/2013	Surface MEC Clearance	USA UXO5
77032	Other MEC	MEC Component	Other (see comments)	HE	N/A	1	0	1	Demo	20Q 247692.83 E 2009235.31 N	1/29/2013	Surface MEC Clearance	USA UXO5
77038	Other MEC	MEC Component	Other (see comments)	HE	N/A	1	0	2	Demo	20Q 247406.82 E 2009012.91 N	1/29/2013	Surface MEC Clearance	USA UXO8
77057	Other MEC	MEC Component	Other (see comments)	Smoke	Unfuzed	1	0	1	Demo	20Q 249665.09 E 2009101.92 N	1/30/2013	Surface MEC Clearance	USA UXO4
77045	UXO	Projectiles	40mm Projo	HE	Fuzed	1	0	1	Demo	20Q 247635.74 E 2009278.64 N	1/30/2013	Surface MEC Clearance	USA UXO5
77059	UXO	Flares-Pyrotechnics	Other (see comments)	Illum	Fuzed	1	0	1	Demo	20Q 247618.99 E 2009222.92 N	1/31/2013	Surface MEC Clearance	USA UXO5
77064	UXO	Projectiles	40mm Projo	HE	Fuzed	1	0	1	Demo	20Q 247597.27 E 2009182.35 N	1/31/2013	Surface MEC Clearance	USA UXO5
77077	UXO	Projectiles	Other (see comments)	HE	Fuzed	1	0	5	Demo	20Q 247742.46 E 2009262.45 N	2/1/2013	Surface MEC Clearance	USA UXO5
77148	Other MEC	MEC Component	Other (see comments)	Other (see comments)	Fuzed	2	0	1	Demo	20Q 247625.85 E 2009095.55 N	2/8/2013	Surface MEC Clearance	USA UXO5
77172	UXO	Grenades	Hand Grenade	Unknown	Fuzed	1	0	1	Demo	20Q 247684.53 E 2009055.07 N	2/12/2013	Surface MEC Clearance	USA UXO5
77194	Other MEC	MEC Component	Other (see comments)	HE	Fuzed	1	0	1	Demo	20Q 247637.16 E 2009040.93 N	2/14/2013	Surface MEC Clearance	USA UXO5
77216	UXO	Grenades	Hand Grenade	HE	Unfuzed	1	0	1	Demo	20Q 247349.47 E 2009049.36 N	2/19/2013	Surface MEC Clearance	USA UXO8
77224	Other MEC	MEC Component	Other (see comments)	HE	Unfuzed	1	0	1	Demo	20Q 247591.23 E 2009234.60 N	2/20/2013	Surface MEC Clearance	USA UXO5
77235	Other MEC	MEC Component	Other (see comments)	Illum	Unfuzed	1	0	1	Demo	20Q 247321.34 E 2009136.79 N	2/19/2013	Surface MEC Clearance	USA UXO7
77246	UXO	Mortars	81mm Mortar	HE	Unfuzed	1	0	10	Demo	20Q 249348.00 E 2009076.07 N	2/22/2013	Surface MEC Clearance	USA UXO5
77291	UXO	Rockets / Guided Missiles	3.5" Rocket	HE	Unfuzed	1	0	3	Demo	20Q 247996.33 E 2009346.67 N	3/1/2013	Surface MEC Clearance	USA UXO8
77323	UXO	Rockets / Guided Missiles	3.5" Rocket	Unknown	Unfuzed	2	0	8	Demo	20Q 248056.81 E 2009394.98 N	3/6/2013	Surface MEC Clearance	USA UXO8
77335	Other MEC	MEC Component	Other (see comments)	Unknown	Unknown	21	0	100	Demo	20Q 248013 E 2009412.35 N	3/11/2013	Surface MEC Clearance	USA UXO5
77336	Other MEC	MEC Component	Other (see comments)	Unknown	Unknown	7	0	45	Demo	20Q 248013 E 2009412.35 N	3/11/2013	Surface MEC Clearance	USA UXO5
77337	Other MEC	MEC Component	Other (see comments)	Unknown	Unknown	2	0	5	Demo	20Q 248013 E 2009412.35 N	3/11/2013	Surface MEC Clearance	USA UXO5
77354	Other MEC	Grenades	Other (see comments)	Inert Material	N/A	2	0	2	Demo	20Q 247390.70 E 2009160.12 N	3/14/2013	Surface MEC Clearance	USA UXO5
77366	UXO	Rockets / Guided Missiles	3.5" Rocket	HE	Unfuzed	1	0	5	Demo	20Q 247969.66 E 2009300.36 N	3/18/2013	Surface MEC Clearance	USA UXO8
77365	Other MEC	MEC Component	Other (see comments)	Other (see comments)	N/A	1	0	1	Demo	20Q 247967.86 E 2009288.49 N	3/18/2013	Surface MEC Clearance	USA UXO8
77009	UXO	Projectiles	Other (see comments)	HE	Fuzed	2	0	1	Demo	20Q 247690.58 E 2009268.05 N	1/28/2013	Surface MEC Clearance	USA UXO5
77010	UXO	Projectiles	40mm Projo	HE	Fuzed	1	0	1	Demo	20Q 247687.98 E 2009235.08 N	1/28/2013	Surface MEC Clearance	USA UXO5
77011	UXO	Projectiles	40mm Projo	Illum	Fuzed	1	0	1	Demo	20Q 247764.11 E 2009243.95 N	1/28/2013	Surface MEC Clearance	USA UXO5
77160	UXO	Flares-Pyrotechnics	Other (see comments)	Illum	Fuzed	1	0	7	Demo	20Q 247588.63 E 2008993.56 N	2/11/2013	Surface MEC Clearance	USA UXO5
77307	UXO	Rockets / Guided Missiles	3.5" Rocket	Unknown	Unfuzed	1	0	5	Demo	20Q 247997.95 E 2009452.61 N	3/4/2013	Surface MEC Clearance	USA UXO8
72824	Other MEC	Flares-Pyrotechnics	Flare	Smoke	Unfuzed	1	0	1	Demo	20Q 245782.42 E 2007782.65 N	4/25/2012	Surface MEC Clearance	USA UXO8
75336	UXO	Grenades	Other (see comments)	HE	Fuzed	2	0	15	Demo	20Q 246885.71 E 2008902.61 N	8/20/2012	Surface MEC Clearance	USA UXO4
75337	Other MEC	MEC Component	Other (see comments)	HE	Fuzed	1	0	1	Demo	20Q 246901.52 E 2008895.59 N	8/20/2012	Surface MEC Clearance	USA UXO4
75340	UXO	Grenades	Hand Grenade	HE	Unfuzed	1	0	1	Demo	20Q 246927.00 E 2008940.87 N	8/20/2012	Surface MEC Clearance	USA UXO4
75361	UXO	Flares-Pyrotechnics	Other (see comments)	Illum	Fuzed	2	0	2	Demo	20Q 247791.26 E 2009159.01 N	8/21/2012	Surface MEC Clearance	USA UXO8
75371	UXO	Grenades	Hand Grenade	HE	Fuzed	1	0	1	Demo	20Q 247904.60 E 2009151.27 N	8/24/2012	Surface MEC Clearance	USA UXO8
75372	UXO	MEC Component	Other (see comments)	HE	N/A	2	0	3	Demo	20Q 247846.03 E 2009178.34 N	8/27/2012	Surface MEC Clearance	USA UXO8
75381	UXO	MEC Component	Other (see comments)	HE	Fuzed	1	0	2	Demo	20Q 247846.99 E 2009178.71 N	8/27/2012	Surface MEC Clearance	USA UXO8
75386	UXO	Rockets / Guided Missiles	3.5" Rocket	Other (see comments)	Unfuzed	1	0	2	Demo	20Q 247844.91 E 2009180.51 N	8/27/2012	Surface MEC Clearance	USA UXO8
75387	UXO	Flares-Pyrotechnics	Other (see comments)	Smoke	Unfuzed	1	0	1	Demo	20Q 247844.50 E 2009181.24 N	8/27/2012	Surface MEC Clearance	USA UXO8
75440	Other MEC	Flares-Pyrotechnics	Other (see comments)	Illum	Unfuzed	1	0	1	Demo	20Q 249545.11 E 2008884.60 N	8/30/2012	Surface MEC Clearance	USA UXO4
75481	UXO	Mortars	81mm Mortar	HE	Fuzed	1	0	6	Demo	20Q 249252.12 E 2008849.03 N	9/6/2012	Surface MEC Clearance	USA UXO8
75489	UXO	Mortars	81mm Mortar	HE	Fuzed	1	0	6	Demo	20Q 249615.21 E 2008924.73 N	9/7/2012	Surface MEC Clearance	USA UXO8
75497	DMM	Grenades	40mm Projected Grenade	Inert Material	Unfuzed	1	0	1	Demo	20Q 249460.35 E 2008831.93 N	9/10/2012	Surface MEC Clearance	USA UXO5
76102	Other MEC	Projectiles	105mm Projo	Smoke	Unfuzed	1	0	80	Demo	20Q 249750.93 E 2009176.83 N	10/16/2012	Surface MEC Clearance	USA UXO9
76105	Other MEC	MEC Component	Other (see comments)	HE	Unfuzed	2	0	5	Demo	20Q 249643.46 E 2009197.83 N	10/16/2012	Surface MEC Clearance	USA UXO9
76181	Other MEC	MEC Component	105mm Projo	Illum	N/A	1	0	5	Demo	20Q 249709.34 E 2009160.66 N	10/19/2012	Surface MEC Clearance	USA UXO9
76225	DMM	MEC Component	Other (see comments)	HE	Unfuzed	1	0	1	Demo	20Q 248563.97 E 2009225.96 N	10/22/2012	Surface MEC Clearance	USA UXO5
76246	Other MEC	MEC Component	Other (see comments)	Illum	Unfuzed	1	0	5	Demo	20Q 248175.51 E 2009153.87 N	10/22/2012	Surface MEC Clearance	USA UXO4
76361	Other MEC	Flares-Pyrotechnics	Other (see comments)	Illum	Unfuzed	1	0	1	Demo	20Q 248167.17 E 2009074.20 N	10/31/2012	Surface MEC Clearance	USA UXO4
76355	Other MEC	MEC Component	Other (see comments)	HE	Unknown	1	0	3	Demo	20Q 248007.47 E 2009267.69 N	10/31/2012	Surface MEC Clearance	USA UXO9
76402	Other MEC	MEC Component	Other (see comments)	HE	Unfuzed	1	0	2	Demo	20Q 249707.9 E 2009139.4 N	10/19/2012	Surface MEC Clearance	USA UXO9
76408	Other MEC	MEC Component	Other (see comments)	Illum	Unfuzed	1	0	1	Demo	20Q 249721.19 E 2009104.25 N	11/1/2012	Surface MEC Clearance	USA UXO4
75921	Other MEC	Projectiles	105mm Projo	HE	Unfuzed	1	0	20	Demo	20Q 249218.62 E 2009011.17 N	10/15/2012	Surface MEC Clearance	USA UXO4

Table 4-1

MEC/MPPEH Identified at UXO 13

UXO 13 Non-Time-Critical Removal Action After Action Report

Former VNTR, Vieques, Puerto Rico

ITEMID	ItemGroup	ItemClass	ItemCatego	Filler	Fuze	Quantity	Depth	Weight	DemoReq	Location	FindDate	OpsType	TeamName
78392	Other MEC	Projectiles	Other (see comments)	Smoke	Unfuzed	4	0	4	Demo	20Q 246418.62 E 2009444.77 N	6/14/2013	Surface MEC Clearance	USA UXO5
78402	DMM	Projectiles	105mm Projo	HE	Fuzed	1	0	39	Demo	20Q 246424.89 E 2009425.38 N	6/17/2013	Surface MEC Clearance	USA UXO5
78396	Other MEC	Mortars	Other (see comments)	Smoke	Unfuzed	2	0	1	Demo	20Q 246422.72 E 2009424.95 N	6/17/2013	Surface MEC Clearance	USA UXO5
77403	Other MEC	Rockets / Guided Missiles	3.5" Rocket	HE	N/A	1	0	5	Demo	20Q 247989.02 E 2009337.25 N	3/22/2013	Surface MEC Clearance	USA UXO8
77430	Other MEC	Rockets / Guided Missiles	3.5" Rocket	Other (see comments)	Unknown	29	0	75	None	20Q 247943.53 E 2009323.74 N	3/28/2013	Surface MEC Clearance	USA UXO5
77595	UXO	Grenades	Other (see comments)	HE	Fuzed	10	0	15	None	20Q 247285.39 E 2009145.51 N	4/22/2013	Surface MEC Clearance	USA UXO4
77596	UXO	Grenades	Other (see comments)	HE	Unfuzed	12	0	18	None	20Q 247287.82 E 2009141.07 N	4/22/2013	Surface MEC Clearance	USA UXO4
77622	Other MEC	MEC Component	Other (see comments)	Other (see comments)	Unfuzed	14	0	75	None	20Q 247923.46 E 2009424.92 N	4/24/2013	Surface MEC Clearance	USA UXO5
77669	UXO	Projectiles	3"/50 (MK-27, MK-29, MK-33)	HE	Fuzed	1	0	15	Demo	20Q 249432.68 E 2009013.59 N	4/29/2013	Surface MEC Clearance	USA UXO4
77671	UXO	Projectiles	3"/50 (MK-27, MK-29, MK-33)	HE	Fuzed	1	0	15	Demo	20Q 249421.49 E 2009066.57 N	4/29/2013	Surface MEC Clearance	USA UXO4
77663	Other MEC	MEC Component	Other (see comments)	N/A	Unfuzed	28	0	100	None	20Q 247981.44 E 2009425.45 N	4/29/2013	Surface MEC Clearance	USA UXO5
77682	Other MEC	Grenades	40mm Projected Grenade	HE	Fuzed	4	0	2	Demo	20Q 247575.85 E 2009305.87 N	4/30/2013	Surface MEC Clearance	USA UXO4
77677	Other MEC	MEC Component	Other (see comments)	Other (see comments)	Unfuzed	8	0	25	None	20Q 248075.07 E 2009450.51 N	4/30/2013	Surface MEC Clearance	USA UXO5
77695	Other MEC	MEC Component	Other (see comments)	Other (see comments)	Unfuzed	15	0	35	None	20Q 248075.71 E 2009465.75 N	5/6/2013	Surface MEC Clearance	USA UXO5
77727	Other MEC	MEC Component	Other (see comments)	Other (see comments)	Unfuzed	14	0	55	Demo	20Q 247954.82 E 2009434.19 N	5/10/2013	Surface MEC Clearance	USA UXO5
77730	Other MEC	MEC Component	Other (see comments)	Other (see comments)	Unfuzed	13	0	50	Demo	20Q 247974.05 E 2009465.66 N	5/10/2013	Surface MEC Clearance	USA UXO5
78066	DMM	Projectiles	Other (see comments)	Other (see comments)	N/A	30	0	2	None	20Q 246401.85 E 2009284.61 N	5/30/2013	Surface MEC Clearance	USA UXO5
78071	Other MEC	Grenades	40mm Projected Grenade	Other (see comments)	Fuzed	1	0	1	Demo	20Q 246419.15 E 2009212.96 N	5/30/2013	Surface MEC Clearance	USA UXO5
78086	UXO	Mortars	81mm Mortar	HE	Fuzed	1	0	5	Demo	20Q 246391.17 E 2009256.08 N	6/3/2013	Surface MEC Clearance	USA UXO5
79833	Other MEC	Mortars	60mm Mortar	Illum	Unfuzed	1	0	5	Demo	20Q 246192.89 E 2009267.65 N	8/16/2013	Surface MEC Clearance	USA UXO8
79882	UXO	Mortars	60mm Mortar	HE	Unfuzed	1	0	5	Demo	20Q 246218.57 E 2009403.47 N	8/22/2013	Surface MEC Clearance	USA UXO4
79959	UXO	Rockets / Guided Missiles	3.5" Rocket	HE	Unfuzed	1	0	25	None	20Q 246283.11 E 2009429.22 N	8/30/2013	Surface MEC Clearance	USA UXO4
79960	UXO	Mortars	60mm Mortar	HE	Unfuzed	1	0	5	Demo	20Q 246281.42 E 2009410.34 N	8/30/2013	Surface MEC Clearance	USA UXO4
79590	Other MEC	MEC Component	Other (see comments)	N/A	N/A	2	0	1	None	20Q 246776.59 E 2008723.43 N	7/30/2013	Surface MEC Clearance	USA UXO8
79592	Other MEC	MEC Component	Other (see comments)	N/A	N/A	5	0	4	None	20Q 246778.44 E 2008700.45 N	7/30/2013	Surface MEC Clearance	USA UXO8
79594	Other MEC	MEC Component	Other (see comments)	N/A	N/A	5	0	2	None	20Q 246748.97 E 2008694.81 N	7/30/2013	Surface MEC Clearance	USA UXO8
78200	Other MEC	Grenades	Hand Grenade	Unknown	Fuzed	1	0	1	Demo	20Q 247003.51 E 2008924.46 N	6/10/2013	Surface MEC Clearance	USA UXO5
78385	Other MEC	Mortars	Other (see comments)	Smoke	Unfuzed	1	0	1	Demo	20Q 246424.02 E 2009523.54 N	6/12/2013	Surface MEC Clearance	USA UXO5
79066	Other MEC	Grenades	Hand Grenade	HE	Fuzed	5	0	5	Demo	20Q 246981.68 E 2008958.91 N	6/28/2013	Surface MEC Clearance	USA UXO6
79124	Other MEC	MEC Component	Other (see comments)	HE	Unfuzed	1	0	1	Demo	20Q 246985.11 E 2008939.98 N	7/1/2013	Final Surface Clearance	USA UXO7
79174	Other MEC	Flares-Pyrotechnics	Other (see comments)	Illum	Unfuzed	1	0	1	Demo	20Q 246464.09 E 2008924.98 N	7/3/2013	Surface MEC Clearance	USA UXO4
79178	UXO	Mortars	60mm Mortar	HE	Unfuzed	2	0	5	Demo	20Q 246480.29 E 2009470.05 N	7/3/2013	Surface MEC Clearance	USA UXO4
78616	UXO	Grenades	40mm Projected Grenade	HE	Fuzed	1	0	1	Demo	20Q 247589.66 E 2009306.99 N	6/21/2013	Final Surface Clearance	USA UXO6
78612	UXO	Grenades	40mm Projected Grenade	HE	Fuzed	1	0	1	Demo	20Q 247586.03 E 2009307.63 N	6/21/2013	Final Surface Clearance	USA UXO6
78613	UXO	Grenades	40mm Projected Grenade	HE	Fuzed	1	0	1	Demo	20Q 247571.42 E 2009295.88 N	6/21/2013	Final Surface Clearance	USA UXO6
78614	UXO	Grenades	40mm Projected Grenade	HE	Fuzed	1	0	1	Demo	20Q 247624.26 E 2009333.33 N	6/21/2013	Final Surface Clearance	USA UXO6
78615	UXO	Grenades	40mm Projected Grenade	HE	Fuzed	1	0	1	Demo	20Q 247621.71 E 2009335.21 N	6/21/2013	Final Surface Clearance	USA UXO6
79184	UXO	Mortars	Other (see comments)	Illum	Unfuzed	2	0	4	Demo	20Q 246424.38 E 2009514.84 N	7/8/2013	Surface MEC Clearance	USA UXO4
79187	UXO	Mortars	Other (see comments)	Illum	Unfuzed	5	0	10	Demo	20Q 246394.84 E 2009424.38 N	7/8/2013	Surface MEC Clearance	USA UXO4
79188	Other MEC	MEC Component	Other (see comments)	HE	Unfuzed	1	0	15	None	20Q 246388.64 E 2009404.98 N	7/8/2013	Surface MEC Clearance	USA UXO4
79181	Other MEC	MEC Component	Other (see comments)	HE	Unfuzed	1	0	1	Demo	20Q 247289.81 E 2009165.62 N	7/8/2013	Surface MEC Clearance	USA UXO7
79297	UXO	Grenades	Other (see comments)	HE	Unfuzed	4	0	8	None	20Q 247324.54 E 2009193.10 N	7/11/2013	Surface MEC Clearance	USA UXO4
79277	UXO	Mortars	Other (see comments)	Unknown	Unfuzed	1	0	2	None	20Q 246347.47 E 2009393.80 N	7/9/2013	Surface MEC Clearance	USA UXO4
79280	UXO	Mortars	Other (see comments)	Unknown	Unfuzed	1	0	2	None	20Q 246371.39 E 2009397.41 N	7/9/2013	Surface MEC Clearance	USA UXO4
79508	Other MEC	Rockets / Guided Missiles	3.5" Rocket	N/A	N/A	1	0	15	None	20Q 247421.52 E 2009263.18 N	7/24/2013	Surface MEC Clearance	USA UXO4
79514	Other MEC	Rockets / Guided Missiles	3.5" Rocket	N/A	N/A	1	0	15	None	20Q 247338.66 E 2009237.01 N	7/25/2013	Surface MEC Clearance	USA UXO4
79522	UXO	MEC Component	Other (see comments)	HE	Unfuzed	1	0	1	Demo	20Q 247358.12 E 2009253.73 N	7/26/2013	Surface MEC Clearance	USA UXO4
79524	UXO	Grenades	Other (see comments)	HE	Fuzed	1	0	2	Demo	20Q 247326.70 E 2009223.30 N	7/26/2013	Surface MEC Clearance	USA UXO4
79629	UXO	MEC Component	Other (see comments)	HE	Fuzed	1	0	1	Demo	20Q 246465.27 E 2009396.95 N	8/1/2013	Surface MEC Clearance	USA UXO8
79628	UXO	Rockets / Guided Missiles	3.5" Rocket	HE	Fuzed	1	0	5	None	20Q 246474.02 E 2009374.86 N	8/1/2013	Surface MEC Clearance	USA UXO8
79616	UXO	Grenades	Hand Grenade	HE	Fuzed	2	0	2	Demo	20Q 246948.52 E 2008856.62 N	8/1/2013	Surface MEC Clearance	USA UXO7
79627	UXO	Flares-Pyrotechnics	Other (see comments)	Illum	Unfuzed	1	0	1	Demo	20Q 246562.51 E 2008479.64 N	8/1/2013	Surface MEC Clearance	USA UXO7

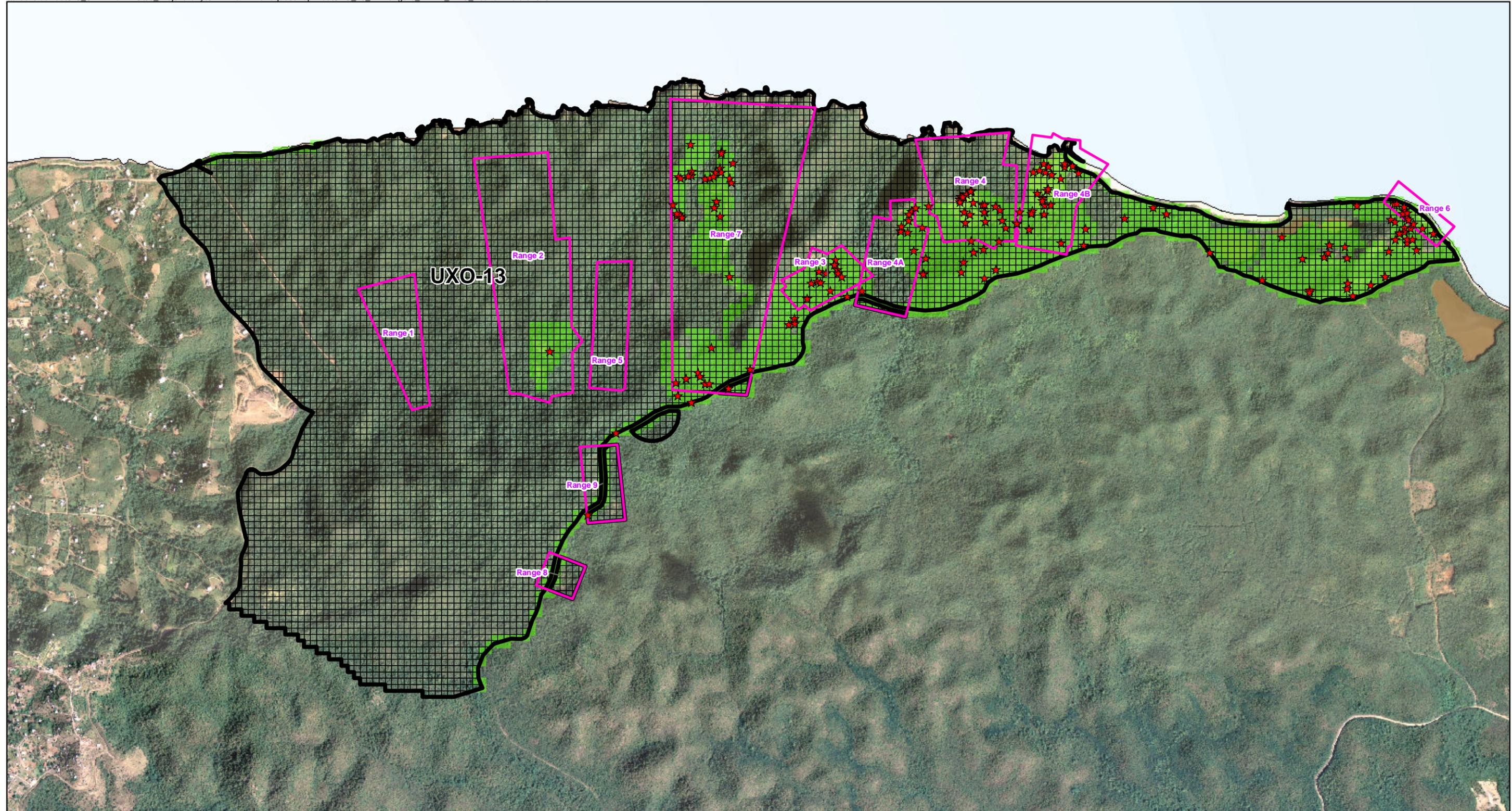
Table 4-1

MEC/MPPEH Identified at UXO 13

UXO 13 Non-Time-Critical Removal Action After Action Report

Former VNTR, Vieques, Puerto Rico

ITEMID	ItemGroup	ItemClass	ItemCatego	Filler	Fuze	Quantity	Depth	Weight	DemoReq	Location	FindDate	OpsType	TeamName
79660	Other MEC	MEC Component	Other (see comments)	HE	Fuzed	50	0	5	Demil	20Q 246856.63 E 2008893.71 N	8/5/2013	Surface MEC Clearance	USA UXO4
79768	UXO	MEC Component	Other (see comments)	HE	Unfuzed	1	0	2	None	20Q 246968.03 E 2008981.19 N	8/12/2013	Surface MEC Clearance	USA UXO5
79769	UXO	Grenades	Hand Grenade	HE	Fuzed	2	0	4	Demo	20Q 246972.68 E 2009004.92 N	8/12/2013	Surface MEC Clearance	USA UXO5
79860	UXO	Mortars	60mm Mortar	HE	Fuzed	5	0	25	Demo	20Q 246230.29 E 2009216.29 N	8/21/2013	Surface MEC Clearance	USA UXO4
79863	UXO	Mortars	60mm Mortar	HE	Fuzed	3	0	15	Demo	20Q 246223.08 E 2009225.72 N	8/21/2013	Surface MEC Clearance	USA UXO4
79865	UXO	Mortars	60mm Mortar	HE	Fuzed	1	0	5	Demo	20Q 246210.43 E 2009215.89 N	8/21/2013	Surface MEC Clearance	USA UXO4
79867	UXO	Mortars	60mm Mortar	HE	Unfuzed	1	0	5	Demo	20Q 246211.57 E 2009227.70 N	8/21/2013	Surface MEC Clearance	USA UXO4
79897	Other MEC	Projectiles	Other (see comments)	Illum	Unfuzed	1	0	5	Demo	20Q 246229.28 E 2009395.89 N	8/23/2013	Surface MEC Clearance	USA UXO4
79928	UXO	MEC Component	Other (see comments)	N/A	N/A	1	0	10	None	20Q 246893.46 E 2008949.45 N	8/28/2013	Surface MEC Clearance	USA UXO5
80598	UXO	Projectiles	40mm Projo	HE	Fuzed	1	0	1	Demo	20Q 247577.61 E 2009308.28 N	11/22/2013	Surface MEC Clearance	USA UXO5
80587	UXO	Projectiles	40mm Projo	HE	Fuzed	1	0	1	Demo	20Q 247586.35 E 2009306.64 N	11/22/2013	Surface MEC Clearance	USA UXO5
80588	UXO	Projectiles	40mm Projo	HE	Fuzed	1	0	1	Demo	20Q 247571.26 E 2009293.83 N	11/22/2013	Surface MEC Clearance	USA UXO5
80589	UXO	Projectiles	40mm Projo	HE	Fuzed	1	0	1	Demo	20Q 247572.18 E 2009281.71 N	11/22/2013	Surface MEC Clearance	USA UXO5
80591	UXO	Projectiles	40mm Projo	HE	Fuzed	1	0	1	Demo	20Q 247626.80 E 2009337.09 N	11/22/2013	Surface MEC Clearance	USA UXO5
80592	UXO	Projectiles	40mm Projo	HE	Fuzed	1	0	1	Demo	20Q 247623.62 E 2009332.62 N	11/22/2013	Surface MEC Clearance	USA UXO5
80593	UXO	Projectiles	40mm Projo	HE	Fuzed	1	0	1	Demo	20Q 247622.90 E 2009334.14 N	11/22/2013	Surface MEC Clearance	USA UXO5
80594	UXO	Projectiles	40mm Projo	HE	Fuzed	1	0	1	Demo	20Q 247604.84 E 2009318.18 N	11/22/2013	Surface MEC Clearance	USA UXO5
81864	UXO	MEC Component	Other (see comments)	HE	Unfuzed	1	0	2	None	20Q 246968.03 E 2008981.19 N	8/12/2013	Surface MEC Clearance	USA UXO5
81882	Other MEC	MEC Component	Other (see comments)	Smoke	Unfuzed	1	0	1	None	20Q 246838.04 E 2008817.93 N	8/16/2013	Surface MEC Clearance	USA UXO5
81884	Other MEC	Projectiles	Other (see comments)	Illum	Unfuzed	1	0	3	Demo	20Q 246235.8 E 2009206.62 N	8/27/2013	Surface MEC Clearance	USA UXO5
81917	UXO	Projectiles	40mm Projo	HE	Unfuzed	1	0	5	Demo	20Q 245600.03 E 2008565.56 N	4/2/2014	Surface MEC Clearance	USA UXO4
80063	UXO	Mortars	60mm Mortar	HE	Unfuzed	1	0	5	Demo	20Q 246265.30 E 2009407.62 N	9/16/2013	Surface MEC Clearance	USA UXO4
80148	UXO	MEC Component	Other (see comments)	HE	Fuzed	1	0	1	Demo	20Q 246277.08 E 2009557.71 N	9/23/2013	Surface MEC Clearance	USA UXO5
84521	UXO	Rockets / Guided Missiles	3.5" Rocket	HE	Fuzed	2	0	30	Demo	20Q 246367.83 E 2008412.37 N	11/14/2014	Surface MEC Clearance	USA UXO5
84485	UXO	Rockets / Guided Missiles	3.5" Rocket	HE	Fuzed	1	0	15	Demo	20Q 246347.32 E 2008411.20 N	11/13/2014	Surface MEC Clearance	USA UXO5
85347	Other MEC	Flares-Pyrotechnics	Other (see comments)	Illum	Unfuzed	1	0	2	Demo	20Q 246215.63 E 2008354.06 N	2/17/2015	Surface MEC Clearance	USA UXO4
85616	UXO	Grenades	Other (see comments)	HE	Fuzed	1	0	3	Demo	20Q 246206.44 E 2008416.58 N	3/3/2015	Surface MEC Clearance	USA UXO8
85833	UXO	Flares-Pyrotechnics	Other (see comments)	Illum	Unfuzed	1	0	3	Demo	20Q 246255.10 E 2008436.32 N	3/10/2015	Surface MEC Clearance	USA UXO8
86118	Other MEC	Flares-Pyrotechnics	Other (see comments)	Illum	Unfuzed	2	0	4	Demo	20Q 246255.1 E 2008436.32 N	3/10/2015	Surface MEC Clearance	USA UXO4
86186	Other MEC	Grenades	40mm Projected Grenade	Unknown	Unfuzed	1	0	2	Demo	20Q 246313.66 E 2008465.17 N	4/6/2015	Surface MEC Clearance	USA UXO4
86187	Other MEC	Grenades	Hand Grenade	Smoke	Fuzed	2	0	4	None	20Q 246322.46 E 2008447.10 N	4/6/2015	Surface MEC Clearance	USA UXO4
86474	UXO	Mortars	60mm Mortar	White Phosphorus	Fuzed	3	0	6	Demo	20Q 246377.43 E 2008584.72 N	5/4/2015	Surface MEC Clearance	USA UXO6



- Legend**
- ★ MEC
 - Surface Clearance QA Complete
 - Range
 - ▭ UXO-13

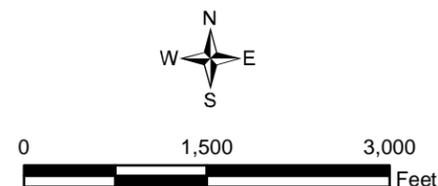
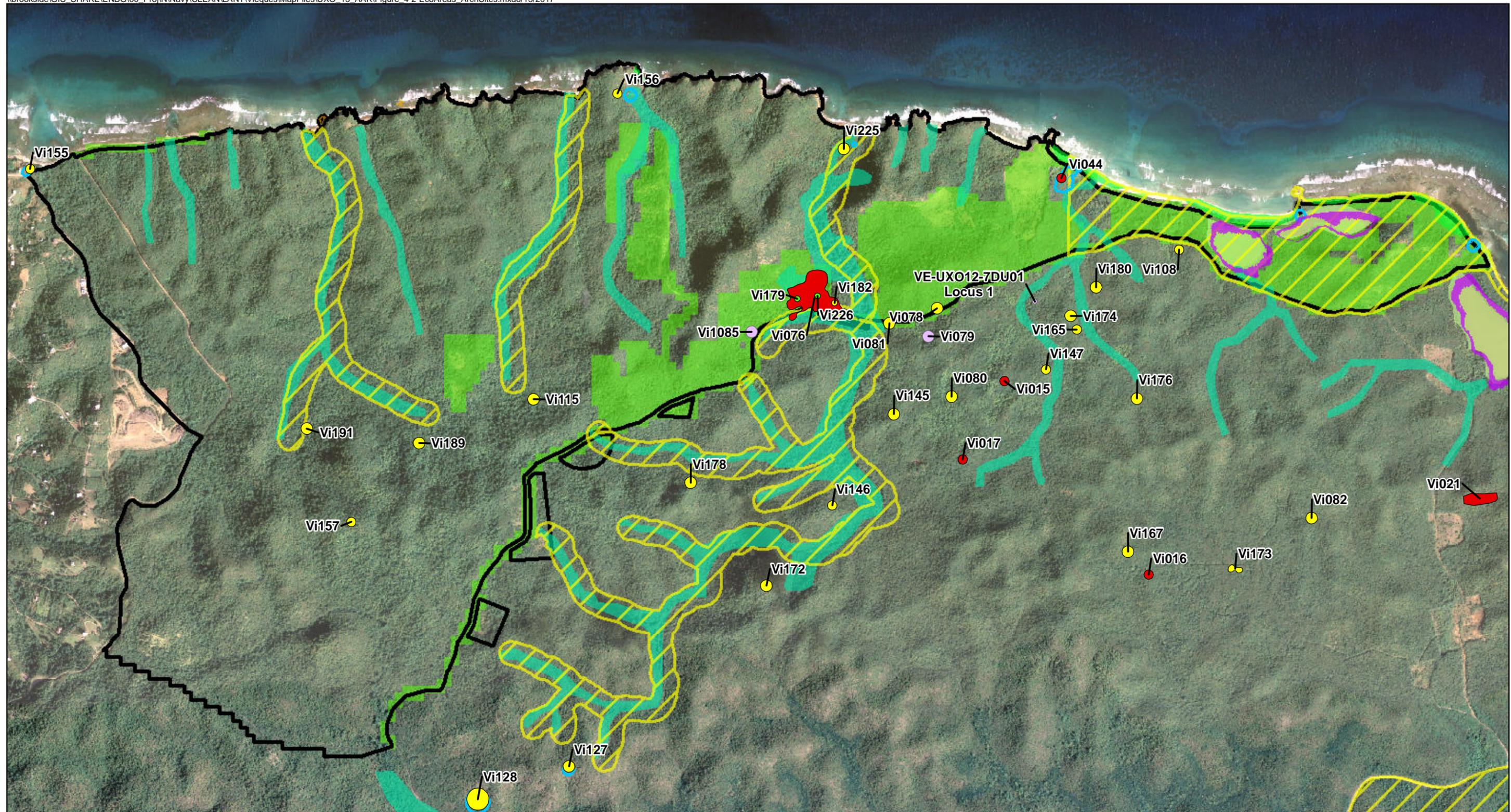


Figure 4-1
All MEC Found
UXO 13 After Action Report
Former Vieques Naval Training Range
Vieques, Puerto Rico



- Legend**
- No Category Yet
 - National Register Site
 - Archeological Site Surveyed but not Evaluated
 - Archeological Site with no Significance
 - Conservation Zone
 - Mangrove Habitat
 - Important Habitat Areas
 - Chaemacrista glandulosa
 - Goetzea elegans
 - Stahlia monosperma
 - UXO 13 Boundary
 - Surface Clearance QA Complete

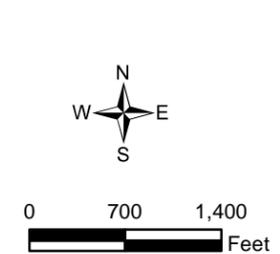
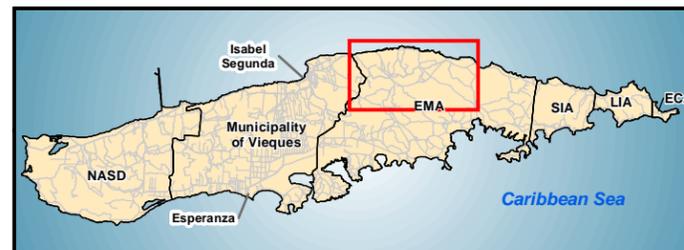


Figure 4-2
Ecological Areas and Archaeological Sites
 UXO 13 After Action Report
 Former VNTR
 Vieques, Puerto Rico

Demonstration of Completion

Performance results demonstrating that the objective for the NTCRA have been met are summarized in **Table 5-1**.

TABLE 5-1

Interim Removal Action Performance Results

Objective	Performance Results
Reduce the potential explosive hazard due to the potential presence of MEC/MPPEH within the NTCRA area	MEC/MPPEH clearance was conducted in areas that had been identified as previously utilized ranges with additional area cleared to show that high densities of munitions were not being found outside these areas. The QC and QA inspections conducted verified the removal action was conducted in accordance with the NTCRA Work Plan (CH2M, 2012). No QC/QA failures occurred during this NTCRA.

When planning the NTCRA, all ranges identified as having been utilized for usage of MEC were selected for removal, as well as the areas adjacent to these ranges, to reduce the potential explosive hazard to potential receptors. Based on findings during the NTCRA implementations, portions of the originally-planned area ultimately were not included due to the following reasons (**Figure 5-1**):

- Steep slopes or areas inundated with water, which created physical barriers
- Areas identified as habitat or potential habitat for T&E species or otherwise important habitat
- Areas that contain potentially listable archaeological sites
- Areas determined likely to have no or low densities of MEC based on finding in adjacent areas

Although several areas were excluded from the NTCRA, this exclusion did not prevent the NTCRA from achieving its objective of explosive hazard reduction, especially given the quantity of MEC and MPPEH removed during the removal action. As no MEC/MPPEH was located on or near Ranges 1, 5, 8, or 9 during the ERA/SI and historical records defined these ranges as being used for small arms training, these areas were not included as part of the NTCRA.

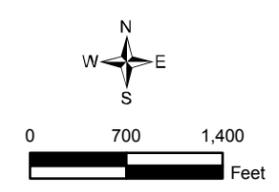
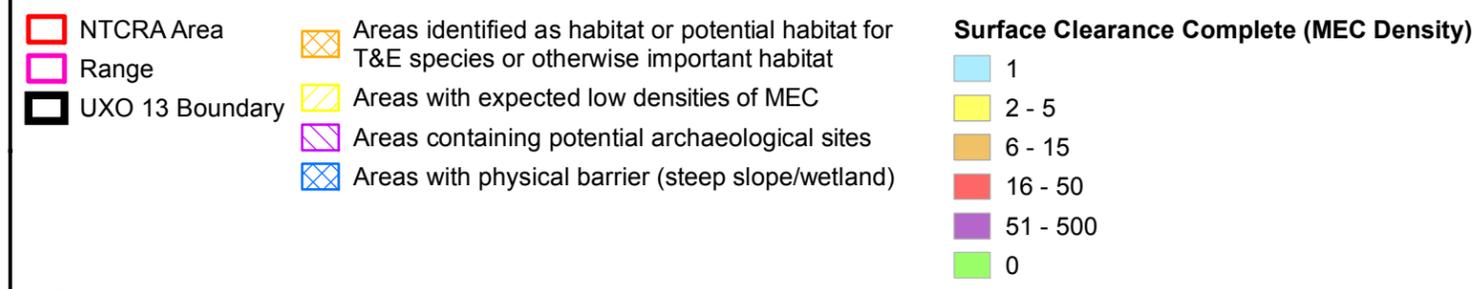
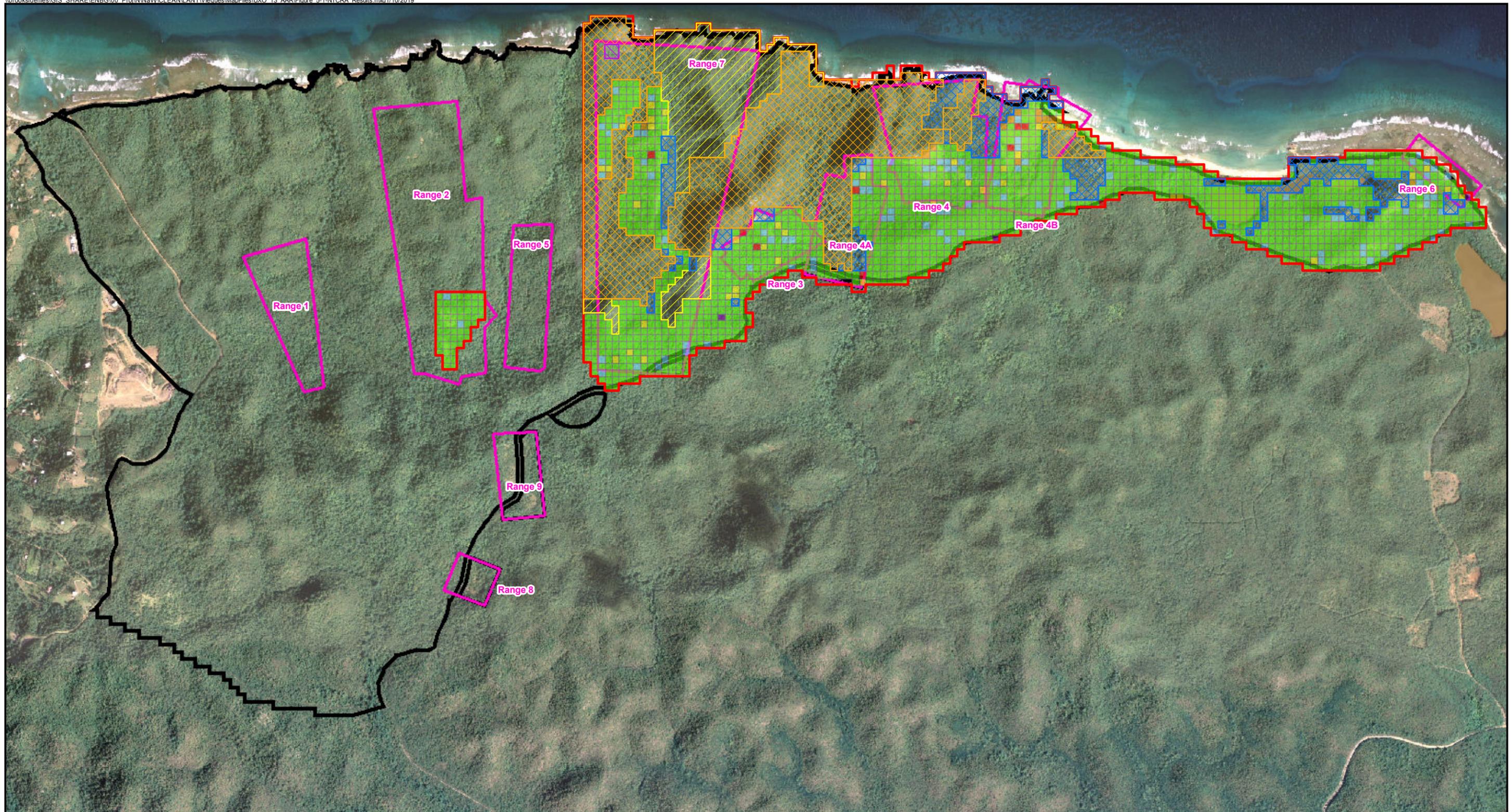


Figure 5-1
NTCRA Results
 UXO 13 After Action Report
 Former VNTR
 Vieques, Puerto Rico

SECTION 6

Ongoing Activities

Remedial investigation activities are currently in progress to determine the nature and extent of munitions-related contamination in soil and groundwater.

The land use control (LUC) activities in the bulleted list below will be performed at least until the final remedy for UXO 13 has been selected and formalized through a Record of Decision. For these activities, a Land Use Control Implementation Plan (LUCIP) will be developed following finalization of this AAR to provide the details of the sign and kiosk maintenance plan.

- The Navy will monitor, repair, and/or replace damaged UXO warning signs, as warranted, as part of a sign maintenance program for the former VNTR. Replacement may be due to damage to the signs or due to changing information relevant to hazards associated with the area and access to the site.

SECTION 7

Community Relations

Community participation for the environmental restoration activities for the former VNTR includes Restoration Advisory Board (RAB) meetings, public meetings, public information repository, RAB and public comment periods, fact sheets, public notices, and a public website. The Community Involvement Plan (CIP) for Vieques is updated periodically to adjust to the needs of the program and the community and provides detailed information on community participation; the CIP can be found in the Administrative Record for Vieques.

The NTCRA Work Plan is included in the Administrative Record for the site, as will be the Final After Action Report.

SECTION 8

Certification Statement

On behalf of the United States Department of the Navy, I certify that this document memorializes the completion of the NTCRA objective, and that the completion of the NTCRA reduced the risk of exposure to MEC (i.e., reduced explosive hazard) in areas that were historically used for training activities; it should not be considered a final remedy for all land uses, but is intended to support the final remedy for the site.

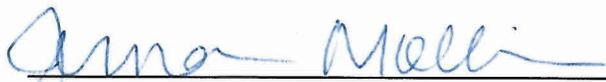
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Date: 2019.03.25 17:07:36 -04'00'

Mr. Daniel Hood
Remedial Project Manager
Naval Facilities Engineering Command, Atlantic

Date

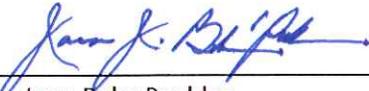
Based on the information included in this After Action Report, EPA concurs that the NTCRA objective has been achieved.


Ms. Jessica Mollin

Remedial Project Manager
United States Environmental Protection Agency

3/26/19
Date

Based on the information included in this After Action Report, PRDNER concurs that the NTCRA objective has been achieved.



MARCH 27, 2019

Mr. Juan Baba Peebles
Remedial Project Manager
Puerto Rico Department of Natural and Environmental Resources

Date

Based on the information included in this After Action Report, USFWS concurs that the NTCRA objective has been achieved.

SUSAN SILANDER Digitally signed by SUSAN SILANDER
Date: 2019.03.25 16:21:52 -04'00'

Ms. Susan Silander
Remedial Project Manager
United States Fish and Wildlife Service

Date

SECTION 9

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Appendix A
Representative Photographs



Photo 1: Vegetation clearance UXO 13



Photo 2: MEC clearance UXO 13

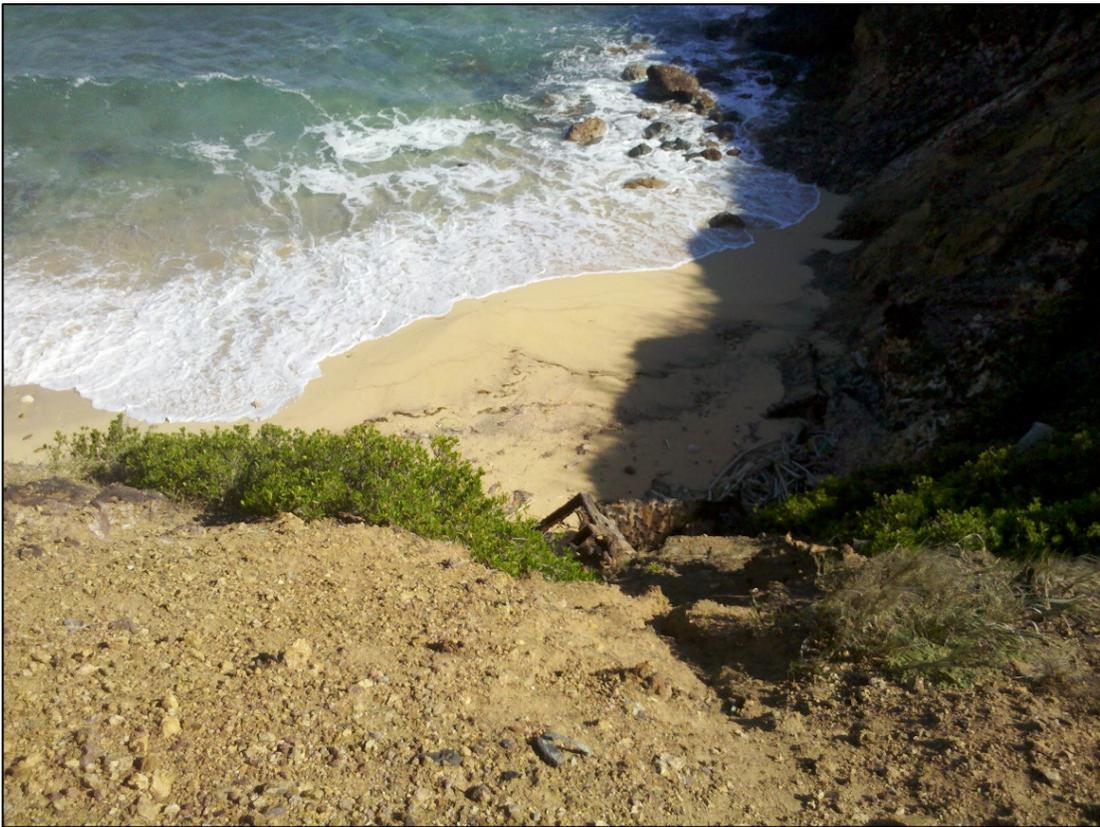


Photo 3: Former Rocket Range (Range 4B) metal debris



Photo 4: Former Rocket Range looking west



Photo 5: Example of AMS



Photo 6: Archaeological site Vi-076



Photo 7: Steep terrain at UXO 13