Final

2016 Annual Land Use Control Monitoring Report,

RVAAP-01 Ramsdell Quarry Landfill

and

RVAAP-05 Winklepeck Burning Grounds

Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant Portage and Trumbull Counties, Ohio

Contract No. W912QR-13-C-0031

Prepared for:



U.S. Army Corps of Engineers Louisville District

Prepared by:



February 15, 2017

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February 15, 2017



John R. Kasich, Governor Mary Taylor, Lt. Governor Craig W. Butler, Director

March 3, 2017

Mr. Mark Leeper, P.G., MBA Acting Chief Army National Guard Directorate Environmental Programs Division ARNG-ILE-CR 111 South George Mason Drive Arlington, VA 22204 Re: US Army Ravenna Ammunition Plt RVAAP Remediation Response Project records Remedial Response Portage County 267000859029

Subject: Approval of the "Final 2016 Annual Land Use Control Monitoring Report, RVAAP-01 Ramsdell Quarry Landfill and RVAAP-05 Winklepeck Burning Grounds" at the Former Ravenna Army Ammunition Plant, Ravenna, Ohio," Dated February 15, 2017 (Work Activity No. 267-000859-029)

Dear Mr. Leeper:

The Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO), Division of Environmental Response and Revitalization (DERR) has received and reviewed the document entitled, "*Final 2016 Annual Land Use Control Monitoring Report, RVAAP-01 Ramsdell Quarry Landfill and RVAAP-05 Winklepeck Burning Grounds*," dated February 15, 2017. This document, received by Ohio EPA's NEDO on February 16, 2017, was prepared for the U.S. Army Corps of Engineers (USACE) Louisville District, by Vista Sciences Corporation.

This document was reviewed by personnel from Ohio EPA's DERR, pursuant to the Director's Findings and Orders paragraph 39 (b). The response to Ohio EPA comments are satisfactory and the document is approved in its final format. If you have any questions or concerns, please do not hesitate to contact me at (330) 963-1235.

Sincerely

Nicholas Roope Site Coordinator Division of Environmental Response and Revitalization

NCR/nvr

- cc: Craig Coombs, USACE, Louisville District Katie Tait/Kevin Sedlak, Camp Ravenna Environmental Office, Newton Falls Shreffler/Harris, Camp Ravenna Environmental Office, Vista Sciences, Newton Falls
- ec: Bob Princic, Ohio EPA, NEDO, DERR Thomas Schneider, Ohio EPA, CO, DERR



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For the

Final 2016 Annual Land Use Control Monitoring Report, RVAAP-01 Ramsdell Quarry Landfill and RVAAP-05 Winklepeck Burning Grounds

> Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant Portage and Trumbull Counties, Ohio

Name/Organization	Number of Printed Copies	Number of Electronic Copies
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Katie Tait, OHARNG – Camp Ravenna	0	Transmittal letter
Nicholas Roope, Ohio EPA Project Manager – NEDO-DERR	1	3
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Craig Coombs, USACE – Louisville District	0	Transmittal letter
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Gail Harris, AR Manager – Camp Ravenna	2	2

AR = Administrative Record

ARNG = Army National Guard

ARNG-IED-CR = Army National Guard – Installation Environmental Division – Cleanup Restoration CO = Central Office

DERR = Division of Environmental Response and Revitalization

EPA = Environmental protection Agency

NEDO = Northeast District Office

OHARNG = Ohio Army National Guard

USACE = U.S. Army Corps of Engineers

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LIST OF ACRONYMS AND ABBREVIATIONS

ACM	Asbestos Containing Material
AOC	Area of Concern
AR	Army Regulation
ARNG	Army National Guard
bgs	below ground surface
Camp Ravenna	Camp Ravenna Joint Military Training Center
CERCLA	Comprehensive Environmental Response, Compensation, and Liability
	Act
C.F.R.	Code of Federal Regulations
DFFOs	Director's Final Findings and Orders
FWSAP	Facility-Wide Sampling and Analysis Plan
FWGWMPP	Facility-Wide Groundwater Monitoring Program Plan
FY	Fiscal Year
GIS	Geographical Information System
IRP	Installation Restoration Program
LUC	Land Use Control
МК	Mark
MEC	Munitions and Explosives of Concern
MRS	Munitions Response Site
MSW	Municipal Solid Waste
NCP	National Contingency Plan
NBC	Nuclear, Biological, Chemical
OAC	Ohio Administrative Code
Ohio EPA	Ohio Environmental Protection Agency
OHARNG	Ohio Army National Guard
PMP	Property Management Plan
RD	Remedial Design
RDX	Research Department Explosive
ROD	Record of Decision
RQL	Ramsdell Quarry Landfill
RVAAP	Ravenna Army Ammunition Plant
SOP	Standard Operating Procedure
TNT	Trinitrotoluene
U.S.C.	United States Code
USP&FO	United States Property and Fiscal Officer
UXO	Unexploded Ordnance
WBG	Winklepeck Burning Grounds

SECTION 1.0 INTRODUCTION

1.1 Report Introduction

As of October 2016, two areas at the former Ravenna Army Ammunition Plant (RVAAP), now known as the Camp Ravenna Joint Military Training Center (Camp Ravenna) have designated Land Use Controls (LUCs); Ramsdell Quarry Landfill (RQL) and Winklepeck Burning Grounds (WBG). As explained in greater detail in Sections 1.4 and 1.5, annual reports are required for the areas at Camp Ravenna that utilize LUCs to protect the integrity of an environmental remedy (if present), human health, and the environment by limiting the activities that may occur at those areas.

The following sections present the 2016 Annual Report for LUC Monitoring Report, RVAAP-01 Ramsdell Quarry Landfill and RVAAP-05 Winklepeck Burning Grounds, Camp Ravenna Joint Military Training Facility, Former Ravenna Army Ammunition Plant, Portage and Trumbull Counties, Ohio. This annual report is laid out as follows:

Section 1.0 – General introduction to the facility, and a general description of Land Use Controls, monitoring and annual reporting requirements.

Section 2.0 – Annual LUC Monitoring Report for RQL.

Section 3.0 – Annual LUC Monitoring Report for WBG.

Section 4.0 - Conclusions

Section 5.0 – References

1.2 Facility Location

Camp Ravenna is located in northeastern Ohio within Portage and Trumbull counties, and is approximately three miles east/northeast of the City of Ravenna and one mile north/northwest of the City of Newton Falls. The facility is approximately 11 miles long and 3.5 miles wide. The facility is bounded by State Route 5, the Michael J. Kirwan Reservoir, and the CSX System Railroad to the south; Garret, McCormick, and Berry Roads to the west; the Norfolk Southern Railroad to the north; and State Route 534 to the east, as shown in Figure 1. In addition, the facility is surrounded by the communities of Windham, Garrettsville, Charlestown, and Wayland.



Figure 1.0 Map of Camp Ravenna Joint Military Training Center (Former Ravenna Army Ammunition Plant)

1.3 Facility History

RVAAP was a load, assemble, and pack facility built to produce large-caliber artillery projectiles and bombs. Although RVAAP downsized after World War II, plant production lines were reactivated during the Korean and Vietnam Wars. Additionally, the plant conducted nearly continuous demilitarization of war stocks, refurbishment of inventoried ammunition, and minor research and development projects. By 1992, the installation's status changed from "inactive but maintained" to that of "caretaker."

The Department of Defense established the Installation Restoration Program (IRP) to provide guidance and funding for the investigation and cleanup of potential contamination and past operations caused by historical activities at military installations. The IRP began at RVAAP in 1989. Administrative accountability for the initial acreage of the facility was transferred to the United States Property and Fiscal Officer (USP&FO) for Ohio in May 1999 with subsequent transfers to follow. To date, administrative accountability for the entire 21,683-acre facility has been transferred to the USP&FO for Ohio and subsequently licensed to the Ohio Army National Guard (OHARNG) for use as a military training site, Camp Ravenna. The RVAAP restoration program involves cleanup of former production/operational areas throughout the facility related to former activities conducted under the RVAAP. The restoration program is currently managed by the Army National Guard (ARNG) with support from the OHARNG.

1.4 Land Use Controls, Monitoring, And Reporting Requirements

All work, plans, and documentation for the RVAAP IRP at Camp Ravenna must be in conformance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) [42 United States Code (U.S.C.) §9601, *et seq.*], the National Contingency Plan (NCP) [40 Code of Federal Regulations (C.F.R.) Part 300], and the Director's Final Findings and Orders (DFFOs) [June 10, 2004]. If residual contamination is left in place after the CERCLA remediation process is complete and the contamination still poses a potential for unacceptable risks or exceeds cleanup standards, then the Record of Decision (ROD) for the Areas of Concern/Munitions Response Sites (AOC/MRS) will require LUCs in accordance with the approved Remedial Design (RD).

LUCs include any physical, legal, or administrative mechanism that places restrictions on the use of, or limits access to, real property to prevent exposure to contaminants at concentrations greater than permissible levels or other safety issues. The intent of using these controls is to protect the integrity of the remedy (if present), human health, and the environment by limiting the activities that may occur at an AOC/MRS. When implemented, these LUCs provide protection to individuals using or working at the AOC/MRS by limiting and/or preventing activities which could potentially result in risks to those individuals. The Army is responsible for controlling land use on active installations such as Camp Ravenna and can internally restrict the use of such property. LUCs may include engineering controls such as fences, Seibert markers and signs, or administrative controls such as awareness training and restrictions on use including type of use and duration.

The Property Management Plan (PMP), dated August 2012, identifies LUCs and restrictions for specific AOCs/MRSs at Camp Ravenna and provides mechanisms to implement and manage those LUCs. The PMP is required under Army Regulation (AR) 210-20 and satisfies requirements of the DFFOs. The PMP lists general performance objectives of LUCs at Camp Ravenna as well as AOC/MRS specific LUCs detailed to address the concerns present on that particular AOC/MRS. According to Section 1.3 of the PMP, it is the responsibility of the Army to implement, inspect, maintain and enforce LUCs set forth under the RVAAP Restoration Program.

1.5 Annual LUC Inspection and Monitoring Report Requirement

The PMP requires that the Army conduct a minimum of an annual inspection of the LUCs to confirm that the LUCs remain effective and still meet the LUC objectives, and also requires that the results of the annual LUC inspection be included in an Annual LUC Monitoring Report to be submitted to the Ohio EPA for review and approval. The Annual LUC Monitoring Report is required to evaluate the status and effectiveness of LUCs with a description of how LUC deficiencies, including inconsistent land uses, were addressed. The Annual LUC Monitoring Reports will be used in the preparation of the CERCLA 121(c) Five-Year Review. This Annual LUC Monitoring Report presents the following:

- <u>RQL</u> The 2016 Annual Report for the Ramsdell Quarry Landfill. The LUCS were instituted for RQL in December 2014. The first annual report for RQL was submitted on January 27, 2016. This is the second annual LUC report for RQL.
- <u>WBG</u> The 2016 Annual LUC Monitoring Report for Winklepeck Burning Grounds. A summary of the quarterly monitoring and activities conducted during the Fiscal Year (FY) 2016 for WBG. This is the fourth annual report completed in accordance with the Final PMP dated August 2012.

Additionally, the PMP requires that a written certification will be submitted with the Annual Monitoring Report that states whether or not the LUCs remain in place and are effective. The written certifications for both the RQL and WBL LUCs are presented in Section 4.4.

SECTION 2.0 ANNUAL LUC MONITORING REPORT FOR RAMSDELL QUARRY LANDFILL

2.1 Ramsdell Quarry Landfill

RQL encompasses approximately 14 acres in the northeastern portion of Camp Ravenna. RQL was initially a stone quarry that was excavated 30 to 40 feet below existing grade until ceasing quarrying operations in 1941. From 1946 to the 1950s, the bottom of the quarry was used to burn waste explosives from Load Line 1. Between 1941 and 1989, the western and southern sections of the abandoned quarry were used for landfill operations. No information is available regarding landfill disposal activities from 1941 to 1976, and no information is available on other activities at the quarry from the 1950s to 1976. Only nonhazardous solid waste was deposited in RQL from 1976 until it was closed in 1989. In 1978, a portion of the abandoned quarry was permitted as a sanitary landfill by the State of Ohio. The sanitary landfill closed in 1990 under State of Ohio solid waste regulations, and was covered by a clay cap covering approximately four acres.

Although post-closure requirements for RQL under State of Ohio solid waste regulations only require that a quarterly inspection be conducted and an annual post-closure cost estimate be submitted, weekly inspections have been conducted at the site as a best management practice. The weekly inspections assess the condition of various aspects of the RQL, including (but not limited to) vehicular access, gate and fence condition, landfill and cap integrity, and groundwater monitoring well security. The weekly inspection sheets from October 21, 2015 through October 28, 2016 are available in the Camp Ravenna Environmental Office.

A large amount of construction and miscellaneous debris was discovered during soil remediation and removal activities in the quarry bottom in June 2010. A portion of the debris was found to have asbestos-containing material (ACM) in them. After removing and disposing of the soil and construction debris (all considered as ACM), the area was backfilled and graded to the preexcavation elevation.

RQL is managed as Restricted Access due to residual asbestos and contamination and the closed landfill. Permissible exposure parameters have been established for personnel accessing the RQL, and are defined as one hour/day for 250 days/year for 25 years. In order to enforce the Restricted Access status of the RQL, the following LUCs were established in December 2014:

- All digging or excavation within the quarry bottom is prohibited.
- Digging and excavation on the landfill cap will be regulated by the post-closure care plan and the Ohio solid waste regulations.
- Permanent warning signs will be installed and maintained around RQL on the gates and on the chain-link and high tensile wire fence at 300 ft. centers to warn of the ACM hazard in the quarry bottom. The signs will meet the requirements of OAC 3745-20-07(B)(1)(b).
- As no soil disturbing activities are allowed within the quarry bottom, OSHA asbestos training set forth at 29 CFR 1926.1101(k)(9)(vii) is not required. Any personnel entering the quarry bottom will be briefed of the asbestos hazards.

In order to track exposure, personnel entering the Area of Concern (AOC) sign an access log sheet each time they enter and exit the AOC.

2.2 RQL Annual Inspection Form

Camp Ravenna Joint Military Training Center (Camp Ravenna)/ Former Ravenna Army Ammunition Plant (RVAAP) Land Use Control (LUC) Inspection Form for RVAAP-01 Ramsdell Quarry Landfill AOC

In accordance with the Camp Ravenna/former RVAAP PMP (dated August 2012) and Appendix A-2 and the Final Remedial Design for Soil and Dry Sediment at RVAAP-01 Ramsdell Quarry Landfill (RQL), a LUC inspection of RQL was conducted by Allan Brillinger (Vista Sciences Corporation) on behalf of Camp Ravenna on September 23, 2016.

According to LUCs set forth in the *Final Remedial Design for Soil and Dry Sediment at the RVAAP-01 Ramsdell Quarry Landfill*, dated 9 April 2014, and memorialized in the PMP, periodic monitoring of LUCs, in the form of site inspections, is required to be conducted by the Army to confirm that the LUCs remain effective and still meet LUC objectives for continued remedy protectiveness. Site inspections are required to be conducted on an annual basis and inspections of the solid waste landfill are conducted in accordance with State of Ohio solid waste regulations and the Ohio Environmental Protection Agency (Ohio EPA) Director's Final Findings and Orders (Ohio EPA 2004). Additional LUC inspections may be conducted when landfill inspections are conducted as needed. The required Annual LUC Report is to be submitted to the Ohio EPA for review and approval.

The inspections shall include the following:

- Review of LUC training/inbriefs/maintenance and access logs and other documentation as applicable to RQL.
- Evaluation of activities at RQL to ensure that all activities executed within RQL are in compliance with the established digging restrictions and established exposure limits (Security Guard/Maintenance Worker one (1) hour/day for 250 days/year for 25 years).
 - All digging or excavation within the quarry bottom is prohibited due to residual asbestos and contamination.
 - Digging and excavation on the landfill cap will be regulated by the post closure care plan and the Ohio solid waste regulations.
 - Due to not meeting the industrial/commercial standard, exposure monitoring for the full-time facility employee must be conducted to ensure and document that exposure at the AOC is not above the established exposure limit set for the Security Guard/Maintenance worker of one (1) hour/day for 250 days/year for 25 years.
- Inspection of warning signs on gates and fencing.
- Inspection of RQL fencing and gates.

LUC deficiencies or inconsistent land uses that are identified must be reported and identified on the inspection form/report and must also be reported to the Army National Guard (ARNG)/Ohio Army National Guard (OHARNG).

Review of LUCs – Management/Corrective Action

Activities and Land Use:

a) This AOC is to be managed as Restricted Access and is restricted from residential land use. Has residential use occurred? Have other land uses or land use changes occurred?

No residential land use has occurred at the RQL. There have been no other land uses or land use changes over the past year.

b) What activities have occurred at RQL since last Inspection? Has any maintenance been performed at the AOC?

This is the second annual inspection of the RQL since the LUCs were instituted in December 2014. Minor soil depressions and animal burrows within the AOC and both on and off the landfill cap were filled with clean soil and seeded in November 2015, May 2016 and October 2016. Repair activities were conducted in accordance with solid waste regulations. Annual mowing was conducted for the RQL in mid-September 2016.

Weekly inspections were conducted in accordance with Ohio solid waste regulations. The weekly inspections sheets are available from the Camp Ravenna Environmental Office. Quarterly inspections were conducted by the Portage County Health Department. The quarterly inspection letters are presented in Appendix A.

Semi-annual groundwater monitoring activities were conducted at the RQL in May 2016 and October 2016.

c) Are activities at RQL being conducted in compliance with established digging restrictions and established exposure limits (exposure for full-time employees who access RQL must be tracked)?

The activities taking place at RQL are being conducted in accordance with the established digging restrictions. No digging has been conducted, only repair activities (soil fill) to repair any animal burrows or soil depressions on the landfill cap. Personnel exposure is being tracked with Log In sheets that any person entering and exiting the AOC must fill out. The completed Access Log sheets for October 2015 through September 2016 are presented in Appendix B.

d) Are the warning signs in place and functional? Please note condition and any *deficiencies*.

The warning signs are posted on the RQL LUC fence and gate as required. Signs that read "DANGER – Unauthorized Personnel Keep Out" and "Danger – Asbestos Waste Disposal Site – Do Not Create Dust – Breathing Asbestos is Hazardous to Your Health" are posted on the gates and the LUC fence every 300 feet. *e)* Is the RQL fencing and gates intact and in good condition? Please note condition and any deficiencies.

The RQL fencing and gate are intact and in good condition. There are no deficiencies with the fence and gates.

Inspections and Reporting

Inspections are required on an annual basis. Periodic monitoring inspections may be conducted as needed. Are annual inspections being conducted as required? Have any additional inspections been completed?

The annual LUC inspection was conducted on September 23, 2016. Other inspections at the AOC include those inspections required for the landfill in accordance with solid waste regulations. As a best management practice, the solid waste landfill is inspected weekly. The weekly RQL inspection forms are on file at the Camp Ravenna Environmental Office. Additionally, the Portage County Health Department conducted three quarterly inspections of the landfill and the Camp Ravenna Environmental Office conducted a quarterly inspection of the landfill in September 2016. The Quarterly Inspection letters are presented in Appendix A. Photographs of the RQL LUC area taken during the annual inspection are presented in Appendix C.

An Annual Report is required. Has the annual report been completed and submitted to the Ohio EPA?

The RQL LUCs were instituted in December 2014. The first annual report was submitted to the Ohio EPA on January 27, 2016. This is the second annual inspection and report for the RQL LUCs.

Training/Inbriefs (as applicable to RQL):

Are RQL LUC training and/or inbriefs (for those who need to access RQL) being conducted as applicable? Describe the training (content/who attended/who provided/documentation of training).

LUC training is provided annually to all Camp Ravenna staff and tenant units at Camp Ravenna, and was conducted on February 23 and 25, 2016. The LUC training is typically provided by Katie Tait and/or Tim Morgan, Camp Ravenna-Environmental. The training provides an overview of the history of the facility, the ongoing cleanup work, the location of the cleanup sites, any land use controls/restrictions on AOCs/Munitions Response Sites (MRS), and specific LUC and other restrictions for RQL, as well as other areas at Camp Ravenna. Training materials and rosters are on file in the Camp Ravenna Environmental Office. Training was conducted for additional Camp Ravenna staff that missed the February training dates as needed.

A "Land Use Control (LUC) Brief for Contractors/Personnel" was conducted for all personnel/contractors that entered the RQL LUC area (required on an annual basis). The training consisted of a review of the RQL site history, the environmental hazards present at the RQL, the LUC s that have been instituted, and the requirements of all personnel that enter the

LUC area. All personnel that have received the brief sign the briefing form that states that they have been briefed and understand the RQL LUC requirements, and that they will comply with all requirements. The briefing was provided for 27 personnel throughout the reporting period. The signed briefing forms are kept on file at the Camp Ravenna Environmental office.

If training was not provided, explain why and what corrective actions were initiated.

Not applicable.

Is access to RQL for full-time employees of the facility being logged in order to track exposure? Please review access logs to ensure exposure is within the established exposure limits.

Access for all personnel entering the RQL LUC area are being tracked with the Access Log. The established exposure limits are one (1) hour/day for 250 days/year for 25 years. The most any one worker was working inside the RQL area from October 23, 2015 through October 31, 2016 was 20 hours for a Maintenance Worker. The Maintenance Worker that had the 20 hours within the LUC area spent 7 hours conducting soil repairs and 13 hours mowing. Therefore exposure is within the established exposure limits.

LUC Violations (if any):

Description of any observed/noted LUC violation(s) as identified.

No LUC violations were noted during the reporting period (October 2015 through October 2016).

Date of Notification of LUC violations (if applicable) to ARNG/OHARNG:

Not applicable.

Description of any corrective actions taken to remedy observed LUC violations or recommended corrective actions:

Not applicable.

Additional Notes/Comments:

Original Inspection Completed by:

Signature:

lan 12.

Printed Name: Allan B. Brillinger Title: Program Manager Organization: Vista Sciences Corporation Date: September 23, 2016

SECTION 3.0 ANNUAL LUC MONITORING REPORT FOR WINKLEPECK BURNING GROUNDS

3.1 Winklepeck Burning Grounds

As described in the Property Management Plan (PMP), WBG encompasses 211.66 acres and is located in the central portion of Camp Ravenna (see Appendix D maps). The burning grounds area has been in operation since 1941. Prior to 1980, burning was conducted on the bare ground and the ash was abandoned at the site. Wastes treated in the area included Research Department Explosive (RDX), antimony sulfide, Composition B, lead azide, trinitrotoluene (TNT), propellants, black powder, waste oil, sludge from the load lines, domestic wastes, and small amounts of laboratory chemicals. From 1980 until 1998, periodic burning of scrap explosives, propellants, and explosive-contaminated waste materials (e.g., wipe rags, paper, and cardboard) was conducted in raised refractory-lined metal trays within a 1.5-acre area. A Part-B permit covering the active portion of the site was withdrawn in 1994. The burn trays along the with the 90-day storage unit of Building 1601 were closed in accordance with Ohio Environmental Protection Agency (Ohio EPA) guidance in 1998. Munitions and Explosives of Concern (MEC) is present in the AOC. The previously applied remedy at the WBG AOC consisted of excavation of contaminated soil to preclude likely exposure through human contact. A portion of that remedy resulted in hazardous substances, pollutants, or contaminants remaining greater than levels that allow unlimited use and unrestricted exposure. Therefore, a component of the remedial action at the WBG AOC includes LUCs which are detailed in Section A-1.6 of the PMP.

Per the PMP, the land use for the WBG is *Small Arms Range* (including the existing Mark [MK] 19 Grenade Machinegun Range) for the OHARNG Military Use and Training. The Department of the Army has classified the Small Arms Range as an Operational Range at the WBG AOC. The Small Arms Range Land Use, in terms of the Risk Assessment, was created to assess specific training activities that would occur on a small arms range and was developed to assess risks to OHARNG personnel. In addition to the small arms training, certain activities are required to sustain and maintain the area as a range, such routine maintenance and activities that are to be performed by the National Guard Range Maintenance Soldier and/or other similar authorized personnel on the WBG AOC can be found in the PMP.

3.2 LUC Quarterly Inspection and Report Mechanisms for WBG

The PMP states that site inspections will be conducted on a quarterly basis at WBG. The WBG Inspectors Quarterly Inspection Report Form completed for each quarter of FY 2016 states that all quarterly inspections include evaluation of the following:

- Review of LUC training and documentation as applicable to WBG.
- Evaluation of the facility perimeter fence to ensure that it is maintained in a manner that is protective and effective and deters trespassers.
- Evaluation of activities at WBG to ensure that all activities executed within WBG are in compliance with OHARNG range safety regulations/standard operating procedures (SOPs), established digging restrictions, and established exposure limits. All digging, intrusive

activities, or excavation on the WBG AOC outside of the Unexploded Ordnance (UXO)/ MEC-cleared areas within the MK-19 Grenade Machinegun Range is prohibited with the following exceptions:

- Routine maintenance of roads, ditches, culverts and activities listed in A-1.4 of the PMP (maintenance of targetry and associated lifting mechanisms, range maintenance activities including removal of practice rounds, vegetation management, compatible natural resource management activities, nuisance wildlife control, drainage maintenance, wetland delineation, grassland management, scientific research and sampling activities);
- Ground surface repairs by authorized range personnel in support of authorized range activities;
- Digging along target array areas by authorized range personnel to a depth of one (1) foot below ground surface (bgs).

This shall also include evaluation of required range signage. The range is required to be marked with signage in conformance with the requirements of the current Department of Army regulations.

- Evaluation of groundwater activities to ensure that any groundwater activities are being conducted in a manner consistent with established LUCs. Groundwater use or extraction of groundwater located at or underlying the WBG AOC or any portion thereof is prohibited, except for the following:
 - The installation, development, purging, and sampling of new or existing monitoring wells in accordance with the most recent Facility-Wide Sampling and Analysis Plan (FWSAP) as part of the AOC-specific IRP or Facility-Wide Ground Water Monitoring Program Plan (FWGWMPP).
 - The abandonment and replacement of monitoring wells damaged by activities conducted on the Installation and wells no longer utilized as part of IRP or FWGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP, and applicable Ohio Administrative Code requirements.

Four quarterly LUC inspection were conducted during FY 2016. The LUC inspections generally consisted of the following:

- An inspection of the Camp Ravenna perimeter fence.
- A review of current land uses at WBG to determine if they are in compliance with the LUCs.
- A review of activities at WBG since the previous inspection to determine if they are in compliance with the LUCs.
- A review of required warning signage.
- A review of training applicable to WBG LUCs.
- A description of any noted LUC deficiencies, any corrective actions taken to remedy the LUC deficiencies, and/or any recommended corrective action.

The following WBG quarterly inspections were conducted in FY 2016 by Don Trocchio of Vista Sciences Corporation:

• FY 2016 First Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds (report dated April 4, 2016, inspection completed December 11, 2015). This report is presented in Appendix E.

- FY 2016 Second Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds (report dated April 19, 2016, inspection completed January 28, 2016). This report is presented in Appendix F.
- FY 2016 Third Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds (report dated August 26, 2016, inspection completed April 28, 2016). This report is presented in Appendix G.
- FY 2016 Fourth Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds (report dated September 29, 2016, inspection completed July 28, 2016). This report is presented in Appendix H.

3.3 Land Use Control Awareness Training

Section 4.2 of the PMP, *Land Use Control Awareness Training*, describes requirements and guidelines for LUC awareness training at the facility. LUC awareness training for Camp Ravenna staff and tenant units was conducted on February 23 and 25, 2016, and is provided annually to all Camp Ravenna staff and tenant units at Camp Ravenna. Formal LUC training has been conducted since 2006 and refresher training is given annually to all personnel. The LUC training is typically provided by Katie Tait and/or Tim Morgan, Camp Ravenna-Environmental. The training provides an overview of the history of the facility, the ongoing cleanup work, the location of the cleanup sites, any land use controls/restrictions on AOCs/Munitions Response Sites (MRS), and included specific restrictions for WBG. Annual training is conducted throughout the year as needed for additional Camp Ravenna staff.

Using units also receive an in-brief prior to firing on the range. Using units and tenant units at Camp Ravenna are not allowed down range. Environmental contractors who access WBG are also provided with an in-brief which informs them of the LUCs/restrictions at the AOC. They must read and sign the in-brief form. The briefing was provided for 41 personnel throughout the reporting period. Training records are kept on file in the Camp Ravenna Environmental Office.

3.4 Camp Ravenna Perimeter Fence

Currently, the only facility-wide engineering control for the AOCs/MRSs is the perimeter fence, as listed in Section 4.1.1 of the PMP. The Camp Ravenna perimeter fence is situated mostly in Portage County, Ohio, with a small portion (see maps in Appendix D – FY 2016 Quarterly Land Use Control Index Maps) extending easterly into western Trumbull County, Ohio. The entire perimeter fence was inspected for each of the FY 2016 quarterly inspections.

The majority of the original Camp Ravenna perimeter fence is approximately seventy years old. Most, but not all, of the perimeter fence situated within Trumbull County is less than approximately ten years old. Typically, but not all, of the perimeter fence consists of a six foot high chain link fence fabric with steel I-beam shaped posts set on 10 to 12 foot centers set in concrete footers. The top and bottom of the fence fabric is reinforced with a horizontal pipe running along the entire length. On top of each post is a V bracket with six strands of 15-gauge barb wire, three strands inward facing and three strands outward facing. Twenty-six access gates are scattered throughout the approximate 30 miles of perimeter fencing evaluated (see maps in Appendix D – FY 2016 Quarterly Land Use Control Index Maps). Most of the former railroad access gates have been welded shut along with a few vehicle access gates that are no longer used. In addition to documenting compliance with training, operation, and maintenance requirement set forth in the PMP, quarterly inspections also identify, document, and map major defects along the perimeter fence for future repair. In the inspector's judgment, a major defect was considered a breach in the fence through which an adult could gain unlawful access to the facility. Additionally, during the evaluation, major defects noted in previous inspections were visited and repairs logged if completed or ongoing. Geographical Information System (GIS) raw field data collected from the inspections were reduced and compiled in ESRI Arc Map. Index Maps depicting the call outs along with Detail Maps and photographs of each call out were prepared and submitted along with the WBG Inspectors Quarterly Inspection Report Form. Final approved versions of each FY 2016 Quarterly LUC Inspection Report are included in Appendices E, F, G, and H of this report.

The four quarterly inspections performed in FY 2016 reported a total of 30 documented major defects in the perimeter fence. Of this total, 28 repairs were performed and documented in the FY 2016 quarterly inspection reports. See Appendix I for a table of all perimeter fence defect call outs identified and repaired in FY 2016. When a major defect is noted during the LUC field inspection the Army is notified via email detailing the date and location. The date of notification is included in the quarterly LUC inspection report under "Section 6. Date of notification of LUC violation (if applicable)."

The Camp Ravenna maintenance crews are limited to making only minor fence repairs. Repair logs make reference to "contractor needed" on some call out sections where more extensive repairs are required. An example would be storm washouts (i.e., SE2A) along the perimeter road that continue to damage the perimeter fence. Culvert pipe inlets and outlets become clogged with debris, old corrugated metal culvert pipes have rusted and collapsed and some pipe sizes are unable to handle the storm runoff, all contributing to the washouts along the perimeter road.

It should be noted that only repairs of defects called out and included in previous LUC Inspection Reports are conveyed in the detail sheets of the subsequent LUC Inspection Reports. These repairs are documented in repair logs kept by the Camp Ravenna Maintenance Crews and are included with the quarterly reports in Attachment 2 – Camp Ravenna Fence Repair Log (Appendices E, F, G, and H of this report). Numerous minor repairs (consisting of patching smaller openings in the fence fabric, replacing missing/broken barb wire, repairing frost heaved posts, removing fallen trees and branches resting on top of the fence) that were not sited during the LUC field inspection, were, and continue to be, repaired by the Camp Ravenna staff/maintenance crew and are not documented in repair logs. Overall, the perimeter fence at Camp Ravenna is intact and in good condition, and is an effective LUC for the WBG.

SECTION 4.0 CONCLUSION

4.1 General LUC Training

The OHARNG provided training to all Camp Ravenna staff and tenant units including an overview of the history of the facility, the ongoing cleanup work, the location of the cleanup sites, any land use controls/restrictions on AOCs/MRSs, and specific restrictions for RQL and WBG (See Section 2.2 and 3.3). All training requirements presented in the PMP were met by the OHARNG in FY 2016. Training compliance is demonstrated in the RQL Inspection Form (Section 2.2) and in the FY 2016 Quarterly LUC Inspection Reports for WBG that are included in Appendices E, F, G, and H of this report. Training materials and rosters are on file in the Camp Ravenna Environmental Office.

4.2 Land Use Consistency and Land Use Control Effectiveness at RQL

The land use at RQL is Restricted Access due to residual asbestos, contamination and the closed landfill. Based on the completed weekly and quarterly inspections (for the landfill) and the annual inspections at RQL (2015 and 2016), there are no inconsistent uses or activities discovered or reported at RQL. All activities conducted within the RQL AOC were performed in compliance with established digging restrictions, and established exposure limits as described in the PMP. This indicates current LUC objectives are being met to ensure the remedy is effective and protective.

An in-brief was provided to all personnel entering the RQL LUC area that included an overview of the history of the RQL, the land use controls/restrictions, and specific restrictions for RQL. All training and maintenance requirements specific to the RQL LUC were met by the OHARNG during this reporting period and is documented in the pages of this report.

4.3 Land Use Consistency and Land Use Control Effectiveness at WBG

Per the PMP, the land use for the WBG is Small Arms Range (including the existing MK-19 Grenade Machinegun Range) for the OHARNG Military Use and Training. Based on the completed inspections during FY 2016, there were no inconsistent uses or activities discovered or reported at WBG. All training and activities conducted within the WBG AOC were performed in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits as described in the PMP. This indicates current LUC objectives are being met to ensure the remedy is effective and protective of human health and the environment.

The LUCs for the WBG AOC were evaluated quarterly in FY 2016 as stated in the PMP using the parameters listed in Section 3.1 LUC Quarterly Inspection and Reporting Mechanisms for WBG. These Quarterly LUC Inspections show all LUCs requirements presented in the PMP for WBG remained in place and were effective through FY 2016.

Units that utilize the range at WBG also receive an in brief prior to firing on the range and are not allowed down range. Contractors who access WBG are also provided with an in-brief which informs them of the LUCs/restrictions at the AOC. All training, operation, and maintenance requirements specific to WBG presented in the PMP were met by the OHARNG in FY 2016 and is documented in the FY 2016 Quarterly LUC Inspection Reports included in Appendix E, F, G, and H of this report.

4.4 Land Use Control Deficiency Corrective Action at RQL and WBG

The main purpose of inspecting and monitoring LUCs is to identify and correct LUC deficiencies and violations. LUC inspection reports allow the OHARNG to document consistent land use, as well as corrective action if deficiencies are encountered.

For the RQL, inspections were conducted by personnel familiar with the RQL so that changes (if present) were readily noted. Minor fence repairs and soil cover deficiencies were noted and corrected as weather conditions allowed. There repairs were tracked throughout the year to monitor their effectiveness.

For the WBG, each quarterly inspection has been conducted using the same parameters, resulting in a uniform and concise system of identification and repair of perimeter fence defect call outs. Of the total number of perimeter fence defect call-outs identified, approximately 80% were repaired by the next quarterly inspection.

4.5 Land Use Control Effectiveness Certification

This certifies that to the best of my knowledge and belief all of the information contained in this Annual LUC Monitoring Report is accurate, and that the Land Use Controls instituted for the Ramsdell Quarry Landfill and the Winklepeck Burning Grounds are in place and remain effective.

October 31, 2016 (date) (signature)

Allan B. Brillinger (printed name)

Program Manager, Vista Sciences Corporation
(Title).

SECTION 5.0 REFERENCES

Final Property Management Plan for the Designated Areas of Concern and Munitions Response Sites, Volume One – Version 1.0. U.S. Army Corps of Engineers. August 2012.

Ravenna Army Ammunition Plant Restoration Program website: www.rvaap.org

Final Remedial Action Report for Soil and Dry Sediment at RVAAP-01 Ramsdell Quarry Landfill, Ravenna Army Ammunition Plant, Portage and Trumbull Counties, Ohio. US Army Corps of Engineers. January 30, 2015

Appendix A

Quarterly RQL Inspection Reports

STATE OF OHIO ADJUTANT GENERAL'S DEPARTMENT CAMP RAVENNA JOINT MILITARY TRAINING CENTER 1438 State Route 534 SW Newton Falls, OH 44444

12 November 2015

Environmental Office

Colum McKenna, Project Manager Ohio Environmental Protection Agency Division of Emergency and Remedial Response 2110 East Aurora Road Twinsburg, Ohio 44087-1924

Reference: Closed Ramsdell Quarry Landfill Status Report

Dear Mr. McKenna,

On October 30, 2015, the subject Landfill was inspected by Portage County General Health District (see attached inspection report).

The Camp Ravenna Joint Military Training Center Support Services Contractor, Vista Sciences Corporation, conducts weekly inspections of the conditions of the landfill cap. A copy of the weekly inspection conducted on October 30, 2015 is also attached for your records. No deficiencies have been detected since January 1, 2006. These inspection reports are available for your viewing at the Vista office located at Camp Ravenna Environmental Office.

If you have any further questions or require further clarification concerning this subject, please feel free to contact the undersigned at (614) 336-6568 or <u>timothy.m.morgan.nfg@mail.mil</u> at any time. The OHARNG is committed to environmental excellence and compliance and will work with the Ohio EPA should any issues ensue. Thank you for your time and consideration in this matter.

Sincerely,

Timothy M. Morgan Fort Ohio Environmental Supervisor

cc: Mark Leeper Katie Tait Kevin Sedlak Rod Beals Bob Princic

PORTAGE COUNTY COMBINED GENERAL HEALTH DISTRICT

705 Oakwood Street Suite 208 Ravenna, Ohio 44266 Phone: 330-296-9919 Fax: 330-297-3597 E-mail: pchd@portageco.com



Joseph J. Diorio, MPH, MS, RS Health Commissioner Web: www.co.portage.oh.us/dept/healthdepartment

November 3, 2015

Al Brillinger Vista Sciences Corp. 1438 St. Rt. 534 SW Newton Falls, OH 44444

RE: Ramsdell Quarry Inspection

Dear Mr. Brillinger:

On October 30, 2015, I conducted a comprehensive inspection at Ramsdell Quarry. The weather was partly cloudy, about 55° F and pleasant. The slopes of the quarry are well vegetated and there were no serious issues.

No violations of Post Closure Rules were noted. Thank you for your cooperation and efforts.

If you have any questions, you can contact me at this office weekday mornings between 8:00 a.m. and 10:00 a.m. at (330) 296-9919 Ext. 116 or email at jmadved@portageco.com.

Sincerely,

Tached

Jack Madved, R.S.

JM:maa

cc: Portage County Commissioners Bill Steiner, Director of Portage County Solid Waste Management Colum McKenna, Northeast District of OEPA

Enclosure

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STATE OF OHIO ADJUTANT GENERAL'S DEPARTMENT CAMP RAVENNA JOINT MILITARY TRAINING CENTER 1438 State Route 534 SW Newton Falls, OH 44444

28 March 2016

Environmental Office

Jack Madved Portage County Combined General Health District 705 Oakwood Street, Suite 208 Ravenna, Ohio 44266

Reference: Closed Ramsdell Quarry Landfill Status Report

Dear Mr. Madved,

On March 9, 2016, the subject Landfill was inspected by Portage County General Health District (see attached inspection report). In the future please send these inspection reports and related correspondences to the Ohio Army National Guard at:

ATTN: Tim Morgan Fort Ohio Environmental Supervisor Camp Ravenna Joint Military Training Center 1438 State Route 534 SW Newton Falls OH 44444

The Camp Ravenna Joint Military Training Center Support Services Contractor, Vista Sciences Corporation, conducts weekly inspections of the conditions of the landfill cap. These inspection reports are available for your viewing at the Vista office located at Camp Ravenna Environmental Office. A copy of the weekly inspection conducted on March 9, 2016 is also attached for your records.

The items noted in the attached inspection report will be addressed in the near future. By 30 May 2016 the depressions indicated in items 1 and 2 of the attached report will be filled and seeded. The water seep area indicated in item 3 will be monitored every two weeks and the condition discussed at the next quarterly inspection.

If you have any further questions or require further clarification concerning this subject, please feel free to contact the undersigned at (614) 336-6568 or <u>timothy.m.morgan.nfg@mail.mil</u> at any time. The OHARNG is committed to environmental excellence and compliance and will work with the Ohio EPA should any issues ensue. Thank you for your time and consideration in this matter.

Sincerely,

Timothy M. Morgan Fort Ohio Environmental Supervisor

cc: Mark Leeper, ARNG Katie Tait, OHARNG Kevin Sedlak, ARNG Josh Adams, Ohio EPA Bob Princic, Ohio EPA Jay Trumble, USACE-Louisville

PORTAGE COUNTY COMBINED GENERAL HEALTH DISTRICT

705 Oakwood Street Suite 208 Ravenna, Ohio 44266 Phone: 330-296-9919 Fax: 330-297-3597 E-mail: pchd@portageco.com



Joseph J. Diorio, MPH, MS, RS Health Commissioner Web: www.co.portage.oh.us/dept/healthdepartment

March 16, 2016

CERTIFIED MAIL #9171 9690 0935 0112 3904 78

Al Brillinger Vista Sciences Corp. 1438 St. Rt. 534 SW Newton Falls, OH 44444

RE: Ramsdell Quarry Inspection

Dear Mr. Brillinger:

On March 9, 2016, I conducted a comprehensive inspection at Ramsdell Quarry. The weather was cloudy, about 67° F and pleasant. The slopes of the quarry are well vegetated and there were no serious issues.

There were several areas on the landfill that are of concern.

- 1. There is a small slump or depression on the northwest base of the slope.
- 2. A small slump or depression on the central west slope.
- 3. A leachate or water seep on the toe of the southwest slope. This area may need more attention to determine the effective remediation of this issue.

If you have any questions, you can contact me at this office weekday mornings between 8:00 a.m. and 10:00 a.m. at (330) 296-9919 Ext. 116 or email at jmadved@portageco.com.

Sincerely,

Jack Madved, R.S.

JM:mas

cc: Portage County Commissioners Bill Steiner, Director of Portage County Solid Waste Management Joshua Adams, Northeast District of OEPA

Enclosure

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Updated: 4/2013

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STATE OF OHIO ADJUTANT GENERAL'S DEPARTMENT CAMP RAVENNA JOINT MILITARY TRAINING CENTER 1438 State Route 534 SW Newton Falls, OH 44444

14 July 2016

Environmental Office

Joshua Adams, Environmental Specialist II Ohio Environmental Protection Agency Division of Emergency and Remedial Response 2110 East Aurora Road Twinsburg, Ohio 44087-1924

Reference: Closed Ramsdell Quarry Landfill Status Report

Dear Mr. Adams,

On June 6, 2016, the subject Landfill was inspected by the Portage County General Health District (see attached inspection report).

The Camp Ravenna Joint Military Training Center Support Services Contractor, Vista Sciences Corporation, conducts weekly inspections of the conditions of the landfill cap. A copy of the weekly inspection conducted on June 10, 2016 is also attached for your records. These inspection reports are available for your viewing at the Vista office located at Camp Ravenna Environmental Office.

If you have any further questions or require further clarification concerning this subject, please feel free to contact the undersigned at (614) 336-6568 or <u>timothy.m.morgan.nfg@mail.mil</u> at any time. The OHARNG is committed to environmental excellence and compliance and will work with the Ohio EPA should any issues ensue. Thank you for your time and consideration in this matter.

Sincerely,

Timothy M. Morgan Fort Ohio Environmental Supervisor

Attachments

cc: Mark Leeper NGB Katie Tait – ARNG Camp Ravenna Kevin Sedlak – ARNG Camp Ravenna Rod Beals – Ohio EPA Bob Princic – Ohio EPA Jay Trumble – USACE Louisville

PORTAGE COUNTY COMBINED GENERAL HEALTH DISTRICT

705 Oakwood Street Suite 208 Ravenna, Ohio 44266

Joseph J. Diorio, MPH, MS, RS Health Commissioner Phone: 330-296-9919 Fax: 330-297-3597 E-mail: pchd@portageco.com



Web: www.co.portage.oh.us/dept/healthdepartment

June 10, 2016

Al Brillinger Vista Sciences Corp. 1438 St. Rt. 534 SW Newton Falls, OH 44444

RE: Ramsdell Quarry Inspection

Dear Mr. Brillinger:

On June 6, 2016, I conducted a comprehensive inspection at Ramsdell Quarry. The weather was sunny, about 76° F and pleasant. The slopes of the quarry are well vegetated and there were no serious issues.

If you have any questions, you can contact me at this office weekday mornings between 8:00 a.m. and 10:00 a.m. at (330) 296-9919 Ext. 116 or email at jmadved@portageco.com.

Sincerely,

/alul

Jack Madved, R.S.

JM:mas

cc: Portage County Commissioners Bill Steiner, Director of Portage County Solid Waste Management Joshua Adams, Northeast District of OEPA

Enclosure

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Closed MSW Landfill Inspection Checklist

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Updated: 4/2013

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PORTAGE COUNTY COMBINED GENERAL HEALTH DISTRICT

705 Oakwood Street Suite 208 Ravenna, Ohio 44266 Phone: 330-296-9919 Fax: 330-297-3597 E-mail: pchd@portageco.com



Joseph J. Diorio, MPH, MS, RS Health Commissioner Web: www.co.portage.oh.us/dept/healthdepartment

October 27, 2016

Al Brillinger Vista Sciences Corp. 1438 St. Rt. 534 SW Newton Falls, OH 44444

RE: Ramsdell Quarry Inspection

Dear Mr. Brillinger:

On October 26, 2016, I conducted a comprehensive inspection at Ramsdell Quarry. The weather was cloudy, about 45° F and pleasant. The animal burrows noted have been filled and plugged. The slopes of the quarry are well vegetated and there were no serious issues.

If you have any questions, you can contact me at this office weekday mornings between 8:00 a.m. and 10:00 a.m. at (330) 296-9919 Ext. 116 or email at jmadved@portageco.com.

Sincerely,

Jack Madved, R.S.

JM:mas

cc: Portage County Commissioners Bill Steiner, Director of Portage County Solid Waste Management Joshua Adams, Northeast District of OEPA

Enclosure
	Chio EPA		Close	d MS	W Landfill Inspection	Checklist
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Updated: 4/2013

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- See

Appendix B

RQL Access Logs

Name	Date	Time In	Time Out	Description of Activities Performed (i.e., mowing, gw sampling, etc)	Areas Accessed (please choose and check)
Al Brillinger - VSC	9-11-15	11:10	11:30	Weekly inspection	Quarry bottom Groundwater monitoring wells Landfill cap
GARY, B.	10-1-19	110	4:00 Pm	manny	 Quarry bottom Groundwater monitoring wells Landfill cap
GARY. B.	10-2,15	-8:00	4:00	21	 Quarry bottom Groundwater monitoring wells Landfill cap
Al Brillinger	10-2-15	10:00 -	10:15	weekly inspection - check on mawing ops.	 Quarry bottom Groundwater monitoring wells Landfill cap
GARY. B	16.51	- 800-	4:30 PM	maning	 Quarry bottom Groundwater monitoring wells Landfill cap
GARY. B	10-6-15		4:3072	0	 Quarry bottom Groundwater monitoring wells Landfill cap
GARY . B.	10.7.15	10:00	4.3012	min mo	 Quarry bottom Groundwater monitoring wells Landfill cap
Al Brillinger		1:45pm	2:30 pm	· Annual Inspection · Weakly Inspection	 Quarry bottom □ Groundwater monitoring wells Candfill cap
Al Brillingr	10.30-15	11:00 am	11:35	· covarterly inspection	 P Quarry bottom Groundwater monitoring wells Landfill cap
Colum McKenna	10/30/15	11:00 An	11:35	Quarterly Inspection	 Quarry bottom Groundwater monitoring wells Landfill cap

Sign In/Sign Out Form for RVAAP-01 Ramsdell Quarry Landfill LUC Brief

Name	Date	Time In	Time Out	Description of Activities Performed (i.e., mowing, gw sampling, etc)	Areas Accessed (please choose and check)
Brad Kline	30 Oct 2015	1100	1135	Quantily Inspection	□ Quarry bottom □ Groundwater monitoring wells XLandfill cap
Jack Medued	30 Oct 2015	1100	1135	Quarterly Inspection	 □ Quarry bottom □ Groundwater monitoring wells ▲ Landfill cap
Katre Tait	30 Oct 2015	(1 00	1135	Quarterly Inspection	Quarry bottom Groundwater monitoring wells Aandfill cap
GARY, B	11/24	1:00	4.15	Fill Holes	 Quarry bottom Groundwater monitoring wells Landfill cap
AlBrillinger	11/2.5/15	10:50	11:10	weekly inspection	
Becky Haney	11/25/15	10:50	11. 10	Weekly Inspection	Quarry bottom Groundwater monitoring wells Landfill cap
Al Brillinger	01/22/16	11:05	11:40	Weekly Inspection	
Bad Klim	3/1/16	1028	1127	Quertale Inspection	 Quarry bottom Groundwater monitoring wells Landfill cap
Al Brillingen Gang Bronswick Jack Mudvid	3/4/16	10:30	1127	quarterly inspection	Quarry bottom Groundwater monitoring wells Candfill cap
Ja-k Madved J. Martin		10:30	1127	Quarterly Inst.	□ Quarry bottom □ Groundwater monitoring wells

Name	Date	Time In	Time Out	Description of Activities Performed (i.e., mowing, gw sampling, etc)	Areas Accessed (please choose and check)
JOSHUA ADAMS	9.MAR	1030	1127	inspectron	 Quarry bottom Groundwater monitoring wells Landfill cap
Al Brilling/ VSC	3/24/110	12:35	12:50	inspection	 Quarry bottom Groundwater monitoring wells Clandfill cap
Al Brillinger VSc	418/16	12:00	12:20	weekly inspection	 Quarry bottom Groundwater monitoring wells Landfill cap
Al Brillinger VSC	4/15/16	14:00	14:30	weekly inspection	 Quarry bottom Groundwater monitoring wells Landfill cap
Flizabeth Kirby	4/18/16	1315	1400	Well Stustallations Pump Well pump Installations	Quarry bottom Groundwater monitoring wells Landfill cap
1 1	J	1420	1435		Quarry bottom Groundwater monitoring wells Landfill cap
Ginalee, Amibeth Salvator, Bill Sebelle	4/21/16	0945-	1030	Solid waste Debris Recon	 Quarry bottom Groundwater monitoring wells Landfill cap
Al Brillinger VSC	4/22/16	12:00	12:20	weeken inspection	 Quarry bottom Groundwater monitoring wells Landfill cap
GARY B USC	5/3/	900	1:00	REPAIR CAP	 Quarry bottom Groundwater monitoring wells Landfill cap
Al Brillinger - VSC	5/6/16	10:40	11:10	weekly inspection	Quarry bottom Groundwater monitoring wells Selandfill cap

Name	Date	Time In	Time Out	Description of Activities Performed (i.e., mowing, gw sampling, etc)	Areas Accessed (please choose and check)
moto Ahmrel	5/12/16	0.825	1335	giv sampling	 Quarry bottom Groundwater monitoring wells Landfill cap
Tom St. John	5/12/16	0825	1400	Gu sampling	 Quarry bottom Groundwater monitoring wells Landfill cap
Charles Dusetzina	5/12/11	0825	1400	GW Sarpling	 Quarry bottom Groundwater monitoring wells Landfill cap
AlBrillinger	5 20/16	11:30	11:50	weekly insp.	 Quarry bottom Groundwater monitoring wells Landfill cap
Al Brillinger	5 26 16	10:40	11:00	Weekly insp.	 □ Quarry bottom □ Groundwater monitoring wells ∞ Landfill cap
Brad Kline	6616	(000)	1101	Quartaly Inspectra	 Quarry bottom Groundwater monitoring wells Landfill cap
Jack Madred	6/6-116	10:00	11:01	Quasterly Imp.	Quarry bottom Groundwater monitoring wells Landfill cap
Al Brillinger VSc Becky Haney	6-10-16	(1:00	11:30	weekly inspection	Quarry bottom Groundwater monitoring wells Schandfill cap
Al Brillinger vsc	6-24-16	11:35	- 11: 55	weekly inspecting	 Quarry bottom Groundwater monitoring wells Landfill cap
Al Brillinger VSC	7-8-16	10:10	10:20	weekly inspection	 Quarry bottom Groundwater monitoring wells Landfill cap

Name	Date	Time In	Time Out	Description of Activities Performed (i.e., mowing, gw sampling, etc)	Areas Accessed (please choose and check)
Katie Tait	7/14/16	1:20	2:00	She walk	
Binas Techer	14 July 16	1:20	2:00	Siti walk	 Quarry bottom Groundwater monitoring wells Candfill cap
Even Ratom 20	14 July 16	(:20	2:00	site walk	Country bottom Groundwater monitoring wells
Nick Roope	7. 14-16	1:21	2:00	Site wolk	Quarry bottom Groundwater monitoring wells Landfill cap
Kevin Somale	21418	BRC	2:00	J.L. Walt	Groundwater monitoring wells
Comie Rosto	7/14/16	1: >1	2.00	Site walk	Groundwater monitoring wells
RichSprmzl	7/19/16	1035	11:30	Site Walk	Groundwater monitoring wells ✓Landfill cap
Kern Stouch	2/14/18	1075	11:30	Sit with	Groundwater monitoring wells
Katte Tait	7/19/14	1035	11:30	Site walk	CQuarry bottom Groundwater monitoring wells CLandfill cap
Al Brillinger	7/22/16	10:50	11:10	weekly inspecticy	Quarry bottom Groundwater monitoring wells Landfill cap

Name/Company	Date	Time In	Time Out	Description of Activities Performed (i.e., mowing, gw sampling, etc)	Areas Accessed (please choose and check)
Al Brillinger VSC	8/5/16	10:40	11:00	weekly inspection	 Quarry bottom Groundwater monitoring wells Clandfill cap
Jim Stachouski USACE	diolic	14:50	(5:35	Five-year review inspection	 Description Description Description ののののでは、 のののののののののののののののののののののののののののののののののののの
Al Brillinger VSC	8-19-1b	10;30	10:50	weekly inspection	Constraints Service Constraints Constrain
Al Brillinger VSC	\$ 9-2-16	10:00	10:20	Weekly Inspection	 Quarry bottom Groundwater monitoring wells Clandfill cap
Al Brillinge VSC	9-16-16	10:30	10:50	weeky inspection	 Quarry bottom Groundwater monitoring wells Landfill cap
GARY. B VSC	9-2016	x30	4130	Marcing	Quarry bottom Groundwater monitoring wells A-Landfill cap
CANY B VSC	9-2124	24 20	4 1, 7.	mouring	 Quarry bottom Groundwater monitoring wells Landfill cap
Al Brillinger	9-23-16	9:0U	10:00	quarterly LF inspection	 ☑ Quarry bottom □ Groundwater monitoring wells 逊 Landfill cap

Name/Company	Date	Time In	Time Out	Description of Activities Performed (i.e., mowing, gw sampling, etc)	Areas Accessed (please choose and check)
Brad Klin/OHARNG	9/23/16	0915	10:00	Quarturly Inspection	B Quarry bottom □ Groundwater monitoring wells ✓Landfill cap
Jack Maderal PCHB	9-23-16	0915	10:,00	Quarterly Insp.	© Quarry bottom □ Groundwater monitoring wells ✓Landfill cap
Katie Tait/ OHARNOT	9/23/16	0915	10:00	Quarterly Inspection	Quarry bottom Groundwater monitoring wells ✓Landfill cap
Jomst. John		0918	0947	GW Gauging	 Quarry bottom Groundwater monitoring wells Landfill cap
Charles Duretzina	9/29/16	0918	0947	GN Ganjing	 Quarry bottom Groundwater monitoring wells Landfill cap
Thon B	10-3-16	1.00	3:00	filling holes in cop	Quarry bottom Groundwater monitoring wells ArLandfill cap
Al Brillinger VSC	10.7-16	9:15	9:45	weakly inspection	 Quarry bottom Groundwater monitoring wells Landfill cap
RichSprinzl	10/12/16	9:07	1507	Sediment Sampling	Aquarry bottom Groundwater monitoring wells Landfill cap

Name/Company	Date	Time In	Time Out	Description of Activities Performed (i.e., mowing, gw sampling, etc)	Areas Accessed (please choose and check)
Michael Reilly LEIDOS	10/12/16	9:0-7an	1507	Sectiment Sampling	 Quarry bottom Groundwater monitoring wells Landfill cap
Vasu Peterson LEIDOS	10/12/16	9:08	1320	Sediment Sampling	 Quarry bottom Groundwater monitoring wells Landfill cap
JOHN I TERBERT	10/12/14	9:09	1507	SEDIMENT SAMPLING	Quarry bottom Groundwater monitoring wells Landfill cap
Al Brillinger Vista Sciences	10/26/16	12:40	1:20	site visit	 Quarry bottom Groundwater monitoring wells Landfill cap
Brad Kline OHARNG	10/26/16	1245	1:00	Site Visit	□ Quarry bottom □ Groundwater monitoring wells ≰Landfill cap
Kathe Tait OHARNGT	u	ıt	1:00	Site visit	 □ Quarry bottom □ Groundwater monitoring wells ✓ Landfill cap
Jack Madred P.C. H.D	13		1:20	Site Visit	 Quarry bottom Groundwater monitoring wells Landfill cap
P+FID EPA	<i>c</i> .	(*	1:00	SITE UKSIT	Quarry bottom Groundwater monitoring wells Landfill cap

Appendix C

RQL Annual Inspection Photographs



West side of Ramsdell Quarry Landfill, looking south from west gate.



South side of Ramsdell Quarry Landfill, looking east from southwest corner.



East side of Ramsdell Quarry Landfill, looking north from southeast corner.



Land Use Control fence along west side of Ramsdell Quarry Landfill, looking south from northwest corner.

Appendix D

FY 2016 Quarterly Land Use Control Index Maps





Legend

LUC Inspection of Perimeter Fence

- Opening in fence (2'≥) and/or fabric missing/damaged (12 locations)
- Repaired (4 Locations)
- Gates (26 locations for reference only, no detail sheets) All gates appear to be maintained and are in working order

- Perimeter Fence Evaluated (29.8 miles)



SEE ATTACHED SUMMARY TABLE AND DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP



Ohio Army National Guard







Produced in December 2015 for:



US Army Corps of Engineers

600 Dr. Martin Luther King Jr. Place Louisville, KY 40202







Legend

LUC Inspection of Perimeter Fence

- Opening in fence (2'≥) and/or fabric missing/damaged (5 locations)
- Repaired (16 Locations)
- Gates (26 locations for reference only, no detail sheets) All gates appear to be maintained and are in working order

- Perimeter Fence Evaluated (29.6 miles)



SEE ATTACHED SUMMARY TABLE AND DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP



Ohio Army National Guard







Produced in January 2016 for:



US Army Corps of Engineers

600 Dr. Martin Luther King Jr. Place Louisville, KY 40202







Legend

LUC Inspection of Perimeter Fence

- Opening in fence (2'≥) and/or fabric missing/damaged (4 locations)
- Repaired (21 Locations)
- Gates (26 locations for reference only, no detail sheets) All gates appear to be maintained and are in working order

- Perimeter Fence Evaluated (29.6 miles)



SEE ATTACHED SUMMARY TABLE AND DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP



Ohio Army National Guard







Produced in April 2016 for:



US Army Corps of Engineers

600 Dr. Martin Luther King Jr. Place Louisville, KY 40202



WINKLEPECK BURNING GROUNDS (WBG) RVAAP-05 LAND USE CONTROL (LUC) INSPECTION 4th Qtr. FY 2016



FIGURE 1 INDEX MAP TO FACILITY PERIMETER FENCE INSPECTION

Legend

LUC Inspection of Perimeter Fence

- Opening in fence (2'≥) and/or fabric missing/damaged (5 locations)
- Repaired (25 Locations)
- Gates (26 locations for reference only, no detail sheets) All gates appear to be maintained and are in working order

- Perimeter Fence Evaluated (29.6 miles)



SEE ATTACHED SUMMARY TABLE AND DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP



Ohio Army National Guard







Produced in July 2016 for:



US Army Corps of Engineers

600 Dr. Martin Luther King Jr. Place Louisville, KY 40202



Appendix E

Final FY 2016 First Quarter Land Use Control Inspection for RVAAP-05 Winklepeck Burning Grounds

Final

FY 2016 First Quarter Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

> Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant Portage and Trumbull Counties, Ohio

> > Contract No. W912QR-13-C-0031

Prepared for:



U.S. Army Corps of Engineers Louisville District

Prepared by:



600 E. Montana Ave. Las Cruces, NM 88001

April 4, 2016

DISCLAIMER STATEMENT

This document is a work prepared for the United States Government by Vista Sciences Corporation. In no event shall either the United States Government or U.S. Army Corps of Engineers have any responsibility or liability for any consequences of any use, misuse, inability to use, or reliance on the information contained herein, nor does either warrant or otherwise represent in any way the accuracy, adequacy, efficacy, or applicability of the contents hereof.

Final

FY 2016 First Quarter Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant Portage and Trumbull Counties, Ohio

Contract No. W912QR-13-C-0031

Prepared for:



U.S. Army Corps of Engineers Louisville District

Prepared by:



600 E. Montana Ave. Las Cruces, NM 88001

April 4, 2016

(Placeholder for Ohio EPA Approval Letter)

DOCUMENT DISTRIBUTION

for the

Final FY 2016 First Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds

> Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant Portage and Trumbull Counties, Ohio

Name/Organization	Number of Printed Copies	Number of Electronic Copies
Mark Leeper, ARNG-ILE-CR	0	1
Kevin Sedlak, ARNG – Camp Ravenna	0	0
Katie Tait, OHARNG – Camp Ravenna	0	0
Drew Kocher, Ohio EPA Project Manager – NEDO-DERR	1	3
Justin Burke, Ohio EPA – CO - DERR	0	Email w/o attachments
Jay Trumble, USACE – Louisville District	0	1
Gail Harris, AR Manager – Camp Ravenna	2	2

AR = Administrative Record

ARNG = Army National Guard

ARNG-ILE-CR = Army National Guard – Installations Logistics Environmental – Cleanup Restoration CO = Central Office

DERR = Division of Environmental Response and Revitalization

EPA = Environmental protection Agency

NEDO = Northeast District Office

OHARNG = Ohio Army National Guard

USACE = U.S. Army Corps of Engineers

LIST OF ACRONYMS AND ABBREVIATIONS

AOC	Area of Concern			
ARNG-ILE	Army National Guard Environmental Programs Division			
bgs	below ground surface			
Camp Ravenna	Camp Ravenna Joint Military Training Center			
EQM	Environmental Quality Management, Inc.			
FWGWMPP	Facility-Wide Ground Water Monitoring Program Plan			
FWSAP	Facility-Wide Sampling and Analysis Plan			
IRP	Installation Restoration Program			
LUC	Land Use Control			
MEC	Munitions and Explosives of Concern			
МК	Mark			
MRS	Munitions Response Site			
MSG	Master Sergeant			
Ohio EPA	Ohio Environmental Protection Agency			
OHARNG	Ohio Army National Guard			
PS	Professional Surveyor			
PMP	Property Management Plan			
RVAAP	Ravenna Army Ammunition Plant			
SOP	Standard Operating Procedure			
UXO	Unexploded Ordnance			
WBG	Winklepeck Burning Grounds			

Camp Ravenna Joint Military Training Center (Camp Ravenna) / Former Ravenna Army Ammunition Plant (RVAAP) Quarterly Land Use Control (LUC) Inspection Form RVAAP-05 Winklepeck Burning Grounds

In accordance with the Camp Ravenna/former RVAAP Property Management Plan (PMP) dated August 2012 and Appendix A-1, an inspection of RVAAP-05 Winklepeck Burning Grounds (WBG) was conducted by <u>Don Trocchio</u> on <u>November 16 – 19, 23 – 25 and 30, and December 1 – 3, 7, 8, 10 and 11, 2015</u>.

The quarterly inspections required by the PMP include the following:

- Review of LUC training and documentation as applicable to WBG.
- Evaluation of the Camp Ravenna perimeter fence to ensure that it is maintained in a manner that is protective and effective control and deters trespassers.
- Evaluation of activities at WBG to ensure that all activities executed within WBG are in compliance with Ohio Army National Guard (OHARNG) range safety regulations/standard operation procedure (SOP), established digging restrictions, and established exposure limits. All digging, intrusive activities, or excavation on the WBG Area of Concern (AOC) outside of the Unexploded Ordnance (UXO)/ Munitions and Explosives of Concern (MEC)-cleared areas within the Mark (MK) 19 Grenade Machinegun Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts and activities listed in A-1.4 of the PMP (maintenance of targetry and associated lifting mechanisms, range maintenance activities including removal of practice rounds, vegetation management, compatible natural resource management activities, nuisance wildlife control, drainage maintenance, wetland delineation, grassland management, scientific research and sampling activities);
 - Ground surface repairs by authorized range personnel in support of authorized range activities; and
 - Digging along target array areas by authorized range personnel to a depth of 1 foot below ground surface (bgs).

This shall also include evaluation of required range signage. The range is required to be marked with signage in conformance with the requirements of the current Department of Army regulations.

- Evaluation of groundwater activities to ensure that any groundwater activities are being conducted in a manner consistent with established LUCs. Groundwater use or extraction of groundwater located at or underlying the WBG AOC or any portion thereof is prohibited, except for the following:
 - 1. The installation, development, purging, and sampling of new or existing monitoring wells in accordance with the most recent Facility-Wide Sampling and Analysis Plan (FWSAP) as part of the AOC-specific Installation Restoration Program (IRP) or Facility-Wide Ground Water Monitoring Program Plan (FWGWMPP).
 - 2. The abandonment and replacement of monitoring wells damaged by activities conducted on Camp Ravenna and wells no longer utilized as part of IRP or FWGWMPP activities, in accordance with Ohio Environmental Protection Agency (Ohio EPA) guidance, the most recent FWSAP, and applicable Ohio Administrative Code requirements.

LUC deficiencies or inconsistent land uses that are identified must be reported and identified on the quarterly inspection form/report. These deficiencies must also be reported immediately to the Army, along with suggestions on how to remedy the deficiencies.

Review of LUCs – Management/Effectiveness/Corrective Action

1. AOC Map

Is the AOC map current with respect to AOC boundaries, land activities, and prescribed LUCs?

The AOC map was reviewed on November 16, 2015 by Don Trocchio, Professional Surveyor (PS), and it is current with respect to AOC boundaries, land activities and prescribed LUCs.

2. Camp Ravenna Perimeter Fence

Is the Camp Ravenna perimeter fence and associated gates being maintained in order to be an effective and protective control and deter trespassers?

The perimeter fence is currently being maintained by OHARNG staff to ensure it is an effective and protective land use control. As observed during the FY 2016 1st quarter inspection, the fence has been repaired at four locations since the previous quarterly inspection in July/August 2015. These locations are NE10A, NE38, SE02A and SW26. Attachment 1, Figure 1 Index Map and Summary Table, and associated Detail Sheets present the damaged fence areas and photographs of repaired areas.

3. Activities and Land Use

a.) This AOC is restricted from residential land use. Has residential use occurred? Have other land use changes occurred?

Based on an interview with OHARNG Range Control Staff (Master Sergeant [MSG] Rex Hufenbach) on December 7, 2015 at the Camp Ravenna Headquarters Building, no residential land use has occurred. Additionally, there has been no change in land use at the AOC since the previous inspection.

b.) What activities have occurred at WBG since the last inspection?

The WBG/MK19 Range has been utilized for training purposes (i.e., MK19 Range firing/activities) since the last inspection. Additionally, mowing was completed the first week of December 2015. Groundwater monitoring wells located within WBG were not sampled since the last inspection. All activities are in accordance with designated LUCs/restrictions.

c.) Are activities (digging, range maintenance etc.) at WBG being conducted in compliance with OHARNG range safety regulations/SOP and established digging restrictions?

Based on an interview with MSG Rex Hufenbach on December 7, 2015, all activities within WBG are being conducted in compliance with OHARNG Range Safety Regulations/SOP and established digging restrictions. All activities are in accordance with those set forth in the PMP.

d.) Is the required range signage in place and functional? The range is required to be marked with signage in conformance with the requirements of the current Department of Army regulations. If not, describe what corrective actions will be undertaken?

MSG Rex Hufenbach stated all signage is placed at 200-meter intervals and found to be upright and intact and in conformance with Army regulations. Annual repairs for signage along the surface danger zone perimeter were conducted in May 2015.

- e.) Groundwater: Groundwater use or extraction of groundwater located at or underlying the WBG AOC or any portion thereof is prohibited, except for the following:
 - 1. The installation, development, purging, and sampling of new or existing monitoring wells in accordance with the most recent FWSAP as part of the AOC-specific IRP or FWGWMPP.
 - 2. The abandonment and replacement of monitoring wells damaged by Installation activities, and wells no longer utilized as part of IRP or FWGWMPP activities, in accordance with

Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

f.) Have any groundwater activities been conducted and, if yes, are they within the established control parameters?

Groundwater is sampled on a semi-annual basis under the FWGWMPP. During an interview on December 8, 2015 with Kevin Sedlak (Restoration Project Manager, Army National Guard Environmental Programs Division [ARNG-ILE] Clean-up), he stated that all Ground Water Monitoring activity is conducted in accordance with the FWGWMPP and the parameters for groundwater monitoring as set forth in the PMP, Appendix A-1. No groundwater sampling activities occurred during this quarter. The next FWGWMPP sampling event is currently scheduled for March 2016.

4. Inspections and Reporting

a.) Inspections are required on a quarterly basis. Are quarterly inspections being completed?

Quarterly Inspections have been completed for FYs 2013, 2014 and 2015. This is the first Quarterly Inspection to be conducted for FY 2016. All Quarterly Inspections for FYs 2013, 2014, 2015 and 2016 were conducted in accordance with the approved PMP dated August 2012.

b.) An annual report is required. Has the annual report been completed and submitted?

The Final FY 2014 Annual Report was submitted on January 12, 2015 and approved on March 17, 2015. The FY 2015 Annual Report is currently in review and is scheduled for final submittal on February 21, 2016.

5. Training (as applicable to WBG)

a.) Was LUC training (specific to WBG) being conducted as applicable? Describe the training (content/who attended/who provided/documentation of training).

LUC training is provided annually to all Camp Ravenna staff and tenant units at Camp Ravenna. The LUC training is typically provided by Katie Tait and/or Tim Morgan, Camp Ravenna-Environmental. The training provides an overview of the history of the facility, the ongoing cleanup work, the location of the cleanup sites, any land use controls/restrictions on AOCs/Munitions Response Sites (MRS), and specific restrictions for WBG. Using units also receive an in-brief prior to firing on the range. Using units and tenant units at Camp Ravenna are not allowed down range. Environmental contractors who access WBG are also provided with an in-brief which informs them of the LUCs/restrictions at the AOC. They must read and sign the in-brief form. Training materials and rosters are on file in the Camp Ravenna Environmental Office. LUC training specific to WBG was held on March 3rd and 5th, 2015 for Camp Ravenna units/staff. TetraTech personnel received the LUC briefing on September 22 and November 4, 2015 prior to entering the site for environmental reconnaissance purposes. Training will be conducted for additional Camp Ravenna staff and contractors on an as-needed basis.

b.) If training was not provided, explain why and what corrective actions were initiated?

N/A

6. Description of any observed/noted LUC violation(s):

The Camp Ravenna perimeter fence has 12 missing sections/openings/holes in the fence fabric and areas that are in disrepair as documented in this report. These areas have been assigned the following call-out numbers: NW14, NW15, NE7, NE8, NE9, NE24A, SW25, SW27, SW31, SW28, SW29 and SW30. See Attachment 1 – Figure 1 Index Map to Facility Perimeter Fence Inspection and attached Detail Sheets.

7. Date of Notification of LUC violation (if applicable):

The Army was notified via e-mail on November 18, 19, 23, 24, and December 1, 2 and 10 of 12 new fence defects discovered during the 1st Quarter FY 2016 facility perimeter fence evaluation. These locations are SW25, SW27, NE7, NE24A, SW28, SW29, SW30, NW14, NW15, NE8, NE9, and SW31 (See Attachment 1, Figure 1 Index Map and Summary Table, and associated detail sheets).

8. Description of any corrective actions taken to remedy observed LUC violation(s) or recommended corrective actions:

As observed during the first quarter LUC inspection, the following perimeter fence defects were repaired: NE10A, NE38, SE02A and SW26.

Attachment 1 – Figure 1 Index Map to Facility Perimeter Fence Inspections shows previous fence deficiencies that have been repaired and/or reported since the last inspection.

These efforts of the OHARNG staff to repair the identified deficiencies in the fence have improved the condition of the fence since the last inspection.

9. Additional Notes/Comments:

As requested by the Ohio EPA, WBG photographs taken during the 1st Quarter LUC Inspection are included with this report (Attachment 2, Supplemental Detail Sheet No. 1).

Original Inspection Completed by:

Signature:	And
Printed Nam	ne: Don Trocchio

Title: Professional Surveyor	Organization: Vista Sciences Corporation		
Date: December 12, 2015			

Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant

FY 2016 First Quarter Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

ATTACHMENT 1

Figure 1 Index Map FY 2016 Callout/Repair Summary Table Detailed Quadrant Maps

Figure 1 Index Map





Legend

LUC Inspection of Perimeter Fence

- Opening in fence (2'≥) and/or fabric missing/damaged (12 locations)
- Repaired (4 Locations)
- Gates (26 locations for reference only, no detail sheets) All gates appear to be maintained and are in working order

- Perimeter Fence Evaluated (29.8 miles)



SEE ATTACHED SUMMARY TABLE AND DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP



Ohio Army National Guard







Produced in December 2015 for:



US Army Corps of Engineers

600 Dr. Martin Luther King Jr. Place Louisville, KY 40202



FY 2016 Callout/Repair Summary Table

FY 2016 1st QUARTER CALLOUT/REPAIR SUMMARY TABLE Camp Ravenna Joint Military Training Center 1st Qtr FY2016 LUC Inspection

CALLOUT	DATE		US Survey Ft	
CALLOUT	DATE	Comments		Easting
NE07	11/18/2015	poacher hole	572923	2365753
NE08	12/1/2015	poacher hole	571065	2381537
NE09	12/1/2015	poacher hole	571077	2381869
NE24A	11/18/2015	repeat poacher hole in fence	572341	2379439
NW14	11/23/2015	poacher hole in fence	562792	2339131
NW15		poacher hole in new section of fence	570632	2352984
SW25	11/17/2015	poacher hole	549381	2334296
SW27	11/17/2015	fence fabric has been detached from 4 posts	551961	2330049
SW28	11/19/2015	poacher hole	558184	2328802
SW29	11/23/2015	poacher hole in fence	560157	2333938
SW30	11/23/2015	poacher hole in fence	562148	2337710
SW31	12/8/2015	abandoned railroad utility pole has fallen onto fence	560476	2335035
NE10A	12/3/2015	fence fabric and top rail damaged to permit access	563195	2380440
NE38		12in tree blow down on top of fence	563279	2385540
SE02A	12/7/2015	washout {10x6 box culvert} from debris plugged security cage	551498	2361141
SW26	11/17/2015	blow down/top rail repaired by Vista Sciences Corp. in- between inspections	549355	2332269

Repaired 1st Quarter

NE (Northeast) Quadrant

DETAIL SHEET FOR NE7



LAND USE CONTROL (LUC) INSPECTION 1st QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO NE7 discovered 11/18/2015



Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP





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Louisville District



Projection Datum is NAD83, Ohio State Plane Rectangular Grid, North Zone


DETAIL SHEET FOR NE8



LAND USE CONTROL (LUC) INSPECTION 1st QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO NE8 discovered 12/01/2015



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DETAIL SHEET FOR NE8

DETAIL SHEET FOR NE9



LAND USE CONTROL (LUC) INSPECTION 1st QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO NE9 discovered 12/01/2015



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DETAIL SHEET FOR NE10A



LAND USE CONTROL (LUC) INSPECTION 1sth QUARTER FY2016 PERIMETER FENCE INSPECTION

REPAIR PHOTO NE10A dated 12/03/2015

PHOTO NE10A discovered 08/06/2015



Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP





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Louisville District



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DETAIL SHEET FOR NE24A



LAND USE CONTROL (LUC) INSPECTION 1st QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO NE24A discovered 11/18/2015



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DETAIL SHEET FOR NE24A

DETAIL SHEET FOR NE38



LAND USE CONTROL (LUC) INSPECTION 1st QUARTER FY2016 PERIMETER FENCE INSPECTION

REPAIR PHOTO NE38 dated 12/02/2015

PHOTO NE38 discovered 08/05/2015



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NW (Northwest) Quadrant



LAND USE CONTROL (LUC) INSPECTION 1st QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO NW14 discovered 11/23/2015



Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP





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DETAIL SHEET FOR NW14



LAND USE CONTROL (LUC) INSPECTION 1st QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO NW15 discovered 11/30/2015



Camp Ravenna Joint Military Training Center



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SE (Southeast) Quadrant

DETAIL SHEET FOR SE2A



LAND USE CONTROL (LUC) INSPECTION 1st QUARTER FY2016 PERIMETER FENCE INSPECTION

REPAIR PHOTO SE2A dated 12/07/2015

PHOTO SE2A discovered 08/10/2015





DETAIL SHEET FOR ິ

SW (Southwest) Quadrant



LAND USE CONTROL (LUC) INSPECTION 1st QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO SW25 discovered 11/17/2015



Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP





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DETAIL

SHEET

FOR SW25

Louisville District



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LAND USE CONTROL (LUC) INSPECTION 1st QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO SW26 repaired by Vista Sciences in-between inspections 11/17/2015



Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP





US Army Corps of

Engineers

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Louisville District

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LAND USE CONTROL (LUC) INSPECTION 1st QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO SW27 discovered 11/17/2015



Camp Ravenna Joint Military Training Center



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LAND USE CONTROL (LUC) INSPECTION 1st QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO SW28 discovered 11/19/2015



Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP





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LAND USE CONTROL (LUC) INSPECTION 1st QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO SW29 discovered 11/23/2015



Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP





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LAND USE CONTROL (LUC) INSPECTION 1st QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO SW30 discovered 11/23/2015



Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP







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LAND USE CONTROL (LUC) INSPECTION 1st QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO SW31 discovered 12/08/2015



Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP





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Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant

Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

ATTACHMENT 2

Supplemental Detail Sheet No. 1

Camp Ravenna Fence Repair Log

Supplemental Detail Sheet No. 1



SUPPLEMENTAL DETAIL SHEET NO.1 LAND USE CONTROL (LUC) INSPECTION PERIMETER FENCE INSPECTION 1st QUARTER FY2016

PHOTO N0.2 12/10/2015

PHOTO N0.4 12/10/2015





PHOTO No.1 12/10/2015



PHOTO N0.3 12/10/2015

PHOTO IMAGES WITHIN THE WINKLEPECK BURNING GROUNDS (RVAAP-05)

Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP

Ohio Army National Guard







Produced in December 2015 for:



US Army Corps of Engineers

600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District

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Camp Ravenna JMTC 1438 State Route 534 SW Newton Falls, OH 44444 Don Trocchio, PS don.trocchio@vistasciences.com

MGRS 17T NF01946150 (NAD83)

Camp Ravenna Fence Repair Log

Location of Fence Section Repaired	Description of Repair	Initials of person Completing Repair	Date of Repair	Notes
NW15	REPLACED FABRIC OVER HOLE REPLACED FABRIC	RMF REM RMF BLS	12/21/15	
NEB	REPLACED FABRIC	RMF BLS	1/12/16	
NE9	REPLACED FABRIC	RMF BLS	1/12/16	
5		ъ.		
((************************************				-
ha daha kara ang pang Malahaha dan ang pang pang pang dalah kara pang pang dalah kara pang pang pang bahara pan				
7/19/19/19/19/19/19/19/19/19/19/19/19/19/				

Appendix F

Final FY 2016 Second Quarter Land Use Control Inspection for RVAAP-05 Winklepeck Burning Grounds Final

FY 2016 Second Quarter Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant Portage and Trumbull Counties, Ohio

Contract No. W912QR-13-C-0031

Prepared for:



U.S. Army Corps of Engineers Louisville District

Prepared by:



600 E. Montana Ave. Las Cruces, NM 88001

April 19, 2016

Final

FY 2016 Second Quarter Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant Portage and Trumbull Counties, Ohio

Contract No. W912QR-13-C-0031

Prepared for:



U.S. Army Corps of Engineers Louisville District

Prepared by:



600 E. Montana Ave. Las Cruces, NM 88001

April 19, 2016

(Placeholder for Ohio EPA Approval Letter)

Document Distribution

for the Final FY 2016 Second Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds

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Justin Burke, Ohio EPA – CO - DERR	0	0
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Bob Guthrie, Management Solutions, LLC		Email cover letter only
Gail Harris, AR Manager – Camp Ravenna	2	2

AR = Administrative Record ARNG = Army National Guard ARNG-ILE-CR = Army National Guard – Installations Logistics Environmental – Cleanup Restoration CO = Central Office DERR = Division of Environmental Response and Revitalization EPA = Environmental protection Agency NEDO = Northeast District Office OHARNG = Ohio Army National Guard USACE = U.S. Army Corps of Engineers

LIST OF ACRONYMS AND ABBREVIATIONS

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bgs	below ground surface
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FWSAP	Facility-Wide Sampling and Analysis Plan
IRP	Installation Restoration Program
LUC	Land Use Control
MEC	Munitions and Explosives of Concern
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MRS	Munitions Response Site
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Ohio EPA	Ohio Environmental Protection Agency
OHARNG	Ohio Army National Guard
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RVAAP	Ravenna Army Ammunition Plant
SOP	Standard Operating Procedure
UXO	Unexploded Ordnance
WBG	Winklepeck Burning Grounds

Camp Ravenna Joint Military Training Center (Camp Ravenna) / Former Ravenna Army Ammunition Plant (RVAAP) Quarterly Land Use Control (LUC) Inspection Form RVAAP-05 Winklepeck Burning Grounds

In accordance with the Camp Ravenna/former RVAAP Property Management Plan (PMP) dated August 2012 and Appendix A-1, an inspection of RVAAP-05 Winklepeck Burning Grounds (WBG) was conducted by <u>Don Trocchio</u> on January 11 - 14, 19, 20, 22, and 25 - 28, 2016.

The quarterly inspections required by the PMP include the following:

- Review of LUC training and documentation as applicable to WBG.
- Evaluation of the Camp Ravenna perimeter fence to ensure that it is maintained in a manner that is protective and effective control and deters trespassers.
- Evaluation of activities at WBG to ensure that all activities executed within WBG are in compliance with Ohio Army National Guard (OHARNG) range safety regulations/standard operation procedure (SOP), established digging restrictions, and established exposure limits. All digging, intrusive activities, or excavation on the WBG Area of Concern (AOC) outside of the Unexploded Ordnance (UXO)/ Munitions and Explosives of Concern (MEC)-cleared areas within the Mark (MK) 19 Grenade Machinegun Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts and activities listed in A-1.4 of the PMP (maintenance of targetry and associated lifting mechanisms, range maintenance activities including removal of practice rounds, vegetation management, compatible natural resource management activities, nuisance wildlife control, drainage maintenance, wetland delineation, grassland management, scientific research and sampling activities);
 - Ground surface repairs by authorized range personnel in support of authorized range activities; and
 - Digging along target array areas by authorized range personnel to a depth of 1 foot below ground surface (bgs).

This shall also include evaluation of required range signage. The range is required to be marked with signage in conformance with the requirements of the current Department of Army regulations.

- Evaluation of groundwater activities to ensure that any groundwater activities are being conducted in a manner consistent with established LUCs. Groundwater use or extraction of groundwater located at or underlying the WBG AOC or any portion thereof is prohibited, except for the following:
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LUC deficiencies or inconsistent land uses that are identified must be reported and identified on the quarterly inspection form/report. These deficiencies must also be reported immediately to the Army, along with suggestions on how to remedy the deficiencies.

Review of LUCs – Management/Effectiveness/Corrective Action

1. AOC Map

Is the AOC map current with respect to AOC boundaries, land activities, and prescribed LUCs?

The AOC map was reviewed on January 12, 2016 by Don Trocchio, Professional Surveyor (PS), and it is current with respect to AOC boundaries, land activities and prescribed LUCs.

2. Camp Ravenna Perimeter Fence

Is the Camp Ravenna perimeter fence and associated gates being maintained in order to be an effective and protective control and deter trespassers?

The perimeter fence is currently being maintained by OHARNG staff to ensure it is an effective and protective land use control. As observed and reported during the FY 2016 2nd quarter inspection, the fence has been repaired at 15 locations since the previous quarterly inspection in November/December 2015 or during the current quarterly inspection in January 2016. These locations are NE07, NE08, NE09, NE24A, NE39, NE40, NW14, NW15, NW16, SW25, SW27, SW28, SW29, SW30, SW31, SW32 and SW33. Attachment 1, Figure 1 Index Map and Summary Table, and associated Detail Sheets present the damaged fence areas and photographs of repaired areas. Repaired callouts NE39, NE40, NW16, SW32 and SW33 were reported as being repaired after the perimeter fence inspection had occurred (see Attachment 2, Callout Repair Log). Photographs of these repaired areas will be provided in the FY 2016 3rd Quarter LUC Inspection report.

3. Activities and Land Use

a.) This AOC is restricted from residential land use. Has residential use occurred? Have other land use changes occurred?

Based on an interview with OHARNG Range Control Staff (Master Sergeant [MSG] Rex Hufenbach) on January 28, 2016 at the Camp Ravenna Headquarters Building, no residential land use has occurred. Additionally, there has been no change in land use at the AOC since the previous inspection.

b.) What activities have occurred at WBG since the last inspection?

The WBG/MK19 Range has been utilized for training purposes (i.e., MK19 Range firing/activities) since the last inspection. All activities are in accordance with designated LUCs/restrictions.

c.) Are activities (digging, range maintenance etc.) at WBG being conducted in compliance with OHARNG range safety regulations/SOP and established digging restrictions?

Based on an interview with MSG Rex Hufenbach on January 28, 2016, all activities within WBG are being conducted in compliance with OHARNG Range Safety Regulations/SOP and established digging restrictions. All activities are in accordance with those set forth in the PMP.

d.) Is the required range signage in place and functional? The range is required to be marked with signage in conformance with the requirements of the current Department of Army regulations. If not, describe what corrective actions will be undertaken?

MSG Rex Hufenbach stated all signage is placed at 200-meter intervals and found to be upright and intact and in conformance with Army regulations.

e.) Groundwater: Groundwater use or extraction of groundwater located at or underlying the WBG AOC or any portion thereof is prohibited, except for the following:

- 1. The installation, development, purging, and sampling of new or existing monitoring wells in accordance with the most recent FWSAP as part of the AOC-specific IRP or FWGWMPP.
- 2. The abandonment and replacement of monitoring wells damaged by Installation activities, and wells no longer utilized as part of IRP or FWGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.
- f.) Have any groundwater activities been conducted and, if yes, are they within the established control parameters?

Groundwater is sampled on a semi-annual basis under the FWGWMPP. During an interview on January 28, 2016 with Kevin Sedlak (Restoration Project Manager, Army National Guard Environmental Programs Division [ARNG-ILE] Clean-up), he stated that all Ground Water Monitoring activity is conducted in accordance with the FWGWMPP and the parameters for groundwater monitoring as set forth in the PMP, Appendix A-1. No groundwater sampling activities occurred during this quarter. The next FWGWMPP sampling event is currently scheduled for May 2016.

4. Inspections and Reporting

a.) Inspections are required on a quarterly basis. Are quarterly inspections being completed?

Quarterly Inspections have been completed for FYs 2013, 2014, 2015. This is the second Quarterly Inspection to be conducted for FY 2016. All Quarterly Inspections for FYs 2013, 2014, 2015 and 2016 were conducted in accordance with the approved PMP dated August 2012.

b.) An annual report is required. Has the annual report been completed and submitted?

The Final FY 2014 Annual Report was submitted on January 12, 2015 and approved on March 17, 2015. The Final FY 2015 Annual Report was submitted for review on January 27, 2016.

5. Training (as applicable to WBG)

a.) Was LUC training (specific to WBG) being conducted as applicable? Describe the training (content/who attended/who provided/documentation of training).

LUC training is provided annually to all Camp Ravenna staff and tenant units at Camp Ravenna. The LUC training is typically provided by Katie Tait and/or Tim Morgan, Camp Ravenna-Environmental. The training provides an overview of the history of the facility, the ongoing cleanup work, the location of the cleanup sites, any land use controls/restrictions on AOCs/Munitions Response Sites (MRS), and specific restrictions for WBG. Using units also receive an in-brief prior to firing on the range. Using units and tenant units at Camp Ravenna are not allowed down range. Environmental contractors who access WBG are also provided with an in-brief which informs them of the LUCs/restrictions at the AOC. They must read and sign the in-brief form. Training materials and rosters are on file in the Camp Ravenna Environmental Office. LUC training specific to WBG was held on February 23 and 25, 2016 for Camp Ravenna units/staff. Training will be conducted for additional Camp Ravenna staff and contractors on an as-needed basis.

b.) If training was not provided, explain why and what corrective actions were initiated?

N/A

6. Description of any observed/noted LUC violation(s):

The Camp Ravenna perimeter fence had five missing sections/openings/holes in the fence fabric and areas that are in disrepair that were observed and documented in this report. These areas have been assigned the following call-out numbers: NE39, NE40, NW16, SW32 and SW33. See Attachment 1 – Figure 1 Index Map to Facility Perimeter Fence Inspection and attached Detail Sheets.

7. Date of Notification of LUC violation (if applicable):

The Army was notified via e-mail on January 19, 20, 22 and 28, 2016 of five new fence defects discovered during the 2nd Quarter FY 2016 facility perimeter fence evaluation. These locations are NE39, NE40, NW16, SW32 and SW33 (See Attachment 1, Figure 1 Index Map and Summary Table, and associated detail sheets).

8. Description of any corrective actions taken to remedy observed LUC violation(s) or recommended corrective actions:

As observed and reported during the second quarter LUC inspection, the following perimeter fence defects were repaired: NE07, NE08, NE09, NE24A, NE39, NE40, NW14, NW15, NW16, SW25, SW27, SW28, SW29, SW30, SW31, SW32 and SW33.

Attachment 1 – Figure 1 Index Map to Facility Perimeter Fence Inspections shows previous fence deficiencies that have been repaired and/or reported since the last inspection.

These efforts of the OHARNG staff to repair the identified deficiencies in the fence have improved the condition of the fence since the last inspection (See Attachment 1, FY 2016 Callout/Repair Table and Attachment 2, Callout Repair Log).

9. Additional Notes/Comments:

As requested by the Ohio EPA, WBG photographs taken during the 2nd Quarter LUC Inspection are included with this report (Attachment 2, Supplemental Detail Sheet No. 1).

Original Inspection Completed by:

Signature:				
Printed Name: Don Trocchio				
Title: Professional Surveyor	Organization: Vista Sciences Corporation			
Date: February 4, 2016				

Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant

FY 2016 Second Quarter Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

ATTACHMENT 1

Figure 1 Index Map FY 2016 Callout/Repair Summary Table Detailed Quadrant Maps

Figure 1 Index Map





FIGURE 1 INDEX MAP TO FACILITY PERIMETER FENCE INSPECTION

Legend

LUC Inspection of Perimeter Fence

- Opening in fence (2'≥) and/or fabric missing/damaged (5 locations)
- Repaired (16 Locations)
- Gates (26 locations for reference only, no detail sheets) All gates appear to be maintained and are in working order

- Perimeter Fence Evaluated (29.6 miles)



SEE ATTACHED SUMMARY TABLE AND DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP



Ohio Army National Guard







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Louisville District


FY 2016 Callout/Repair Summary Table

FY 2016 2nd QUARTER CALLOUT/REPAIR SUMMARY TABLE

Camp Ravenna Joint Military Training Center 2nd Qtr FY2016 LUC Inspection

CALLOUT	DATE	CONANAENITE	REPAIR DATE (if	US Sur	vey Ft
CALLOUT	DATE	COMMENTS	reported)	NORTHING	EASTING
		FY 2016 2nd Quarter Callouts			
NE39	1/20/2016	poacher hole	1/25/2016	572888	2365520
NE40	1/27/2016	large tree limb has fallen on the fence and damaged the fabric	2/2/2016	563200	2381066
NW16	1/19/2016	poacher hole	1/25/2016	569866	2351337
SW32	1/14/2016	poacher hole	2/29/2016	560748	2335631
SW33	1/14/2016	poacher hole	2/29/2016	561584	2336866
		Repairs of Previous Quarter's Callouts			
NE10A	12/3/2015	fence fabric and top rail damaged to permit access		563195	2380440
NE38	12/2/2015	12in tree blow down on top of fence		563279	2385540
SE02A	12/7/2015	washout {10x6 box culvert} from debris plugged security cage		551498	2361141
SW26	11/17/2015	blow down/top rail repaired by vista in-between inspections		549355	2332269
NE07	1 -1	poacher hole		572923	2365753
NE08	12/1/2015	poacher hole	1/12/2016	571065	2381537
NE09	12/1/2015	poacher hole	1/12/2016	571077	2381869
NE24A	11/18/2015	repeat poacher hole in fence		572341	2379439
NW14		poacher hole in fence		562792	2339131
NW15	11/30/2015	poacher hole in new section of fence	12/21/2015	570632	2352984
SW25		poacher hole		549381	2334296
SW27		fence fabric has been detached from 4 posts		551961	2330049
SW28		poacher hole		558184	2328802
SW29	11/23/2015	poacher hole in fence		560157	2333938
SW30		poacher hole in fence		562148	2337710
SW31	12/8/2015	abandoned railroad utility pole has fallen onto fence	12/15/2015	560476	2335035

Repaired 1st Quarter
Repaired 2nd Quarter

NE (Northeast) Quadrant



LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair Photo NE7 dated 01/22/2016

PHOTO NE7 discovered 11/18/2015



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DETAIL SHEET FOR ZE



LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair photo NE8 dated 01/22/2016

PHOTO NE8 discovered 12/01/2015



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LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 **PERIMETER FENCE INSPECTION**

Repair photo NE9 dated 01/22/2016

PHOTO NE9 discovered 12/01/2015



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LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

REPAIR PHOTO NE10A dated 12/03/2015

PHOTO NE10A discovered 08/06/2015



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LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair photo NE24A dated 01/22/2016

PHOTO NE24A discovered 11/18/2015



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LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO NE39 discovered 01/20/2016

NE39 reported as repaired on was 01/25/2016 after the perimeter fence inspection in this area. A photograph of the repair will be provided in the "FY 2016 Quarter Land Use Control Third Inspection, RVAAP-05 Winklepeck Burning Grounds".



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DETAIL SHEET FOR **NE39**



LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO NE40 discovered 01/27/2016

NE40 was reported as repaired on 01/25/2016 after the perimeter fence inspection in this area. A photograph of the repair will be provided in the "FY 2016 Third Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds".



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NW (Northwest) Quadrant



LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair photo NW14 dated 01/14/2016

PHOTO NW14 discovered 11/23/2015



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LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair Photo NW15 dated 01/20/2016

PHOTO NW15 discovered 11/30/2015



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LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

was reported NW16 as repaired on 01/25/2016 after the perimeter fence inspection in this area. A photograph of the repair will be provided in the "FY 2016 Third Quarter Land Use Control Inspection, **RVAAP-05** Winklepeck Burning Grounds".

PHOTO NW16 discovered 01/19/2016

Camp Ravenna Joint Military Training Center



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ETAIL SHEET FOR NW16

SE (Southeast) Quadrant

DETAIL SHEET FOR SE2A



LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

REPAIR PHOTO SE2A dated 12/07/2015

PHOTO SE2A discovered 08/10/2015





DETAIL SHEET FOR ິ E2A

SW (Southwest) Quadrant



LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair Photo SW25 dated 01/12/2016

PHOTO SW25 discovered 11/17/2015



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DETAIL

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LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO SW26 repaired by Vista Sciences in-between inspections 11/17/2015



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LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair photo SW27 dated 01/12/2016

PHOTO SW27 discovered 11/17/2015



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LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair Photo SW28 dated 01/13/2016

PHOTO SW28 discovered 11/19/2015



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LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair photo SW29 dated 01/13/2016

PHOTO SW29 discovered 11/23/2015



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LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair photo SW30 dated 01/14/2016

PHOTO SW30 discovered 11/23/2015



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DETAIL SHEET FOR SW30



LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair photo SW31 dated 01/14/2016

PHOTO SW31 discovered 12/08/2015



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LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

SW32 was reported as repaired on 01/25/2016 after the perimeter fence inspection in this area. A photograph of the repair will be provided in the "FY 2016 Third Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds".

PHOTO SW32 discovered 01/14/2016



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Portage & Trumbull County





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LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO SW33 discovered 01/14/2016

SW33 reported repaired was as on the 01/25/2016 after perimeter fence inspection in this area. A photograph of the repair will be provided in the "FY 2016 Third Use Land Control Inspection, Quarter RVAAP-05 Winklepeck Burning Grounds".



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Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant

Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

ATTACHMENT 2

Supplemental Detail Sheet No. 1

Callout Repair Log

Supplemental Detail Sheet No. 1



SUPPLEMENTAL DETAIL SHEET NO.1 LAND USE CONTROL (LUC) INSPECTION PERIMETER FENCE INSPECTION 2nd QUARTER FY2016

PHOTO N0.2 01/28/2016

PHOTO N0.4 01/28/2016





PHOTO No.1 01/28/2016

PHOTO N0.3 01/28/2016

PHOTO IMAGES WITHIN THE WINKLEPECK BURNING GROUNDS (RVAAP-05)

Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP

Ohio Army National Guard







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Camp Ravenna JMTC 1438 State Route 534 SW Newton Falls, OH 44444 Don Trocchio, PS don.trocchio@vistasciences.com

MGRS 17T NF01946150 (NAD83)

Callout Repair Log

Location of Fence Section Repaired	Description of Repair	Initials of person Completing Repair	Date of Repair	Notes
SW 31	Remove Utility Pole	RF	12/15/15	
NW 15	Poncher Hole - Repaired	RF	12/15/15	
NE 39	REPLACED FABRIC	RMF REM	1-25-16	
NW 16	Poncher Hole - Repaired REPLACED FABRIC REPLACED FABRIC	RMF REM	1-25-16	
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Location of Fence Section Repaired	Description of Repair	Initials of person Completing Repair	Date of Repair	Notes
NW15 NEB	REPLACED FABRIC OVER HOLE REPLACED FABRIC REPLACED FABRIC	RMF REM RMF BLS RMF BLS	12/21/15	
NEB	REPLACED FABRIC	RMF BLS	1/12/16	
NE9	KEPLAKED FABRIC	RMF BLS	1/12/16	

Location of Fence Section Repaired	Description of Repair	Initials of person Completing Repair	Date of Repair	Notes
NE40	REDIALET) FABRIC, BARB ARMS	RMF REM	2-2-16	
	REPLACET) FABRIC, BARB ADMS REMOVED TREE	*		
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Location of Fence Section Repaired	Description of Repair	Initials of person Completing Repair	Date of Repair	Notes
5W 32	REPLACED FABRIC ADD HOLE	BLS RILF	2/29/16	
SW 33	REPLACED FABRIC AER HAVE REPLACED FABRIC OVER HOLE	BLS RMF	2/29/14	
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### Appendix G

#### Final FY 2016 Third Quarter Land Use Control Inspection for RVAAP-05 Winklepeck Burning Grounds

Final

FY 2016 Third Quarter Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

> Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant Portage and Trumbull Counties, Ohio

> > Contract No. W912QR-13-C-0031

Prepared for:



U.S. Army Corps of Engineers Louisville District

#### Prepared by:



600 E. Montana Ave. Las Cruces, NM 88001

August 26, 2016
Final

## FY 2016 Third Quarter Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant Portage and Trumbull Counties, Ohio

Contract No. W912QR-13-C-0031

Prepared for:



U.S. Army Corps of Engineers Louisville District

Prepared by:



600 E. Montana Ave. Las Cruces, NM 88001

August 26, 2016

### (Placeholder for Ohio EPA Approval Letter)

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for the Final FY 2016 Third Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds

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Gail Harris, AR Manager – Camp Ravenna	2	2

AR = Administrative Record ARNG = Army National Guard ARNG-IED-CR = Army National Guard – Installation Environmental Division – Cleanup Restoration CO = Central Office DERR = Division of Environmental Response and Revitalization EPA = Environmental protection Agency NEDO = Northeast District Office OHARNG = Ohio Army National Guard USACE = U.S. Army Corps of Engineers

### LIST OF ACRONYMS AND ABBREVIATIONS

AOC	Area of Concern
ARNG-ILE	Army National Guard Environmental Programs Division
bgs	below ground surface
Camp Ravenna	Camp Ravenna Joint Military Training Center
EQM	Environmental Quality Management, Inc.
FWGWMPP	Facility-Wide Ground Water Monitoring Program Plan
FWSAP	Facility-Wide Sampling and Analysis Plan
IRP	Installation Restoration Program
LUC	Land Use Control
MEC	Munitions and Explosives of Concern
МК	Mark
MRS	Munitions Response Site
MSG	Master Sergeant
Ohio EPA	Ohio Environmental Protection Agency
OHARNG	Ohio Army National Guard
PS	Professional Surveyor
PMP	Property Management Plan
RVAAP	Ravenna Army Ammunition Plant
SOP	Standard Operating Procedure
UXO	Unexploded Ordnance
WBG	Winklepeck Burning Grounds

#### Camp Ravenna Joint Military Training Center (Camp Ravenna) / Former Ravenna Army Ammunition Plant (RVAAP) Quarterly Land Use Control (LUC) Inspection Form RVAAP-05 Winklepeck Burning Grounds

In accordance with the Camp Ravenna/former RVAAP Property Management Plan (PMP) dated August 2012 and Appendix A-1, an inspection of RVAAP-05 Winklepeck Burning Grounds (WBG) was conducted by <u>Don Trocchio</u> on <u>April 11 – 15</u>, 18 – 21, and 25 - 28, 2016.

The quarterly inspections required by the PMP include the following:

- Review of LUC training and documentation as applicable to WBG.
- Evaluation of the Camp Ravenna perimeter fence to ensure that it is maintained in a manner that is protective and effective control and deters trespassers.
- Evaluation of activities at WBG to ensure that all activities executed within WBG are in compliance with Ohio Army National Guard (OHARNG) range safety regulations/standard operation procedure (SOP), established digging restrictions, and established exposure limits. All digging, intrusive activities, or excavation on the WBG Area of Concern (AOC) outside of the Unexploded Ordnance (UXO)/ Munitions and Explosives of Concern (MEC)-cleared areas within the Mark (MK) 19 Grenade Machinegun Range is prohibited with the following exceptions:
  - Routine maintenance of roads, ditches, culverts and activities listed in A-1.4 of the PMP (maintenance of targetry and associated lifting mechanisms, range maintenance activities including removal of practice rounds, vegetation management, compatible natural resource management activities, nuisance wildlife control, drainage maintenance, wetland delineation, grassland management, scientific research and sampling activities);
  - Ground surface repairs by authorized range personnel in support of authorized range activities; and
  - Digging along target array areas by authorized range personnel to a depth of 1 foot below ground surface (bgs).

This shall also include evaluation of required range signage. The range is required to be marked with signage in conformance with the requirements of the current Department of Army regulations.

- Evaluation of groundwater activities to ensure that any groundwater activities are being conducted in a manner consistent with established LUCs. Groundwater use or extraction of groundwater located at or underlying the WBG AOC or any portion thereof is prohibited, except for the following:
  - 1. The installation, development, purging, and sampling of new or existing monitoring wells in accordance with the most recent Facility-Wide Sampling and Analysis Plan (FWSAP) as part of the AOC-specific Installation Restoration Program (IRP) or Facility-Wide Ground Water Monitoring Program Plan (FWGWMPP).
  - 2. The abandonment and replacement of monitoring wells damaged by activities conducted on Camp Ravenna and wells no longer utilized as part of IRP or FWGWMPP activities, in accordance with Ohio Environmental Protection Agency (Ohio EPA) guidance, the most recent FWSAP, and applicable Ohio Administrative Code requirements.

LUC deficiencies or inconsistent land uses that are identified must be reported and identified on the quarterly inspection form/report. These deficiencies must also be reported immediately to the Army, along with suggestions on how to remedy the deficiencies.

#### Review of LUCs – Management/Effectiveness/Corrective Action

#### 1. AOC Map

Is the AOC map current with respect to AOC boundaries, land activities, and prescribed LUCs?

The AOC map was reviewed on April 7, 2016 by Don Trocchio, Professional Surveyor (PS), and it is current with respect to AOC boundaries, land activities and prescribed LUCs.

#### 2. Camp Ravenna Perimeter Fence

Is the Camp Ravenna perimeter fence and associated gates being maintained in order to be an effective and protective control and deter trespassers?

The perimeter fence is currently being maintained by OHARNG staff to ensure it is an effective and protective land use control. Attachment 1, Figure 1 Index Map and Summary Table, and associated Detail Sheets present the damaged fence areas and photographs of areas that were repaired during the last (2nd) quarter, but after the last (2nd) quarter's inspection had occurred. Repaired callouts NW17, NW18, SW34 and SW35 were reported as being repaired after the 3rd quarter perimeter fence inspection had occurred (see Attachment 2, Callout Repair Log). Photographs of these repaired areas will be provided in the FY 2016 4th Quarter LUC Inspection report.

#### **3.** Activities and Land Use

a.) This AOC is restricted from residential land use. Has residential use occurred? Have other land use changes occurred?

Based on an interview with OHARNG Range Control Staff (Master Sergeant [MSG] Rex Hufenbach) on April 25, 2016 at the Camp Ravenna Headquarters Building, no residential land use has occurred. Additionally, there has been no change in land use at the AOC since the previous inspection.

b.) What activities have occurred at WBG since the last inspection?

The WBG/MK19 Range has been utilized for training purposes (i.e., MK19 Range firing/activities) since the last inspection. The contractor TEC Weston installed dedicated bladder pumps in groundwater monitoring wells. The contractor TetraTech/Timberline visited the site to confirm logistics for the upcoming removal action. All activities are in accordance with designated LUCs/restrictions.

c.) Are activities (digging, range maintenance etc.) at WBG being conducted in compliance with OHARNG range safety regulations/SOP and established digging restrictions?

Based on an interview with MSG Rex Hufenbach on April 25, 2016, all activities within WBG are being conducted in compliance with OHARNG Range Safety Regulations/SOP and established digging restrictions. All activities are in accordance with those set forth in the PMP.

d.) Is the required range signage in place and functional? The range is required to be marked with signage in conformance with the requirements of the current Department of Army regulations. If not, describe what corrective actions will be undertaken?

MSG Rex Hufenbach stated all signage is placed at 200-meter intervals and found to be upright and intact and in conformance with Army regulations.

e.) Groundwater: Groundwater use or extraction of groundwater located at or underlying the WBG AOC or any portion thereof is prohibited, except for the following:

- 1. The installation, development, purging, and sampling of new or existing monitoring wells in accordance with the most recent FWSAP as part of the AOC-specific IRP or FWGWMPP.
- 2. The abandonment and replacement of monitoring wells damaged by Installation activities, and wells no longer utilized as part of IRP or FWGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.
- f.) Have any groundwater activities been conducted and, if yes, are they within the established control parameters?

Groundwater is sampled on a semi-annual basis under the FWGWMPP. During the FY 2016 3rd quarter, dedicated bladder pumps were installed in the groundwater monitoring wells at the MK19 range. During an interview on April 27, 2016 with Kevin Sedlak (Restoration Project Manager, Army National Guard Installation Environmental Division [ARNG-IED] Clean-up), he stated that all Ground Water Monitoring activity is conducted in accordance with the FWGWMPP and the parameters for groundwater monitoring as set forth in the PMP, Appendix A-1. No groundwater sampling activities occurred during this quarter. The next FWGWMPP sampling event is currently scheduled for May 2016.

#### 4. Inspections and Reporting

a.) Inspections are required on a quarterly basis. Are quarterly inspections being completed?

Quarterly Inspections have been completed for FYs 2013, 2014, 2015. This is the third Quarterly Inspection to be conducted for FY 2016. All Quarterly Inspections for FYs 2013, 2014, 2015 and 2016 were conducted in accordance with the approved PMP dated August 2012.

b.) An annual report is required. Has the annual report been completed and submitted?

The Final FY 2015 Annual Report was submitted on January 27, 2016 and approved on March 15, 2016.

#### 5. Training (as applicable to WBG)

a.) Was LUC training (specific to WBG) being conducted as applicable? Describe the training (content/who attended/who provided/documentation of training).

LUC training is provided annually to all Camp Ravenna staff and tenant units at Camp Ravenna. The LUC training is typically provided by Katie Tait and/or Tim Morgan, Camp Ravenna-Environmental. The training provides an overview of the history of the facility, the ongoing cleanup work, the location of the cleanup sites, any land use controls/restrictions on AOCs/Munitions Response Sites (MRS), and specific restrictions for WBG. Using units also receive an in-brief prior to firing on the range. Using units and tenant units at Camp Ravenna are not allowed down range. Environmental contractors who access WBG are also provided with an in-brief which informs them of the LUCs/restrictions at the AOC. They must read and sign the in-brief form. Training materials and rosters are on file in the Camp Ravenna Environmental Office. LUC training specific to WBG was held on February 23 and 25, 2016 for Camp Ravenna units/staff. Additional training was conducted in April 2016 for contractors from AECOM, ATC Group Services, Cardno, TetraTech and Timberline. Training will be conducted for additional Camp Ravenna staff and contractors on an as-needed basis.

b.) If training was not provided, explain why and what corrective actions were initiated?

N/A

#### 6. Description of any observed/noted LUC violation(s):

The Camp Ravenna perimeter fence had four missing sections/openings/holes in the fence fabric and areas that are in disrepair that were observed and documented in this report. These areas have been assigned the following call-out numbers: SW34, SW35, NW17, and NW18. See Attachment 1 – Figure 1 Index Map to Facility Perimeter Fence Inspection and attached Detail Sheets.

#### 7. Date of Notification of LUC violation (if applicable):

The Army was notified via e-mail on April 13, 14 and 18, 2016 of four new fence defects discovered during the 3rd Quarter FY 2016 facility perimeter fence evaluation. These locations are SW34, SW35, NW17, and NW18 (See Attachment 1, Figure 1 Index Map and Summary Table, and associated detail sheets).

**8.** Description of any corrective actions taken to remedy observed LUC violation(s) or recommended corrective actions:

As reported during the third quarter LUC inspection, the following perimeter fence defects were repaired: NW17, NW18, SW34 and SW35.

Attachment 1 - Figure 1 Index Map to Facility Perimeter Fence Inspections shows previous fence deficiencies that were repaired during the second quarter, but after the second quarter inspection had been conducted.

These efforts of the OHARNG staff to repair the identified deficiencies in the fence have improved the condition of the fence since the last inspection (See Attachment 1, FY 2016 Callout/Repair Table).

#### 9. Additional Notes/Comments:

As requested by the Ohio EPA, WBG photographs taken during the 3rd Quarter LUC Inspection are included with this report (Attachment 2, Supplemental Detail Sheet No. 1).

#### Original Inspection Completed by:

Signature:	
Porc	$\rightarrow$
Printed Name: Don Trocchio	
Title: Professional Surveyor	Organization: Vista Sciences Corporation
Date: April 28, 2016	

## Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant

## FY 2016 Third Quarter Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

## **ATTACHMENT 1**

# Figure 1 Index Map FY 2016 Callout/Repair Summary Table Detailed Quadrant Maps

## Figure 1 Index Map





## FIGURE 1 INDEX MAP TO FACILITY PERIMETER FENCE INSPECTION

### Legend

#### LUC Inspection of Perimeter Fence

- Opening in fence (2'≥) and/or fabric missing/damaged (4 locations)
- Repaired (21 Locations)
- Gates (26 locations for reference only, no detail sheets) All gates appear to be maintained and are in working order

- Perimeter Fence Evaluated (29.6 miles)



SEE ATTACHED SUMMARY TABLE AND DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

## Camp Ravenna Joint Military Training Center



### Portage & Trumbull County LOCATOR MAP



**Ohio Army National Guard** 







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## US Army Corps of Engineers

600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

### Louisville District



## FY 2016 Callout/Repair Summary Table

#### FY 2016 3rd QUARTER CALLOUT/REPAIR SUMMARY TABLE Camp Ravenna Joint Military Training Center 3rd Qtr FY2016 LUC Inspection

CALLOUT DATE		COMMENTS	REPAIR DATE (if	US Survey Ft		
CALLOUT	DATE	COMMENTS	reported)	NORTHING	EASTING	
		FY 2016 3rd Quarter Callouts	·			
SW34	4/12/2016	poacher hole		551036	2329710	
SW35	4/13/2016	poacher hole		560125	2333841	
			•	•		
NW17	4/13/2016	poacher hole		562602	2338724	
NW18	4/15/2016	poacher hole		563194	2340084	
		Repairs of Previous Quarter's Callouts	·			
NE07	11/18/2015	poacher hole		572923	2365753	
NE08	12/1/2015	poacher hole	1/12/2016	571065	2381537	
NE09	12/1/2015	poacher hole	1/12/2016	571077	2381869	
NE10A	12/3/2015	fence fabric and top rail damaged to permit access		563195	2380440	
NE24A	11/18/2015	repeat poacher hole in fence		572341	2379439	
NE38	12/2/2015	12in. tree blow down on top of fence		563279	2385540	
NE39	1/20/2016	poacher hole	1/25/2016	572888	2365520	
NE40	1/27/2016	large tree limb has fallen on the fence and damaged the fabric	2/2/2016	563200	2381066	
SE02A	12/7/2015	washout {10x6 box culvert} from debris plugged security cage		551498	2361141	
		•				
NW14	11/23/2015	poacher hole in fence		562792	2339131	
NW15	11/30/2015	poacher hole in new section of fence	12/21/2015	570632	2352984	
NW16	1/19/2016	poacher hole	1/25/2016	569866	2351337	
SW25	11/17/2015	poacher hole		549381	2334296	
SW26	11/17/2015	blow down/top rail repaired by vista in-between inspections		549355	2332269	
SW27	11/17/2015	fence fabric has been detached from 4 posts		551961	2330049	
SW28	11/19/2015	poacher hole		558184	2328802	
SW29	11/23/2015	poacher hole in fence		560157	2333938	
SW30	11/23/2015	poacher hole in fence		562148	2337710	
SW31	12/8/2015	abandoned railroad utility pole has fallen onto fence	12/15/2015	560476	2335035	
SW32	1/14/2016	poacher hole	2/29/2016	560748	2335631	
SW33	1/14/2016	poacher hole	2/29/2016	561584	2336866	

Repaired 1st Quarter	
Repaired 2nd Quarter	
Repaired 3rd Quarter	

NE (Northeast) Quadrant

## **DETAIL SHEET FOR NE39**



# LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair photo NE39 dated 4/19/2016

PHOTO NE39 discovered 01/20/2016



## **Camp Ravenna Joint Military Training Center**



Portage & Trumbull County LOCATOR MAP





Produced in April 2016 for:



## **US Army Corps of** Engineers

600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

### **Louisville District**





## **DETAIL SHEET FOR NE40**



# LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair photo NE40 dated 04/26/2016

PHOTO NE40 discovered 01/27/2016



## Camp Ravenna Joint Military Training Center



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DETAIL





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## NW (Northwest) Quadrant

## **DETAIL SHEET FOR NW16**



# LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair Photo NW16 dated 04/18/2016

PHOTO NW16 discovered 01/19/2016



## Camp Ravenna Joint Military Training Center



### Portage & Trumbull County LOCATOR MAP





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minim

## US Army Corps of Engineers

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### Louisville District



Projection Datum is NAD83, Ohio State Plane Rectangular Grid, North Zone



**DETAIL SHEET FOR NW16** 



# LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO NW17 discovered 4/13/2016

NW17 was reported as repaired on 05/05/2016 after the perimeter fence inspection in this area. A photograph of the repair will be provided in the *FY 2016 4th Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds.* 



## Camp Ravenna Joint Military Training Center



Portage & Trumbull County





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# LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO NW18 discovered 4/15/2016

NW18 was reported as repaired on 05/05/2016 after the perimeter fence inspection in this area. A photograph of the repair will be provided in the *FY 2016 4th Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds.* 



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Portage & Trumbull County





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**DETAIL SHEET FOR NW18** 

## SE (Southeast) Quadrant

(No Detail Sheets for FY 2016 3rd Quarter LUC Inspection Report)

## SW (Southwest) Quadrant

## **DETAIL SHEET FOR SW32**



# LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair photo SW32 dated 4/13/2016

PHOTO SW32 discovered 1/14/2016



## Camp Ravenna Joint Military Training Center



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### Louisville District





## **DETAIL SHEET FOR SW33**



# LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair photo SW33 dated 4/13/2016

PHOTO SW33 discovered 01/14/2016



## **Camp Ravenna Joint Military Training Center**



Portage & Trumbull County LOCATOR MAP





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### **Louisville District**







# LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2016 PERIMETER FENCE INSPECTION

SW34 was reported as repaired on 05/05/2016 after the perimeter fence inspection in this area. A photograph of the repair will be provided in the *FY 2016 4th Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds.* 

PHOTO SW34 discovered 04/12/2016

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# Portage & Trumbull County





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### Louisville District





## **DETAIL SHEET FOR SW35**



# LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2016 PERIMETER FENCE INSPECTION

SW35 was reported as repaired on 05/05/2016 after the perimeter fence inspection in this area. A photograph of the repair will be provided in the FY 2016 4th Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds.

PHOTO SW35 discovered 4/13/2016

## Camp Ravenna Joint Military Training Center



# Portage & Trumbull County







Produced in April 2016 for:



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**DETAIL SHEET FOR SW35** 

## Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant

## **Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds**

## ATTACHMENT 2

## **Supplemental Detail Sheet No. 1**

**Callout Repair Log** 

Supplemental Detail Sheet No. 1



# SUPPLEMENTAL DETAIL SHEET NO.1 LAND USE CONTROL (LUC) INSPECTION PERIMETER FENCE INSPECTION 3rd QUARTER FY2016

PHOTO N0.2 04/27/2016

PHOTO N0.4 04/27/2016







PHOTO No.1 04/27/2016

PHOTO N0.3 04/27/2016

# PHOTO IMAGES WITHIN THE WINKLEPECK BURNING GROUNDS (RVAAP-05)

## Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP









Produced in April 2016 for:



## US Army Corps of Engineers

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### **Louisville District**

#### Projection Datum is NAD83, Ohio State Plane Rectangular Grid, North Zone

0	345	690 I			1,380 I	1	2,070 Feet
		Bar	Scal	e in	Feet		



Camp Ravenna JMTC 1438 State Route 534 SW Newton Falls, OH 44444 Don Trocchio, PS don.trocchio@vistasciences.com

MGRS 17T NF01946150 (NAD83)

**Callout Repair Log** 

Location of Fence Section	Description of Repair	Initials of person Completing	Date of Repair	Notes
Repaired		Repair		
5W34	KERAIRED HABRIL	RMF REM	5/5/16	
SW35	KERKLED FABRIC	Ruf REM	5/5/16	
NWIB	REPLACED FABRIC	RMF REM	5/5/16	
NW 17	REPLACED FARLY	RMF REM	5/5/16	
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PLALET) FABRIC, BARBARMS MOVED TREE	Repair RMF REM	2-2-16	
MOVED TREE			
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## **Appendix H**

## Final FY 2016 Fourth Quarter Land Use Control Inspection for RVAAP-05 Winklepeck Burning Grounds

Final

FY 2016 Fourth Quarter Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

> Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant Portage and Trumbull Counties, Ohio

> > Contract No. W912QR-13-C-0031

Prepared for:



U.S. Army Corps of Engineers Louisville District

### Prepared by:



600 E. Montana Ave. Las Cruces, NM 88001

September 29 2016

Final

FY 2016 Fourth Quarter Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

> Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant Portage and Trumbull Counties, Ohio

> > Contract No. W912QR-13-C-0031

Prepared for:



U.S. Army Corps of Engineers Louisville District

Prepared by:



600 E. Montana Ave. Las Cruces, NM 88001

September 29, 2016

### (Placeholder for Ohio EPA Approval Letter)
#### **Document Distribution**

for the Final FY 2016 Fourth Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds

> Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant Portage and Trumbull Counties, Ohio

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Bob Guthrie, Management Solutions, LLC	0	Email cover letter only
Gail Harris, AR Manager – Camp Ravenna	2	2 CDs

AR = Administrative Record ARNG = Army National Guard ARNG-IED-CR = Army National Guard – Installation Environmental Division – Cleanup Restoration CO = Central Office DERR = Division of Environmental Response and Revitalization EPA = Environmental protection Agency NEDO = Northeast District Office OHARNG = Ohio Army National Guard USACE = U.S. Army Corps of Engineers

#### LIST OF ACRONYMS AND ABBREVIATIONS

AOC	Area of Concern
ARNG-ILE	Army National Guard Environmental Programs Division
bgs	below ground surface
Camp Ravenna	Camp Ravenna Joint Military Training Center
EQM	Environmental Quality Management, Inc.
FWGWMPP	Facility-Wide Ground Water Monitoring Program Plan
FWSAP	Facility-Wide Sampling and Analysis Plan
IRP	Installation Restoration Program
LUC	Land Use Control
MEC	Munitions and Explosives of Concern
МК	Mark
MRS	Munitions Response Site
MSG	Master Sergeant
Ohio EPA	Ohio Environmental Protection Agency
OHARNG	Ohio Army National Guard
PS	Professional Surveyor
PMP	Property Management Plan
RVAAP	Ravenna Army Ammunition Plant
SOP	Standard Operating Procedure
UXO	Unexploded Ordnance
WBG	Winklepeck Burning Grounds

#### Camp Ravenna Joint Military Training Center (Camp Ravenna) / Former Ravenna Army Ammunition Plant (RVAAP) Quarterly Land Use Control (LUC) Inspection Form RVAAP-05 Winklepeck Burning Grounds

In accordance with the Camp Ravenna/former RVAAP Property Management Plan (PMP) dated August 2012 and Appendix A-1, an inspection of RVAAP-05 Winklepeck Burning Grounds (WBG) was conducted by Don Trocchio on July 11 - 14, 18 - 21 and 25 - 28, 2016.

The quarterly inspections required by the PMP include the following:

- Review of LUC training and documentation as applicable to WBG.
- Evaluation of the Camp Ravenna perimeter fence to ensure that it is maintained in a manner that is protective and effective control and deters trespassers.
- Evaluation of activities at WBG to ensure that all activities executed within WBG are in compliance with Ohio Army National Guard (OHARNG) range safety regulations/standard operation procedure (SOP), established digging restrictions, and established exposure limits. All digging, intrusive activities, or excavation on the WBG Area of Concern (AOC) outside of the Unexploded Ordnance (UXO)/ Munitions and Explosives of Concern (MEC)-cleared areas within the Mark (MK) 19 Grenade Machinegun Range is prohibited with the following exceptions:
  - Routine maintenance of roads, ditches, culverts and activities listed in A-1.4 of the PMP (maintenance of targetry and associated lifting mechanisms, range maintenance activities including removal of practice rounds, vegetation management, compatible natural resource management activities, nuisance wildlife control, drainage maintenance, wetland delineation, grassland management, scientific research and sampling activities);
  - Ground surface repairs by authorized range personnel in support of authorized range activities; and
  - Digging along target array areas by authorized range personnel to a depth of 1 foot below ground surface (bgs).

This shall also include evaluation of required range signage. The range is required to be marked with signage in conformance with the requirements of the current Department of Army regulations.

- Evaluation of groundwater activities to ensure that any groundwater activities are being conducted in a manner consistent with established LUCs. Groundwater use or extraction of groundwater located at or underlying the WBG AOC or any portion thereof is prohibited, except for the following:
  - 1. The installation, development, purging, and sampling of new or existing monitoring wells in accordance with the most recent Facility-Wide Sampling and Analysis Plan (FWSAP) as part of the AOC-specific Installation Restoration Program (IRP) or Facility-Wide Ground Water Monitoring Program Plan (FWGWMPP).
  - 2. The abandonment and replacement of monitoring wells damaged by activities conducted on Camp Ravenna and wells no longer utilized as part of IRP or FWGWMPP activities, in accordance with Ohio Environmental Protection Agency (Ohio EPA) guidance, the most recent FWSAP, and applicable Ohio Administrative Code requirements.

LUC deficiencies or inconsistent land uses that are identified must be reported and identified on the quarterly inspection form/report. These deficiencies must also be reported immediately to the Army, along with suggestions on how to remedy the deficiencies.

#### **Review of LUCs – Management/Effectiveness/Corrective Action**

#### 1. AOC Map

Is the AOC map current with respect to AOC boundaries, land activities, and prescribed LUCs?

The AOC map was reviewed on July 11, 2016 by Don Trocchio, Professional Surveyor (PS), and it is current with respect to AOC boundaries, land activities and prescribed LUCs.

#### 2. Camp Ravenna Perimeter Fence

Is the Camp Ravenna perimeter fence and associated gates being maintained in order to be an effective and protective control and deter trespassers?

The perimeter fence is currently being maintained by OHARNG staff to ensure it is an effective and protective land use control. Attachment 1, Figure 1 Index Map and Summary Table, and associated Detail Sheets present the newly damaged fence areas (NE41, NW1C, SW36, SW37 and SW38) and photographs of areas that were repaired during the last (3rd) quarter, but after the last (3rd) quarter's inspection had occurred (NW17, NW18, SW34 and SW35). Repaired callouts NE41, NW1C, SW36, SW37 and SW38 were reported as being repaired after the 4th quarter perimeter fence inspection had occurred (see Attachment 2, Callout Repair Log). Photographs of these repaired areas will be provided in the FY 2017 1st Quarter LUC Inspection report.

#### **3.** Activities and Land Use

a.) This AOC is restricted from residential land use. Has residential use occurred? Have other land use changes occurred?

Based on an interview with OHARNG Range Control Staff (Master Sergeant [MSG] Rex Hufenbach) on July 28, 2016 at the Camp Ravenna Headquarters Building, no residential land use has occurred. Additionally, there has been no change in land use at the AOC since the previous inspection.

b.) What activities have occurred at WBG since the last inspection?

The WBG/MK19 Range has been utilized for training purposes (i.e., MK19 Range firing/activities) since the last inspection. Fire breaks have been mowed since the last inspection and the entire WBG/Mark 19 Range is scheduled to be mowed in August 2016. Static water levels in the WBG/Mark 19 Range groundwater monitoring wells were measured by TEC/Weston in May 2016. All activities are in accordance with designated LUCs/restrictions.

c.) Are activities (digging, range maintenance etc.) at WBG being conducted in compliance with OHARNG range safety regulations/SOP and established digging restrictions?

Based on an interview with MSG Rex Hufenbach on July 28, 2016, all activities within WBG are being conducted in compliance with OHARNG Range Safety Regulations/SOP and established digging restrictions. All activities are in accordance with those set forth in the PMP.

d.) Is the required range signage in place and functional? The range is required to be marked with signage in conformance with the requirements of the current Department of Army regulations. If not, describe what corrective actions will be undertaken?

MSG Rex Hufenbach stated all signage is placed at 200-meter intervals. Signage checking and maintenance was started May 2016 and is scheduled to be completed in September 2016.

e.) Groundwater: Groundwater use or extraction of groundwater located at or underlying the WBG AOC or any portion thereof is prohibited, except for the following:

- 1. The installation, development, purging, and sampling of new or existing monitoring wells in accordance with the most recent FWSAP as part of the AOC-specific IRP or FWGWMPP.
- 2. The abandonment and replacement of monitoring wells damaged by Installation activities, and wells no longer utilized as part of IRP or FWGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.
- f.) Have any groundwater activities been conducted and, if yes, are they within the established control parameters?

Groundwater is sampled on a semi-annual basis under the FWGWMPP. During an interview on July 26, 2016 with Kevin Sedlak (Restoration Project Manager, Army National Guard Installation Environmental Division [ARNG-IED] Clean-up), he stated that all Ground Water Monitoring activity is conducted in accordance with the FWGWMPP and the parameters for groundwater monitoring as set forth in the PMP, Appendix A-1. Static water levels were measured in the WBG/Mark 19 Range groundwater monitoring wells in May 2016. The next FWGWMPP sampling event is currently scheduled for September 2016.

#### 4. Inspections and Reporting

a.) Inspections are required on a quarterly basis. Are quarterly inspections being completed?

Quarterly Inspections have been completed for FYs 2013, 2014, 2015. This is the fourth Quarterly Inspection to be conducted for FY 2016. All Quarterly Inspections for FYs 2013, 2014, 2015 and 2016 were conducted in accordance with the approved PMP dated August 2012.

b.) An annual report is required. Has the annual report been completed and submitted?

The Final FY 2015 Annual Report was submitted on January 27, 2016 and approved on March 15, 2016.

#### 5. Training (as applicable to WBG)

a.) Was LUC training (specific to WBG) being conducted as applicable? Describe the training (content/who attended/who provided/documentation of training).

LUC training is provided annually to all Camp Ravenna staff and tenant units at Camp Ravenna. The LUC training is typically provided by Katie Tait and/or Tim Morgan, Camp Ravenna-Environmental. The training provides an overview of the history of the facility, the ongoing cleanup work, the location of the cleanup sites, any land use controls/restrictions on AOCs/Munitions Response Sites (MRS), and specific restrictions for WBG. Using units also receive an in-brief prior to firing on the range. Using units and tenant units at Camp Ravenna are not allowed down range. Environmental contractors who access WBG are also provided with an in-brief which informs them of the LUCs/restrictions at the AOC. They must read and sign the in-brief form. Training materials and rosters are on file in the Camp Ravenna Environmental Office. LUC training specific to WBG was held on February 23 and 25, 2016 for Camp Ravenna units/staff. Training will be conducted for additional Camp Ravenna staff and contractors on an as-needed basis.

b.) If training was not provided, explain why and what corrective actions were initiated?

N/A

#### 6. Description of any observed/noted LUC violation(s):

The Camp Ravenna perimeter fence had five missing sections/openings/holes in the fence fabric and areas that are in disrepair that were observed and documented in this report. These areas have been assigned the following call-out numbers: NE41, NW1C, SW36, SW37, and SW38. See Attachment 1 - Figure 1 Index Map to Facility Perimeter Fence Inspection and attached Detail Sheets.

#### 7. Date of Notification of LUC violation (if applicable):

The Army was notified via e-mail on July 12, 13, 19, 20 and 25, 2016 of five new fence defects discovered during the 4th Quarter FY 2016 facility perimeter fence evaluation. These locations are NE41, NW1C, SW36, SW37, and SW38 (See Attachment 1, Figure 1 Index Map and Summary Table, and associated detail sheets).

## **8.** Description of any corrective actions taken to remedy observed LUC violation(s) or recommended corrective actions:

As reported during the fourth quarter LUC inspection, the following perimeter fence defects were repaired: NE41, NW1C, SW36, SW37 and SW38. These repairs were made after the 4th Quarter inspection and photographs of these repairs will be presented in the FY 2017 1st Quarter LUC report.

Attachment 1 – Figure 1 Index Map to Facility Perimeter Fence Inspections shows photographs of previous fence deficiencies (SW34, SW35, NW17 and NW18) that were repaired during the third quarter, but after the third quarter inspection had been conducted.

These efforts of the OHARNG staff to repair the identified deficiencies in the fence have improved the condition of the fence since the last inspection (See Attachment 1, FY 2016 Callout/Repair Table).

#### 9. Additional Notes/Comments:

As requested by the Ohio EPA, WBG photographs taken during the 4th Quarter LUC Inspection are included with this report (Attachment 2, Supplemental Detail Sheet No. 1).

#### **Original Inspection Completed by:**

Signature:	$\checkmark$			
Printed Name: Don Trocchio				
Title: Professional Surveyor Organization: Vista Sciences Corporation				
Date: August 5, 2016				

## Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant

## FY 2016 Fourth Quarter Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

## **ATTACHMENT 1**

## Figure 1 Index Map FY 2016 Callout/Repair Summary Table Detailed Quadrant Maps

## **Figure 1 Index Map**

WINKLEPECK BURNING GROUNDS (WBG) RVAAP-05 LAND USE CONTROL (LUC) INSPECTION 4th Qtr. FY 2016



## FIGURE 1 INDEX MAP TO FACILITY PERIMETER FENCE INSPECTION

#### Legend

#### **LUC Inspection of Perimeter Fence**

- Opening in fence (2'≥) and/or fabric missing/damaged (5 locations)
- Repaired (25 Locations)
- Gates (26 locations for reference only, no detail sheets) All gates appear to be maintained and are in working order

- Perimeter Fence Evaluated (29.6 miles)



SEE ATTACHED SUMMARY TABLE AND DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

#### Camp Ravenna Joint Military Training Center



#### Portage & Trumbull County LOCATOR MAP



**Ohio Army National Guard** 







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#### Louisville District



## FY 2016 Callout/Repair Summary Table

#### FY 2016 4th QUARTER CALLOUT/REPAIR SUMMARY TABLE Camp Ravenna Joint Military Training Center 4th Qtr FY2016 LUC Inspection

CALLOUT	DATE	COMMENTS	<b>REPAIR DATE (if</b>	US Survey Ft				
CALLOUT DATE		COMINIENTS	reported)	NORTHING	EASTING			
FY 2016 4th Quarter Callouts								
SW36	7/11/2016	poacher hole	7/25/2016	548328	2353232			
SW37	7/12/2016	poacher hole at bottom of fence	7/25/2016	549355	2331868			
SW38	7/18/2016	poacher hole	7/25/2016	559324	2330662			
NE41	7/21/2016	tree blow down on fence		565895	2386901			
NW1C	7/19/2016	poacher hole		571637	2356382			
		Repairs of Previous Quarter's Callouts						
NE07	, -,	poacher hole		572923	2365753			
NE08	12/1/2015	poacher hole	1/12/2016	571065	2381537			
NE09	12/1/2015	poacher hole	1/12/2016	571077	2381869			
NE10A	12/3/2015	fence fabric and top rail damaged to permit access		563195	2380440			
NE24A	11/18/2015	repeat poacher hole in fence		572341	2379439			
NE38	12/2/2015	12in. tree blow down on top of fence		563279	2385540			
NE39	1/20/2016	poacher hole	1/25/2016	572888	2365520			
NE40	1/27/2016	large tree limb has fallen on the fence and damaged the fabric	2/2/2016	563200	2381066			
				•				
SE02A	12/7/2015	washout {10x6 box culvert} from debris plugged security cage		551498	2361141			
	•							
NW14	11/23/2015	poacher hole in fence		562792	2339131			
NW15	11/30/2015	poacher hole in new section of fence	12/21/2015	570632	2352984			
NW16	1/19/2016	poacher hole	1/25/2016	569866	2351337			
NW17	4/13/2016	poacher hole	5/5/2016	562602	2338724			
NW18	4/15/2016	poacher hole	5/5/2016	563194	2340084			
SW25	11/17/2015	poacher hole		549381	2334296			
SW26	11/17/2015	blow down/top rail repaired by vista in-between inspections		549355	2332269			
SW27	11/17/2015	fence fabric has been detached from 4 posts		551961	2330049			
SW28	11/19/2015	poacher hole		558184	2328802			
SW29	11/23/2015	poacher hole in fence		560157	2333938			
SW30	11/23/2015	poacher hole in fence		562148	2337710			
SW31	12/8/2015	abandoned railroad utility pole has fallen onto fence	12/15/2015	560476	2335035			
SW32	1/14/2016	poacher hole	2/29/2016	560748	2335631			
SW33	1/14/2016	poacher hole	2/29/2016	561584	2336866			
SW34	4/12/2016	poacher hole	5/5/2016	551036	2329710			
SW35	4/13/2016	poacher hole	5/5/2016	560125	2333841			

Repaired 1st Quarter
Repaired 2nd Quarter
Repaired 3rd Quarter
Repaired 4th Quarter

NE (Northeast) Quadrant

**DETAIL SHEET FOR NE41** 



## LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2016 PERIMETER FENCE INSPECTION

NE41 was reported as repaired on 08/11/2016 after the perimeter fence inspection in this area. A photograph of the repair will be provided in the *FY 2017 1st Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds.* 

PHOTO NE41 discovered 7/21/2016

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## NW (Northwest) Quadrant

## **DETAIL SHEET FOR NW1C**



## LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2016 PERIMETER FENCE INSPECTION

NW1C was reported as repaired on 07/29/2016 after the perimeter fence inspection in this area. A photograph of the repair will be provided in the *FY 2017 1st Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds.* 

PHOTO NW1C dated 07/19/2016

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## LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair Photo NW17 dated 07/18/2016

PHOTO NW17 discovered 4/13/2016



## Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP





TROCCHIO 6445 *** 645 *** CRVEYOR

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## LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair Photo NW18 dated 07/18/2016

PHOTO NW18 discovered 4/15/2016



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## SE (Southeast) Quadrant

(No Detail Sheets for FY 2016 4rd Quarter LUC Inspection Report)

## SW (Southwest) Quadrant



## LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair photo SW34 dated 7/12/2016

PHOTO SW34 discovered 04/12/2016



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## LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2016 PERIMETER FENCE INSPECTION

Repair photo SW35 dated 7/18/2016

PHOTO SW35 discovered 4/13/2016



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Projection Datum is NAD83, Ohio State Plane Rectangular Grid, North Zone



**DETAIL SHEET FOR SW35** 



## LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2016 PERIMETER FENCE INSPECTION

SW36 was reported as repaired on 07/25/2016 after the perimeter fence inspection in this area. A photograph of the repair will be provided in the FY 2017 1st Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds.

PHOTO SW36 discovered 07/11/2016



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## LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO SW37 discovered 07/12/2016

SW37 was reported as repaired on 07/25/2016 after the perimeter fence inspection in this area. A photograph of the repair will be provided in the FY 2017 1st Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds.



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## LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2016 PERIMETER FENCE INSPECTION

PHOTO SW38 discovered 7/18/2016

SW38 was reported as repaired on 07/25/2016 after the perimeter fence inspection in this area. A photograph of the repair will be provided in the FY 2017 1st Quarter Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds.



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## Camp Ravenna Joint Military Training Center Former Ravenna Army Ammunition Plant

## **Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds**

## ATTACHMENT 2

## **Supplemental Detail Sheet No. 1**

**Callout Repair Log** 

Supplemental Detail Sheet No. 1



## SUPPLEMENTAL DETAIL SHEET NO.1 LAND USE CONTROL (LUC) INSPECTION PERIMETER FENCE INSPECTION 4th QUARTER FY2016

PHOTO N0.2 07/26/2016



PHOTO No.1 07/26/2016

PHOTO N0.4 07/26/2016





PHOTO N0.3 07/26/2016

## PHOTO IMAGES WITHIN THE WINKLEPECK BURNING GROUNDS (RVAAP-05)

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Ohio Army National Guard







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#### Projection Datum is NAD83, Ohio State Plane Rectangular Grid, North Zone

0	345	690 I		1	1,380 I	1	 2,070 Feet
		Bar	Scal	e in	Feet		



Camp Ravenna JMTC 1438 State Route 534 SW Newton Falls, OH 44444 Don Trocchio, PS don.trocchio@vistasciences.com

MGRS 17T NF01946150 (NAD83)

**Callout Repair Log** 

#### Allan Brillinger

From: Sent: To:	Oxley, Brett R NFG NG OHARNG (US) <brett.r.oxley.nfg@mail.mil> Monday, July 25, 2016 9:21 AM Don Trocchio; Crock, Brian W MAJ USARMY NG OHARNG (US); Fowler, Brian R SFC USARMY (US); Jay N. Trumble; Tait, Kathryn S NFG NG OHARNG (US); Sedlak, Kevin M CTR (US); 'Leo Cueto'; Leeper, Mark S CIV (US); Meade, William E LTC USARMY NG OHARNG (US); 'Mr. Allan Brillinger'; Rebecca Shreffler; Morgan, Timothy M NFG NG</brett.r.oxley.nfg@mail.mil>
Cc:	OHARNG (US) Tait, Kathryn S NFG NG OHARNG (US)
Subject: Signed By:	RE: [Non-DoD Source] WBG 4th qtr FY2016 LUC Inspection Notice No.1 (UNCLASSIFIED) brett.r.oxley.nfg@mail.mil

CLASSIFICATION: UNCLASSIFIED

Completed.

-----Original Message-----

From: Don Trocchio [mailto:don.trocchio@vistasciences.com] Sent: Tuesday, July 12, 2016 11:00 AM To: Crock, Brian W MAJ USARMY NG OHARNG (US) <brian.w.crock.mil@mail.mil>; Fowler, Brian R SFC USARMY (US) <brian.r.fowler.mil@mail.mil>; Jay N. Trumble <Jay.N.Trumble@usace.army.mil>; Tait, Kathryn S NFG NG OHARNG (US) <kathryn.s.tait.nfg@mail.mil>; Sedlak, Kevin M CTR (US) <kevin.m.sedlak.ctr@mail.mil>; 'Leo Cueto' <leo.cueto@vistasciences.com>; Leeper, Mark S CIV (US) <mark.s.leeper.civ@mail.mil>; Meade, William E LTC USARMY NG OHARNG (US) <william.e.meade.mil@mail.mil>; 'Mr. Allan Brillinger' <allan.brillinger@vistasciences.com>; Oxley, Brett R NFG NG OHARNG (US) <brett.r.oxley.nfg@mail.mil>; Rebecca Shreffler <rebecca.shreffler@vistasciences.com>; Morgan, Timothy M NFG NG OHARNG (US) <timothy.m.morgan.nfg@mail.mil> Subject: [Non-DoD Source] WBG 4th qtr FY2016 LUC Inspection Notice No.1

Please be advised per the Property Management Plan (PMP Sec.6) this notice is to advise you of 1 perimeter fence location that has been marked for repair. SW36 is located within the southwest guadrant of the facility as shown on the WBG Figure 1 Index Map. SW36 was discovered on 11 July 2016 and appears to be a poacher hole. A Detail sheet will be prepared and included within the forthcoming Quarterly Inspection Report.

To Reach: From the junction of Greenleaf Road and the Perimeter Road, travel east along the Perimeter Road about 0.85 miles to SW36 on the right.

#### Allan Brillinger

From: Sent: To:	Oxley, Brett R NFG NG OHARNG (US) <brett.r.oxley.nfg@mail.mil> Monday, July 25, 2016 9:20 AM Don Trocchio; Crock, Brian W MAJ USARMY NG OHARNG (US); Fowler, Brian R SFC USARMY (US); Jay N. Trumble; Tait, Kathryn S NFG NG OHARNG (US); Sedlak, Kevin M</brett.r.oxley.nfg@mail.mil>
Cc: Subject:	CTR (US); 'Leo Cueto'; Leeper, Mark S CIV (US); Meade, William E LTC USARMY NG OHARNG (US); 'Mr. Allan Brillinger'; Rebecca Shreffler: Morgan, Timothy M NFG NG OHARNG (US) Tait, Kathryn S NFG NG OHARNG (US) RE: [Non-DoD Source] WBG 4th qtr FY2016 LUC Inspection Notice No.2 (UNCLASSIFIED)
Signed By:	brett.r.oxley.nfg@mail.mil

CLASSIFICATION: UNCLASSIFIED

Completed

-----Original Message-----From: Don Trocchio [mailto:don.trocchio@vistasciences.com] Sent: Wednesday, July 13, 2016 9:08 AM To: Crock, Brian W MAJ USARMY NG OHARNG (US) <brian.w.crock.mil@mail.mil>; Fowler, Brian R SFC USARMY (US) <brian.r.fowler.mil@mail.mil>; Jay N. Trumble <Jay.N.Trumble@usace.army.mil>; Tait, Kathryn S NFG NG OHARNG (US) <kathryn.s.tait.nfg@mail.mil>; Sedlak, Kevin M CTR (US) <kevin.m.sedlak.ctr@mail.mil>; 'Leo Cueto' <leo.cueto@vistasciences.com>; Leeper, Mark S CIV (US) <mark.s.leeper.civ@mail.mil>; Meade, William E LTC USARMY NG OHARNG (US) <william.e.meade.mil@mail.mil>; 'Mr. Allan Brillinger' <allan.brillinger@vistasciences.com>; Oxley, Brett R NFG NG OHARNG (US) <brett.r.oxley.nfg@mail.mil>; Rebecca Shreffler <rebecca.shreffler@vistasciences.com>; Morgan, Timothy M NFG NG OHARNG (US) <timothy.m.morgan.nfg@mail.mil> Subject: [Non-DoD Source] WBG 4th qtr FY2016 LUC Inspection Notice No.2

Please be advised per the Property Management Plan (PMP Sec.6) this notice is to advise you of 1 perimeter fence location that has been marked for repair. SW37 is located within the southwest quadrant of the facility as shown on the WBG Figure 1 Index Map. SW37 was discovered on 12 July 2016 and appears to be a poacher hole. A Detail sheet will be prepared and included within the forthcoming Quarterly Inspection Report.

To Reach: From the junction of Knapp Road and the Perimeter Road, travel west along the Perimeter Road about 0.70 miles to SW37 on the left. SW37 is witnessed by a bat house about 35 feet to the northeast.

#### Allan Brillinger

From:	Oxley, Brett R NFG NG OHARNG (US) <brett.r.oxley.nfg@mail.mil></brett.r.oxley.nfg@mail.mil>
Sent:	Monday, July 25, 2016 9:20 AM
To:	Don Trocchio; Crock, Brian W MAJ USARMY NG OHARNG (US); Fowler, Brian R SFC USARMY (US); Jay N. Trumble; Tait, Kathryn S NFG NG OHARNG (US); Sedlak, Kevin M CTR (US); 'Leo Cueto'; Leeper, Mark S CIV (US); Meade, William E LTC USARMY NG OHARNG (US); 'Mr. Allan Brillinger'; Rebecca Shreffler; Morgan, Timothy M NFG NG OHARNG (US)
Cc:	Tait, Kathryn S NFG NG OHARNG (US)
Subject:	RE: [Non-DoD Source] WBG 4th qtr FY2016 LUC Inspection Notice No.3 (UNCLASSIFIED)
Signed By:	brett.r.oxley.nfg@mail.mil

CLASSIFICATION: UNCLASSIFIED

Completed.

-----Original Message-----From: Don Trocchio [mailto:don.trocchio@vistasciences.com] Sent: Tuesday, July 19, 2016 8:13 AM To: Crock, Brian W MAJ USARMY NG OHARNG (US) <brian.w.crock.mil@mail.mil>; Fowler, Brian R SFC USARMY (US) <brian.r.fowler.mil@mail.mil>; Jay N. Trumble <Jay.N.Trumble@usace.army.mil>; Tait, Kathryn S NFG NG OHARNG (US) <kathryn.s.tait.nfg@mail.mil>; Sedlak, Kevin M CTR (US) <kevin.m.sedlak.ctr@mail.mil>; 'Leo Cueto' <leo.cueto@vistasciences.com>; Leeper, Mark S CIV (US) <mark.s.leeper.civ@mail.mil>; Meade, William E LTC USARMY NG OHARNG (US) <william.e.meade.mil@mail.mil>; 'Mr. Allan Brillinger' <allan.brillinger@vistasciences.com>; Oxley, Brett R NFG NG OHARNG (US) <brett.r.oxley.nfg@mail.mil>; Rebecca Shreffler <rebecca.shreffler@vistasciences.com>; Morgan, Timothy M NFG NG OHARNG (US) <timothy.m.morgan.nfg@mail.mil> Subject: [Non-DoD Source] WBG 4th qtr FY2016 LUC Inspection Notice No.3

Please be advised per the Property Management Plan (PMP Sec.6) this notice is to advise you of 1 perimeter fence location that has been marked for repair. SW38 is located within the southwest quadrant of the facility as shown on the WBG Figure 1 Index Map. SW38 was discovered on 18 July 2016 and appears to be a poacher hole. A Detail sheet will be prepared and included within the forthcoming Quarterly Inspection Report.

To Reach: From the junction of Newton Falls Road and the Perimeter Road, travel north and northeast along the Perimeter Road about 0.36 miles to SW38 on the left. SW38 is about 20' west of an intermediate anchor post assembly.

Location of Fence Section Repaired	Description of Repair	Initials of person Completing Repair	Date of Repair	Notes
NWIC	REPAIRED FARRIL	RMF REM.	1/29/14	
NE41	REPARED TOP RAIL, BARB	RMF REM	0/11/6	
· · ·	WRE, REMOVED TRIE	BLS	9/11/1	
		,		
	<b>*</b>			
		-		
· ·				
		· · · · · · · · · · · · · · · · · · ·		
		· ·		
······			· · ·	

## Appendix I

## FY 2016 Perimeter Fence Defect Call Outs Identified and Repaired

		US Su	vey Ft	Fiscal Year and	
				Quarter	Fiscal Year and
Callout	Comments	Northing	Easting	Identified	Quarter Repaired
NE07	poacher hole	572923	2365753	FY 2016 - 1 Qtr.	FY 2016 - 2 Qtr.
NE08	poacher hole	571065	2381537	FY 2016 - 1 Qtr.	FY 2016 - 2 Qtr.
NE09	poacher hole	571077	2381869	FY 2016 - 1 Qtr.	FY 2016 - 2 Qtr.
NE10A	fence fabric and top rail damaged to permit access	563195	2380440	FY 2016 - 1 Qtr.	FY 2016 - 1 Qtr.
NE24A	repeat poacher hole in fence	572341	2379439	FY 2016 - 1 Qtr.	FY 2016 - 2 Qtr.
NE38	12in. tree blow down on top of fence	563279	2385540	FY 2016 - 1 Qtr.	FY 2016 - 1 Qtr.
NE39	poacher hole	572888	2365520	FY 2016 - 2 Qtr.	FY 2016 - 2 Qtr.
NE40	large tree limb has fallen on the fence and damaged the fabric	563200	2381066	FY 2016 - 2 Qtr.	FY 2016 - 2 Qtr.
NE41	tree blow down on fence	565895	2386901	FY 2016 - 4 Qtr.	N/C
NW14	poacher hole in fence	562792	2339131	FY 2016 - 1 Qtr.	FY 2016 - 2 Qtr.
NW15	poacher hole in new section of fence	570632	2352984	FY 2016 - 1 Qtr.	FY 2016 - 2 Qtr.
NW16	poacher hole	569866	2351337	FY 2016 - 2 Qtr.	FY 2016 - 2 Qtr.
NW17	poacher hole	562602	2338724	FY 2016 - 3 Qtr.	FY 2016 - 3 Qtr.
NW18	poacher hole	563194	2340084	FY 2016 - 3 Qtr.	FY 2016 - 3 Qtr.
NW1C	poacher hole	571637	2356382	FY 2016 - 4 Qtr.	N/C
SE02A	washout {10x6 box culvert} from debris plugged security cage	551498	2361141	FY 2016 - 1 Qtr.	FY 2016 - 1 Qtr.
SW25	poacher hole	549381	2334296	FY 2016 - 1 Qtr.	FY 2016 - 2 Qtr.
SW26	blow down/top rail repaired by vista in-between inspections	549355	2332269	FY 2016 - 1 Qtr.	FY 2016 - 1 Qtr.
SW27	fence fabric has been detached from 4 posts	551961	2330049	FY 2016 - 1 Qtr.	FY 2016 - 2 Qtr.
SW28	poacher hole	558184	2328802		FY 2016 - 2 Qtr.
SW29	poacher hole in fence	560157	2333938		FY 2016 - 2 Qtr.
SW30	poacher hole in fence	562148	2337710	FY 2016 - 1 Qtr.	FY 2016 - 2 Qtr.
SW31	abandoned railroad utility pole has fallen onto fence	560476	2335035	FY 2016 - 1 Qtr.	FY 2016 - 2 Qtr.
SW32	poacher hole	560748	2335631	FY 2016 - 2 Qtr.	FY 2016 - 2 Qtr.
	poacher hole	561584	2336866	FY 2016 - 2 Qtr.	FY 2016 - 2 Qtr.
SW34	poacher hole	551036	2329710	FY 2016 - 3 Qtr.	FY 2016 - 3 Qtr.
	poacher hole	560125	2333841	FY 2016 - 3 Qtr.	FY 2016 - 3 Qtr.
	poacher hole	548328	2353232	FY 2016 - 4 Qtr.	FY 2016 - 4 Qtr.
SW37	poacher hole at bottom of fence	549355	2331868	FY 2016 - 4 Qtr.	FY 2016 - 4 Qtr.
SW38	poacher hole	559324	2330662	FY 2016 - 4 Qtr.	FY 2016 - 4 Qtr.
	NC = Indicates Repair Not Yet Completed				

#### FISCAL YEAR 2016 LAND USE CONTROL INSPECTION SUMMARY TABLE Camp Ravenna Joint Military Training Center

NOTE: NC = Indicates Repair Not Yet Completed