Final

FY 2013 Annual Report for the Quarterly Land Use Control Inspections, 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:



July 16, 2014

REPORT DOCUMENTATION PAGE					Form Approved OMB No. 0704-0188
The public reporting burden for this collection or gathering and maintaining the data needed, and co information, including suggestions for reducing the 1215 Jefferson Davis Highway, Suite 1204, Arli penalty for failing to comply with a collection of in PLEASE DO NOT RETURN YOUR FOR	f information ompleting and te burden, to ngton, VA 2 formation if i RM TO TH	is estimated to average 1 hour d reviewing the collection of infor Department of Defense, Washin 2202-4302. Respondents shou it does not display a currently val IE ABOVE ADDRESS.	per response, incl mation. Send com ngton Headquarters d be aware that no id OMB control nur	uding the tin ments regard Services, Di otwithstandin nber.	me for reviewing instructions, searching existing data sources, ding this burden estimate or any other aspect of this collection of irectorate for Information Operations and Reports (0704-0188), ng any other provision of law, no person shall be subject to any
1. REPORT DATE (DD-MM-YYYY)	2. REPC	DRT TYPE			3. DATES COVERED (From - To)
4. TITLE AND SUBTITLE					NTRACT NUMBER
					ANT NUMBER
				5C. PRC	OGRAM ELEMENT NUMBER
6. AUTHOR(S)				5d. PRC	DJECT NUMBER
				5e. TAS	SK NUMBER
				5f. WOI	RK UNIT NUMBER
7. PERFORMING ORGANIZATION NA	Ame(s) an	ND ADDRESS(ES)			8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGE	NCY NAM	E(S) AND ADDRESS(ES)			10. SPONSOR/MONITOR'S ACRONYM(S)
					11. SPONSOR/MONITOR'S REPORT NUMBER(S)
12. DISTRIBUTION/AVAILABILITY ST	ATEMEN	Γ			
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:		17. LIMITATION OF ABSTRACT	18. NUMBER OF	19a. NAI	ME OF RESPONSIBLE PERSON
a. REPORT b. ABSTRACT c. TH	IIS PAGE		PAGES	19b. TEL	EPHONE NUMBER (Include area code)

CONTRACTOR STATEMENT OF INDEPENDENT TECHNICAL REVIEW

Vista Sciences Corporation (VSC) has completed preparation of the FINAL FY 2013 Annual Report for the Quarterly Land Use Control Inspections at RVAAP-05 Winklepeck Burning Grounds at the Camp Ravenna Joint Military Training Center, (former Ravenna Army Ammunition Plant), Ravenna, Ohio. Notice is hereby given, that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in the project. During the independent technical review, compliance with established policy principles, and procedures, utilizing justified and valid assumptions, was verified. This included review of data quality objectives; technical assumptions; method, procedures and materials to be used; the appropriateness of the data used, and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corp of Engineer (USACE) policy.

13 Brill

Allan B. Brillinger () Independent Technical Review Team Leader

Final

FY 2013 Annual Report for the Quarterly Land Use Control Inspections, 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:



July 16, 2014

Place Holder for Ohio EPA Approval Letter

(Letter will be inserted upon approval)

DOCUMENT DISTRIBUTION

For the Final FY 2013 Annual Report for the Quarterly Land Use Control Inspections, 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
Brett Merkel, ARNG	0	1
Kevin Sedlak, ARNG and Katie Tait, OHARNG	0	0
Andrew Kocher, Ohio EPA – NEDO-DERR	1	3
Justin Burke, Ohio EPA – CDO-DERR	0	1
Quyet La, USACE - Louisville	0	1
Administrative Record – RVAAP Restoration Program	2	2

ARNG = Army National Guard

OHARNG = Ohio Army National Guard

Ohio EPA-NEDO-DERR = Ohio Environmental Protection Agency-Northeast District Office –Division of Environmental Response and Revitalization

Ohio EPA-CDO-DERR = Ohio Environmental Protection Agency-Central District Office –Division of Environmental Response and Revitalization

USACE = United States Army Corps of Engineers

RVAAP = Ravenna Army Ammunition Plant

TABLE OF CONTENTS

SECTION 1.0 INTRODUCTION	1
1.1 Facility Location	1
1.2 Facility History	1
1.3 Winklepeck Burning Grounds	2
SECTION 2.0 PURPOSE AND REQUIREMENTS	3
2.1 Land Use Controls, Monitoring, And Reporting Requirements	3
2.2 Annual LUC Monitoring Report Requirement	3
SECTION 3.0 SUMMARY OF FY2013 QUARTERLY LUC INSPECTION REPORTS	
e e e e e e e e e e e e e e e e e e e	4
FOR WBG	
FOR WBG	4
FOR WBG	4 5
FOR WBG	4 5 5
 FOR WBG	4 5 5 7
FOR WBG 3.1 LUC Quarterly Inspection And Report Mechanisms For WBG 3.2 Land Use Control Awareness Training 3.3 Camp Ravenna Perimeter Fence SECTION 4.0 CONCLUSION	4 5 5 7 7

LIST OF APPENDICES

Appendix A	FY 2013 Perimeter Fence Defect Call Outs Identified and Repaired
Appendix B	FY 2013 Quarterly Land Use Control Index Maps
Appendix C	Camp Ravenna Perimeter Fence Footprint
Appendix D	Final FY 2013 First Quarter Property Management Plan Land Use Control (LUC) Inspection Report for RVAAP-05 Winklepeck Burning Grounds
Appendix E	Final FY 2013 Second Quarter Property Management Plan Land Use Control (LUC) Inspection Report for RVAAP-05 Winklepeck Burning Grounds
Appendix F	Final FY 2013 Third Quarter Property Management Plan Land Use Control (LUC) Inspection Report for RVAAP-05 Winklepeck Burning Grounds
Appendix G	Final FY 2013 Fourth Quarter Property Management Plan Land Use Control (LUC) Inspection Report for RVAAP-05 Winklepeck Burning Grounds

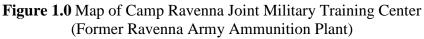
LIST OF ACRONYMS AND ABBREVIATIONS

AOC	Area of Concern
AR	Army Regulation
ARNG	Army National Guard
Camp Ravenna	Camp Ravenna Joint Military Training Center
CERCLA	Comprehensive Environmental Response, Compensation, and Liability
	Act
C.F.R.	Code of Federal Regulations
FWSAP	Facility-wide Sampling and Analysis Plan
FWGWMPP	Facility-wide Groundwater Monitoring Program Plan
GIS	Geographical Information System
IRP	Installation Restoration Program
LUC	Land Use Control
MEC	Munitions and Explosives of Concern
MRS	Munitions Response Site
NCP	National Contingency Plan
NBC	Nuclear, Biological, Chemical
Ohio EPA	Ohio Environmental Protection Agency
OHARNG	Ohio Army National Guard
DFFOs	Director's Final Findings and Orders
PMP	Property Management Plan
RD	Remedial Design
RDX	Research Department Explosive
ROD	Record of Decision
RVAAP	Ravenna Army Ammunition Plant
TNT	Trinitrotoluene
U.S.C.	United States Code
USP&FO	United States Property and Fiscal Office
UXO	Unexploded Ordnance
WBG	Winklepeck Burning Grounds

SECTION 1.0 INTRODUCTION

1.1 Facility Location

The former Ravenna Army Ammunition Plant (RVAAP), now known as the Camp Ravenna Joint Military Training Center (Camp Ravenna), located in northeastern Ohio within Portage and Trumbull counties, is approximately three (3) miles east/northeast of the City of Ravenna and one (1) 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. In addition, the facility is surrounded by the communities of Windham, Garrettsville, Charlestown, and Wayland.





1.2 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 War and the Vietnam conflicts. 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 Office (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.

1.3 Winklepeck Burning Grounds

As described in the Property Management Plan (PMP), Winklepeck Burning Grounds (WBG) encompasses 211.66 acres and is located in the central portion of Camp Ravenna (see Appendices B and C 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 burntrays along 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 Area of Concern (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 Land Use Controls (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 19 Grenade Machinegun Range) 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 are permitted if conducted by authorized personnel. More specific maintenance activities that are 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.

SECTION 2.0 PURPOSE AND REQUIREMENTS

2.1 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 to control 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 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 PMP it is the responsibility of the Army to implement, inspect, maintain and enforce LUCs set forth under the RVAAP Restoration Program.

2.2 Annual LUC Monitoring Report Requirement

The PMP requires an annual LUC monitoring report to evaluate the status and effectiveness of LUCs with a description of 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 report is intended to summarize monitoring conducted during the FY2013 Quarterly LUC Inspection Reports for WBG. This is the first annual report completed in accordance with the Final PMP dated August 2012.

SECTION 3.0 SUMMARY OF FY2013 QUARTERLY LUC INSPECTION REPORTS FOR WBG

3.1 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 2013 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 Mark 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 1 foot 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 Instillation Restoration Program (IRP) or FWGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP, and applicable Ohio Administrative Code requirements.

3.2 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. Currently, LUC awareness training is provided by the OHARNG to all appropriate individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC. The LUC training provides an overview of the PMP and the procedures for preventing and reporting LUC violations, as well as any AOC/MRS specific restrictions. Initial and annual refresher courses are provided. All Camp Ravenna staff (including range and maintenance personnel) and tenant units receive annual LUC training. Formal LUC training has been conducted since 2006 and refresher training is given annually to all personnel. All training requirements presented in the PMP were met by the OHARNG in FY 2013. Training compliance is demonstrated in the FY 2013 Quarterly LUC Inspection Reports that are included in Appendix D, E, F, and G of this report.

3.3 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 Appendix C – Camp Ravenna Perimeter Fence Footprint) extending easterly into western Trumbull County, Ohio. During the 1^{st} and 2^{nd} quarterly inspections, the Camp Ravenna perimeter fence (portion mainly within Portage County with Group 7 fence being the eastern boundary) was inspected. At the Army's request, this was modified in later inspections to include all of the perimeter fencing situated within Trumbull County, Ohio (see also Appendix C – Camp Ravenna Perimeter Fence Footprint).

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 6' 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 6 strands of 15 gauge barb wire, 3 strands inward facing and 3 strands outward facing. Twenty-six access gates are scattered throughout the approximate 30 miles of perimeter fencing evaluated (see Appendix C – Camp Ravenna Perimeter Fence Footprint). Most of the former railroad access gates have been welded shut along with a few no longer used vehicle access gates.

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 FY2013 Quarterly LUC Inspection Report are included in Appendix D, E, F and G of this report.

The four quarterly inspections performed in FY2013 reported a total of thirty-eight documented major defects in the perimeter fence, nine of which were recently discovered during the FY2013 4th quarter inspection. Of this total, twenty-five repairs were performed and documented in the subsequent inspection report. The remaining thirteen locations are in progress of being repaired or have been repaired at the time of printing this report. See Appendix A for a table of all perimeter fence defect call outs identified and repaired in FY 2013. 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. SW5, SE2, SW10 and SW11) 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. Also, there are several call out sections that require replacement of hundreds of feet of damaged fence fabric (i.e. SW7).

Camp Ravenna is currently replacing approximately 5.5 miles of perimeter fence fabric which will be described in a future inspection report. Additionally, Vista Sciences Corporation is currently replacing broken and missing barbed wire under the limits of Contract No. W912QR-11-P-0086, MOD 0010.

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 3- Camp Ravenna Fence Repair Log (Appendices D, E, F, and G). 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.

SECTION 4.0 CONCLUSION

4.1 Land Use Consistency And Land Use Control Effectiveness

Per the PMP, the land use for the WBG is Small Arms Range (including the existing Mark 19 Grenade Machinegun Range) OHARNG Military Use and Training. Based on the completed inspections during FY13, 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 Ohio Army National Guard (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.

The LUCs for the WBG AOC were evaluated quarterly in FY 2013 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 2013.

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/Munitions Response Sites (MRS), and specific restrictions for WBG. Units that utilize the range at WBG also receive an in brief prior to firing on the range and 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. All training, operation, and maintenance requirements specific to WBG presented in the PMP were met by the OHARNG in FY 2013 and is documented in the FY 2013 Quarterly LUC Inspection Reports included in Appendix D, E, F and G of this report.

4.2 Land Use Control Deficiency Corrective Action

The main purpose of inspecting and monitoring LUCs as required by the PMP 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. As shown in Appendix A, the FY 2013 2nd Quarterly LUC Inspection identified a total of twenty-six perimeter fence defect call outs. Of these call outs, three were excluded by modifying the perimeter fence that was inspected in the 3rd and 4th Quarterly LUC Inspection. After this more comprehensive inspection of the perimeter fence the number of additional call outs identified in subsequent inspections decreases by sixty percent in the 3rd Quarter FY 2013 and by seventy-five percent in the 4th Quarter FY 2013. Each subsequent 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. As these inspections continue, the integrity and effectiveness of the perimeter fence as a LUC has improved. Of the total number of perimeter fence defect call outs identified, 60% were repaired by the next quarterly inspection. The LUC inspections provide a mechanism to ensure the perimeter fence is being monitored and maintained to function as a facility-wide engineering control as described in the PMP. Continued quarterly inspections will ensure the LUCs for WBG remain in place and are effective.

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

Appendix A

FY 2013 Perimeter Fence Defect Call Outs Identified and Repaired

		Ravenna Perimeter Fence C			Quarter	Quarter
Callout	Date	Comments	Northing	Easting	Identified	Repaired
SW1	2/7/2013	bottom open	549403	2336048	2	
SW2	2/7/2013	bottom open	549405	2336025	2	3
SW3	2/7/2013	bottom open	549369	2333095	2	4
SW4	2/7/2013	fabric broken	554381	2328361	2	3
NE1	2/12/2013	hole in fence	572047	2359121	2	4
NE2	2/12/2013	hole in fence	572636	2363380	2	3
NE3	2/12/2013	big hole broken posts	573118	2366968	2	3
NW1	2/12/2013	big hole in fence	571637	2356382	2	4
NW2	2/12/2013	hole in fence	571756	2357066	2	4
NW3	2/12/2013	hole in fence	571849	2357746	2	4
SW5	2/12/2013	hole in fence at bottom	559954	2333158	2	
SW6	2/12/2013	hole in fence	560708	2335572	2	3
SW7	2/12/2013	apx 100 ft of fabric missing	561189	2336373	2	
SW8	2/12/2013	hole in fence	561285	2336529	2	
SW9	2/12/2013	hole in fence	561395	2336638	2	
NE10	2/13/2013	hole in fence	563195	2380440	2	3
NE11	2/13/2013	fabric missing and repaired	572169	2359961	2	2
NE4	2/13/2013	hole in fence	572820	2378917	2	3
NE5	2/13/2013	hole in fence	571090	2384743	2	
NE6	2/13/2013	hole in fence	570126	2384759	2	3
NW4	2/13/2013	fence fabric lying in creek	571580	2356277	2	3
SE1	2/13/2013	washout [two more to west]	551833	2361902	2	4
SE2	2/13/2013	washout	551498	2361141	2	
NW7	4/18/2013	sign needs re-attached	563439	2340629	3	4
NW5	4/22/2013	hole in fence near bottom	570642	2353001	3	4
NW6	4/22/2013	hole in fence at bottom	570613	2352916	3	4
NE12	4/23/2013	fabric damaged	563308	2384954	3	4
NE13	4/23/2013	fabric damaged	563272	2384409	3	4
NE14	4/23/2013	fabric damaged	563267	2384316	3	4
NE15	4/23/2013	fabric damaged	563242	2383872	3	4
NE16	4/25/2013	3 broken posts, fence leaning	563202	2381580	3	4
NE17	4/25/2013	hole in fence	563134	2380397	3	4
SW10	7/15/2013	washout	548427	2354836	4	
SW11	7/15/2013	washout apx. 10 sections	548333	2354108	4	
NW8	7/16/2013	top needs reattached	567746	2349644	4	
NE18	7/17/2013	fence needs reattched	573035	2372897	4	
NE19	7/17/2013	hole in fence	570600	2384750	4	
NE20	7/18/2013	bottom too high above ground	570080	2386673	4	

Appendix B

FY 2013 Quarterly Land Use Control Index Maps

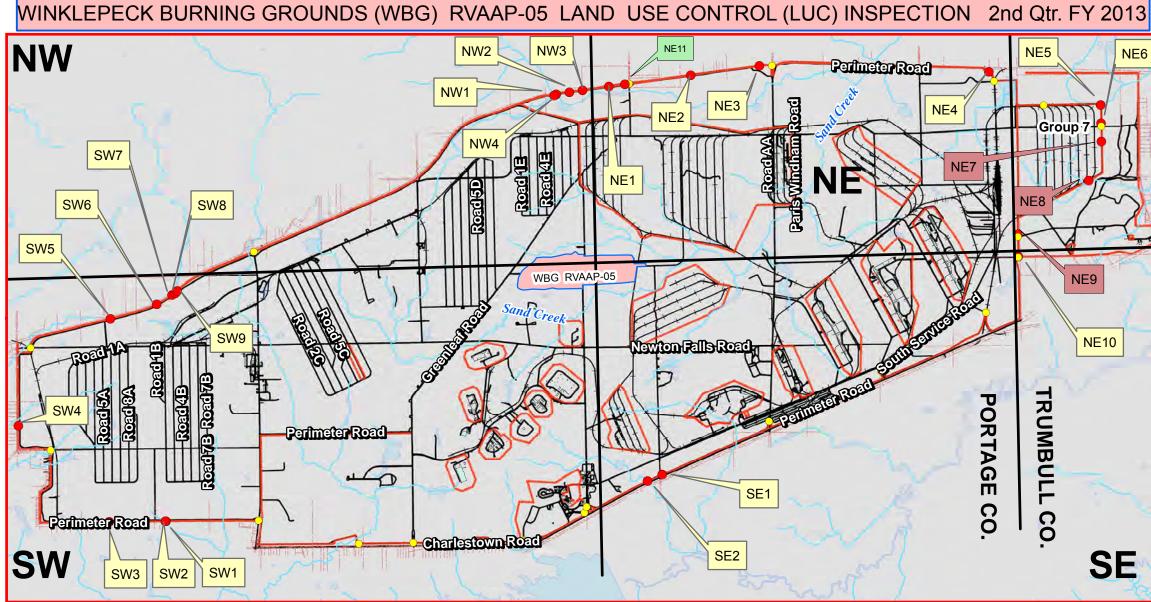


FIGURE 1 INDEX MAP TO FACILITY PERIMETER FENCE INSPECTION SEE ATTACHED DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

Legend

LUC Inspection of Perimeter Fence

- Opening in fence (2'≥) and/or fabric missing (26 locations)
- Gates (20 locations for reference only, no detail sheets)
 All gates appear to be maintained and are in working order

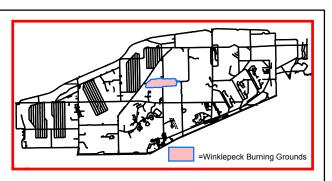
Fence Line



NE7, NE8 NE9 See attached Inspection Form "Additional Notes/ Comments" Box regarding these 3 Callouts

Detail Sheet		RVAAP Perimeter Fence Inspection 2nd Quarter FY 2	013 Summary Table	(US Surve	y Feet)
Callout	Date	Path to Photo Location	Comments	Northing	Easting
NE1	2/12/2013	c:\My Documents\My ArcPad\P1010083.JPG	hole in fence	572047	2359121
NE2	2/12/2013	c:\My Documents\My ArcPad\P1010088.JPG	hole in fence	572636	2363380
NE3	2/12/2013	c:\My Documents\My ArcPad\P1010090.JPG	big hole broken posts	573118	2366968
NE4	2/13/2013	c:\My Documents\My ArcPad\P1010092.JPG	hole in fence	572820	2378917
NE5	2/13/2013	c:\My Documents\My ArcPad\P1010095.JPG	hole in fence	571090	2384743
NE6	2/13/2013	c:\My Documents\My ArcPad\P1010096.JPG	hole in fence	570126	2384759
NE7	2/13/2013	c:\My Documents\My ArcPad\P1010098.JPG	hole in fence	569182	2384780
NE8	2/13/2013	c:\My Documents\My ArcPad\P1010099.JPG	hole in fence	567158	2384119
NE9	2/13/2013	c:\My Documents\My ArcPad\P1010100.JPG	hole in fence	564355	2380420
NE10	2/13/2013	c:\My Documents\My ArcPad\P1010102.JPG	hole in fence	563195	2380440
NE11	3/11/2013	c:\My Documents\My ArcPad\Fence 11.6.12 No5.JPG	fabric missing (repaired)	572169	2359961
NW1	2/12/2013	c:\My Documents\My ArcPad\P1010086.JPG	big hole in fence	571637	2356382
NW2	2/12/2013	c:\My Documents\My ArcPad\P1010085.JPG	hole in fence	571756	2357066
NW3	2/12/2013	c:\My Documents\My ArcPad\P1010084.JPG	hole in fence	571849	2357746
NW4	3/11/2013	c:\My Documents\My ArcPad\Fence 11.6.12 No3.JPG	fence fabric lying in creek	571580	2356277
SE1	2/13/2013	c:\My Documents\My ArcPad\P1010107.JPG	washout [two more to west]	551833	2361902
SE2	2/13/2013	c:\My Documents\My ArcPad\P1010108.JPG	washout	551498	2361141
SW1	2/7/2013	c:\My Documents\My ArcPad\P1010061.JPG	bottom open	549403	2336048
SW2	2/7/2013	c:\My Documents\My ArcPad\P1010062.JPG	bottom open	549405	2336025
SW3	2/7/2013	c:\My Documents\My ArcPad\P1010064.JPG	bottom open	549369	2333095
SW4	2/7/2013	c:\My Documents\My ArcPad\P1010067.JPG	fabric broken	554381	2328361
SW5	2/12/2013	c:\My Documents\My ArcPad\P1010074.JPG	hole in fence at bottom	559954	2333158
SW6	2/12/2013	c:\My Documents\My ArcPad\P1010075.JPG	hole in fence	560708	2335572
SW7	2/12/2013	c:\My Documents\My ArcPad\P1010076.JPG	apx 100 ft of fabric missing	561189	2336373
SW8	2/12/2013	c:\My Documents\My ArcPad\P1010077.JPG	hole in fence	561285	2336529
SW9	2/12/2013	c:\My Documents\My ArcPad\P1010078.JPG	hole in fence	561395	2336638

Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in April 2013 for:



US Army Corps of Engineers

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

Louisville District





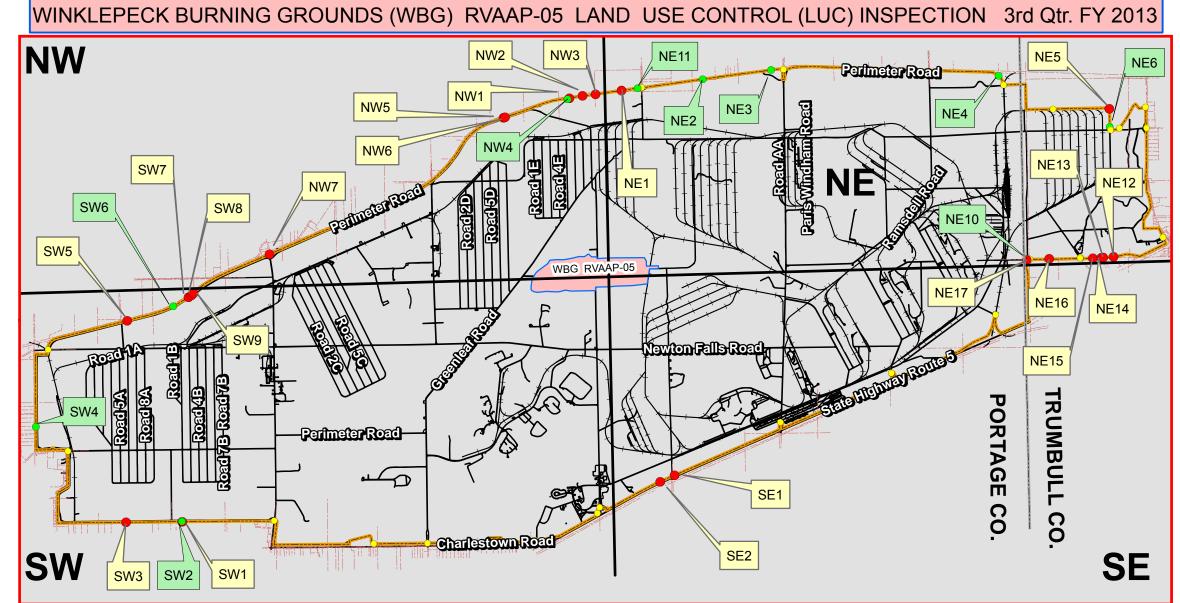


FIGURE 1 INDEX MAP TO FACILITY PERIMETER FENCE INSPECTION SEE ATTACHED DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

Legend

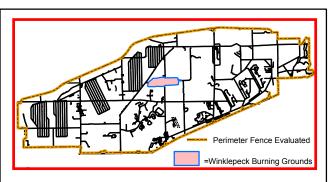
LUC Inspection of Perimeter Fence

- Opening in fence (2'≥) and/or fabric missing (22 locations)
- Repaired (10 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)



Detail Sheet						
Callout	Date	Path to Photo Location	Comments	Northing	Easting	Path to Repair Photo
NE1	2/12/2013	c:\My Documents\My ArcPad\P1010083.JPG	hole in fence	572047	2359121	
NE2	2/12/2013	c:\My Documents\My ArcPad\P1010088.JPG	hole in fence	572636	2363380	c:\My Documents\My ArcPad\P1010171.JPG
NE3	2/12/2013	c:\My Documents\My ArcPad\P1010090.JPG	big hole broken posts	573118	2366968	c:\My Documents\My ArcPad\P1010172.JPG
NE4	2/13/2013	c:\My Documents\My ArcPad\P1010092.JPG	hole in fence	572820	2378917	c:\My Documents\My ArcPad\P1010173.JPG
NE5	2/13/2013	c:\My Documents\My ArcPad\P1010095.JPG	hole in fence	571090	2384743	
NE6	2/13/2013	c:\My Documents\My ArcPad\P1010096.JPG	hole in fence	570126	2384759	c:\My Documents\My ArcPad\P1010175.JPG
NE10	2/13/2013	c:\My Documents\My ArcPad\P1010102.JPG	hole in fence	563195	2380440	c:\My Documents\My ArcPad\P1010187.JPG
NE11	2/13/2013	c:\My Documents\My ArcPad\fence 11.6.12 no5.JPG	fabric missing and repaired	572169	2359961	c:\My Documents\My ArcPad\100_0803.JPG
NE12	4/23/2013	c:\My Documents\My ArcPad\P1010184.JPG	fabric damaged	563308	2384954	
NE13	4/23/2013	c:\My Documents\My ArcPad\P1010183.JPG	fabric damaged	563272	2384409	
NE14	4/23/2013	c:\My Documents\My ArcPad\P1010182.JPG	fabric damaged	563267	2384316	
NE15	4/23/2013	c:\My Documents\My ArcPad\P1010181.JPG	fabric damaged	563242	2383872	
NE16	4/25/2013	c:\My Documents\My ArcPad\P1010190.JPG	3 broken posts, fence leaning	563202	2381580	
NE17	4/25/2013	c:\My Documents\My ArcPad\P1010191.JPG	hole in fence	563134	2380397	
NW1		c:\My Documents\My ArcPad\P1010086.JPG	big hole in fence	571637	2356382	
NW2	2/12/2013	c:\My Documents\My ArcPad\P1010085.JPG	hole in fence	571756	2357066	
NW3	2/12/2013	c:\My Documents\My ArcPad\P1010084.JPG	hole in fence	571849	2357746	
NW4		c:\My Documents\My ArcPad\Fence 11.6.12 No3.JPG	fence fabric lying in creek	571580		c:\My Documents\My ArcPad\P1010170.JPG
NW5		c:\My Documents\My ArcPad\P1010168.JPG	hole in fence near bottom	570642	2353001	
NW6	4/22/2013	c:\My Documents\My ArcPad\P1010167.JPG	hole in fence at bottom	570613	2352916	
NW7	4/18/2013	c:\My Documents\My ArcPad\P1010165.JPG	sign needs re-attached	563439	2340629	
SE1		c:\My Documents\My ArcPad\P1010107.JPG	washout [two more to west]	551833	2361902	
SE2	2/13/2013	c:\My Documents\My ArcPad\P1010108.JPG	washout	551498	2361141	
SW1		c:\My Documents\My ArcPad\P1010061.JPG	bottom open	549403	2336048	
SW2		c:\My Documents\My ArcPad\P1010062.JPG	bottom open	549405		c:\My Documents\My ArcPad\P1010194.JPG
SW3		c:\My Documents\My ArcPad\P1010064.JPG	bottom open	549369	2333095	
SW4		c:\My Documents\My ArcPad\P1010067.JPG	fabric broken	554381		c:\My Documents\My ArcPad\P1010163.JPG
SW5	2/12/2013	c:\My Documents\My ArcPad\P1010074.JPG	hole in fence at bottom	559954	2333158	
SW6	2/12/2013	c:\My Documents\My ArcPad\P1010075.JPG	hole in fence	560708		c:\My Documents\My ArcPad\P1010164.JPG
SW7	2/12/2013	c:\My Documents\My ArcPad\P1010076.JPG	apx 100 ft of fabric missing	561189	2336373	
SW8	2/12/2013	c:\My Documents\My ArcPad\P1010077.JPG	hole in fence	561285	2336529	
SW9	2/12/2013	c:\My Documents\My ArcPad\P1010078.JPG	hole in fence	561395	2336638	

Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



US Army Corps of Engineers

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

Louisville District

(N

0	2,500	5,000	10,000	15,000 Feet
		Bar Sca	ale in Feet	
•		NCES RATION	8451 State Route Ravenna, O Don Troccf don.trocchio@u	h 44266 nio, PS

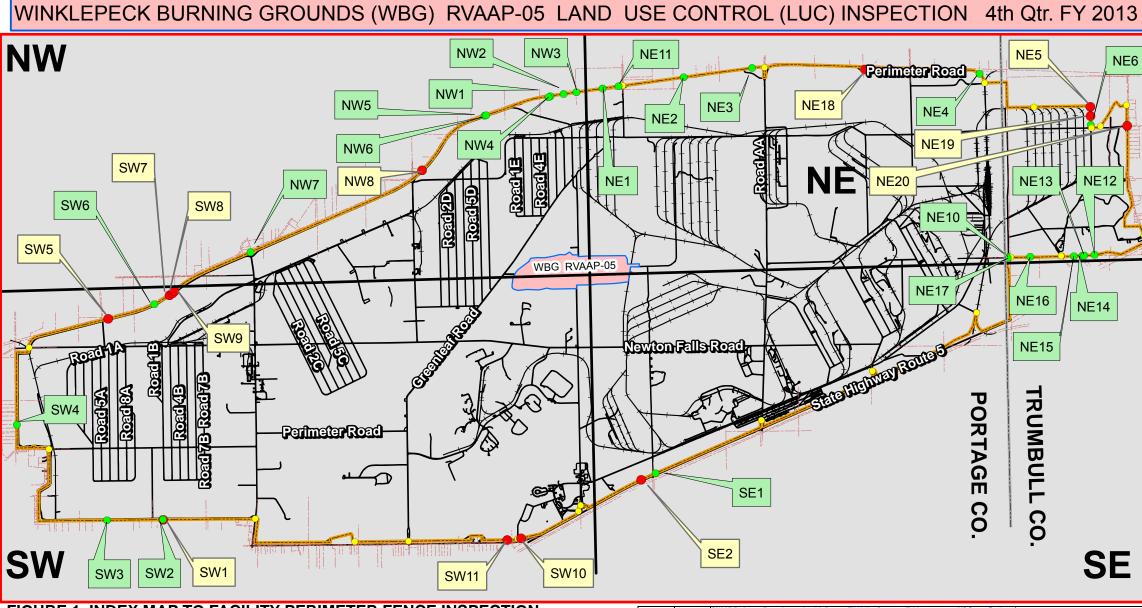


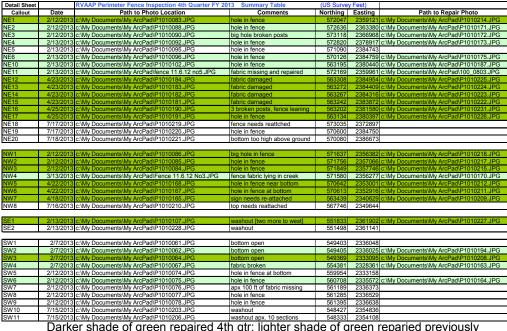
FIGURE 1 INDEX MAP TO FACILITY PERIMETER FENCE INSPECTION SEE ATTACHED DETAIL SHEETS FOR EACH **DESIGNATED CALLOUT LOCATION**

Legend

LUC Inspection of Perimeter Fence

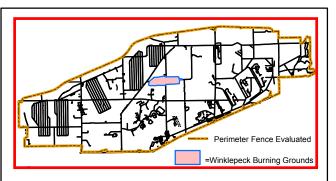
- Opening in fence (2'≥) and/or fabric missing (13 locations)
- Repaired (25 locations)
- Gates (26 locations for reference only, no detail sheets) \bigcirc All gates appear to be maintained and are in working order
- Perimeter Fence Evaluated (29.8 miles)





Darker shade of green repaired 4th qtr; lighter shade of green reparied previously

Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:

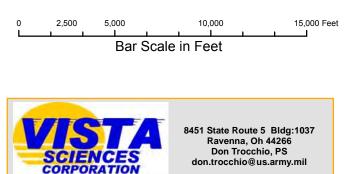


US Army Corps of Engineers

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

Louisville District

(N



Appendix C

Camp Ravenna Perimeter Fence Footprint

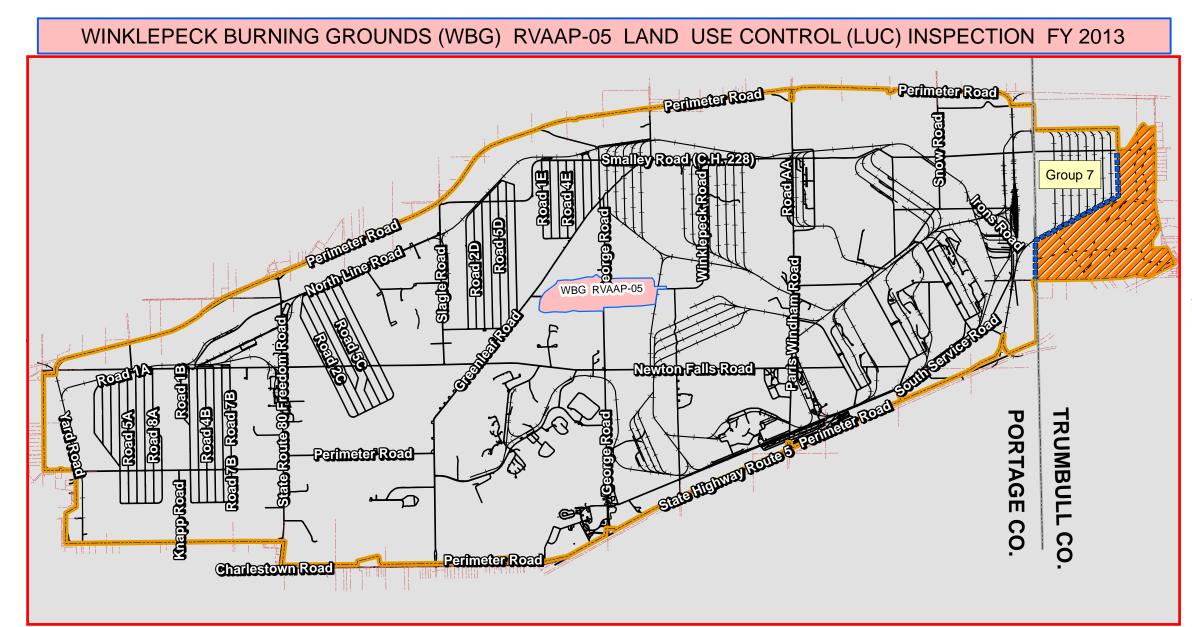


FIGURE 1 MAP DEPICTING FOOTPRINT OF PERIMETER FENCE EVALUATED DURING QUARTERLY LUC INSPECTIONS

LEGEND

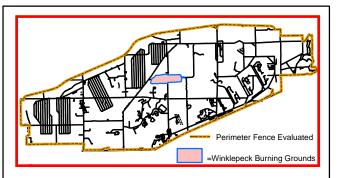
Perimeter Fence Evaluated (29.8 miles)



Area That Was Added In Trumbull Co. Beginning With 2nd Qtr. Report

Original Section of Perimeter Fence Eliminated after 2nd Qtr. Report

Camp Ravenna Joint Military Training Center



Portage & Trumbull County LOCATOR MAP





Produced in February 2014 for:

6445

minim



US Army Corps of Engineers

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

don.trocchio@us.army.mil

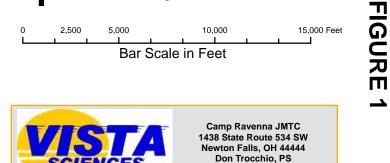
_

Louisville District

CIENCES

CORPORATION

N



Appendix D

Final FY 2013 First Quarter Property Management Plan Land Use Control (LUC) Inspection Report for RVAAP-05 Winklepeck Burning Grounds Final

FY 2013 First Quarter Property Management Plan Quarterly Land Use Control (LUC) Inspection RVAAP-05 Winklepeck Burning Grounds Revision 1.1

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP) Ravenna, Ohio

Contract No. W912QR-11-P-0086

Prepared for:



US Army Corps of Engineers Louisville District

US Army Corps of Engineers 600 Dr. Martin Luther King Jr. Place Louisville, Kentucky 40202

Prepared by:



Vista Sciences Corporation Ravenna Army Ammunition Plant 8451 State Route 5 Ravenna, OH 44266

November 14, 2013

Final

FY 2013 Third Quarter Property Management Plan Quarterly Land Use Control (LUC) Inspection RVAAP-05 Winklepeck Burning Grounds

Revision 1.1

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP) Ravenna, Ohio

Contract No. W912QR-11-P-0086

Prepared for:



US Army Corps of Engineers
Louisville District

US Army Corps of Engineers 600 Dr. Martin Luther King Jr. Place Louisville, Kentucky 40202

Prepared by:



Vista Sciences Corporation Ravenna Army Ammunition Plant 8451 State Route 5 Ravenna, OH 44266

November 14, 2013

LIST OF ACRONYMS

AEC	Army Environmental Command
AOC	Area of Concern
AR	Army Regulation
BRACD	Base Realignment and Closure Division
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CR	Camp Ravenna
CR-ENV	Camp Ravenna Environmental
CRJMTC	Camp Ravenna Joint Military Training Center
DD	Decision Document
DLA	Defense Logistics Agency
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
LTM	Long Term Management
MEC	Munitions and Explosives of Concern
MRS	Munitions Response Site
NBC	Nuclear, Biological, Chemical
NCOIC	Noncommissioned Officer in Charge
OIC	Officer in Charge
Ohio EPA	Ohio Environmental Protection Agency
OHARNG	Ohio Army National Guard
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) / Ravenna Army Ammunition Plant (RVAAP) Quarterly LUC Inspection Form – RVAAP-05 Winklepeck Burning Grounds

In accordance with the Camp Ravenna Joint Military Training Center/Ravenna Army Ammunition Plant Property Management Plan (PMP) dated August 2012 and Appendix A-1, an inspection of RVAAP-05 Winklepeck Burning Grounds (WBG) was conducted by <u>James D. McGee</u> on <u>October 24, 2012 to</u> November 6, 2012.

The quarterly inspections shall include the following:

- Review of Land Use Control (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 Ohio Army National Guard (OHARNG) range safety regulations/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 19 Grenade Machinegun Range is prohibited with the following exceptions:
 - a. Routine maintenance of roads, ditches, culverts and activities listed in A-1.4 of the Property Management Plan (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);
 - b. Ground surface repairs by authorized range personnel in support of authorized range activities;
 - c. Digging along target array areas by authorized range personnel to a depth of 1 foot 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:
 - a. 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).
 - b. The abandonment and replacement of monitoring wells damaged by activities conducted on the Installation and wells no longer utilized as part of Instillation Restoration Program (IRP) or FWGWMPP activities, in accordance with Ohio Environmental Protection Agency (Ohio EPA) guidance, the most recent FWSAP, and applicable Ohio Administrative Code requirements.

Please note that if LUC deficiencies or inconsistent land uses are identified, they must be reported and identified on the quarterly inspection form/report. These deficiencies must also be reported immediately to the Army. Suggestions on how to remedy the deficiencies must also be provided.

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 as provided in the PMP was reviewed on November 5, 2012 by James McGee and it is current with respect to AOC boundaries, land activities and prescribed LUCs.

2. Installation Perimeter Fence

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

The perimeter fence has areas that are in need of repair to meet its function under the PMP as a land use control (LUC). See Attachment 1- "Inspection of Perimeter Fence". Please Note that due to the current financial climate, funding for repairs is limited. The OHARNG continues to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

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 (MSG Rex Hufenbach) on November 1, 2012 at Camp Ravenna (Butts-Kistler Road at the Portage/Trumbull County Line), no residential land use has occurred. Additionally, there has been no change in land use at the AOC.

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

Winklepeck Burning Grounds/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 November 1, 2012, 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?

An entire inspection of the perimeter of the range impact was conducted. All signage were placed 200 meter intervals and found to be upright and intact.

- 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:
 - a. 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.
 - b. 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.

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

Facility Ground Water Monitoring Well sampling is conducted by Environmental Quality Management, Inc. (EQM) on a quarterly basis in this area. During an interview conducted October 31, 2012 with Mr. John Miller of EQM 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.
4. In	spections and Reporting
a)	Inspections are required on a quarterly basis. Are quarterly inspections being completed?
	This is the first FY 2013 Quarterly Inspection 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 annual report will be completed and submitted after the completion of the FY 2013 4 th
	Quarterly Inspection.
5 T	
	raining (as applicable to WBG)
a.)	Was LUC training (specific to Winklepeck) being conducted as applicable? Describe the training (specific to winklepeck) being conducted as applicable?
	(content/who attended/who provided/documentation of training).
	Annual LUC training is provided to Camp Ravenna staff and tenant units at Camp Ravenna.
	Full-time Camp Ravenna staff received their annual LUC Training on 12 December 2012. 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 Winklepeck. 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 Winklepeck 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. All documentation of training is provided in Attachment
	2.
	Ζ.
	Note: Signed training rosters have not been included for security purposes and are on file at the Camp Ravenna Environmental Office.
t	b.) If training was not provided, explain why and what corrective actions were initiated?
	N/A
<u> </u>	
0. D	escription of any observed/noted Land Use Control (LUC) violation(s):
	The Camp Ravenna perimeter fence has missing sections, openings/holes in the fence fabric, and
	locations in general disrepair that are in need of repair to meet its function under the PMP as a
	land use control (LUC). See Attachment 1- "Inspection of Perimeter Fence". Please Note that
	due to the current financial climate, funding for repairs is limited. The OHARNG continues to
	complete spot repairs as current available resources allow and will continue to request funding
	from the appropriate fund accounts to support perimeter fence maintenance.
7. Da	ate of Notification of LUC violation (if applicable):
	The perimeter fence inspection was sent to Army. Information about the findings of the
	inspection was previously conveyed to the Army informally.
	Description of any corrective actions taken to remedy observed LUC violation(s) or
reco	mmended corrective actions:
	Please Note that due to the current financial climate, funding to repair the perimeter fence is
	limited. The OHARNG continues to complete spot repairs as current available resources allow and
	will continue to request funding from the appropriate fund accounts to support perimeter fence
	maintenance.
9. A	dditional Notes/Comments:
	For future inspections (beginning with the FY2013 4th Quarter Inspection), the person completing
	the inspection will provide daily reports to the Army documenting where any new deficiencies in
	the perimeter fence were found.

Signature: Marrie D. Mc Dec	
Title: Project Manager	Organization: Vista Sciences Corporation
Date: November 6, 2012	

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP)

Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

ATTACHMENT 1

Inspection of Perimeter Fence

Inspection Date:

 November 6 Camp Ravenna Joint Military Training Center (CRJMTC)

 Ravenna Army Ammunition Plant (RVAAP)

 Property Management Plan Quarterly

 Land Use Control Inspection

 Winklepeck Burning Grounds/MK-19 Range

ATTACHMENT 1

INSPECTION OF PERIMETER FENCE

November 6, 2012

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP) Property Management Plan Quarterly Land Use Control Inspection Winklepeck Burning Grounds/MK-19 Range

ATTACHMENT 1

INSPECTION OF PERIMETER FENCE

<u>November 6, 2012</u>

The perimeter fence is over seventy years old and due to funding constraints and the volume of fence to maintain, portions of the fence are in poor condition. Specifically the west end and the north side are in poor condition and require repair (as documented below in the attached photos). The OHARNG conducts repair/maintenance of the fence as required due to cutting or breach of the fence. A major repair of the fence which involved the painting of a portion of the south fence was conducted in 2008. Additionally, no fencing was ever permanently installed on the east perimeter. In 2011, permanent fence was installed along the east perimeter of the facility. To remedy the poor condition of the fencing in the above mentioned areas, funding for fence repair through the contract with Vista Science Corp. (W912QR-11-P-0086) will be utilized to repair select areas of the fence. Additionally, the OHARNG has sent a request for funding for repair of the fence to their Installation Management Office. Due to the volume that requires repair and the current financial climate, funding may be limited. However, the OHARNG will continue to complete spot repairs and push for funding for fence repair. See attached photos #4, #7, #8 & #9 that depict typical conditions of the fence on the west end and the north side of the facility. The fence fabric is in poor condition due to heavy rust.

Photo #1 shows approx. 70 feet of fence fabric missing on the north side at .8 mile west of Post #32.

Photo #2 shows a missing fence post and the poor condition of the double barbed wire top guard at .2 mile east of Slagle Road.

Photo #3 shows damaged fence at the Gorge, (Where Eagle Creek enters the facility). This is probably due to high water flow.

Photo #5 & #6 shows approx. 50 feet of fence missing at 200 feet west of Wadsworth Road

The fence on the south side and the east end of the facility appears to be in overall serviceable condition. However, approx. 20 places need to have minor repairs to the double barbed wire top guard. (See photo #10.)

ATTACHMENT 1

Perimeter Fence Photos



Fence Picture No. 1: 8/10's of a mile West of Post 32 No fabric on fence



Fence Picture No. 2: 2/10's of a mile East of Slagle Road



Fence Picture No. 3: Gorge (where Eagle Creek enters CRJMTC)



Fence Picture No. 4: 200 feet West of Gorge



Fence Picture No. 5: one ¹/₂ mile East of Gorge, 200 feet West of Wadsworth Road



Fence Picture No. 6: one ¹/₂ mile East of Gorge, 200 feet West of Wadsworth Road



Fence Picture No. 7: 200 feet East of Gorge



Fence Picture No. 8: 1 mile East of Wadsworth Road



Fence Picture No. 9: 1 mile East of Post 13



Fence Picture No. 10: 1.5 miles East of Post 1

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP)

> Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

ATTACHMENT 2

Annual Land Use Control (LUC) Training Documentation

Brief Description of Land Use Control (LUC) Implementation at Winklepeck Burning Grounds at Camp Ravenna – OHARNG Activities

Annual LUC Training to Camp Ravenna Staff:

All Camp Ravenna staff (including range and maintenance personnel) receive an annual LUC training. Briefs and rosters from the last training events are attached. A formal LUC training has been given since 2006. Annual LUC training for Camp Ravenna staff is currently scheduled for December 2012. Tenant units at Camp Ravenna also receive annual LUC training for Winklepeck (training sections and rosters from the last training are attached). Please note that tenant units do not typically access Winklepeck Burning Grounds unless scheduled as part of a unit who is utilizing the MK19 Range.

Contractor Brief Prior to Access to Winklepeck:

Annually, contractors who access Winklepeck must read the attached brief and acknowledge that they have read and understand the LUCs at Winklepeck prior to access.

Activities Performed to Brief Using Units:

Each using unit receives a range brief about the MK19 range prior to use (the environmental portion of the Range SOP is attached). All range activities on the MK19 range are overseen by a representative of Camp Ravenna Range Control.

The range is marked appropriately in accordance with Army guidance.

The range gate is locked unless the range is in use or maintenance or contractor sampling activities are being performed.

CRJMTC LUC Training Briefs

- Land Use Control (LUC)Training for Camp Ravenna, 14 November 2011
- Ravenna: The History and Legacy
- Land Use Control (LUC)Training for Camp Ravenna, 20 January 2012

Land Use Control (LUC) **Training for Camp** Ravenna Presented by: Camp Ravenna Environmental

14 November 2011

Why do you have to take this training?



....

- Legal requirement as set forth under the CERCLA cleanup program.
- Annual requirement
- Need awareness of LUCs at Camp Ravenna and where they are imposed and located.

What is a Land Use Control?

- · A limitation or restriction on use of land
 - · Facilitate land use
 - Protect human health and the environment
 - Comply with legal requirements
- Memorialized in a Decision Document (DD)
- LUCs are <u>NOT</u> Optional

Types of Land Use Controls

- Fencing
- Warning signs
- · Seibert stakes
- Knowledge of sites
- Designated training and land use restrictions
- Access restrictions
- Ground and surface water use restrictions
- Administrative policies

Brief Facility History

ø

- Former Ravenna Army Ammunition Plant (RVAAP)
- · Load Assemble and Pack Facility
 - Four major caliper load lines melt-pour munitions loading
 - · One ammonium nitrate line
- · Seven fuze and booster lines
- Storage Depot Explosives, Finished rounds, Inert materials and equipment
- Demilitarization Activities
- Research and Development

Result Of Past Land Use

- Contamination

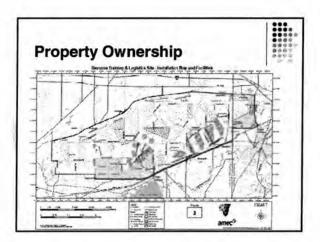
 - Explosives
 Residue from burning operations
 Residue from demolition operations

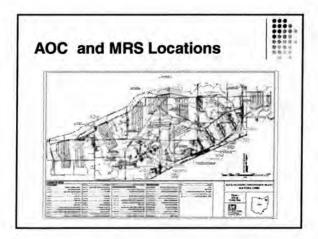
 - Munitions and Explosives of Concern (MEC)
 - Landfills or dumps sites
 Hazardous materials storage areas
 - Vehicle Maintenance Areas
 - Water and sewage treatment plants
- Approx. 65 Areas of Concern (AOCs) primary contaminant is chemical
- 17 Munitions Response Sites (MRSs) primary contaminant is MEC

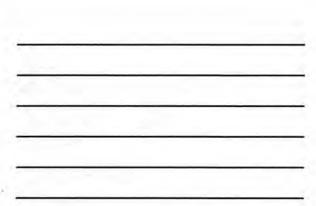
Location of AOCs and MRSs

 On both OHARNG property and RVAAP property ***

- OHARNG accountable for 20,423 acres
 All roads and railroad
 - Power lines
- All buildings except those retained by BRAC
- BRAC accountable for 1,260 acres
 - A few buildings in the Post 1 area
 - · Load Lines and a few other areas
- BRAC and AEC responsible for clean up







Property Management Plan (PMP)

- Identifies current LUCs
- Requires LUC training and inspections
- Requires monitoring of LUC effectiveness
 - OHARNG responsible for using units, Camp Ravenna personnel, and our contractors and guests
 - RVAAP responsible for themselves and contractors
 - Ohio EPA PMP compliance
- Annual report



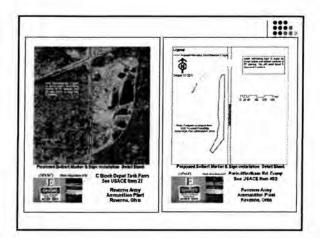
sto

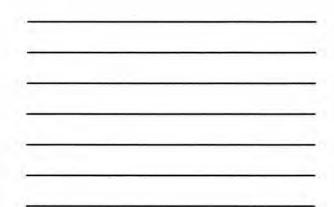
LUC Enforcement

- Who is responsible?
 - RVAAP property
 - OHARNG property
 - Ohio EPA
- What to do if you see a LUC violation?
 - · Take immediate action to stop the violation
 - · Report it through the chain of command immediately
 - · Follow up with a written report to Camp Ravenna ENV

General LUCs at Camp Ravenna

- Most AOCs/MRSs marked off-limits with Siebert Stakes Acce an area requires coordination with ENV office
 All training requests reviewed and approved by CR staff
- Using units receive mandatory in-brief
- CR service team assigned oversight of using units Annual LUC training given to all full-time staff (legally required) All ground disturbance prohibited unless approved by ENV office
- Use of vehicles off road is prohibited except in designated areas .
- Mud must be knocked off of vehicles and equipment on site in the field before leaving the site and before using wash rack Only authorized personnel permitted on BRAC property no training permitted
- Groundwater use prohibited/limited base-wide ٠
- Perimeter fence
- Only enter authorized areas.





BRAC Property - LUCs

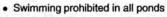
- · Prohibited access
 - Load lines 1, 3, 4, 5, 7, 8, 9, 10, and 11 fence
 - Open Demo Area #1 TA-G Seibert stakes
 - Open Demo Area #2 fence across road
 - Wet Storage fence
 - · 40 mm Firing Range Seibert stakes
 - Anchor Test Area Seibert stakes
 - Landfill North of Winklepeck locked gate to MK-19 range
 - Ramsdell Quarry Landfill signs
 - · C-Block Quarry Seibert stakes
- Suspect Mustard Site TA-G Seibert stakes
- Limited Access LL2, LL6, LL9, LL12

LUCs for Streams

- Dredging prohibited
 Vehicles may only cross at bridge/culvert
- · Foot traffic limited to incidental crossing
- · Water extraction must be
- approved in advance Sediments may not be disturbed
- · Bridge and culvert replacement projects must be coordinated in advance and reviewed by CR-ENV



LUCs for Ponds



- · Catch and release fishing (all former process ponds)
- · Mack's pond
 - · Access prohibited except for fire emergency
 - · Sediments may not be disturbed
- · Upper and Lower Cobb's, Kelly's Pond, Criggy's Pond, and WW III Ponds
 - Wading prohibited
 - · Sediments may not be disturbed

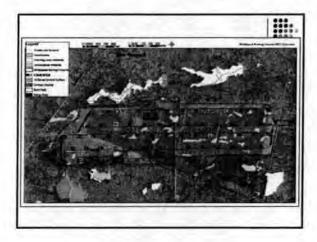


*** *** *** ***

....

MK-19 Range Site History

- The MK-19 Range was constructed on the former Winklepeck Burning Grounds (WBG).
 The WBG was cleaned up specifically to facilitate construction and operation of the MK-19 range.
 Soil was remediated and MEC removed to variable depths (surface and 1 foot) on the target arrays, firing points, the parking area, and a few burning pads.
 MEC was not removed in areas outside of the target arrays, firing points, and parking area.
 Use of the WBG is limited to a MK-19 range/small arms range and includes specific limitations on activities



LUCs for the MK-19 Range



- The MK-19 Range SOP must be followed.
- Access is controlled by CR Range Control
- All OICs, NCOICs, Safety Officers and NCIOCs must attend an annual briefing on the restrictions, environmental concerns, and LUCs applicable to this site.
- No one except trained CR Range Maintenance and Environmental personnel are permitted down range beyond the firing points.
- Any suspect MEC item must be reported immediately to CR Range Control. These items may not be disturbed.

LUCs for the MK-19 Range (continued)

- Targets may only be accessed by trained and approved CR staff and only on designated target access roads.
- Off road vehicle travel within the old WBG area is only permitted for mowing and vegetation control and only in dry soil conditions. Soil rutting is not permitted.
- Activities on the range are limited to only those activities necessary for training, maintenance operations, and range or environmental management.

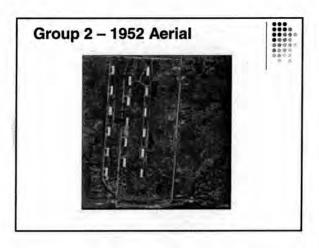
LUCs for the MK-19 Range (continued)

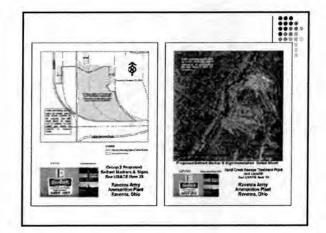
- Due to the potential to encounter MEC, no ground disturbance of any kind is permitted on the range.
- Culvert replacements must be coordinated with CR Range Operations and CR-ENV.
- No dirt or fill from the old WBG area may leave the site includes dirt in old culverts.
- Only fill approved by CR-ENV may be brought onto the MK-19 range.
- Pad at T-5301 may not be used as a storage area.

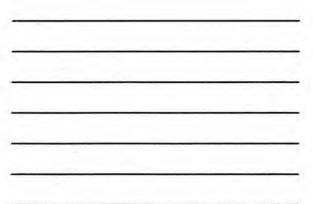
New AOCs and Other Areas

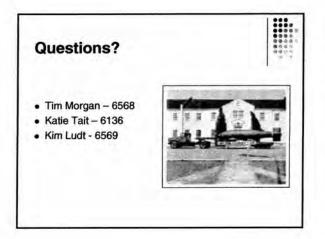
- Group 2 Propellant Lid Site
 Depot Area
- NBC Chamber (West Sub-Station)
 East Sub-Station
- Fuze and Booster Sub-Station
- · Former Stoare Tank Areas

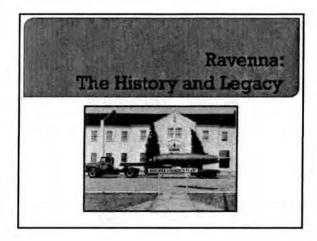
- Former Stoare Tank Areas
 Coal Storage Areas (C-Block, Depot, etc.)
 DLA Yard (Ore Storage)
 Route 80 Tank Farm
 East Classyard (Locomotive Repair Shop and Rail Pesticide Sprayer Storage Building)
 Behind Building 1048 Carbon Tetrachloride
 Building 1039 (former lab) and 1031 (former hospital)

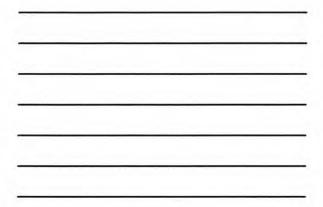












Land purchased by the United States government in 1939 and 1940 ~ 22,000 acres.

acres.
Prior to federal purchase, it consisted of 223 separate and privately-owned parcels, which were devoted primarily to agriculture. The land was purchased from individual property owners for a total cost of \$1.8 million.
The facility was constructed by over 17,000 people between September 1940 and August 1942. It cost approximately \$61 million to construct.

In early 1942, operations commenced by approximately 15,000 employees, with a twofold mission: anumition loading, assembling, and packing and depot storage of munitions and high explosives.
4 Major Caliber Lines (Load Lines 1-4)
7 Component Lines (Fuze and Booster Load Lines 5-11)
1 Ammonium Nitrate Line (Load Line 12)
Conventional Weapons Development and Testing Testing Demilitarization

1

Coct 1993 - Modified Caretaker @1993-1997-Asset Liquidation @1994 - Environmental Restoration Began

CHARNG has had a presence on the facility since the 1950s.

Property transfer to OHARNG began in 1999.

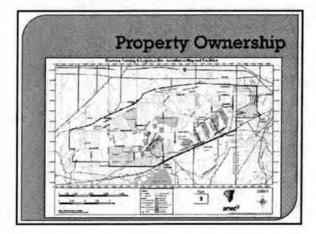
Current Property Ownership

Camp Ravenna Joint Military Training Center (CRIMTC)

• 20,403 acres • Managed by the OHARNG • Training and Land Management • Ravenna Army Ammunition Plant (RVAAP)

1,280 acres
 Managed by BRAC Division

- Environmental Restoration



Econtamination Contamination Seption Seption



Land Use Controls • Result of residual contamination left in place • LUC = A limitation or restriction on use of land • Julic = A limitation or restriction on use of land • Julic = A limitation or restriction on use of land • Pacifiate Image • Pacifiate

Basic Types of Land Use Controls

Fencing

Warning signs • Seibert stakes

«Knowledge of sites

- Designated training and land use
- restrictions
- Access restrictions
 Ground and surface water use
 restrictions
 Administrative policies

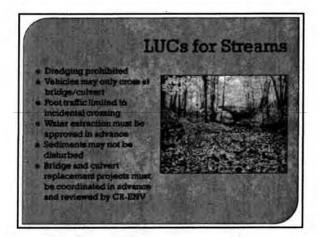
LUC Enforcement

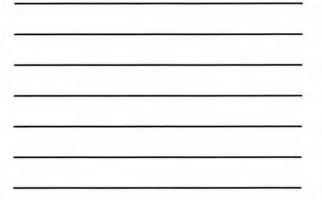
- . Who is responsible?
 - · Property Management Plan Enforceable document
- RVAAP property
 OHARNG property
 Ohio EPA
 What to do if you see a LUC violation?
 - Take immediate action to stop the violation
 - Report it through the chain of command inunediately
 Pollow up with a written report copy CR-ENV

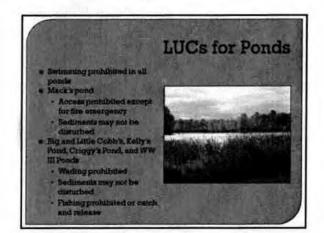
General LUCs at Camp Ravenna

- All training tequests royle work approved by CR staff
 Uning units receive mandatory in brinf
 CR service beam smigned oversight of using units
 Annual LNC training given to all full-time staff (legally required,
 All ground distarbance (digging, earth moving) prohibited onle
 approved by 22V office
 Des of vehicles off mail is prohibited excession distarbance once I road is prohibited except in danignated are areas ordeed off vehicles and equipment on alle in ting the site and before using weak rack personnal permitted access to MIAC proper need with Setbert states, warning signs, or to a problemed fimited have write
- e in the

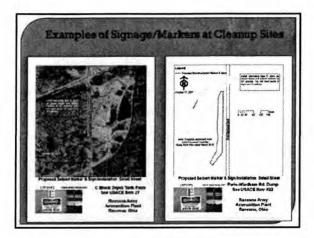
- r fence ar areas where you are authorized to be based on your villes. No wandering around.

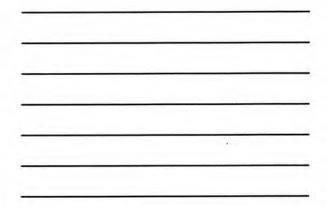






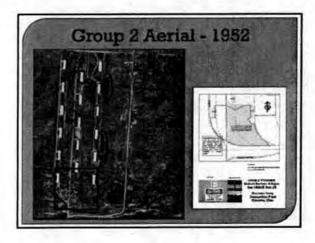
LUCs for Cultural Resources • Some cultural sites marked with Siebert sakes - Stay Out • Do not collect bottles, arrowheads, etcleave them in the field • CRIMTIC Inadvertent Discovery Policy • Outlines steps to be taken upon inadvortent discovery of human remains or artifacts at GMMTC during construction, demolition, training events, or during construction, during events, or during construction, during events, or during construction, during events, or during con

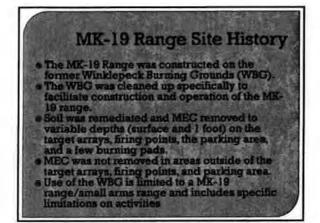


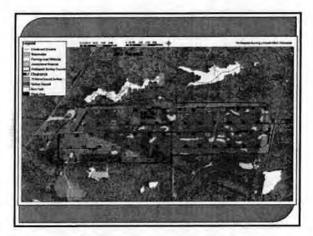


LUCs for Area Between Buildings 849 and 846

- s One live anti-personnel fragmentation bomb and metallic anomalies found Stay on roads
- Digging or earth moving prohibited No Vehicle Parking Area marked by Siebert Stakes Stay out
- besides ingress and egress

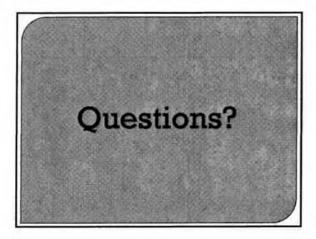


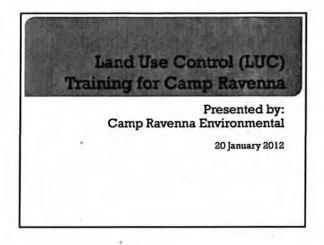




LUCs for the MK-19 Range

- . The MK-19 Range SOP must be followed.
- Access is controlled by CR Range Control
- No one except trained CR Range
 Control/Environmental personnel are permitted
- down range beyond the firing points.
 Any suspect MEC item must be reported immediately to CR Range Control. These items may not be disturbed.





Why do you have to take this training?

- e Legal requirement as set forth under the CERCLA cleanup program.
- Annual requirement
- eNeed awareness of LUCs at Camp Ravenna and where they are imposed and located.

Brief Facility History

- Bosnes Ravenne Army Ammunition Plant (RVAAF)
 Load, Assemble, and Pack Facility
 Four major caliber load lines melt-pour munitions loading
 One anunonium nitrate line
 Seven fuse and booster lines
 Storage Depot Explosives, Plnished rounds, Inert materials and equipment
 Demilitarization Activities
 Research and Development
 Burning grounds and lendfills

Timeline

Oct 1993 - Modified Caretaker @1993-1997 - Asset Liquidation @1994 - Environmental Restoration Began

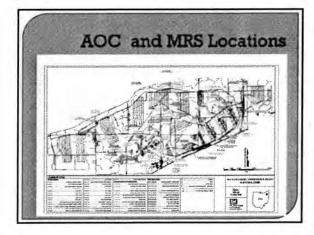
COHARNG has had a presence on the facility since the 1950s.

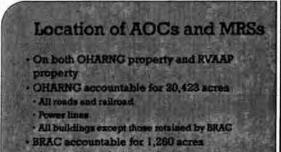
Property transfer to OHARNG began in 1999.

Result of Past Operations

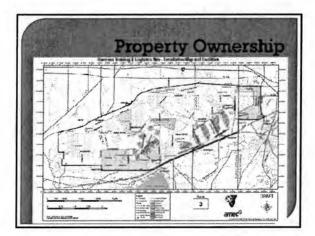
Contamination

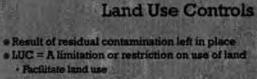
- Contamination
 Exploarnes
 Residue from birming operations
 Residue from birming operations
 Munitions and Explosives of Concern (MEC)
 Landfills or dump sites
 Hestardous materials storage amas
 Wakie Maintenance Areas
 Wakie Maintenance Areas
 Waker and coverage treatment plants
 B1 cleanup sites
 both chemical and munitions
 contamination (identified as Areas of Concern
 (AOC's) and Munitions Response Sites (MRSs))





- A few buildings in the Post I area
- Load lines and a few other areas
- BRAC and AEC responsible for cleanup





- · Protect human health and the environment

- Comply with legal requirements
 Memorialized in a Decision Document (DD).
 LUCs are <u>NOT</u> Optional
 Managed via a Property Management Plan
 (PMP)

.

Basic Types of Land Use Controls

· Fencing

- Warning signs
 Seibert stakes
 Knowledge of sites
 Designated training and land use
 restrictions
- Access restrictions
 Ground water and surface water use
- restrictions
- a Administrative policies

LUC Enforcement

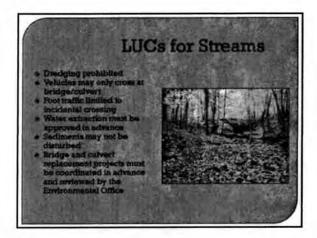
- Who is responsible?
- RVAAP property
 OHARNG property
- + Ohio EPA
- What to do if you see a LUC violation?
 - . Take immediate action to stop the violation
- · Report it through the chain of command immediately
- · Follow up with a written report to Camp Ravenna ENV

General LUCs at Camp Ravenna

- by CR and

- ve mandatory to brief assigned oversight of tising uhits thig gives to all full-time staff (legally require forance prohibited unless approved by ENV of 6 road is prohibited except in designated are

- whiches and equipment on alle in the s and before using wesh tack permitted access to BRAC property subset stakes, warning signs, or fance drimtice base wide
- d to be based on you dering around



LUCs for Ponds

- Swimming prohibited in all ponds
 Catch and release fishing (all former process

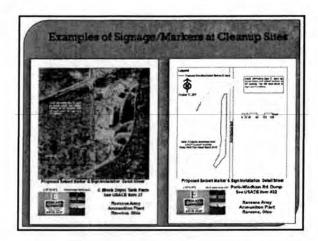
- Gatch and release instang (an anticipation of the pond)
 Mack's pond
 Access prohibited except for fire emergency
 Sediments may not be disturbed
 Upper and Lower Cobb's, Kelly's Pond, Criggy's
 Pond, and WW III Ponds
 Wading prohibited
 Sediments may not be disturbed

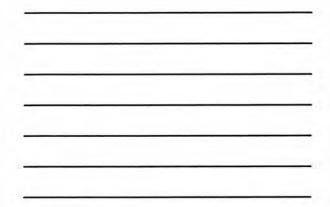


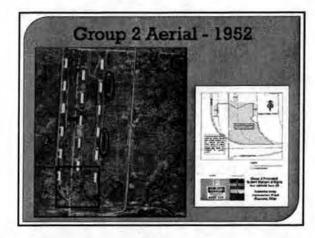
LUCs for Cultural Resources

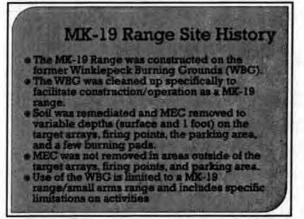
- . Some cultural sites marked with Siebert
- Some cultural sites marked with Siebert stakes Stay Out
 Do not collect bottles, arrowheads, etc -Leave them in the field
 CRIMTC Inadvertent Discovery Policy
 Outlines steps to be taken upon inadvertent discovery of human remains or arillacts at CRIMTC during construction, demolition, training events, or other ground disrubing activities.
 It is intended for all OHARING personnel and contractors.

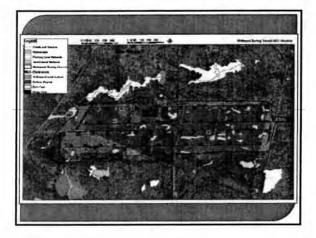
- - If found, stop what your doing and call Range Control at 6041

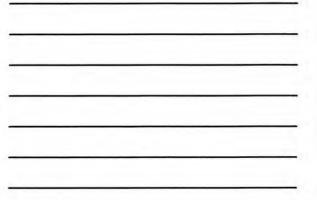












LUCs for the MK-19 Range

- The MK-19 Range SOP must be followed.
 Access is controlled by CR Range Control
- No one except trained CR Range

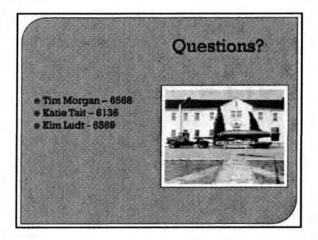
.

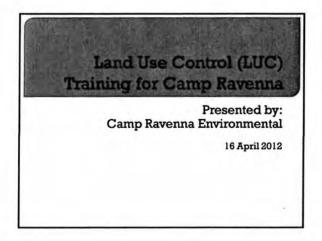
- No one except trained CK hange Control/Environmental personnel are permitted down range beyond the firing points. Any suspect MEC item must be reported immediately to CR Range Control. These items may not be disturbed.

New AOCs and Other Areas

- ap 2 Propellant Lid Site of Area Chamber (West Sub-Station) Sub-Station and Booster Sub-Station er Storage Tank Areas Storage Areas (C-Block, Depot, etc.) Yard (Ore Storage) e 80 Tank Farm

- Fank Farm sayard (Locomotive Repair Shop and Rafi s Sprayer Storage Building) huilding 1048 Carbon Tetrachloride 1038 (former lab) and 1031 (former





Why do you have to take this training?

- eLegal requirement as set forth under the CERCLA cleanup program. Annual requirement for all permanent
- units at Camp Ravenna
- eNeed awareness of LUCs at Camp Ravenna and where they are imposed and located.

Brief Facility History

- Former Ravenna Army Ammunition Plant (RVAAP)
 Load, Assemble, and Pack Pacility
 Four major caliber load lines mell-pour munitions loading
 One ammonium nitrate line
 Seven fuse and booster lines
 Storage Depot Explosives, Finished rounds, Inest materials and equipment
 Demilitarization Activities
 Research and Dovalopment
 Burning grounds and landfills

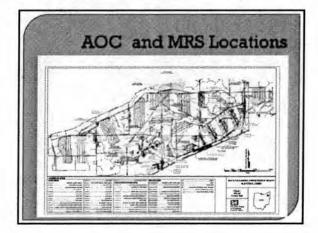
Timeline Cct 1993 - Modified Caretaker #1993-1997 - Asset Liquidation +1994 - Environmental Restoration Began CHARNG has had a presence on the facility since the 1950s. Property transfer to OHARNG began in 1999.

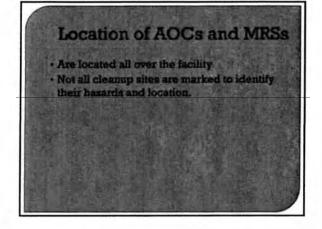
Result of Past Operations

· Contamination

- d E arn (MEC)

- Landbills or dump sites
 Harandons materials storage areas
 Volicie Maintenance Areas
 Si clearnup sites- both chemical and munifions
 contamination (identified as Areas of Concern
 (AOCs) and Munifions Response Sites (MRSs)) Some sites have restrictions 81 cle





Land Use Controls

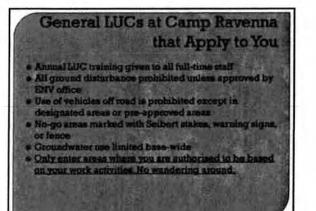
- a LUC = A limitation or restriction on use of land · Pacilitate land use

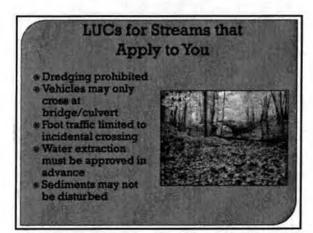
- Protect human health and the environment
 Compty with legal requirements
 Result of residual contamination left in place

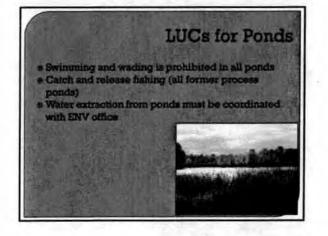
Basic Types of Land Use Controls

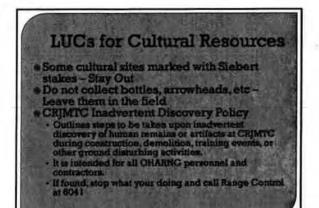
- . Fencing

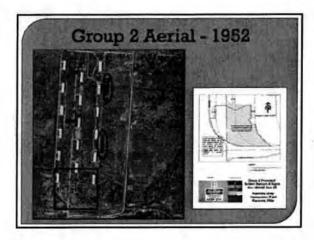
- Fencing
 Warning signs
 Seihert stakes
 Knowledge of sites
 Designated training and land use restrictions
 Access restrictions
 Ground water and surface water use
- restrictions
- a Administrative policies

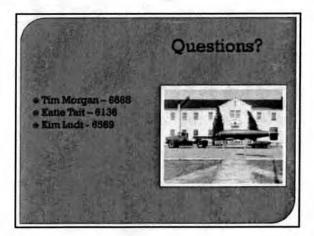












. 4

MK19 Range SOP -Environmental Section

CRJMTC MK-19

Camp Ravenna Joint Military Training Center SOP Newton Falls, Ohio 22 OCTOBER 2012

MK 19, 40-mm Grenade Machine Gun Range Operations

Effective 23 OCTOBER 2012

APPLICABILITY: This circular applies to all elements of the Camp Ravenna Joint Military Training Center (CRJMTC).

SUMMARY: This circular contains standard operating procedures for conduct of firing on the MK 19, 40-mm Grenade Machine Gun Range at CRJMTC.

INTERNAL CONTROL: This circular is not subject to the requirements of AR 11-2.

SUPPLEMENTATION: Supplementation of this circular is not authorized.

SUGGESTED IMPROVEMENT: The proponent of this circular is the Camp Ravenna Joint Military Training Center Commander. Users may send comments and suggested improvements to the Ravenna Training and Logistics Site, ATTN: Commander, 1438 State Route 534 SW, Newton Falls, Ohio 44444. **SUPERSESSION NOTICE:** N/A.

INTERIM CHANGES: Interim changes are official when authenticated by the Commander.

1. <u>REFERENCES.</u>

- FM 3-22.27, MK 19, 40-mm Grenade Machine Gun, MOD 3 dtd ,28 Nov 03.
- AR 385-63, Range Safety, dtd 19 May 03
- DA Pam 385-63, Range Safety, dtd 19 May 03
- TM, 9-1010-230-10, Operator's Manual, Machine Gun, 40mm MK 19 Mod 3, dtd May 2001
- TM 9-1010-230-23&P, Unit and Direct Support Maintenance, Machine Gun, 40mm MK 19, Mod 3, dtd 20 October 2000.
- 2. <u>PURPOSE</u>. The purpose of this standard operating procedure is to outline the requirements and to provide guidance for MK-19 range fire at CRJMTC.
- 3. <u>GENERAL</u>. Training is a command responsibility. It also a command responsibility to ensure adequate equipment and personnel are available to conduct safe operation is provided.

Table of Contents:

- Annex A: Range Scheduling/Issue/Turn In Procedures
- Annex B: Range Orientation
- Annex C: Courses of Fire Available
- Annex D: Range Control Requirements
- Annex E: Emergency Response Procedures
- Annex F: Ammunition Requirements
- Annex G: Medical Requirements
- Annex H: Communications Requirements
- Annex I: Logistical Requirements
- Annex J: Risk Assessment
- Annex K: Environmental Considerations

Annex K, Environmental Considerations, to CRJMTC SOP, MK-19, 40mm Grenade Machine Gun Range Operations, dtd 21 May 2006

1. The MK-19 Range was constructed on an Area of Concern (AOC) identified as the Winklepeck Burning Grounds (WBG). The WBG has been environmentally cleaned up to facilitate its reuse as a MK-19 Grenade Machine Gun Range. However, residual contamination and munitions and explosives on concern (MEC) still remain at the AOC.

2. As part of the reuse of this AOC and due to residual contamination and MEC, certain restrictions involving daily operations and work activities apply and must be implemented to insure the safety of Soldiers training and range personnel working on site. Additionally, other environmental aspects involving wetlands, streams, and storm water must be considered as part of the use of this site as a MK-19 Range.

- a. All OICs, NCOICs, Safety Officers and NCIOCs must attend an annual briefing on the restrictions, environmental concerns, and Land Use Controls (LUCs) applicable to this site.
- b. No one except trained/authorized CRJMTC Range Maintenance and Environmental personnel are permitted down range beyond the firing points.
- c. All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range/Winklepeck is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts;
 - 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 1 foot below ground surface.
- d. Maintenance activities such as the following can be performed by Range Maintenance and/or similar authorized personnel:
 - Maintenance of targetry and associated lifting mechanisms;
 - Range maintenance including, but not limited to, such activities as removal of target practice rounds from the ground surface within the impact area and clearing of target practice rounds from the surface of the range area;
 - Road and culvert repair;
 - Routing ditch maintenance;
 - Vegetation management (e.g., mowing, brush and weed cutting, controlled burning, and herbicide application);
 - Compatible natural resources management activities including but not limited to such activities as flora and fauna surveys and timber management;
 - Nuisance wildlife control;
 - Drainage maintenance;
 - Wetland delineations;
 - Grassland management;
 - Scientific research; and
 - Sampling.
- e. Any suspect MEC item must be reported immediately to CRJMTC Operations. These items may not be disturbed.
- f. Lane 1 is not currently developed for range use. Lanes 2-4 only are currently available for firing. Access to Firing Point One will be blocked. No firing is permitted from lanes 2-4 into Lane 1.

- g. Targets may only be accessed by trained and approved CRJMTC staff and only on designated target access roads. Cross country vehicular travel other than for mowing and vegetation control is not permitted.
- h. Activities on the range must be limited to only those activities necessary for training, maintenance operations, and range or environmental management and must be conducted by Range Maintenance or authorized personnel.
- i. To protect surface water, CRJMTC Range Maintenance personnel are required to walk along the portion of Sand Creek that is located within the range and pick up any training rounds within or adjacent to the creek area. This will be conducted after each range fire and will be logged using the MK19 Range Round Pick-up Tracker.

Date Of Round Pick-Up	[•] Quantity of Rounds	Name
	······································	
······································		
: ••••••••••••••••••••••••••••••••••••		
~	L	

MK19 Range Round Pick-Up Tracker

Completed Contractor Briefs

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC) the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all appropriate individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities within WBG shall be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

All groundwater activities must be coordinated with the OHARNG prior to work activities.

- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

Name	Company	Date
Tod Clandal	PRNCY REGOURCeGios	9-9-17
,		

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC) the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all appropriate individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities within WBG shall be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - o 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

All groundwater activities must be coordinated with the OHARNG prior to work activities.

- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

Name	Company	Date
Man Jeb	FRM	10/10/12
Kay Child	EQU	16/10/12

31 May 2012 @ 0800 Brief Given By Kathe Tait EQN Groundwater Well Installation at Winklepeck

RVAAP-05 Winklepeck Burning Grounds – Access Information Brief for Contractors/Visitors

The Army is required to conduct Long Term Monitoring (LTM)/Land Use Control (LUC) monitoring activities at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. Land Use Controls (LUCs) include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a small arms range but due to residual contamination and potential for munitions and explosives of concern (MEC) the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all appropriate individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities within WBG shall be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits. All digging by contractors is prohibited. Only authorized range personnel are permitted to conduct digging activities in accordance with established LUCs.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

All groundwater activities must be coordinated with the OHARNG prior to work activities.

• Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.

Name	Company	Date	
Joh pr mill	EQM	5/3//12	
XXXX Drushatt	EaM	3/31/12	
PANIS FEWELN	PIKa	5,-31-12	
DAVID FEWEL	PIKA	5/3/1/2	
Joe leter	Frontz	5-31 - 12	
Robert Fath #	Frontz	5/31/12	

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC) the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all appropriate individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities within WBG shall be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

All groundwater activities must be coordinated with the OHARNG prior to work activities.

- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

Name-	/ Company	Date
HERMINE YELA	AN Frank's Mainte	- 6/27/12
gour a ar		La 6/27/112.
steph sturge	an Elam	6-28-12
Costleg 0	EØM	6/27-12
Manher	S ERM	6/28/12
PHELLIP HELPH	UT FOM	7/10/2012
Cinhe Contri	Fom	7/10/12

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC) the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all appropriate individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities within WBG shall be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - o 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - o The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

All groundwater activities must be coordinated with the OHARNG prior to work activities.

- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

Name	Company	Date
HARON Mackey	Gontz Deilling In	6-11-12
/		

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC) the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all appropriate individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities within WBG shall be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

All groundwater activities must be coordinated with the OHARNG prior to work activities.

- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

Name	Company	ź		Date
DON Trocchio	Vista	Sciences C	iop.	JULY 17, 2012

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC) the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all appropriate individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities within WBG shall be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.
 - All groundwater activities must be coordinated with the OHARNG prior to work activities.
- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

Name	Company	Date
Julin L. Day thisklig	USACE	6-4-2012

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC) the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all appropriate individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities within WBG shall be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.
 - All groundwater activities must be coordinated with the OHARNG prior to work activities.
- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

Name	Company	Date
Derek Kinder Dell	USACE	5/31/2012

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC) the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all appropriate individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities within WBG shall be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - o 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

All groundwater activities must be coordinated with the OHARNG prior to work activities.

- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

Name	Company	Date
HARON Mackey	Gontz Deilling In	6-11-12
MARX NICHTER	USACE	6-12-12

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP)

> Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

ATTACHMENT 3

Response to Comments (RTC)

Final First Quarter, Revision 1.1, Response to Comments:

The document is dated July 19, 2013 and was received at Ohio EPA on July 23, 2013. The document was prepared for the USACE - Louisville District by Vista Sciences Inc. under contract number W912QR-11P-0086. This is the third version of the first inspection report that has been submitted and reviewed. Pursuant to the June 10, 2004 Director's Final Findings and Orders paragraphs 39-44, this document is disapproved. Disapproval is based upon the following comments:

1. "The condition of the fence is meeting the fence's primary use of being a security measure." [Response to Comment (RTC) #4.]:

The Ohio EPA disagrees with the statement that the primary use of the perimeter fence is as a security measure. Please cross-reference all information with respect to the Property Management Plan and enforceability of LUCs under the applicable Record of Decision (RODs) and Remedial Designs (RDs) which were prepared in accordance with the Directors Final Findings and Orders (DFFOs).

Comment noted. The fence serves two purposes, one as a security measure for the facility and one as a land use control under the PMP. Text in the inspection form will be revised to state: "The perimeter fence has areas that are in need of repair to meet its function under the PMP as a land use control (LUC)." Please note that the purpose of the Quarterly LUC Inspections is to identify these areas so they can be remedied, and to document corrective actions taken or recommended.

"The fence deters unauthorized access as it provides a visual demarcation of the facility." [RTC #4]:

Please note that there are a number of areas where the fence is in disrepair and/or missing and which could be attractive to potential trespassers vs. serving as a deterrent. Comment noted. Please see response to Comment 1

- 3. "Overall, the fence is being maintained as required in its primary purpose of deterring unauthorized access, and the land use at WBG is limited and has not changed." [RTC #4]: The perimeter fence is in disrepair. Please cross-reference all information detailed in this correspondence with respect to the PMP and enforceability of LUCs under the applicable RODs and RDs which were prepared in accordance with the DFFOs. Comment noted. Please see response to Comment 1.
- 4. Immediate corrective action of a LUC violation is required under the PMP (section 6.0). The text in the RTCs references the PMP, but fails to acknowledge that the examples cited in the RTCs and the PMP were examples and, therefore, not all inclusive. Specifically, missing sections of the fence, holes etc. are LUC violations that require reporting and corrective action. Comment noted. It is understood that disrepair of the fence (holes, missing sections) are LUC violations. Reporting of LUC violations and corrective actions taken will be provided in subsequent inspections and the annual report.
- 5. Information on the inspection form included in this report has changed between the 'draft' and 'final' submittals, while retaining the original date and signature of inspection (i.e. November 06, 2012 and Mr. Jim McGee of Vista, respectively). As submitted in the 'final' report, it is unclear to stakeholders that a change has occurred to the original inspection form. Therefore, for clarity and transparency to stakeholders, please resubmit the original inspection form(s) for this report,

along with the corrected inspection form(s). Documentation for changes to original inspection forms should include the following:

- a. Changes to the original inspection form
- b. Explanation for those changes
- c. Date that the changes were made; and printed name, position at the RVAAP/CRJMTC project

d. And signature of person documenting that change to the original inspection form. Vista will add the previous 'changed' inspections forms as an attachment with cover pages for each inspection form noting the source, i.e. draft version, final version, revised final, etc.

6. Cross-reference all Ohio EPA comments dated February 28, 2013 and May 06, 2013. Noted. Comments will be cross referenced.

Army Response to Ohio EPA Comments

Final Report FY 2013 First Quarter Property Management Plan Quarterly Land Use Control (LUC) Inspection RVAAP-05 Winklepeck Burning Grounds Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP), Ravenna, Ohio Ohio EPA Letter dated May 6th, 2013 (Certified Mail #7012 1010 0002 2260 4060)

NOTE: Army Responses to Comments in BOLD

Ohio EPA has the following comments on the "final" document:

1 Ohio EPA provided comments to the Army on February 28, 2013, in a letter format. Army responses were provided in a RTC format. Ohio EPA respectfully requests that responses be presented in the same format as received.

The Army is providing responses in a letter format as requested.

2. In the "Activities and Land Use" section on page 2, a date for the interview with OHARNG Range Control staff was not provided.

Propose to add text stating the interview was conducted on 1 November, 2012.

3. In the section that discusses "Description of any Observed/Noted Land Use Control (LUC) Violation(s), on page 4:

a. Ohio EPA will accept that this section verifies that the Army understands/accepts that the current condition of the fence is in violation, even though the term "violation" does not appear in the document, as was agreed to by the OHARNG during the April 03, 2013 conference call.

b. Ohio EPA disagrees with the statement that states that "the fence also supports the need to deter access to environmental restoration sites as appropriate."

i. Again, please refer to Section 4.1.1 of the approved PMP. The perimeter fence is "the only facility-wide engineering control that would be considered as a LUC for all AOCs/MRSs that require LUCs/restrictions due to residual contamination." The perimeter fence is defined as the facility-wide LUC in the PMP.

ii The text currently states that portions of the fence are in poor condition and require repair The fence is more than in "poor condition." There is minimally a 70 foot missing section and there are areas where the general public could easily obtain access - including an area near a mobile home park/residential area that also contains playground equipment. The lack of a fence is a safety and health risk for the public, since the engineering control is not functional.

Propose to revise text in "Description of any Observed/Noted Land Use Control (LUC)

Violation(s)" as follows: The Camp Ravenna perimeter fence has missing sections, openings/holes in the fence fabric, and locations in general disrepair. See Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" and attached Detail Sheets. Please Note that due to the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

4 In the section that discusses "Date of Notification of LUC Violation (if applicable)," the text indicates that the information regarding the condition of the fence was "previously conveyed to the Army informally."

a Please note that Section 6.0 of the approved PMP specifically states the following: "Any observed LUC violations will be reported to the Army component in charge (e.g. RVAAP BRACD Facility Manager or OHARNG CO) within 48 hours, or as soon as practicable." Based upon the lack of corrective action on this violation, it is apparent that an "informal" method of notice is not adequate to ensure protectiveness of the site and the procedure should be modified. The modifications should be discussed in the LUC quarterly inspection document to demonstrate that the protectiveness of the site will be maintained.

The PMP states "If Army personnel observe a LUC violation, they will immediately take appropriate corrective action (e.g., halt excavation operations, apprehend trespasser(s), take appropriate action to safely remove trespassers from unauthorized areas, etc.)." If any such violations were observed immediate action would be taken and reported as required. The condition of the fence is meeting the fence's primary use of being a security measure.

The fence is being maintained with the funding currently available. The fence deters unauthorized access as it provides a visual demarcation of the facility. Additional security measures also deter access such as controlled access to the facility and internal signage marking ranges. Section 4.1.1 of the PMP state that "the perimeter fence will be maintained" and section A-1.6 states "Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence". Overall, the fence is being maintained as required in its primary purpose of deterring unauthorized access, and the land use at WBG is limited and has not changed.

b Additionally the text on the top of page 2 specifically states: "These deficiencies must be immediately reported to the Army." Please confirm that this occurred, that there is a record of the LUC violation being reported, and provide the date of the "informal" notification with the corrective action that is required, along with a schedule.

The Army contractor completing the quarterly inspections provides the findings to the Ohio Army National Guard and BRACD facility Manager. Propose to add the following text to the "Additional Notes/Comments:" section: "For future inspections (beginning with the FY2013 4th Quarter Inspection), the person completing the inspection will provide daily reports to the Army documenting where any new deficiencies in the perimeter fence were found."

5. In the section entitled, "Description of Corrective Action Taken to Remedy Observed LUC Violation(s) or Recommended Corrective Actions:"

a The Army indicates in this section that select areas of the fence will be repaired, that funding is limited, etc. During the call on April 03, 2013, the OHARNG additionally stated that Defense Environmental Restoration Program (DERP) funding could not be utilized for fence repair. This is counter to what has been communicated by Department of Defense (DoD) officials to state government officials at national meetings discussing the DERP and which was attended by representatives of Ohio EPA. Specifically, that funding for operation and maintenance (O&M) activities to ensure remedy effectiveness was a high priority for funding under the DERP and, in fact, was the top project-related priority in times of funding cuts to DERP. We relayed this information to the Army during the April 03, 2013 conference call. And while Ohio EPA is aware that the source of funding for fence repair is an internal Army issue, maintenance of the perimeter fence as a LUC was agreed to by the Army throughout the remedial process and in the PMP. Ohio EPA has clearly stated over the years that the maintenance of the perimeter fence is a priority. As such, we expect to see the fence repaired in an expedited manner and maintained appropriately in the future, to ensure protectiveness of the site in compliance with the June 10, 2004 Director's Final Findings and Orders.

During the conference call, Ohio EPA offered alternatives that may assist in keeping the perimeter fence in good shape. For an example, there was a discussion of potentially "scavenging" internal fencing that would not be needed for Area of Concern (AOC)/Munitions Response Site (MRS) remedies for use in repairing/replacing perimeter fencing that has been breached, or missing. However, there is no discussion in this document of any alternatives to address this violation to expedite the needed repairs and address the protectiveness of the site.

The Army has "scavenged" internal fencing for use in repairing/replacing perimeter fencing and plans to continue to do so in the future. Please note that due to the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance. The PMP states "If Army personnel observe a LUC violation, they will immediately take appropriate corrective action (e.g., halt excavation operations, apprehend trespasser(s), take appropriate action to safely remove trespassers from unauthorized areas, etc.)." If any such violations were observed immediate action would be taken and reported as required.

b. The current text does not provide an adequate schedule to Ohio EPA as to when the repairs/replacement of the fencing will occur.

The Army is unable to provide a schedule to the Ohio EPA as to when the repairs/replacement of the fencing will occur. Repairs are currently being conducted and will be reported in the LUC inspection reports for Winklepeck.

6. On page 4, the signature block indicates that the inspection form was completed by Mr. Jim McGee, and is dated November 6, 2012. This is not possible. Changes were made to this inspection form subsequent to the draft document (and which also contained the November 6, 2012) date; and, Mr. Jim McGee left the employ of Vista in late December 2012. Please provide Ohio EPA with an accurate form that contains the authors of this revised form/report and the correct date. If at some appropriate place on the form you want to indicate that Mr. McGee performed the original inspection, that is fine, but he clearly did not prepare this revised form.

Text has been revised to show that Mr. Jim Mcgee completed the original inspection and corrections to the document have subsequently been made. Revisions to the LUC Quarterly Inspection Report were completed by the Army to resolve Ohio EPA comments.

7 Attachment 2 indicates that formal LUC training has been given since 2006. The draft report stated 2005. Please rectify the disconnect in the dates and provide an accurate date for the training.

2006 date will be corrected to 2005

Draft Report FY 2013 First Quarter Property Management Plan Quarterly Land Use Control (LUC) Inspection RVAAP-05 Winklepeck Burning Grounds Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP), Ravenna, Ohio Ohio EPA Letter dated February 28th, 2013 (Certified Mail #7012 1010 0000 9467 5168)

NOTE: Army Responses to Comments in BOLD

Ohio EPA Comments

1. In the "Description of any observed/noted LUC Violations" box on page 4, the statement is made that "No LUC violations were observed or noted during the quarterly inspection". Ohio EPA is in disagreement with this assessment, based upon not only our observations during our February 20 - 22, 2013 perimeter fence inspection, but also due to Attachment 1, which appears in this quarterly report. The perimeter fence is an engineering control that is a LUC for not only Winklepeck Burning Grounds (WBG), but for all OACs/Munitions Response Site (MRS) that require LUCs/restrictions due to residual contamination. Both clearly demonstrate that there are LUC violations, as there are areas of access to the installation due to missing sections of fencing, as well as holes in the perimeter fence that would allow access to a trespasser. This section needs to be revised to indicate that there are violations. (The completed contractor forms in the back section of the CRJMJTC LUC training slides indicates (among other items) that the "land use of the WBG AOC shall be limited by maintenance of the existing camp Ravenna fence." This directly contradicts the assessment made during the Quarterly inspection.) Propose to revise text in "Description of any Observed/Noted Land Use Control (LUC) Violation(s)" as follows: The Camp Ravenna perimeter fence has missing sections, openings/holes in the fence fabric, and locations in general disrepair. See Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" and attached Detail Sheets. Please Note that due to the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

2. In the "Date of LUC violations and Description of Corrective Actions taken" boxes on page 4 there are no entries. However, as fence pictures #5 and #6 depict, on November 06, 2012, there were missing sections of fence located on the northern side of the installation, approximately ½ mile east of the Gorge. Yet, during Ohio EPA's fence inspection conducted during February 20 -22, 2013, these sections appear to have been repaired. It would logically follow that the LUC violation was reported on a certain date and corrective actions taken. Why is this not reflected in the inspection report? Minimally, even if the corrective actions were taken after the preparation of this report, the report should contain the date that the LUC violation was noted.

VSC will include details of repairs in the 2nd quarterly report FY2013.

3. On attachment 1, page 1, at the bottom, please remove the note that states, "If the double-barbed wire top guard on the fence is determined to no longer be needed to deter intruders, the cost to maintain the perimeter fence would be greatly reduced". At this point in time, whether or not this can be removed is speculative. The final Property Management Plan (PMP), section 4.1.1, specifically addresses the perimeter fence and the process for determining if something would no longer be necessary.

VSC will delete the text: If the double-barbed wire top guard on the fence is determined to no longer be needed to deter intruders, the cost to maintain the perimeter fence would be greatly reduced.

4. Fence picture #1 has a photo date of October 24, 2012, yet the report indicates that the inspection was conducted on November 6, 2012. Please rectify the disconnect between the text and the photo. Inspection was conducted October 24, 2012 to November 6, 2012, text will be corrected to reflect accurate date.

5. On the applicable CRJMTC LUC training slides, please note the following:

a. Please clarify if only the LUC presentations are included in here, as the contents of the slides and the training sign-off sheets do not match.

b. At RVAAP, there are Records of Decisions (RODs) vs. Decision Documents (DDs)

c. Please clarify how "knowledge of sites" constitutes a LUC

d. Please clarify how knocking mud off a vehicle is a LUC. This is more of a best management practice (BMP).

e. On page 5 of attachment 2, the middle slide details Base Realignment and Closure (BRAC) LUCs. As the Army recalls, this effort was started to have some control of access/warning signs for MRSs prior to having all the data available from these MRSs under the Military Munitions Response Program (MMRP). There was a long discussion of, and agreement among all parties, to not call these LUCs.

Comments noted and will be considered when slides are prepared for 2013 training.

6. Areas of the fence that were noted to be problematic in Ohio EPA's February 2013 inspection (i.e., ripped fabric, areas where the road is slumping around culverts, etc.) were not noted in the first quarterly report. The damage to the fence did not appear to be recent and there is concern that the Army and Ohio EPA are not on the same page in terms of what should be inspected, reported, and ultimately repaired. There were several areas that were noted in our February 2013 inspection that require repair now. **Noted**

Ohio EPA Additional Concerns 1. The document should contain an acronym list **An acronym list will be included.**

2. As in all draft documents, where applicable, line numbers should be added to the text. Line numbers will be included in future Draft documents.

3. Ensure that the correct acronyms are used throughout and are identified the first time that they are used. For example, on page 1, the incorrect acronym for the facility wide groundwater program is used; and AOC, MEC, and UXO etc. are not identified the first time they are used. Again, this is not all inclusive. **Acronyms will be corrected.**

4. In the "Area of Concern (AOC) Map" box on page 2, the wrong date is provided. Please change 1012 to 2012.

Text typo will be corrected from 1012 to 2012.

5. In the "Activities and Land Use" box page 2, please provide a date for the interview with the Ohio Army National Guard (OHARNG) Range Supervisor.

Date will be included to read November 1, 2012

6. In the "Activities and Land Use" box on page 2, please provide a date for the interview with the Environmental Quality Management (EQM) personnel. **Date will be included to read October 31, 2012**

7. In the "Inspections and Reporting" box on page 3, please provide clarification as to when the first annual report is scheduled to be completed. This should appear on the RVAAP master schedule. **The Army plans to complete the 4th quarter inspection in July 2013. Once the field work and interviews for the inspection are complete, the 4th quarter inspection report and the annual report will begin to be produced. Findings of the 4th quarter inspection will be included in the annual report.**

8. In the "Training" box on page 3, it indicates that the next training is scheduled for December 1, 2012. As this document is dated December 2012, but was not received until January 14, 2013, it is unclear as to whether or not this occurred or if the intent is to capture the training in the next quarterly inspection, Please clarify.

December training has already occurred and will be included in the 2nd quarterly report FY2013.

9. On Attachment 1, page 1; correct the spelling of "breech" to "breach". **Text typo will be corrected to read breach vs breech**

10. Ohio EPA recommends using a Global Positioning System (GPS) to mark coordinates for future reports.

GPS will be used to mark coordinates in future reports.

11. Ohio EPA recommends that all issues noted with the fence that are starting to show wear (ex., broken top brackets, broken fence posts, missing barbed wire, small holes, areas where rebar has been driven into the ground to deter access, etc.) as well as the more significant problem areas (ex., missing panels of wire mesh, large holes near residential areas, etc.), be logged, with a description of the problem. This running punch list of areas could be inserted into every quarterly report with notations as to when and how repairs were conducted.

Noted

12. A schedule for repairs should be included in the quarterly reports.

The Army is unable to provide a schedule to the Ohio EPA as to when the repairs/replacement of the fencing will occur. Please note that due to the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

Ravenna Army Ammunition Plant Ravenna, OH 1st Quarterly Land Use Control Inspection Draft Report – December 2012 Comment Response Table

Comment	Page/Line	New	Comment	Recommendation	Response
Number	Number	Page or			
		Sheet			
				1	
1	Inspection		In the "Description of any observed/noted LUC		Further discussion with the Ohio
	form, Page 4		Violations" box on page 4, the statement is		EPA is requested for clarification
			made that "No LUC violations were observed or		as to what constitutes a violation.
			noted during the quarterly inspection". Ohio		
			EPA is in disagreement with this assessment,		
			based upon not only our observations during		
			our February 20 – 22, 2013 perimeter fence		
			inspection, but also due to Attachment 1, which		
			appears in this quarterly report. The perimeter		
			fence is an engineering control that is a LUC for		
			not only Winklepeck Burning Grounds (WBG),		
			but for all OACs/Munitions Response Site		
			(MRS) that require LUCs/restrictions due to		
			residual contamination. Both clearly demonstrate that there are LUC violations, as		
			there are areas of access to the installation due		
			to missing sections of fencing, as well as holes in the perimeter fence that would allow access		
			to a trespasser. This section needs to be		
			revised to indicate that there are violations.		
			(The completed contractor forms in the back		
			section of the CRJMJTC LUC training slides		
			indicates (among other items) that the "land use		
			of the WBG AOC shall be limited by		
			maintenance of the existing camp Ravenna		
			fence." This directly contradicts the assessment		
			made during the Quarterly inspection.)		
i		l	indus during the eductory inspection.		

2	In the "Date of LUC violations and Description of Corrective Actions taken" boxes on page 4 there are no entries. However, as fence pictures #5 and #6 depict, on November 06, 2012, there were missing sections of fence located on the northern side of the installation, approximately ½ mile east of the Gorge. Yet, during Ohio EPA's fence inspection conducted during		will include details of in the 2 nd quarterly report FY2013.
	February 20 -22, 2013, these sections appear to have been repaired. It would logically follow that the LUC violation was reported on a certain date and corrective actions taken. Why is this not reflected in the inspection report? Minimally, even if the corrective actions were taken after the preparation of this report, the report should contain the date that the LUC violation was noted.		
3		double- the fe long intrude	vill delete the text: If the barbed wire top guard on nce is determined to no er be needed to deter ers, the cost to maintain erimeter fence would be greatly reduced.
4	Fence picture #1 has a photo date of October 24, 2012, yet the report indicates that the inspection was conducted on November 6, 2012. Please rectify the disconnect between the text and the photo.	Octobe 6, 2012	ection was conducted er 24, 2012 to November 2, text will be corrected to flect accurate date.
5	On the applicable CRJMTC LUC training slides, please note the following: a. Please clarify if only the LUC	taken i	nents noted and will be nto account when slides epared for 2013 training.

	presentations are included in here, as	
	the contents of the slides and the	
	training sign-off sheets do not match.	
	b. At RVAAP, there are Records of	
	Decisions (RODs) vs. Decision	
	Documents (DDs)	
	c. Please clarify how "knowledge of sites"	
	constitutes a LUC	
	d. Please clarify how knocking mud off a	
	vehicle is a LUC. This is more of a best	
	management practice (BMP).	
	e. On page 5 of attachment 2, the middle	
	slide details Base Realignment and	
	Closure (BRAC) LUCs. As the Army	
	recalls, this effort was started to have	
	some control of access/warning signs	
	for MRSs prior to having all the data	
	available from these MRSs under the	
	Military Munitions Response Program	
	(MMRP). There was a long discussion	
	of, and agreement among all parties, to	
	not call these LUCs.	
6	Areas of the fence that were noted to be	Further discussion with the Ohio
	problematic in Ohio EPA's February 2013	EPA is requested for clarification.
	inspection (i.e., ripped fabric, areas where the	·
	road is slumping around culverts, etc.) were not	
	noted in the first quarterly report. The damage	
	to the fence did not appear to be recent and	
	there is concern that the Army and Ohio EPA	
	are not on the same page in terms of what	
	should be inspected, reported, and ultimately	
	repaired. There were several areas that were	
	noted in our February 2013 inspection that	
	require repair now.	
Additional		
Concerns		
1	The document should contain an acronym list	An acronym list will be included
-		

2	As in all draft documents, where applicable, line numbers should be added to the text.	Line numbers will be included
3	Ensure that the correct acronyms are used throughout and are identified the first time that they are used. For example, on page 1, the incorrect acronym for the facility wide groundwater program is used; and AOC, MEC, and UXO etc. are not identified the first time they are used. Again, this is not all inclusive.	Acronyms will be corrected
4	In the "Area of Concern (AOC) Map" box on page 2, the wrong date is provided. Please change 1012 to 2012.	Text typo will be corrected from 1012 to 2012.
5	In the "Activities and Land Use" box page 2, please provide a date for the interview with the Ohio Army National Guard (OHARNG) Range Supervisor.	Date will be included to read November 1, 2012
6	In the "Activities and Land Use" box on page 2, please provide a date for the interview with the Environmental Quality Management (EQM) personnel.	Date will be included to read October 31, 2012
7	In the "Inspections and Reporting" box on page 3, please provide clarification as to when the first annual report is scheduled to be completed. This should appear on the RVAAP master schedule.	The proposed LUC Annual Report Preliminary Draft for submission is July 22, 2013. The Final submission is scheduled for Jan. 2, 2014.
8	In the "Training" box on page 3, it indicates that the next training is scheduled for December 1, 2012. As this document is dated December 2012, but was not received until January 14, 2013, it is unclear as to whether or not this occurred or if the intent is to capture the training in the next quarterly inspection, Please clarify.	December training has already occurred and will be include the 2 nd quarterly report FY2013.
9	On Attachment 1, page 1; correct the spelling of "breech" to "breach".	Text typo will be corrected to read breach vs breech
10	Ohio EPA recommends using a Global Positioning System (GPS) to mark coordinates	GPS will be used to mark coordinates in future reports.

	for future reports.	
11	Ohio EPA recommends that all issues noted with the fence that are starting to show wear (ex., broken top brackets, broken fence posts, missing barbed wire, small holes, areas where rebar has been driven into the ground to deter access, etc.) as well as the more significant problem areas (ex., missing panels of wire mesh, large holes near residential areas, etc.), be logged, with a description of the problem. This running punch list of areas could be	Further discussion with the Ohio EPA is requested for clarification.
	inserted into every quarterly report with notations as to when and how repairs were conducted.	
12	A schedule for repairs should be included in the quarterly reports.	Further discussion with the Ohio EPA is requested for clarification.

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP)

> Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

ATTACHMENT 4

Historical Inspection Reports

Final

FY2013 First Quarter Property Management Plan Quarterly Land Use Control (LUC) Inspection RVAAP-05 Winklepeck Burning Grounds Revision 1.0

Submission Date:

July 19, 2013

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

In accordance with the Camp Ravenna Joint Military Training Center/Ravenna Army Ammunition Plant Property Management Plan (PMP) dated August 2012 and Appendix A-1, an inspection of RVAAP-05 Winklepeck Burning Grounds (WBG) was conducted by <u>James D. McGee</u> on <u>October 24, 2012 to</u> November 6, 2012.

The quarterly inspections shall include the following:

- Review of Land Use Control (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 Ohio Army National Guard (OHARNG) range safety regulations/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 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 Property Management Plan (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 1 foot 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 Instillation Restoration Program (IRP) or FWGWMPP activities, in accordance with Ohio Environmental Protection Agency (Ohio EPA) guidance, the most recent FWSAP, and applicable Ohio Administrative Code requirements.

Please note that if LUC deficiencies or inconsistent land uses are identified, they must be reported and identified on the quarterly inspection form/report. These deficiencies must also be reported immediately to the Army. Suggestions on how to remedy the deficiencies must also be provided.

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 WBG AOC map as provided in the PMP was review on November 5, 2012. Based on this review, the AOC map is current.

2. Installation Perimeter Fence

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

The Camp Ravenna perimeter fence has missing sections, openings/holes in the fence fabric, and locations in general disrepair. See Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" and attached Detail Sheets. Please Note that due to the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

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 (MSG Rex Hufenbach), which occurred on November 1, 2012 at Camp Ravenna, no residential land use has occurred.b) What activities have occurred at WBG since the last inspection?

- This is the first Quarterly Inspection conducted in accordance with the approved PMP dated August 2012.
- c) Are activities (digging, range maintenance etc.) at WBG being conducted in compliance with OHARNG range safety regulations/SOP and established digging restrictions?

As a result of the visual inspection of the Winklepeck Burning Grounds and an interview conducted November 1, 2012 with the MK-19 Range Supervisor, MSG Rex Hufenbach, no digging restrictions are being violated. All activities are in accordance with those set forth in the PMP. All OHARNG Range Safety Regulations are complied with.

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?

An entire inspection of the perimeter of the range impact was conducted. All signage were placed 200 meter intervals and found to be upright and intact.

- 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:
 - a. 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.
 - b. 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?

Facility Ground Water Monitoring Well sampling is conducted by Environmental Quality Management, Inc. (EQM) on a quarterly basis in this area. During an interview conducted October 31, 2012 with Mr. John Miller of EQM 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.

Review of LUCs – Management/Effectiveness/Corrective Action (continued)

4. Inspections and Reporting

- a) Inspections are required on a quarterly basis. Are quarterly inspections being completed? This is the first FY 2013 Quarterly Inspection 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 annual report will be completed and submitted after the completion of the FY 2013 4th Quarterly Inspection.

5. Training (as applicable to WBG)

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

Annual LUC training is provided to Camp Ravenna staff and tenant units at Camp Ravenna (See Attachment 2). Camp Ravenna staff received their annual LUC Training on 12 December 2012. The annual training is provided by Katie Tait and 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 Winklepeck. 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 Winklepeck 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. All documentation of training is provided in Attachment 2.

Note: Signed training rosters have not been included for security purposes and are on file at the OHARNG Environmental Office.

b.) If training was not provided, explain why and what corrective actions were initiated? $$\rm N/A$$

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

The Camp Ravenna perimeter fence has missing sections, openings/holes in the fence fabric, and locations in general disrepair. See Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" and attached Detail Sheets. Please Note that due to the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

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

The perimeter fence inspection was sent to Army. Information about the findings of the inspection were previously conveyed to the Army informally.

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

Please Note that due to the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

9. Additional Notes/Comments:

For future inspections, the person completing the inspection will provide daily reports to the Army documenting where any new deficiencies in the perimeter fence were found.

Original Inspection completed by: James D. McGee			
Signature: Marrie D. Mc See			
Title: Project Manager	Organization: Vista Sciences Corporation		
Date: November 6, 2012			

Final

FY2013 First Quarter Property Management Plan Quarterly Land Use Control (LUC) Inspection RVAAP-05 Winklepeck Burning Grounds

Submission Date:

April 24, 2013



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

In accordance with the Camp Ravenna Joint Military Training Center/Ravenna Army Ammunition Plant Property Management Plan (PMP) dated August 2012 and Appendix A-1, an inspection of RVAAP-05 Winklepeck Burning Grounds (WBG) was conducted by James D. McGee on October 24, 2012 to November 6, 2012.

The quarterly inspections shall include the following:

- Review of Land Use Control (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 Ohio Army National Guard (OHARNG) range safety regulations/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 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 Property Management Plan (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 1 foot 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 Instillation Restoration Program (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 Environmental Protection Agency (Ohio EPA) guidance, the most recent FWSAP, and applicable Ohio Administrative Code requirements.



Please note that if LUC deficiencies or inconsistent land uses are identified, they must be reported and identified on the quarterly inspection form/report. These deficiencies must also be reported immediately to the Army. Suggestions on how to remedy the deficiencies must also be provided.

Review of LUCs – Management/Effectiveness/Corrective Action

AOC Map

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

The WBG AOC map as provided in the PMP was reviewed on November 5, 2012. Based on this review, the AOC map is current.

Installation Perimeter Fence

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

See attached Perimeter Fence Inspection Report and associated Photos.

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 visual inspections and interviews with OHARNG Range Control Staff at Camp Ravenna, no residential land use has occurred.

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

This is the first Quarterly Inspection conducted in accordance with the approved PMP dated August 2012.

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

As a result of the visual inspection of the Winklepeck Burning Grounds and an interview conducted November 1, 2012 with the MK-19 Range Supervisor, SFC Rex Hufenbach, no digging restrictions are being violated. All activities are in accordance with those set forth in the PMP. All OHARNG Range Safety Regulations are complied with.

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?

An entire inspection of the perimeter of the range impact area was conducted. All signage were placed at 200 meter intervals and found to be upright and intact.



- 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:
 - 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.
 - 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.

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

Facility Ground Water Monitoring Well sampling is conducted by Environmental Quality Management, Inc. (EQM) on a quarterly basis in this area. During an interview conducted October 31, 2012 Mr. John Miller of EQM 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.

Inspections and Reporting

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

This is the first Quarterly Inspection conducted in accordance with the approved PMP dated August 2012.

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

This is the first Quarterly Inspection conducted in accordance with the approved PMP dated August 2012. The submission of the first LUC Annual Report Preliminary Draft is scheduled for July 22, 2013 and Final submission is scheduled for January 2, 2014.

Training (as applicable to WBG)

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

Annual LUC training is provided to Camp Ravenna staff and tenant units at Camp Ravenna (See Attachment 2). Camp Ravenna staff received their annual LUC Training on November 14, 2011 and December 12, 2012. The annual training is provided by Katie Tait and 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 Winklepeck. Using units also receive an inbrief prior to firing on the range. Using units and tenant units at Camp Ravenna are not allowed down range. Environmental contractors who access Winklepeck are also provided with an inbrief which informs them of the LUCs/restrictions at the AOC. They must read and



sign the inbrief form. All documentation of training is provided in Attachment 2.

Note: Signed training rosters have not been included for security purposes and are on file at the OHARNG Environmental Office.

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

N/A

Description of any observed/noted Land Use Control (LUC) violation(s):

The Camp Ravenna perimeter fence is required to deter unauthorized access to a military installation. The fence also supports the need to deter access to environmental restoration sites as appropriate. Inspection of the perimeter fence documents that portions of the fence are in poor condition and require repair.

Date of Notification of LUC violation (if applicable):

The perimeter fence inspection was sent to Army stakeholders on 6 December 2012. Information about the findings of the inspection were previously conveyed to the Army informally.

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

Funding for fence repair through a contract with Vista Science Corp. (W912QR-11-P-0086) will be utilized to repair select areas of the fence. Additionally, the OHARNG requested funding to repair and maintain the perimeter fence to the Installation Management Office. Due to the volume that requires repair and the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

Additional Notes/Comments:

Form Completed by:

Signature: Yames D. Michee		
Printed Name: James D. McGee		
Title: Project Manager	Organization: Vista Sciences Corporation	
Date: November 6, 2012		

Draft

FY2013 First Quarter Property Management Plan Quarterly Land Use Control (LUC) Inspection RVAAP-05 Winklepeck Burning Grounds

Submission Date:

December 28, 2012

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

In accordance with the Camp Ravenna Joint Military Training Center/Ravenna Army Ammunition Plant Property Management Plan (PMP) dated August 2012 and Appendix A-1, an inspection of RVAAP-05 Winklepeck Burning Grounds (WBG) was conducted by James D. McGee (inspector name) on <u>November 6, 2012</u> (date).

The quarterly inspections shall include 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/SOP, established digging restrictions, and established exposure limits. All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the Mark 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 Property Management Plan (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 1 foot 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by activities conducted on the Installation and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP, and applicable Ohio Administrative Code requirements.

Please note that if LUC deficiencies or inconsistent land uses are identified, they must be reported and identified on the quarterly inspection form/report. These deficiencies must also be reported immediately to the Army. Suggestions on how to remedy the deficiencies must also be provided.

Review of LUCs – Management/Effectiveness/Corrective Action

AOC Map

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

The WBG AOC map as provided in the PMP was reviewed on November 5, 1012. Based on this review, the AOC map is current.

Installation Perimeter Fence

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

See attached Perimeter Fence Inspection Report and associated Photos.

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 visual inspections and interviews with OHARNG Range Control Staff at Camp Ravenna, no residential land use has occurred.

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

This is the first LUC inspection IAW the recently approved Property Management Plan

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

As a result of the visual inspection of the Winklepeck Burning Grounds and an interview with the MK-19 Range Supervisor, SFC Rex Hufenbach, no digging restrictions are being violated. All activities are in accordance with those set forth in the PMP. All OHARNG Range Safety Regulations are complied with.

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?

An entire inspection of the perimeter of the range impact area was conducted. All signage were placed at 200 meter intervals and found to be upright and intact.

- 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:
 - 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by Installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

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

Facility Ground Water Monitoring Well sampling is conducted by Environmental Quality Management, Inc. (EQM) on a quarterly basis in this area. During an interview with Mr. John Miller of EQM he stated that all Ground Water Monitoring activity is conducted IAW the Facility Wide Ground Water Monitoring Program Plan, (FGWMPP) and the parameters for groundwater monitoring as set forth in the PMP, Appendix A-1.

Inspections and Reporting

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

This is the first Quarterly Inspection conducted IAW the approved Property Management Plan dated August 2012.

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

This is the first Quarterly Inspection conducted IAW the approved Property Management Plan dated August 2012.

Training (as applicable to WBG)

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

Annual LUC training is provided to Camp Ravenna staff and tenant units at Camp Ravenna (See Attachment 2). Camp Ravenna staff received their annual LUC Training on 14 November 2011. The next training is scheduled for 12 December 2012. The annual training is provided by Katie Tait and 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/MRSs, and specific restrictions for Winklepeck. Using units also receive an inbrief prior to firing on the range. Using units and tenant units at Camp Ravenna are not allowed down range. Environmental contractors who access Winklepeck are also provided with an inbrief which informs them of the LUCs/restrictions at the AOC. They must read and sign the

inbrief form. All documentation of training is provided in Attachment 2.

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

N/A

Description of any observed/noted Land Use Control (LUC) violation(s):

No LUC violations were observed or noted during the quarterly inspection.

Date of Notification of LUC violation (if applicable):

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

Additional Notes/Comments:

Form Completed by:

Signature: Yames D. Mc See	
Printed Name: James D. McGee	
Title: Project Manager	Organization: Vista Sciences Corporation
Date: November 6, 2012	

Appendix E

Final FY 2013 Second Quarter Property Management Plan Land Use Control (LUC) Inspection Report for RVAAP-05 Winklepeck Burning Grounds

Final

FY 2013 Second Quarter Property Management Plan Quarterly Land Use Control (LUC) Inspection RVAAP-05 Winklepeck Burning Grounds Revision 1.0

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP) Ravenna, Ohio

Contract No. W912QR-11-P-0086

Prepared for:



US Army Corps of Engineers ® Louisville District

US Army Corps of Engineers 600 Dr. Martin Luther King Jr. Place Louisville, Kentucky 40202

Prepared by:



Vista Sciences Corporation Ravenna Army Ammunition Plant 8451 State Route 5 Ravenna, OH 44266

November 14, 2013

Final

FY 2013 Second Quarter Property Management Plan Quarterly Land Use Control (LUC) Inspection RVAAP-05 Winklepeck Burning Grounds

Revision 1.0

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP) Ravenna, Ohio

Contract No. W912QR-11-P-0086

Prepared for:



US Army Corps of Engineers ® Louisville District

US Army Corps of Engineers 600 Dr. Martin Luther King Jr. Place Louisville, Kentucky 40202

Prepared by:



Vista Sciences Corporation Ravenna Army Ammunition Plant 8451 State Route 5 Ravenna, OH 44266

November 14, 2013

LIST OF ACRONYMS

AEC	Army Environmental Command
AOC	Area of Concern
AR	Army Regulation
BRACD	Base Realignment and Closure Division
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CR	Camp Ravenna
CR-ENV	Camp Ravenna Environmental
CRJMTC	Camp Ravenna Joint Military Training Center
DD	Decision Document
DLA	Defense Logistics Agency
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
LTM	Long Term Management
MEC	Munitions and Explosives of Concern
MRS	Munitions Response Site
NBC	Nuclear, Biological, Chemical
NCOIC	Noncommissioned Officer in Charge
OIC	Officer in Charge
Ohio EPA	Ohio Environmental Protection Agency
OHARNG	Ohio Army National Guard
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) / Ravenna Army Ammunition Plant (RVAAP) Quarterly LUC Inspection Form – RVAAP-05 Winklepeck Burning Grounds

In accordance with the Camp Ravenna Joint Military Training Center/Ravenna Army Ammunition Plant 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>February 7, 11, 12, and 13, 2013</u>.

The quarterly inspections shall include the following:

- Review of Land Use Control (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 Ohio Army National Guard (OHARNG) range safety regulations/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 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 Property Management Plan (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 1 foot 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 IRP or Facility-Wide Ground Water Monitoring Program Plan (FWGWMPP).
 - 2. The abandonment and replacement of monitoring wells damaged by activities conducted on the Installation and wells no longer utilized as part of Instillation Restoration Program (IRP) or FWGWMPP activities, in accordance with Ohio Environmental Protection Agency (Ohio EPA) guidance, the most recent FWSAP, and applicable Ohio Administrative Code requirements.

Please note that if LUC deficiencies or inconsistent land uses are identified, they must be reported and identified on the quarterly inspection form/report. These deficiencies must also be reported immediately to the Army. Suggestions on how to remedy the deficiencies must also be provided.

1. AOC Map

Is the AOC map current with respect to AOC boundaries, land activities, and prescribed LUCs? The AOC map was reviewed on Feb. 7, 2013 by Don Trocchio, PS, and it is current with respect to AOC boundaries, land activities and prescribed LUCs.

2. Installation Perimeter Fence

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

The perimeter fence has areas that are in need of repair to meet its function under the PMP as a land use control (LUC). See Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" and attached Detail Sheets. Please Note that due to the current financial climate, funding for repairs is limited. The OHARNG continues to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

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 (MSG Rex Hufenbach) on 11 February 2013 at Camp Ravenna (Butts-Kistler Road at the Portage/Trumbull County Line), no residential land use has occurred. Additionally, there has been no change in land use at the AOC.

- b.) What activities have occurred at WBG since the last inspection?
 Winklepeck Burning Grounds/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?
 Deced on an interview with MSC Day Huferback on 11 Echange 2012, all activities within

Based on an interview with MSG Rex Hufenbach on 11 February 2013, 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 were placed at 200 meter intervals and found to be upright and intact. Some repairs were performed in December 2012.

- 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.

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

Facility Ground Water Monitoring Well sampling is conducted by Environmental Quality Management, Inc. (EQM) on a quarterly basis in this area (last one performed January 2013). During an interview with Mr. John Miller (20 February 2013) of EQM 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.

4. Inspections and Reporting

- a.) Inspections are required on a quarterly basis. Are quarterly inspections being completed? This is the second FY 2013 Quarterly Inspection 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 annual report will be completed and submitted after the completion of the FY 2013 4th Quarterly Inspection.

5. Training (as applicable to WBG)

a.) Was LUC training (specific to Winklepeck) being conducted as applicable? Describe the training (content/who attended/who provided/documentation of training).
Annual LUC training is provided to Camp Ravenna staff and tenant units at Camp Ravenna. Full-time Camp Ravenna staff received their annual LUC Training on 12 December 2012. 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 Winklepeck. 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 Winklepeck 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. All documentation of training is provided in Attachment 2.

Note: Signed training rosters have not been included for security purposes and are on file at the Camp Ravenna Environmental Office.

b.) If training was not provided, explain why and what corrective actions were initiated? $\frac{N/A}{}$

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

The Camp Ravenna perimeter fence has missing sections, openings/holes in the fence fabric, and locations in general disrepair that are in need of repair to meet its function under the PMP as a land use control (LUC). See Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" and attached Detail Sheets. Please Note that due to the current financial climate, funding for repairs is limited. The OHARNG continues to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

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

The Condition of the Perimeter Fence has been documented in the Quarterly FY 2013 LUC Inspections and provided to the Army and Ohio EPA.

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

Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" shows locations that have been repaired that have previously been noted as deficiencies. On December 18 & 18, 2012, Vista Sciences Corp. replaced about 30' of missing fence fabric along the north perimeter fence. This missing section of fence was called out in the 1st quarter FY2013 LUC Inspection Report and identified as photos No. 5 & 6 in Attachment No. 1. The fence repair is shown on the Detail Sheet NE11 in the 2nd quarter FY2013 LUC Inspection Report. The repair photo was taken at a later date (7 January 2013).

Please Note that due to the current financial climate, funding to repair the perimeter fence is limited. The OHARNG continues to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

The following callouts, as shown in Attachment 1- "Figure 1 Index Map, will be repaired prior to the 3 rd quarter LUC Inspection; NE2, NE3, NE4, NE6, NE10, NW4, SW4, SW6. The following callouts, as shown on Attachment 1 - Figure 1 Index Map, will be repaired prior to the 3 rd quarter LUC Inspection; NE2, NE3, NE4, NE6, NE10, NW4, SW4, SW6.			
9. Additional Notes/Comments:			
For future inspections (beginning with the FY2013 4th Quarter Inspection), the person completing the inspection will provide daily reports to the Army documenting where any new deficiencies in the perimeter fence were found.			
 The Group 7 fence was included and inspected as the eastern perimeter fence for the 1st and 2nd quarter LUC inspections; however, it will not be inspected during future inspections as it is not considered part of the perimeter fence and therefore is not maintained. The north-south fence running along the western edge of Start Route 534 will replace the Group 7 as the perimeter fence. The north-south fence running along the eastern edge of Group 7, south of Smalley Road, and southern edge of Group 7 will no longer be maintained or repaired. Additionally, the section of fence running south from the southwest corner of Group 7 to its' intersection with the State Route 534 fence just north of Butts-Kistler Road will no longer be maintained or repaired. Therefore, callouts NE7, NE8 and NE9 as shown on the Attachment 1 – Figure 1 Index Map are situated along an interior section of fence that will no longer be maintained or repaired. The State Route 534 Fence will be considered the eastern perimeter fence and will be inspected and 			
included as such in future reports Original Inspection Completed by:			
Signature:			
Printed Name: Don Trocchio			
Title: Project Manager	Organization: Vista Sciences Corporation		
Date: April 29, 2013			

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP)

Second Quarter FY2013 Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds Ravenna Army Ammunition Plant, Ravenna, Ohio

ATTACHMENT 1

Figure 1 Index Map And Detailed Quadrant Maps Figure 1 Index Map

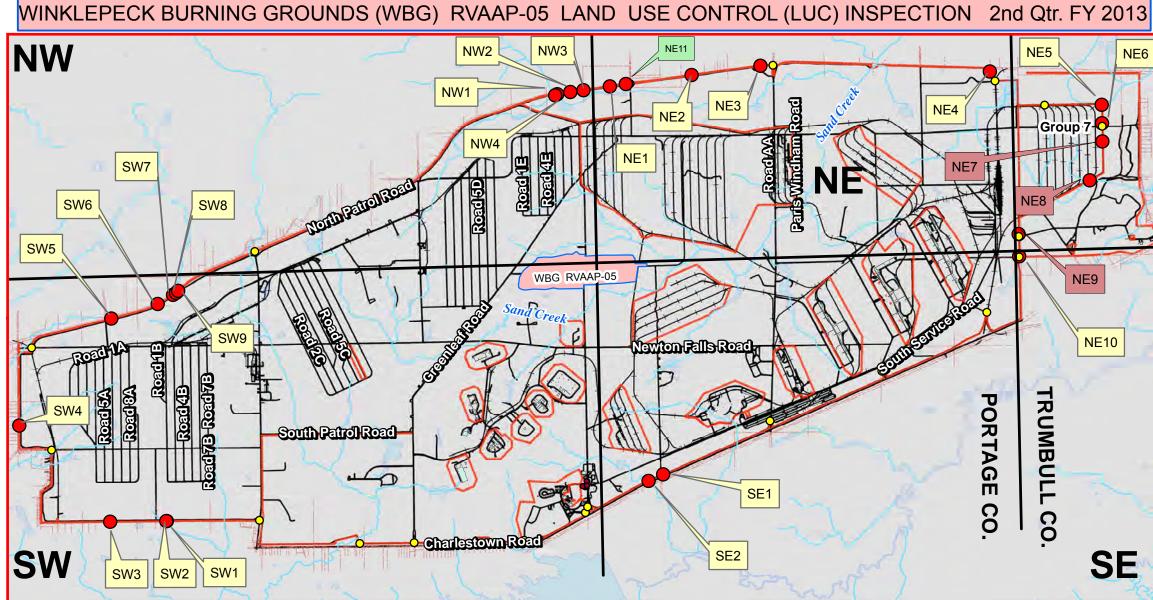


FIGURE 1 INDEX MAP TO FACILITY PERIMETER FENCE INSPECTION SEE ATTACHED DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

Legend

LUC Inspection of Perimeter Fence

- Opening in fence (2'≥) and/or fabric missing (26 locations)
- Gates (20 locations for reference only, no detail sheets)
- All gates appear to be maintained and are in working order

Fence Line

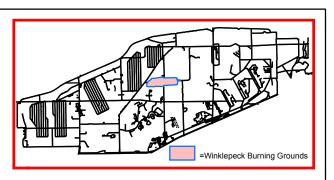


NE7, NE8 NE9

See attached Inspection Form "Additional Notes/ Comments" Box regarding these 3 Callouts

Detail Sheet		RVAAP Perimeter Fence Inspection 2nd Quarter FY 2	013 Summary Table	(US Surve	y Feet)
Callout	Date	Path to Photo Location	Comments	Northing	Easting
NE1	2/12/2013	c:\My Documents\My ArcPad\P1010083.JPG	hole in fence	572047	2359121
NE2	2/12/2013	c:\My Documents\My ArcPad\P1010088.JPG	hole in fence	572636	2363380
NE3	2/12/2013	c:\My Documents\My ArcPad\P1010090.JPG	big hole broken posts	573118	2366968
NE4	2/13/2013	c:\My Documents\My ArcPad\P1010092.JPG	hole in fence	572820	2378917
NE5	2/13/2013	c:\My Documents\My ArcPad\P1010095.JPG	hole in fence	571090	2384743
NE6	2/13/2013	c:\My Documents\My ArcPad\P1010096.JPG	hole in fence	570126	2384759
NE7	2/13/2013	c:\My Documents\My ArcPad\P1010098.JPG	hole in fence	569182	2384780
NE8	2/13/2013	c:\My Documents\My ArcPad\P1010099.JPG	hole in fence	567158	2384119
NE9	2/13/2013	c:\My Documents\My ArcPad\P1010100.JPG	hole in fence	564355	2380420
NE10	2/13/2013	c:\My Documents\My ArcPad\P1010102.JPG	hole in fence	563195	2380440
NE11	3/11/2013	c:\My Documents\My ArcPad\Fence 11.6.12 No5.JPG	fabric missing (repaired)	572169	2359961
NW1	2/12/2013	c:\My Documents\My ArcPad\P1010086.JPG	big hole in fence	571637	2356382
NW2	2/12/2013	c:\My Documents\My ArcPad\P1010085.JPG	hole in fence	571756	2357066
NW3	2/12/2013	c:\My Documents\My ArcPad\P1010084.JPG	hole in fence	571849	2357746
NW4	3/11/2013	c:\My Documents\My ArcPad\Fence 11.6.12 No3.JPG	fence fabric lying in creek	571580	2356277
SE1	2/13/2013	c:\My Documents\My ArcPad\P1010107.JPG	washout [two more to west]	551833	2361902
SE2	2/13/2013	c:\My Documents\My ArcPad\P1010108.JPG	washout	551498	2361141
SW1	2/7/2013	c:\My Documents\My ArcPad\P1010061.JPG	bottom open	549403	2336048
SW2	2/7/2013	c:\My Documents\My ArcPad\P1010062.JPG	bottom open	549405	2336025
SW3	2/7/2013	c:\My Documents\My ArcPad\P1010064.JPG	bottom open	549369	2333095
SW4	2/7/2013	c:\My Documents\My ArcPad\P1010067.JPG	fabric broken	554381	2328361
SW5	2/12/2013	c:\My Documents\My ArcPad\P1010074.JPG	hole in fence at bottom	559954	2333158
SW6	2/12/2013	c:\My Documents\My ArcPad\P1010075.JPG	hole in fence	560708	2335572
SW7	2/12/2013	c:\My Documents\My ArcPad\P1010076.JPG	apx 100 ft of fabric missing	561189	2336373
SW8	2/12/2013	c:\My Documents\My ArcPad\P1010077.JPG	hole in fence	561285	2336529
SW9	2/12/2013	c:\My Documents\My ArcPad\P1010078.JPG	hole in fence	561395	2336638

Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in April 2013 for:



US Army Corps of Engineers

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

Louisville District

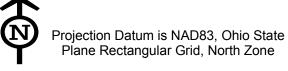
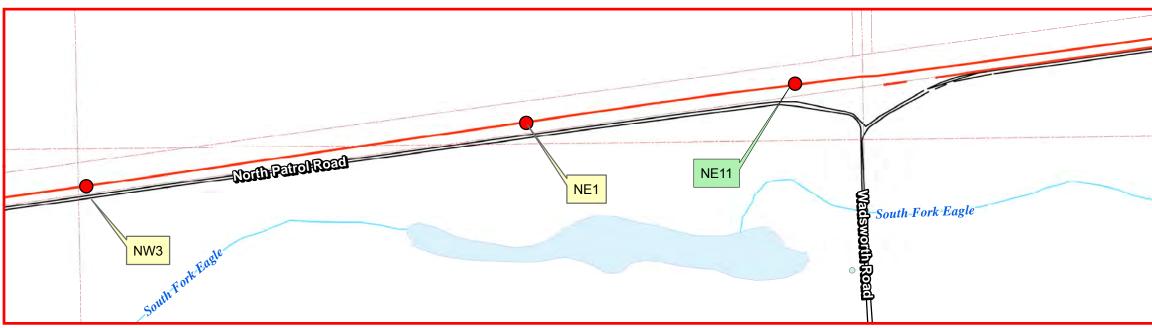




FIGURE 1 INDEX MAP

Detailed Quadrant Maps

NE (Northeast) Quadrant



LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

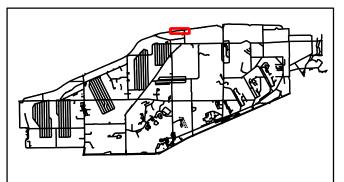
Legend

PHOTO NE1

● Opening in fence (2'≥) and/or fabric missing



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



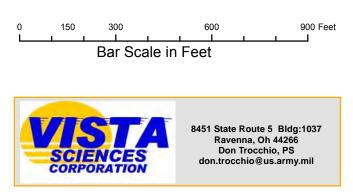
US Army Corps of Engineers

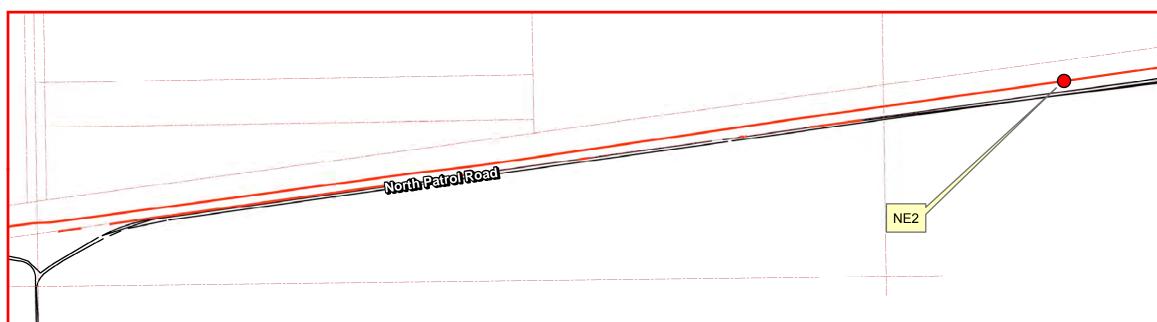
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE2

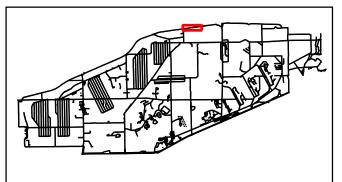
Legend



Opening in fence (2'≥) and/or fabric missing



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



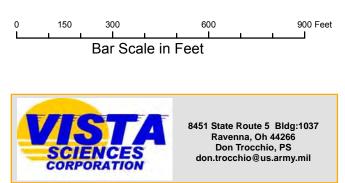
US Army Corps of Engineers

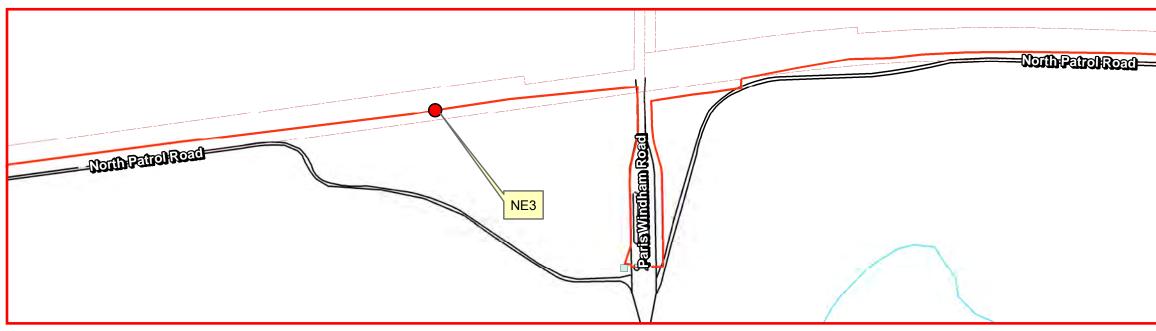
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE3

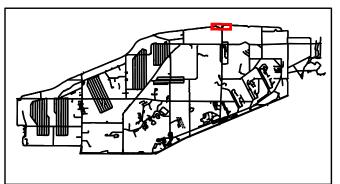
Legend

ightarrow

Opening in fence (2'≥) and/or fabric missing



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



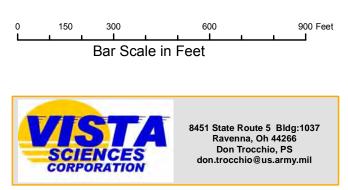
US Army Corps of Engineers

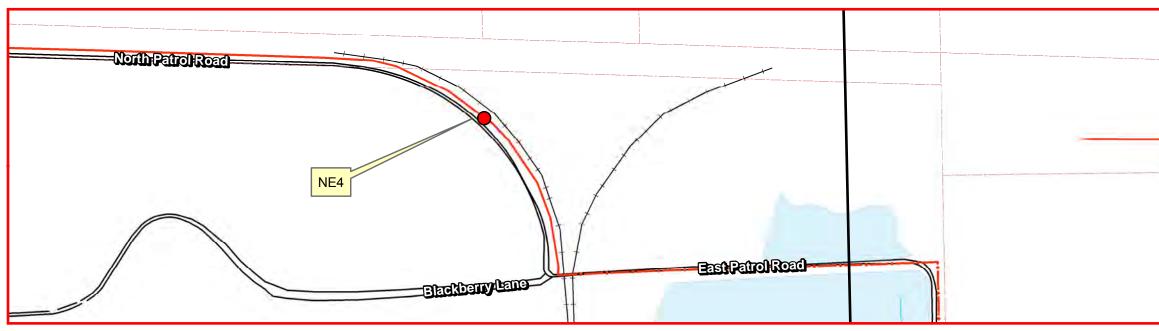
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE4

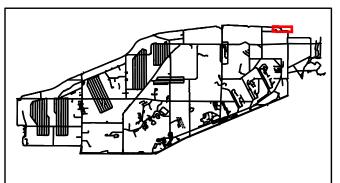
Legend

ightarrow

Opening in fence (2'≥) and/or fabric missing



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



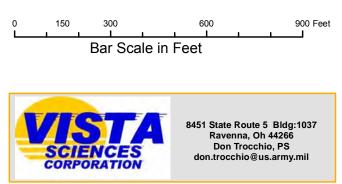
US Army Corps of Engineers

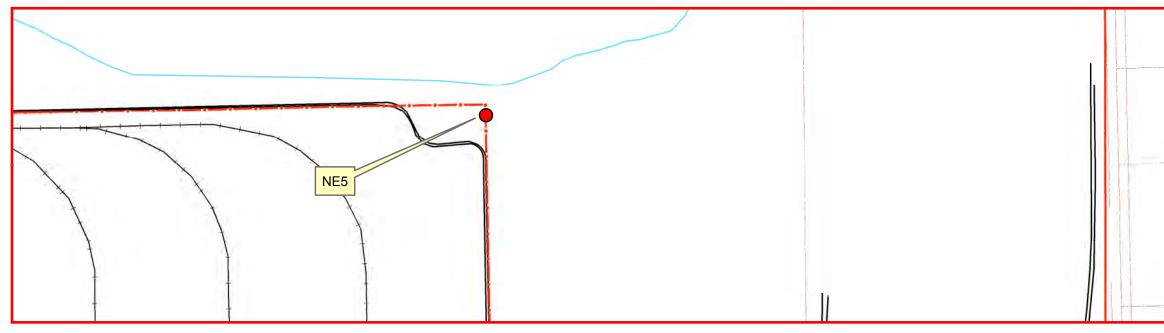
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE5

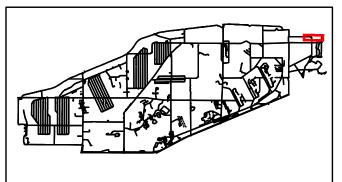
Legend

ightarrow

Opening in fence (2'≥) and/or fabric missing



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



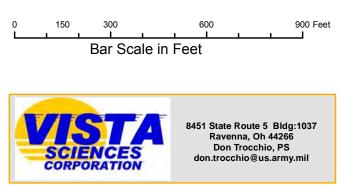
US Army Corps of Engineers

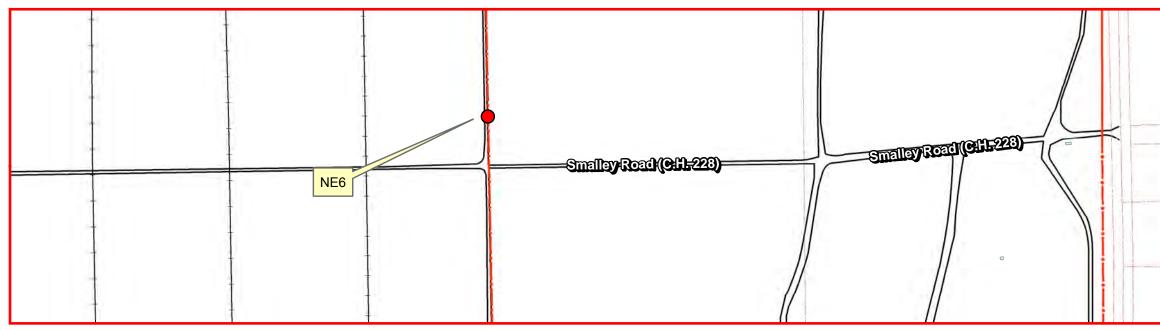
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE6

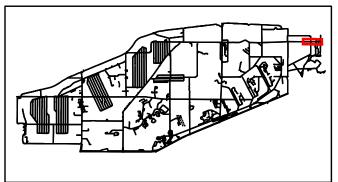
Legend

ightarrow

Opening in fence (2'≥) and/or fabric missing



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:

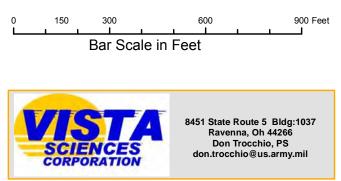


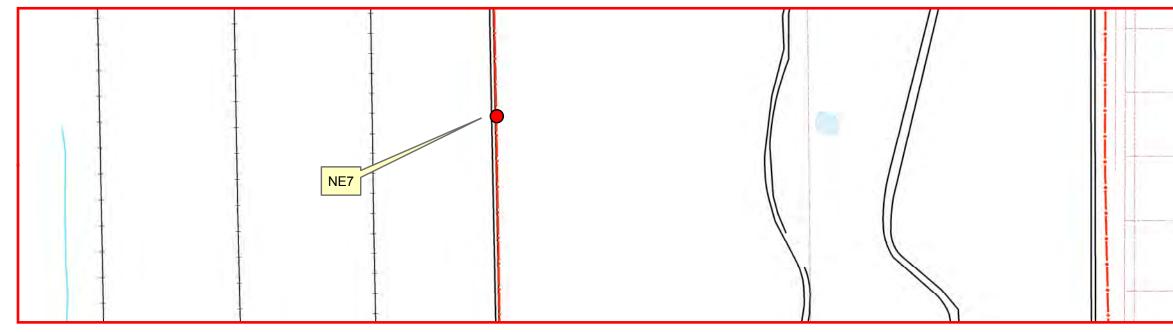
US Army Corps of Engineers

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

Louisville District

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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE7

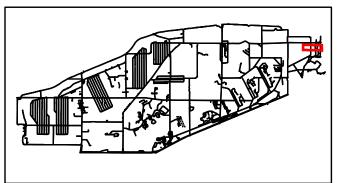
Legend

ightarrow

Opening in fence (2'≥) and/or fabric missing



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



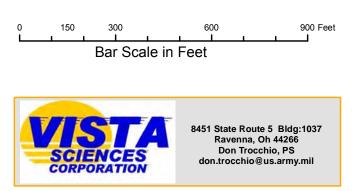
US Army Corps of Engineers

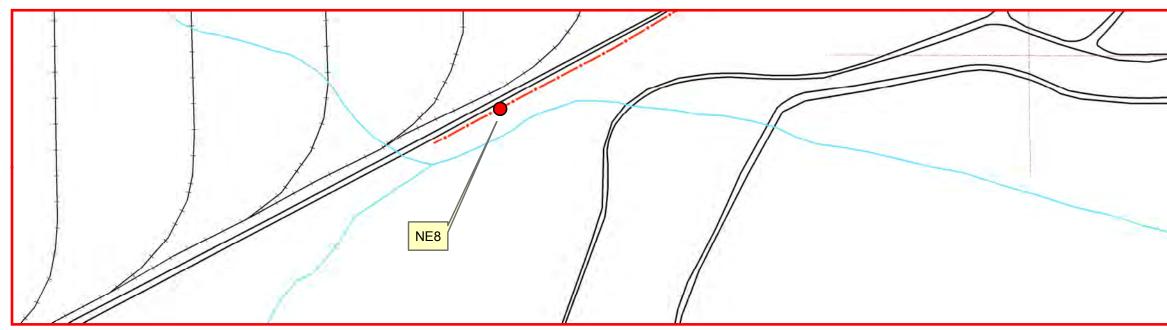
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE8

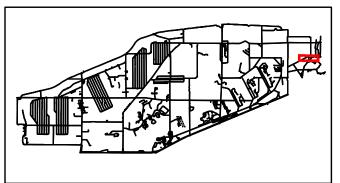
Legend

ightarrow

Opening in fence (2'≥) and/or fabric missing



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



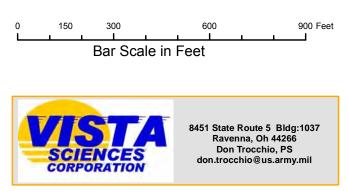
US Army Corps of Engineers

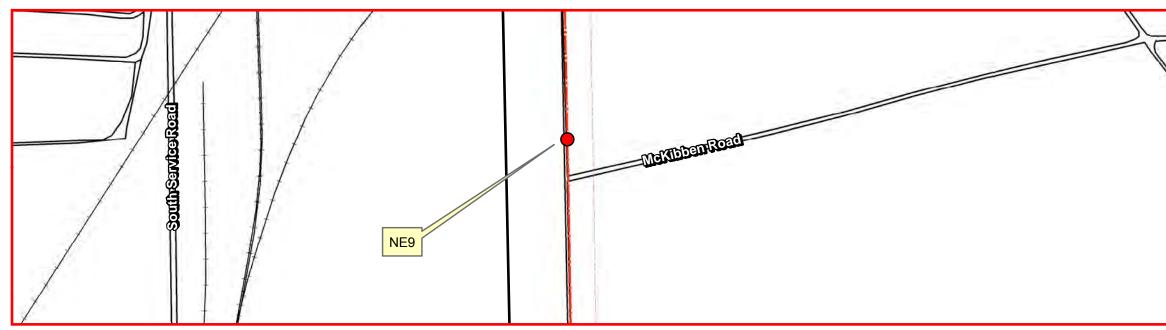
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE9

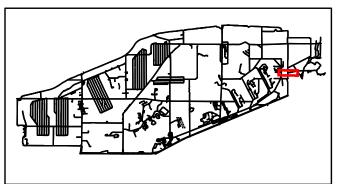
Legend

ightarrow

Opening in fence (2'≥) and/or fabric missing



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



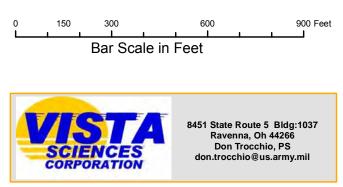
US Army Corps of Engineers

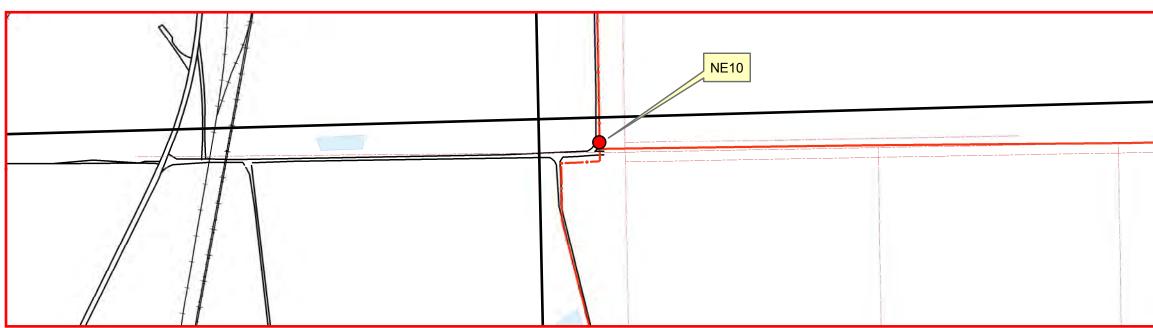
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE10

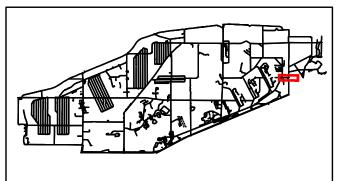
Legend

ightarrow

Opening in fence (2'≥) and/or fabric missing



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



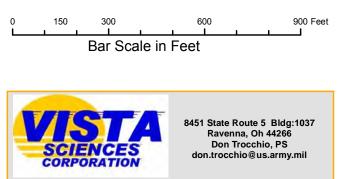
US Army Corps of Engineers

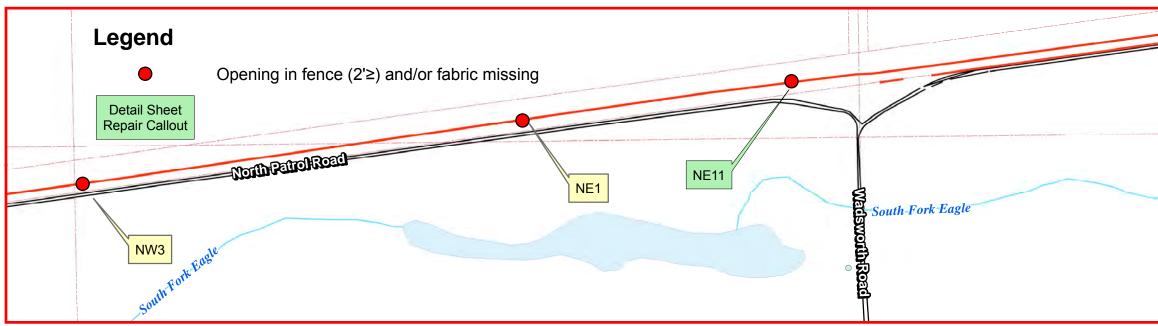
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





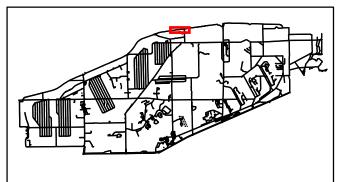
LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

Fence repairs made by Vista Sciences Corp. on picture No.5 shown at right

PHOTO NE11 (1st qtr report fence picture No.5)



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



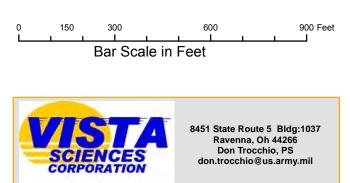
US Army Corps of Engineers

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

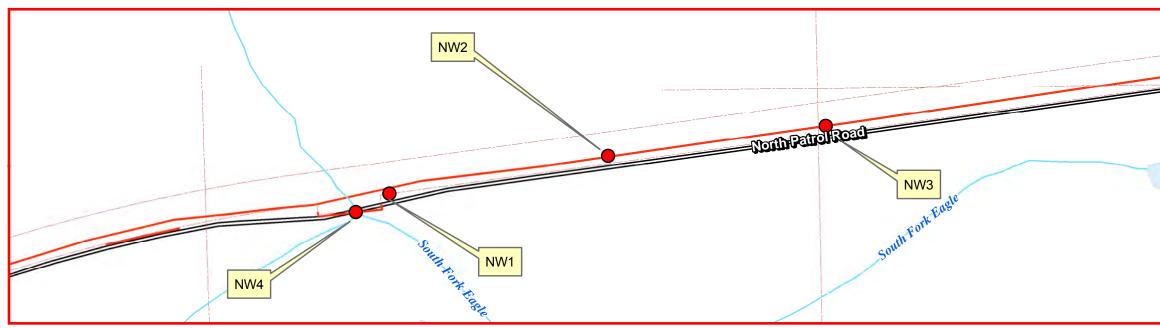
Louisville District



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



NW (Northwest) Quadrant



LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

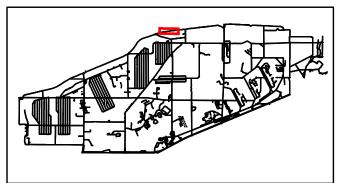
Legend

ightarrow

Opening in fence (2'≥) and/or fabric missing



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



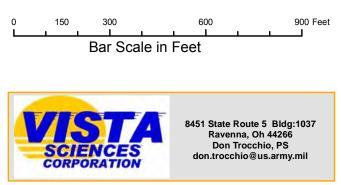
US Army Corps of Engineers

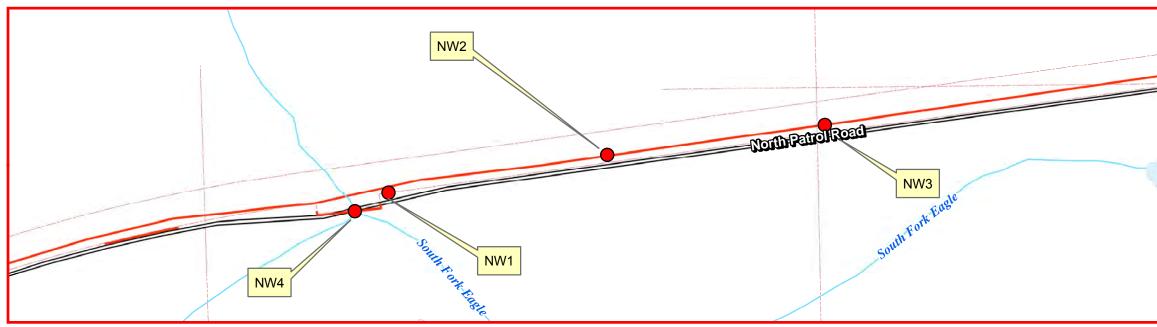
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NW2



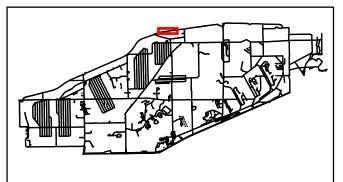
Legend



Opening in fence (2'≥) and/or fabric missing

=Permitted coyote snare trap

Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



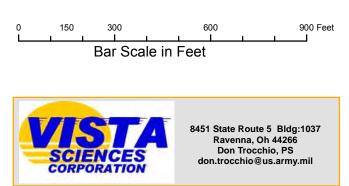
US Army Corps of Engineers

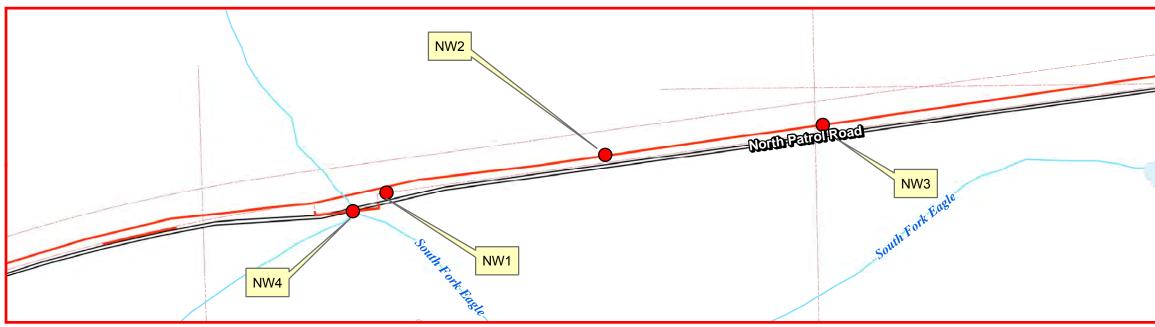
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NW3

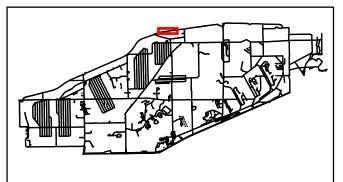
Legend



Opening in fence (2'≥) and/or fabric missing



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



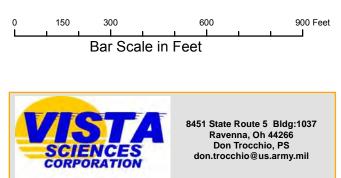
US Army Corps of Engineers

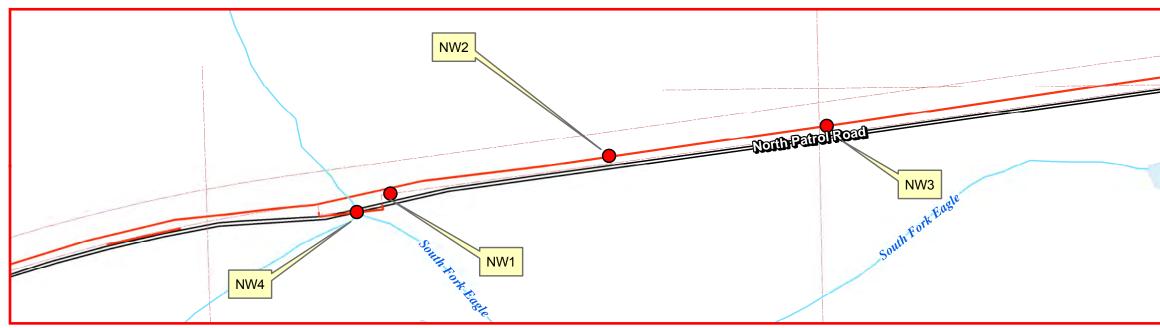
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

Legend

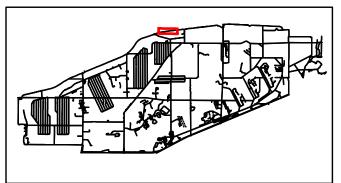


Opening in fence (2'≥) and/or fabric missing

PHOTO NW4 (Photo No.3 in 1qtr report)



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



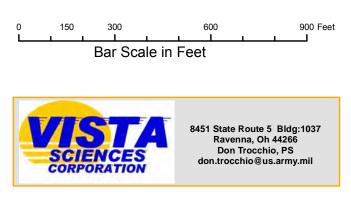
US Army Corps of Engineers

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

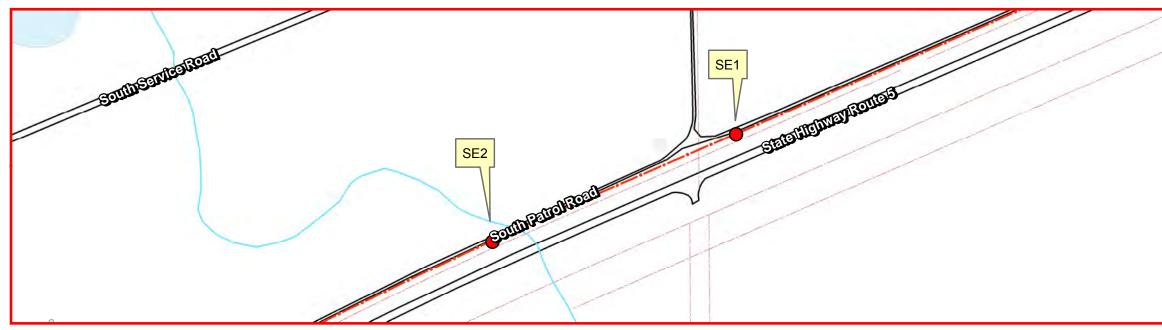
Louisville District



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



SE (Southeast) Quadrant



LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SE1 (Washout area, 2 more just to the southwest)

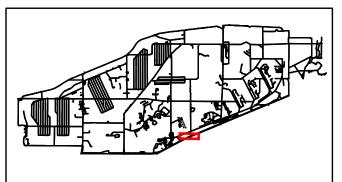
Legend

ightarrow

Opening in fence (2'≥) and/or fabric missing



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



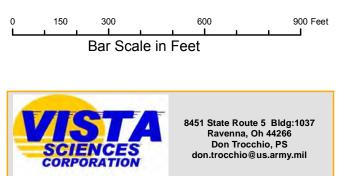
US Army Corps of Engineers

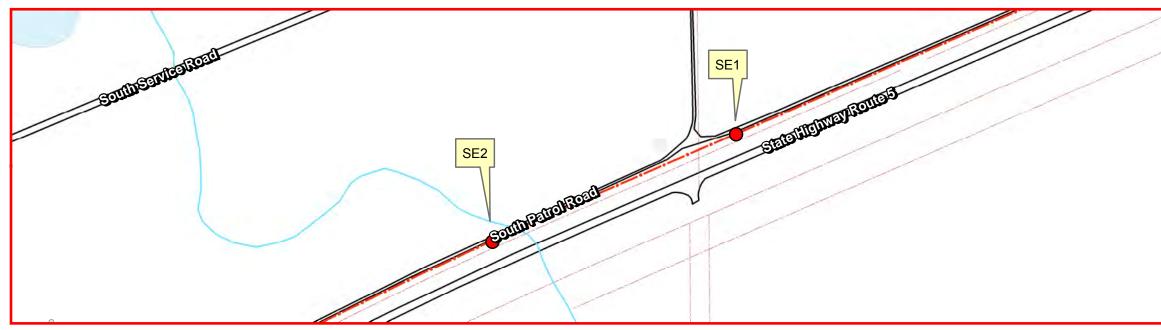
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SE2

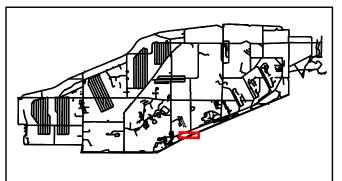
Legend

ightarrow

Opening in fence (2'≥) and/or fabric missing



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



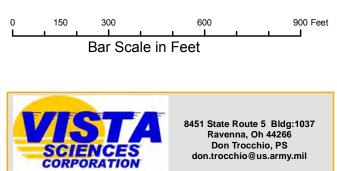
US Army Corps of Engineers

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

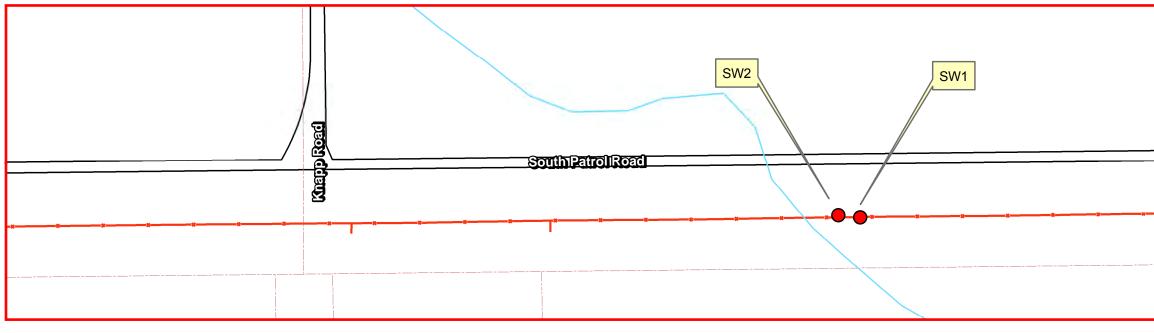
Louisville District



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



SW (Southwest) Quadrant



LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

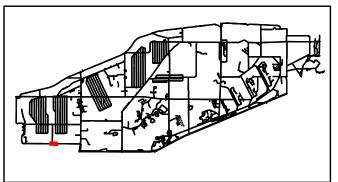
Legend

Opening in fence (2'≥) and/or fabric missing

PHOTO SW1



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



US Army Corps of Engineers

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

don.trocchio@us.army.mil

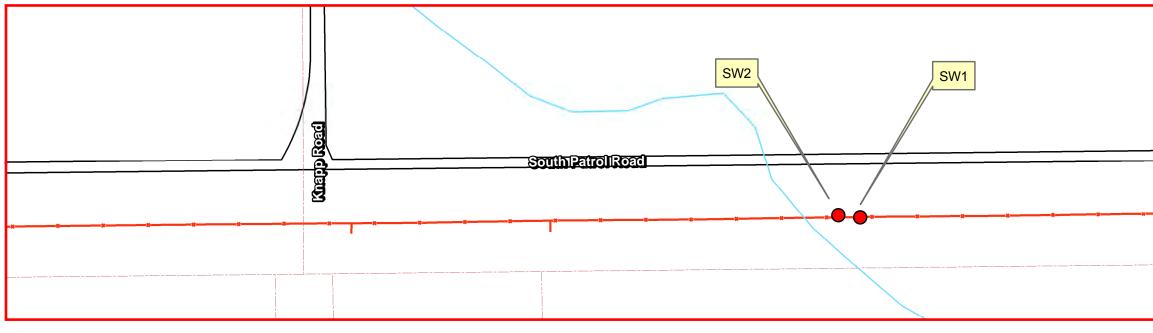
Louisville District

CORPORATION

N

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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

Legend

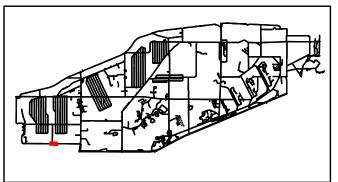
 \bullet

Opening in fence (2'≥) and/or fabric missing

PHOTO SW2



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



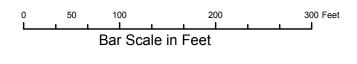
US Army Corps of Engineers

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

Louisville District

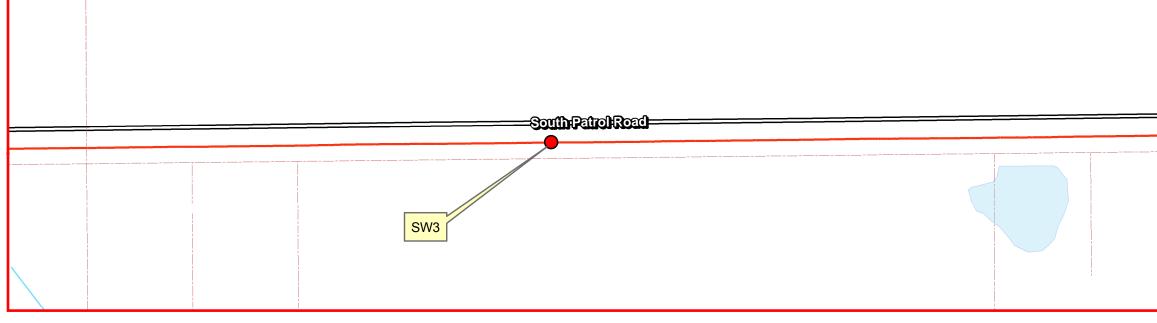


Projection Datum is NAD83, Ohio State Plane Rectangular Grid, North Zone





8451 State Route 5 Bldg:1037 Ravenna, Oh 44266 Don Trocchio, PS don.trocchio@us.army.mil



LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

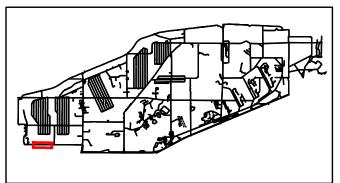
PHOTO SW3



Legend

Opening in fence (2'≥) and/or fabric missing

Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



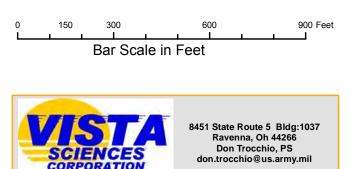
US Army Corps of Engineers

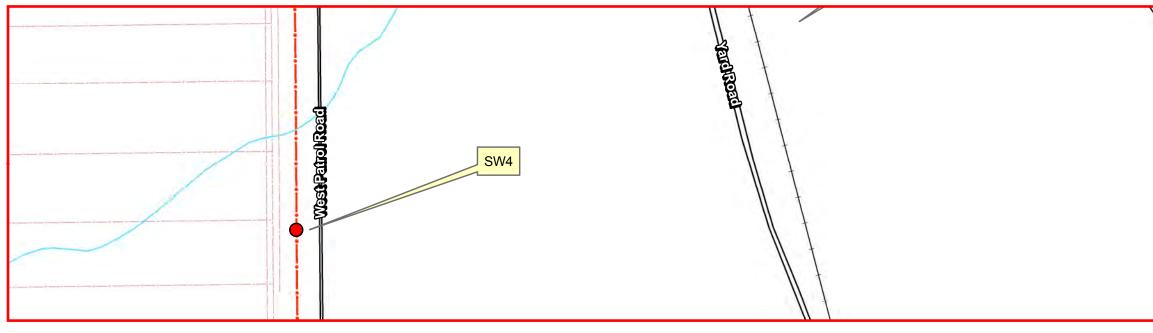
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SW4

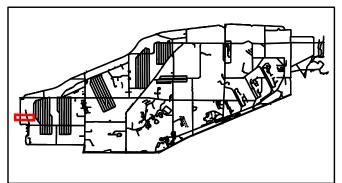
Legend



Opening in fence (2'≥) and/or fabric missing



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



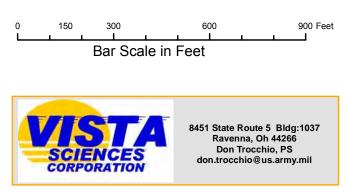
US Army Corps of Engineers

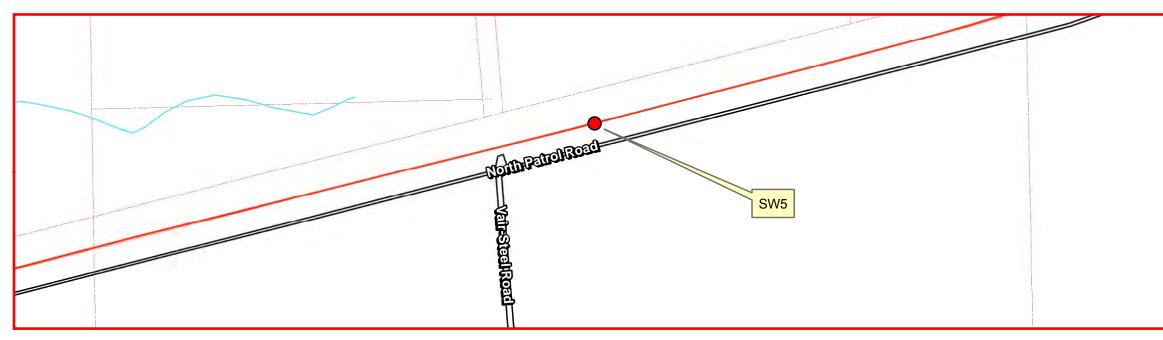
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

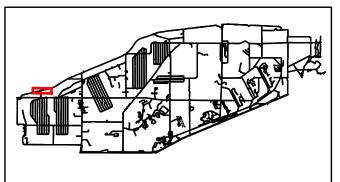
PHOTO SW5



Legend

Opening in fence (2'≥) and/or fabric missing

Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



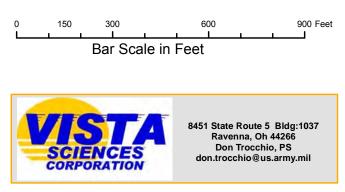
US Army Corps of Engineers

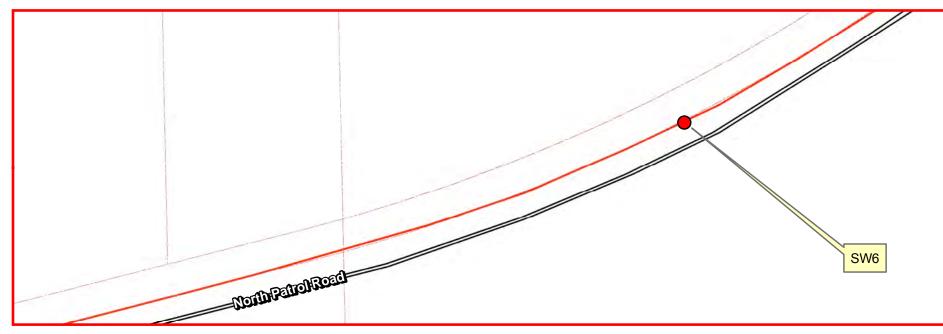
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

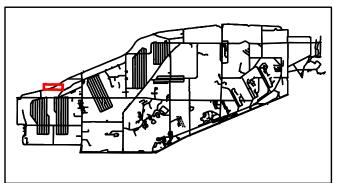
PHOTO SW6



Legend

Opening in fence (2'≥) and/or fabric missing

Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



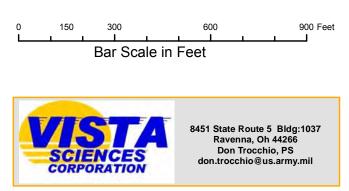
US Army Corps of Engineers

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

Louisville District



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



LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SW7 About 100' of fabric is missing

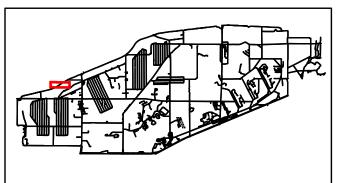


Legend



Opening in fence (2'≥) and/or fabric missing

Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



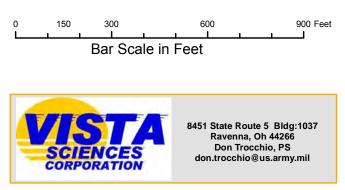
US Army Corps of Engineers

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

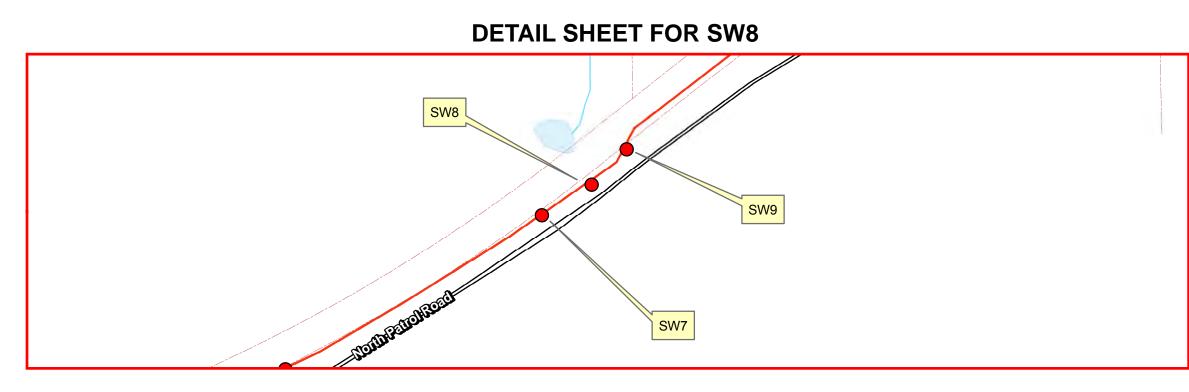
Louisville District



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







LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SW8 Fabric missing

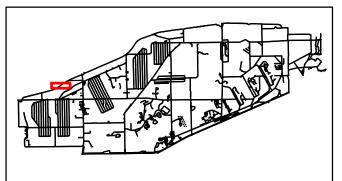


Legend



Opening in fence (2'≥) and/or fabric missing

Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



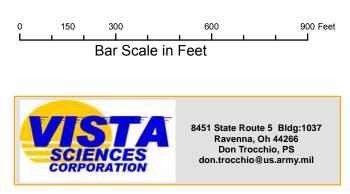
US Army Corps of Engineers

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

Louisville District



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



LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SW9

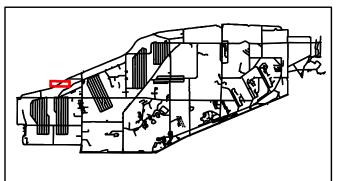


Legend

•

Opening in fence (2'≥) and/or fabric missing

Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



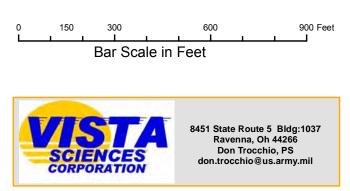
US Army Corps of Engineers

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

Louisville District



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



Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP)

Second Quarter FY2013 Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds Ravenna Army Ammunition Plant, Ravenna, Ohio

ATTACHMENT 2

Description of Land Use Control (LUC) – OHARNG Activities

1 🖬 Land Use Control (LUC) Training for Camp Ravenna

Presented by:

Camp Ravenna Environmental

12 December 2012 - 35 CRIMTC Personnel trained. Rosters are on file at

- 2 Why do you have to take this training? Th CRIMTC ENV OFFICE
 - Legal requirement as set forth under the CERCLA cleanup program.
 - Annual requirement
 - Need awareness of cleanup sites and LUCs at Camp Ravenna and where they are imposed and located.
 - Requirement to access certain cleanup sites

3 What is a Land Use Control?

- A limitation or restriction on use of land
 - Facilitates a particular use
 - Protects human health and the environment
 - Comply with legal requirements
- Memorialized in a Decision Document (DD) and the Property Management Plan
- LUCs are <u>NOT</u> Optional

4 Types of Land Use Controls

- Fencing
- Warning signs
- Selbert stakes
- ging restrictions
- Access restrictions
- AOC-specific training prior to access
- Ground and surface water use restrictions
- Administrative policies

5 Brief Facility History

- Former Ravenna Army Ammunition Plant (RVAAP)
- Load Assemble and Pack Facility
 - Four major caliper load lines melt-pour munitions loading
 - One ammonium nitrate line
 - Seven fuze and booster lines
 - Torage Depot Explosives, Finished rounds, Inert materials and equipment
- Demilitarization Activities
- Research and Development
- •

6 Result Of Past Land Use

- Contamination
 - Explosives
 - Residue from burning operations
 - Residue from demolition operations
 - Munitions and Explosives of Concern (MEC)
 - Landfills or dumps sites
 - Hazardous materials storage areas
 - Vehicle Maintenance Areas
 - Water and sewage treatment plants
- Approx. 81 Areas of Concern (AOCs) primary contaminant is chemical
- 17 Munitions Response Sites (MRSs) primary contaminant is MEC

Various stages of investigation and cleanup

7 Location of AOCs and MRSs

- On both OHARNG property and RVAAP property
 Property transfer to occur in 2013
- OHARNG accountable for 20,423 acres
 - •All roads, railroads, power lines
 - All buildings except those retained by BRAC
- BRAC accountable for 1,260 acres
 - •A few buildings in the Post 1 area
 - Load Lines and a few other areas
- BRAC and ARNGD responsible for clean up will transition in 2013
- Most AOCs/MRSs off limits until nature and extent/hazard or nonhazard determined and No Further Action or remedy reached.
- 8 AOC and MRS Locations

9 Property Management Plan (PMP)

- Finalized in August 2012
- As cleanup completed at AOCs/MRSs, appendix is added to PMP
- Identifies established LUCs for each AOC/MRS
- Requires LUC training, inspections, annual report
- Requires monitoring of LUC effectiveness
- OHARNG responsible for using units, Camp Ravenna personnel, contractors and quests
- 10 III LUC Enforcement
 - Who is responsible?
 - RVAAP property BRAC currently conducted by contractor
 - OHARNG property OHARNG and ARNGD
 - Ohio EPA
 - What to do if you ssuspect a LUC violation?
 - Take immediate action to stop the violation
 - Report it through the chain of command immediately
 - Follow up with a written report to Camp Ravenna ENV
- 11 General LUCs at Camp Ravenna
 - Most AOCs/MRSs marked off-limits with Siebert Stakes Access to an area requires coordination with ENV office
 - All training requests reviewed and approved by CR staff
 - Using units receive mandatory in-brief
 - CR service team assigned oversight of using units
 - Annual LUC training given to all full-time staff
 - All ground disturbance prohibited unless approved by ENV office
 - Use of vehicles offroad is prohibited except in designated areas
 - Mud must be knocked off of vehicles and equipment on site in the field before leaving the site and before using wash rack
 - Only authorized personnel permitted on BRAC property no training permitted
 - Groundwater use prohibited/limited base-wide
 - Perimeter fence
 - Only enter authorized areas.
- 12 Restrictions for Streams
 - Dredging prohibited
 - Vehicles may only cross at bridge/culvert
 - Foot traffic limited to incidental crossing

ż

- Water extraction must be approved in advance
- Sediments may not be disturbed
- Bridge and culvert replacement projects must be coordinated in advance and reviewed by CR-ENV

13 Restrictions for Ponds

- Swimming prohibited in all ponds
- Catch and release fishing (all former process ponds)
- Mack's pond

4.

2

- Access prohibited except for fire emergency
- Sediments may not be disturbed
- Upper and Lower Cobb's, Kelly's Pond, Criggy's Pond, and WW III Ponds
 - Wading prohibited
 - Sediments may not be disturbed

14 BRAC Property - Restrictions

- Prohibited access
 - Load lines 1, 3, 4, 5, 7, 8, 9, 10, and 11 fence
 - Open Demo Area #1 TA-G Seibert stakes
 - Open Demo Area #2 fence across road
 - Wet Storage fence
 - 40 mm Firing Range Seibert stakes
 - Anchor Test Area Seibert stakes
 - Landfill North of Winklepeck locked gate to MK-19 range
 - Ramsdell Quarry Landfill signs
 - C-Block Quarry Seibert stakes
- Suspect Mustard Site TA-G Seibert stakes
- Limited Access LL2, LL6, LL9, LL12

15 MK-19 Range Site History

- The MK-19 Range was constructed on the former Winklepeck Burning Grounds (WBG).
- The WBG was cleaned up specifically to facilitate construction and operation of the MK-19 range.
- Soil was remediated and MEC removed to variable depths (surface and 1 foot) on the target arrays, firing points, the parking area, and a few burning pads.
- MEC was not removed in areas outside of the target arrays, firing points, and parking area.
- Use of the WBG is limited to a MK-19 range/small arms range and includes specific limitations on activities
- LUCs set forth in the Property Management Plan

16 🔙 17 🗔

18 JUCs for the MK-19 Range

- The MK-19 Range SOP must be followed.
- Access is controlled by CR Range Control
- All CRJMTC staff who access the site must attend an annual briefing on the restrictions, environmental concerns, and LUCs applicable to this site (Range Maintenance or similar authorized personnel).
- No one except trained CR Range Maintenance and Environmental personnel are permitted down range beyond the firing points.
- Any suspect MEC item must be reported immediately to CR Range Control. These items may not be disturbed.

19 LUCs for the MK-19 Range (continued)

- Due to the potential to encounter MEC, no ground disturbance of any kind is permitted on the range.
- Culvert replacements must be coordinated with CR Range Operations and CR-ENV.
- No dirt or fill from the old WBG area may leave the site includes dirt in old culverts.
- Only fill approved by CR-ENV may be brought onto the MK-19 range.
- Pad at T-5301 may not be used as a storage area.
- Contractor activities must be coordinated with ENV office to make sure activities are approved and contractors are properly briefed.

20 Specific LUCs for the MK-19 Range as Designated in the PMP

- Land use shall be limited by the maintenance of the facility perimater fence
- All activities at Winklepeck must be in compliance with OHARNG range safety regulations, established digging restrictions, and exposure limits.
- The range should be marked with signage in conformance with the requirements set forth by the Armyfor active ranges.
- Groundwater use is prohibited excepts as related to the cleanup activities sampling existing wells, new development of wells etc)
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MECcleared areas within the MK19 Range/Winklepeck is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts;
 - 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 1 foot below ground surface.
- Periodic inspections (quarterly) with annual report shall be performed

21 B Other Sites with Decision Documents with LUCs

- Load Lines 1 4 and 12 mounted training, no digging currently off limits
- Ramsdell Quarry Landfill asbestos in soil restricted access
- To date, not memorialized in the Property Management Plan

22 🔜 Interim Siebert Staked Areas

- 23 🖾 Tips for You LUC Management
 - When in doubt, ask the ENV Office
 - Don't make any assumptions...coordination is key.
 - Report any potential or known LUC violations.
 - Work where assigned. Don't wander around.
- 24 Questions?
 - •
 - •
 - Tim Morgan 6568
 - Katie Tait 6136

RVAAP-05 Winklepeck Burning Grounds – Land Use Control (LUC) Brief for Contractors/Visitors

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a MK19/small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC), the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities executed within WBG must be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- Groundwater use or extraction of groundwater located at or underlying the WBG AOC or any portion thereof prohibited, except for the following:
 - he 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

All groundwater activities must be coordinated with the OHARNG prior to work activities.

- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

I have been briefed and understand the requirements and LUCs/restrictions at Winklepeck Burning Grounds. I will comply with all requirements.

Printed Name	Signature	Company	Date

RVAAP-05 Winklepeck Burning Grounds - Land Use Control (LUC) Brief for Contractors/Visitors

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC) the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all appropriate individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities within WBG shall be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

All groundwater activities must be coordinated with the OHARNG prior to work activities.

- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

I have been briefed and understand the requirements and LUCs/restrictions at Winklepeck Burning Grounds. I will comply with all requirements.

Name		Company	Date	
John	m mell	Fan	1/13/13	
Acto	A. Dresshandt	EQM	1/15/13	
a de	r. Brevelf	LAM	1/15/13	
1				
·				

RVAAP-05 Winklepeck Burning Grounds - Land Use Control (LUC) Brief for Contractors/Visitors

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a MK19/small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC), the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities executed within WBG must be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.
 - All groundwater activities must be coordinated with the OHARNG prior to work activities.
- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

I have been briefed and understand the requirements and LUCs/restrictions at Winklepeck Burning Grounds. I will comply with all requirements.

Printed Name	Signature	Company	Date
les Teto-	an ort	Frontz	11-22-12
Henry Millard	Henry Willard	Frontz	11-27-12

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP)

Second Quarter FY2013 Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds Ravenna Army Ammunition Plant, Ravenna, Ohio

ATTACHMENT 3

Comment Response Tables

Final Second Quarter, Revision 1.0 Response to Comments:

This document is dated July 19, 2013 and was received at Ohio EPA on July 22, 2013. The document was prepared for the USACE- Louisville District by Vista Sciences Inc. under contract number W912QR-11P-0086. This is the second version of the inspection report that has been submitted and reviewed. Pursuant to the June 10, 2004 Director's Final Findings and Orders paragraphs 39-44, this document is disapproved. Disapproval is based upon the following comments:

1. "The condition of the fence is meeting the fence's primary use of being a security measure." [RTC #3]:

The Ohio EPA disagrees with the statement that the primary use of the perimeter fence is as a security measure. Please cross-reference all information with respect to the PMP and enforceability of LUCs under the applicable RODs and RDs which were prepared in accordance with the DFFOs. Additionally, please note that the PMP provides a description of the perimeter fence as "chain link" and the WBG documents continued use of the "existing" perimeter fencing repairs should be consistent with this type of fence design.

Comment noted. The fence serves two purposes, one as a security measure for the facility and one as a land use control under the PMP. Text in the inspection form will be revised to state: "The perimeter fence has areas that are in need of repair to meet its function under the PMP as a land use control (LUC)." Please note that the purpose of the Quarterly LUC Inspections is to identify these areas so they can be remedied, and to document corrective actions taken or recommended.

"The fence deters unauthorized access as it provides a visual demarcation of the facility." [RTC #3]:

Please note that there are a number of areas where the fence is in disrepair and/or missing. Comment noted. Please see response to Comment 1.

- 3. "Overall, the fence is being maintained as required in its primary purpose of deterring unauthorized access, and the land use at WBG is limited and has not changed." [RTC #3]: The perimeter fence is in disrepair. Please cross-reference all information detailed in this correspondence with respect to the PMP and enforceability of LUCs under the applicable RODs and RDs which were prepared in accordance with the DFFOs. Comment noted. Please see response to Comment 1.
- 4. Corrective action of a LUC violation is required under the PMP (section 6.0). The text in the RTCs references the PMP, but fails to acknowledge that the examples cited in the RTCs and the PMP were examples and, therefore, not all inclusive. Specifically, missing sections of the fence and general disrepair would be considered LUC violations that require reporting and corrective action.

Comment noted. It is understood that disrepair of the fence (holes, missing sections) are LUC violations. Reporting of LUC violations and corrective actions taken will be provided in subsequent inspections and the annual report.

 Comment #7a, i.e. configuration of the fence: There has been no discussion with Ohio EPA on the fence configuration as to whether or not it must be maintained as currently designed. Fence configuration information was previously submitted to the Garrison Commander by Ohio EPA in response to an earlier email and Ohio EPA has not heard anything from the Army on this issue.

At this point in time, the fence configuration will remain the same. There is a potential, in the future, due to lessened security requirements (current fence type no longer needed due to a change in mission or no explosive storage etc.) at the facility, the fence configuration may be changed. Any changes will be coordinated and discussed with the Ohio EPA. No text change required.

6. Comment 7b: the RTC cross references RTC#6, with respect to the eight (8) fence sections selected for repair. RTC #6 does not provide the basis for selecting fence sections to be repaired.

Each time a preliminary draft inspection report is issued by Vista, the details for the fence deficiencies (required repair areas) are given to the OHARNG state maintenance staff for repair. State maintenance workers repair the minor fence deficiencies as best as possible with in house capabilities. These repairs are noted on a log and the log is given back to the OHARNG Environmental Office for forwarding to Vista for reporting purposes. The State maintenance staff has many work duties to conduct (mowing, snow removal, equipment repair etc) and do the fence repairs as time allows but typically within a month of the report being issued. Please note that some repair areas are larger and outside the capability of the in house maintenance staff. These repairs need to be contracted and repaired by a contractor. If this is the case, the state maintenance staff report which repairs need contracted and the engineering staff submits cost estimates, a bid package and request for funds to the OHARNG headquarters office in Columbus, Ohio. These larger, contracted repairs are subject to funding availability.

- 7. Comment #7c: The Army is looking into Ohio EPA's suggestion of using existing railroad (RR) ties in the Atlas Scrap Yard (ASY) AOC to replace rotted RR ties in other areas. Please provide follow up information on the status of this action. Where railroad ties once existed to help repair voids under the fence, the OHARNG will use several means to repair (gravel, railroad ties etc). These repairs if used will be noted in subsequent reports and the annual report.
- 8. Please provide a revised figure that delineates the location of NE1. (Previous comment #7d). The Index map was revised accordingly.
- 9. Comment 7f: When will this "permitted" coyote snare breach be repaired? See response to Comment 6 above for details on how fence repairs are selected and conducted. The referenced 'coyote snare' repair area has been repaired according to the 4th quarter inspection report. In the future, repairs will be noted in the subsequent reports and annual report (all repairs made over the course of the inspection year).
- Please cross-reference all pertinent previous Ohio EPA comments on the first and second quarterly reports. Noted. Comments will be cross-referenced.
- 11. Information on the inspection form included in this report has changed between the 'draft' and 'final' submittals, while retaining the original date and signature of inspection (i.e. April 29, 2013 and Mr. Don Trocchio respectively). As submitted in the 'final' report, it is unclear to stakeholders that a change has occurred to the original inspection form. Therefore, for clarity

and transparency to stakeholders, please resubmit the original inspection form(s) for this report, along with corrected inspection form(s). Documentation for changes to original inspection forms should include the following:

- a. Changes to original inspection form
- b. Explanation for those changes
- c. Date that the changes were made; and printed name, position at the RVAAP/CRJMTC project
- d. And signature of person documenting that change to the original inspection form.

Vista will add the previous 'changed' inspections forms as an attachment with cover pages for each inspection form noting the source, i.e. draft version, final version, revised final, etc.

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP)

Second Quarter FY2013 Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds Ravenna Army Ammunition Plant, Ravenna, Ohio

ATTACHMENT 4

Historical Inspection Reports

Final

FY 2013 Second Quarter Property Management Plan Quarterly Land Use Control (LUC) Inspection RVAAP-05 Winklepeck Burning Grounds

Date of Submission:

July 19, 2013

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

In accordance with the Camp Ravenna Joint Military Training Center/Ravenna Army Ammunition Plant 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>February 7, 11, 12, and 13, 2013</u>.

The quarterly inspections shall include the following:

- Review of Land Use Control (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 Ohio Army National Guard (OHARNG) range safety regulations/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 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 Property Management Plan (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 1 foot 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 Instillation Restoration Program (IRP) or FWGWMPP activities, in accordance with Ohio Environmental Protection Agency (Ohio EPA) guidance, the most recent FWSAP, and applicable Ohio Administrative Code requirements.

Please note that if LUC deficiencies or inconsistent land uses are identified, they must be reported and identified on the quarterly inspection form/report. These deficiencies must also be reported immediately to the Army. Suggestions on how to remedy the deficiencies must also be provided.

AOC Map

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

The AOC map was reviewed on Feb. 7, 2013 by Don Trocchio, PS, and it is current with respect to AOC boundaries, land activities and prescribed LUCs.

Installation Perimeter Fence

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

The Camp Ravenna perimeter fence has missing sections, openings/holes in the fence fabric, and locations in general disrepair. See Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" and attached Detail Sheets. Please Note that due to the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

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 (MSG Rex Hufenbach) on 11 February 2013 at Camp Ravenna, no residential land use has occurred.

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

Winklepeck Burning Grounds/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 11 February 2013, 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 were placed at 200 meter intervals and found to be upright and intact. Some repairs were performed in December 2012.

- 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:
 - 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.
 - 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	ed
control parameters?	

Facility Ground Water Monitoring Well sampling is conducted by Environmental Quality Management, Inc. (EQM) on a quarterly basis in this area (last one performed January 2013). During an interview with Mr. John Miller (20 February 2013) of EQM 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.

Inspections and Reporting

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

This is the second FY 2013 Quarterly Inspection conducted in accordance with the approved PMP dated August 2012.

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

The annual report will be completed and submitted after the completion of the FY 2013 4th Quarterly Inspection.

Training (as applicable to WBG)

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

Annual LUC training is provided to Camp Ravenna staff and tenant units at Camp Ravenna (See Attachment 2). Camp Ravenna staff received their annual LUC Training on 12 December 2012. The annual training is provided by Katie Tait and 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 Winklepeck. 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 Winklepeck 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. All documentation of training is provided in Attachment 2.

Note: Signed training rosters have not been included for security purposes and are on file at the OHARNG Environmental Office.

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

Description of any observed/noted Land Use Control (LUC) violation(s):

The Camp Ravenna perimeter fence has missing sections, openings/holes in the fence fabric, and locations in general disrepair. See Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" and attached Detail Sheets. Please Note that due to the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

Date of Notification of LUC violation (if applicable):

The perimeter fence inspection was sent to Army stakeholders on 25 February 2013. Information about the findings of the inspection were previously conveyed to the Army informally.

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

Please Note that due to the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

On December 18 & 19, 2012, Vista Sciences Corp. replaced about 30' of missing fence fabric along the north perimeter fence. This missing section of fence was called out in the 1st quarter FY2013 LUC Inspection Report Form and identified as photos No. 5 & 6 in Attachment No.1. The fence repair is shown on the Detail Sheet NE11 in the 2nd quarter FY2013 LUC Inspection Report. The repair photograph was taken at a later date (7 January 2013).

The following callouts, as shown on Attachment 1 - Figure 1 Index Map, will be repaired prior to the 3rd quarter LUC Inspection; NE2, NE3, NE4, NE6, NE10, NW4, SW4, SW6.

Additional Notes/Comments:

For future inspections (beginning with the FY2013 4th Quarter Inspection), the person completing the inspection will provide daily reports to the Army documenting where any new deficiencies in the perimeter fence were found.

The Group 7 fence was included and inspected as the eastern perimeter fence for the 1st and 2nd quarter LUC inspections; however, it will not be inspected during future inspections as it is not considered part of the perimeter fence and therefore is not maintained. The north-south fence running along the western edge of State Route 534 will replace the Group 7 as the perimeter fence. The north-south fence running along the eastern edge of Group 7, south of Smalley Road, and southern edge of Group 7 will no longer be maintained or repaired. Additionally, the section of fence running south from the southwest corner of Group 7 to its' intersection with the State Route 534 fence just north of Butts-Kistler Road will no longer be maintained or repaired. Therefore, callouts NE7, NE8 and NE9 as shown on the Attachment 1 - Figure 1 Index Map are situated along an interior section of fence that will no longer be maintained or repaired. The State Route 534 fence will be considered the eastern perimeter fence and will be inspected and included as such in future reports.

Original Inspection Completed by:

Signature: 🍋

Printed Name: Don Trocchio

Title: Project Manager

Organization: Vista Sciences Corporation

Date: April 29, 2013

Draft

FY 2013 Second Quarter Property Management Plan Quarterly Land Use Control (LUC) Inspection RVAAP-05 Winklepeck Burning Grounds

Date of Submission:

May 1, 2013

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

3 4 5

12

13

14

21

22

23

24

25

26

27

28

29

30

31

32

37

38

39

40

41

42

43

44

45

46

1

2

In accordance with the Camp Ravenna Joint Military Training Center/Ravenna Army Ammunition Plant
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>February 7, 11, 12, and 13,</u>
2013.

- 11 The quarterly inspections shall include the following:
 - Review of Land Use Control (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 Ohio Army National Guard (OHARNG) range safety regulations/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 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 Property Management Plan (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 1 foot 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 Instillation Restoration Program (IRP) or FWGWMPP activities, in accordance with Ohio Environmental Protection Agency (Ohio EPA) guidance, the most recent FWSAP, and applicable Ohio Administrative Code requirements.
- Please note that if LUC deficiencies or inconsistent land uses are identified, they must be reported and
 identified on the quarterly inspection form/report. These deficiencies must also be reported immediately
 to the Army. Suggestions on how to remedy the deficiencies must also be provided.

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

AOC Map

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

The AOC map was reviewed on Feb. 7, 2013 by Don Trocchio, PS, and it is current with respect to AOC boundaries, land activities and prescribed LUCs.

Installation Perimeter Fence

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

See Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" and attached Detail Sheets.

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 (MSG Rex Hufenbach) on 11 February 2013 at Camp Ravenna, no residential land use has occurred.

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

Winklepeck Burning Grounds/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 11 February 2013, 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 were placed at 200 meter intervals and found to be upright and intact. Some repairs were performed in December 2012.

- 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:
 - 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.
 - 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.

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

Facility Ground Water Monitoring Well sampling is conducted by Environmental Quality Management, Inc. (EQM) on a quarterly basis in this area (last one performed January 2013). During an interview with Mr. John Miller (20 February 2013) of EQM 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.

Inspections and Reporting

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

This is the second FY 2013 Quarterly Inspection conducted in accordance with the approved PMP dated August 2012.

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

This is the second FY 2013 Quarterly Inspection conducted in accordance with the approved PMP dated August 2012. Preparation of the first LUC Annual Report Preliminary Draft is tentatively scheduled for 22 July 2013 and Final submission is tentatively scheduled for 2 January 2014.

Training (as applicable to WBG)

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

Annual LUC training is provided to Camp Ravenna staff and tenant units at Camp Ravenna (See Attachment 2). Camp Ravenna staff received their annual LUC Training on 12 December 2012. The annual training is provided by Katie Tait and 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 Winklepeck. 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 Winklepeck 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. All documentation of training is provided in Attachment 2.

Note: Signed training rosters have not been included for security purposes and are on file at the OHARNG Environmental Office.

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

N/A

Description of any observed/noted Land Use Control (LUC) violation(s):

The Camp Ravenna perimeter fence is required to deter unauthorized access to a military installation. The fence also supports the need to deter access to environmental restoration sites as appropriate. Inspection of the perimeter fence documents that portions of the fence are in poor condition, require repair, and is in violation of the PMP section 4.1.1.

Date of Notification of LUC violation (if applicable):

The perimeter fence inspection was sent to Army stakeholders on 25 February 2013. Information about the findings of the inspection were previously conveyed to the Army informally.

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

Funding for fence repair through a contract with Vista Science Corp. (W912QR-11-P-0086) will be utilized to repair select areas of the fence. Additionally, the OHARNG requested funding to repair and maintain the perimeter fence to the Installation Management Office. Due to the volume that requires repair and the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

On December 18 & 19, 2012, Vista Sciences Corp. replaced about 30' of missing fence fabric along the north perimeter fence. This missing section of fence was called out in the 1st quarter FY2013 LUC Inspection Report Form and identified as photos No. 5 & 6 in Attachment No.1. The fence repair is shown on the Detail Sheet NE11 in the 2nd quarter FY2013 LUC Inspection Report. The repair photograph was taken at a later date (7 January 2013).

Schedule of repairs: The following callouts, as shown on Attachment 1 - Figure 1 Index Map, will be repaired prior to the 3rd quarter LUC Inspection; NE2, NE3, NE4, NE6, NE10, NW4, SW4, SW6.

Additional Notes/Comments:

Numerous defects/damage (i.e. leaning sections of the fence, frost heaved post footers creating openings at the bottom of the fence, broken and /or missing posts and arms, missing barb wire, overhanging and blown down trees) in the perimeter fence were observed during the inspection. The fence is still capable of deterring unauthorized access to the facility.

The Group 7 fence was included and inspected as the eastern perimeter fence for the 1st and 2nd quarter LUC inspections; however, it will not be inspected during future inspections as it is not considered part of the perimeter fence and therefore is not maintained. The north-south fence running along the western edge of State Route 534 will replace the Group 7 as the perimeter fence. The north-south fence running along the eastern edge of Group 7, south of Smalley Road, and southern edge of Group 7 will no longer be maintained or repaired. Additionally, the section of fence running south from the southwest corner of Group 7 to its' intersection with the State Route 534 fence just north of Butts-Kistler Road will no longer be maintained or repaired. Therefore, callouts NE7, NE8 and NE9 as shown on the Attachment 1 - Figure 1 Index Map are situated along an interior section of fence that will no longer be maintained or repaired. The State Route 534 fence will be considered the eastern perimeter fence and will be inspected and included as such in future reports.

Form Completed by:	
Signature:	
Printed Name: Don Trocchio	
Title: Project Manager	Organization: Vista Sciences Corporation
Date: April 29, 2013	

51

Appendix F

Final FY 2013 Third Quarter Property Management Plan Land Use Control (LUC) Inspection Report for RVAAP-05 Winklepeck Burning Grounds Final

FY 2013 Third Quarter Property Management Plan Quarterly Land Use Control (LUC) Inspection RVAAP-05 Winklepeck Burning Grounds

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP) Ravenna, Ohio

Contract No. W912QR-11-P-0086

Prepared for:



US Army Corps of Engineers Louisville District

US Army Corps of Engineers 600 Dr. Martin Luther King Jr. Place Louisville, Kentucky 40202

Prepared by:



Vista Sciences Corporation Ravenna Army Ammunition Plant 8451 State Route 5 Ravenna, OH 44266

November 14, 2013

Final FY 2013 Third Quarter Property Management Plan Quarterly Land Use Control (LUC) Inspection RVAAP-05 Winklepeck Burning Grounds

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP) Ravenna, Ohio

Contract No. W912QR-11-P-0086

Prepared for:



US Army Corps of Engineers
Louisville District

US Army Corps of Engineers 600 Dr. Martin Luther King Jr. Place Louisville, Kentucky 40202

Prepared by:



Vista Sciences Corporation Ravenna Army Ammunition Plant 8451 State Route 5 Ravenna, OH 44266

November 14, 2013

LIST OF ACRONYMS

AEC	Army Environmental Command
AOC	Area of Concern
AR	Army Regulation
BRACD	Base Realignment and Closure Division
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CR	Camp Ravenna
CR-ENV	Camp Ravenna Environmental
CRJMTC	Camp Ravenna Joint Military Training Center
DD	Decision Document
DLA	Defense Logistics Agency
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
LTM	Long Term Management
MEC	Munitions and Explosives of Concern
MRS	Munitions Response Site
NBC	Nuclear, Biological, Chemical
NCOIC	Noncommissioned Officer in Charge
OIC	Officer in Charge
Ohio EPA	Ohio Environmental Protection Agency
OHARNG	Ohio Army National Guard
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) / Ravenna Army Ammunition Plant (RVAAP) Quarterly LUC Inspection Form – RVAAP-05 Winklepeck Burning Grounds

In accordance with the Camp Ravenna Joint Military Training Center/Ravenna Army Ammunition Plant 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 April 18, 22, 23, 25, & 29, 2013.

The quarterly inspections shall include the following:

• Review of Land Use Control (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 Ohio Army National Guard (OHARNG) range safety regulations/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 19 Grenade Machinegun Range is prohibited with the following exceptions:

o Routine maintenance of roads, ditches, culverts and activities listed in A-1.4 of the Property Management Plan (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 1 foot 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:

o 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 Instillation Restoration Program (IRP) or FWGWMPP activities, in accordance with Ohio Environmental Protection Agency (Ohio EPA) guidance, the most recent FWSAP, and applicable Ohio Administrative Code requirements.

Please note that if LUC deficiencies or inconsistent land uses are identified, they must be reported and identified on the quarterly inspection form/report. These deficiencies must also be reported immediately to the Army. Suggestions on how to remedy the deficiencies must also be provided.

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 18, 2013 by Don Trocchio, PS, and it is current with respect to AOC boundaries, land activities and prescribed LUCs.

2. Installation Perimeter Fence

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

The perimeter fence has areas that are in need of repair to meet its function under the PMP as a land use control (LUC). See Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" and attached Detail Sheets. Please Note that due to the current financial climate, funding for repairs is limited. The OHARNG continues to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

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 (MSG Rex Hufenbach) on 25 April 2013 at Camp Ravenna (Butts-Kistler Road at the Portage/Trumbull County Line), no residential land use has occurred. Additionally, there has been no change in land use at the AOC.

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

Winklepeck Burning Grounds/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 25 April 2013, all activities within WBG are being conducted in compliance with OHARNG Range Safety Regulations/SOP and

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 is conformance with Army regulations. Some signage repairs were performed in December 2012.

- 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:
 - a. 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.
 - b. 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?

Facility –Wide Ground Water Monitoring Well sampling is conducted by Environmental Quality Management, Inc. (EQM) on a quarterly basis in this area (last one performed January 2013). During an interview in RVAAP Building 1036 with Mr. John Miller (25 April 2013) of EQM 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.

4. Inspections and Reporting

- a) Inspections are required on a quarterly basis. Are quarterly inspections being completed? This is the third FY 2013 Quarterly Inspection 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 annual report will be completed and submitted in conjunction with the FY 2013 4th Quarterly Inspection.

5. Training (as applicable to WBG)

a.) Was LUC training (specific to Winklepeck) being conducted as applicable? Describe the training (content/who attended/who provided/documentation of training).
Annual LUC training is provided to Camp Ravenna staff and tenant units at Camp Ravenna. Full-time Camp Ravenna staff received their annual LUC Training on 12 December 2012. 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 Winklepeck. 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 Winklepeck are also provided with an in brief form. All documentation of training is provided in Attachment 2.

Note: Signed training rosters have not been included for security purposes and are on file at the Camp Ravenna Environmental Office.

b.) If training was not provided, explain why and what corrective actions were initiated? $$N\!/\!A$$

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

The Camp Ravenna perimeter fence has missing sections, openings/holes in the fence fabric, and locations in general disrepair that are in need of repair to meet its function under the PMP as a land use control (LUC). See Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" and attached Detail Sheets. Please Note that due to the current financial climate, funding for repairs is limited. The OHARNG continues to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

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

The Condition of the Perimeter Fence has been documented in the Quarterly FY 2013 LUC Inspections and provided to the Army and Ohio EPA.

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

Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" shows locations that have been repaired that have previously been noted as deficiencies. Attachment 3 shows a log of

repairs completed by the Ohio Army National Guard.

Please Note that due to the current financial climate, funding to repair the perimeter fence is limited. The OHARNG continues to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

9. Additional Notes/Comments:

For future inspections (beginning with the FY2013 4th Quarter Inspection), the person completing the inspection will provide daily reports to the Army documenting where any new deficiencies in the perimeter fence were found.

Form Completed by:

Signature:	
Printed Name: Don Trocchio	
Title: Project Manager	Organization: Vista Sciences Corporation
Date: May 23, 2013	

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP)

Third Quarter FY2013 Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds Ravenna Army Ammunition Plant, Ravenna, Ohio

ATTACHMENT 1

Figure 1 Index Map And Detailed Quadrant Maps Figure 1 Index Map

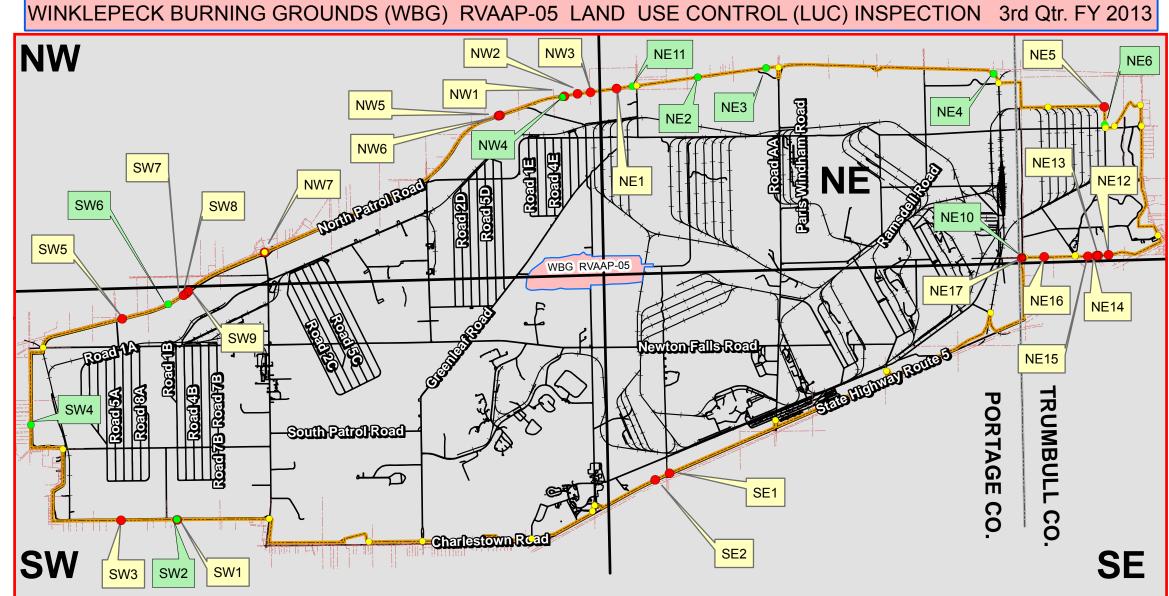


FIGURE 1 INDEX MAP TO FACILITY PERIMETER FENCE INSPECTION SEE ATTACHED DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

Legend

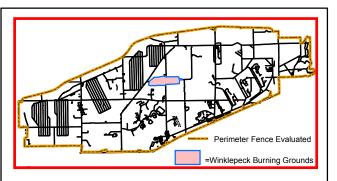
LUC Inspection of Perimeter Fence

- Opening in fence (2'≥) and/or fabric missing (22 locations)
- Repaired (10 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)



Detail Sheet		RVAAP Perimeter Fence Inspection 3rd Quarter FY 2	013 Summary Table	(US Surve	y Feet)	
Callout	Date	Path to Photo Location	Comments	Northing	Easting	Path to Repair Photo
NE1	2/12/2013	c:\My Documents\My ArcPad\P1010083.JPG	hole in fence	572047	2359121	
NE2	2/12/2013	c:\My Documents\My ArcPad\P1010088.JPG	hole in fence	572636	2363380	c:\My Documents\My ArcPad\P1010171.JPG
NE3	2/12/2013	c:\My Documents\My ArcPad\P1010090.JPG	big hole broken posts	573118	2366968	c:\My Documents\My ArcPad\P1010172.JPG
NE4	2/13/2013	c:\My Documents\My ArcPad\P1010092.JPG	hole in fence	572820	2378917	c:\My Documents\My ArcPad\P1010173.JPG
NE5	2/13/2013	c:\My Documents\My ArcPad\P1010095.JPG	hole in fence	571090	2384743	
NE6	2/13/2013	c:\My Documents\My ArcPad\P1010096.JPG	hole in fence	570126		c:\My Documents\My ArcPad\P1010175.JPG
NE10	2/13/2013	c:\My Documents\My ArcPad\P1010102.JPG	hole in fence	563195	2380440	c:\My Documents\My ArcPad\P1010187.JPG
NE11		c:\My Documents\My ArcPad\fence 11.6.12 no5.JPG	fabric missing and repaired	572169		c:\My Documents\My ArcPad\100_0803.JPG
NE12	4/23/2013	c:\My Documents\My ArcPad\P1010184.JPG	fabric damaged	563308		
NE13	4/23/2013	c:\My Documents\My ArcPad\P1010183.JPG	fabric damaged	563272	2384409	
NE14	4/23/2013	c:\My Documents\My ArcPad\P1010182.JPG	fabric damaged	563267	2384316	i
NE15	4/23/2013	c:\My Documents\My ArcPad\P1010181.JPG	fabric damaged	563242	2383872	2
NE16	4/25/2013	c:\My Documents\My ArcPad\P1010190.JPG	3 broken posts, fence leaning	563202	2381580)
NE17	4/25/2013	c:\My Documents\My ArcPad\P1010191.JPG	hole in fence	563134	2380397	
NW1	2/12/2013	c:\My Documents\My ArcPad\P1010086.JPG	big hole in fence	571637	2356382	2
NW2	2/12/2013	c:\My Documents\My ArcPad\P1010085.JPG	hole in fence	571756	2357066	
NW3	2/12/2013	c:\My Documents\My ArcPad\P1010084.JPG	hole in fence	571849	2357746	i li
NW4	3/13/2013	c:\My Documents\My ArcPad\Fence 11.6.12 No3.JPG	fence fabric lying in creek	571580	2356277	c:\My Documents\My ArcPad\P1010170.JPG
NW5	4/22/2013	c:\My Documents\My ArcPad\P1010168.JPG	hole in fence near bottom	570642	2353001	
NW6	4/22/2013	c:\My Documents\My ArcPad\P1010167.JPG	hole in fence at bottom	570613	2352916	i
NW7	4/18/2013	c:\My Documents\My ArcPad\P1010165.JPG	sign needs re-attached	563439	2340629	
SE1		c:\My Documents\My ArcPad\P1010107.JPG	washout [two more to west]	551833	2361902	2
SE2	2/13/2013	c:\My Documents\My ArcPad\P1010108.JPG	washout	551498	2361141	
SW1	2/7/2013	c:\My Documents\My ArcPad\P1010061.JPG	bottom open	549403	2336048	
SW2	2/7/2013	c:\My Documents\My ArcPad\P1010062.JPG	bottom open	549405	2336025	c:\My Documents\My ArcPad\P1010194.JPG
SW3	2/7/2013	c:\My Documents\My ArcPad\P1010064.JPG	bottom open	549369	2333095	
SW4	2/7/2013	c:\My Documents\My ArcPad\P1010067.JPG	fabric broken	554381	2328361	c:\My Documents\My ArcPad\P1010163.JPG
SW5	2/12/2013	c:\My Documents\My ArcPad\P1010074.JPG	hole in fence at bottom	559954	2333158	
SW6	2/12/2013	c:\My Documents\My ArcPad\P1010075.JPG	hole in fence	560708		c:\My Documents\My ArcPad\P1010164.JPG
SW7	2/12/2013	c:\My Documents\My ArcPad\P1010076.JPG	apx 100 ft of fabric missing	561189	2336373	3
SW8	2/12/2013	c:\My Documents\My ArcPad\P1010077.JPG	hole in fence	561285	2336529	
SW9	2/12/2013	c:\My Documents\My ArcPad\P1010078.JPG	hole in fence	561395	2336638	

Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



US Army Corps of Engineers

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

Louisville District

(N

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

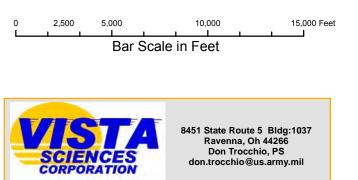
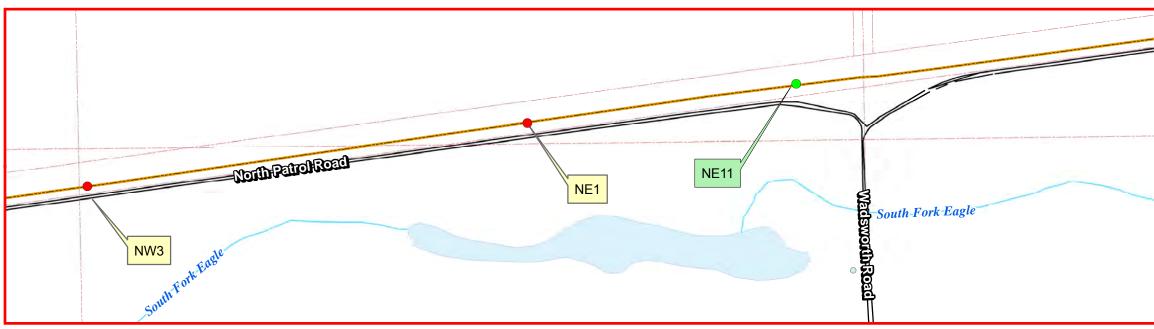


FIGURE 1 INDEX MAP

Detailed Quadrant Maps

NE (Northeast) Quadrant



LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

Legend

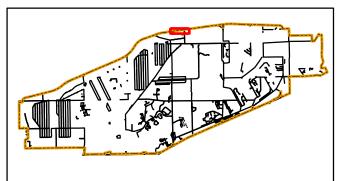
PHOTO NE1

- Opening in fence (2'≥) and/or fabric missing
- Repaired
- ----- Perimeter Fence Evaluated





Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



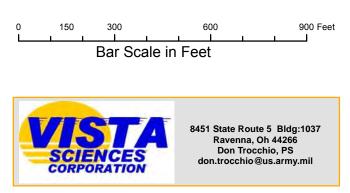
US Army Corps of Engineers

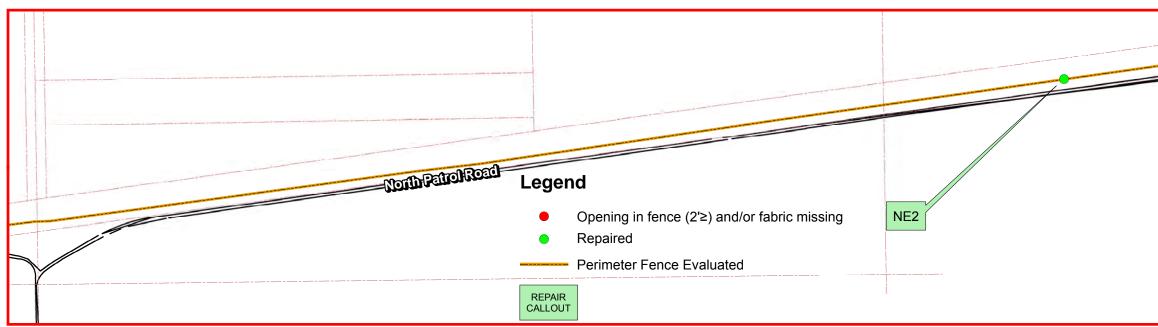
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





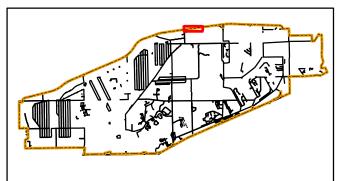
LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO OF NE2 REPAIRED

PHOTO NE2



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



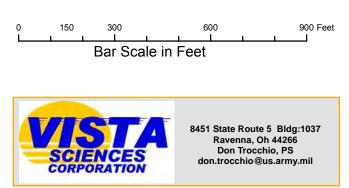
US Army Corps of Engineers

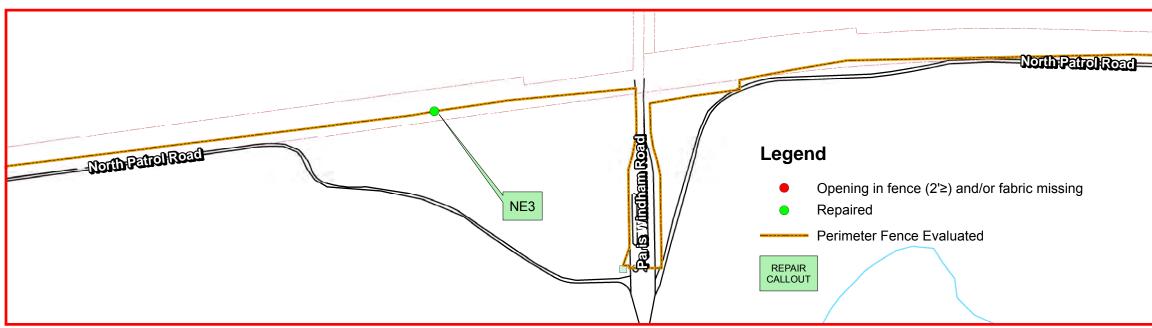
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





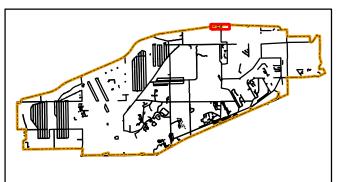
LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO OF NE3 REPAIRED

PHOTO NE3



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



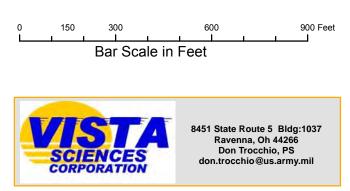
US Army Corps of Engineers

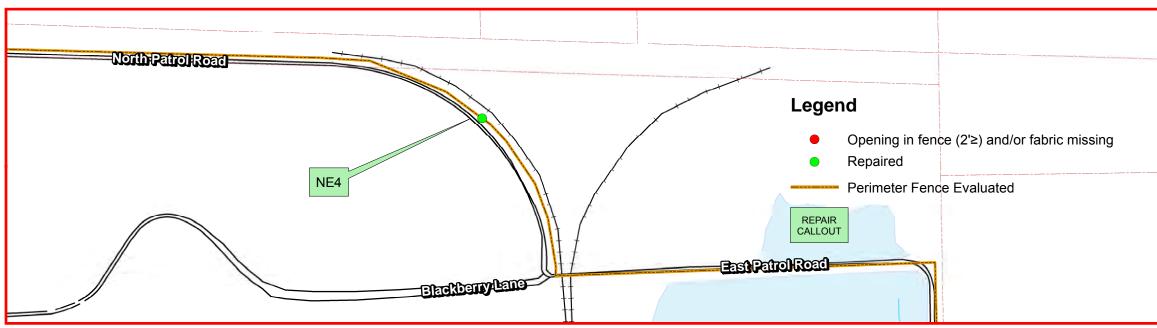
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





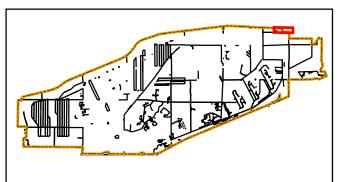
LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE4 REPAIRED

PHOTO NE4



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



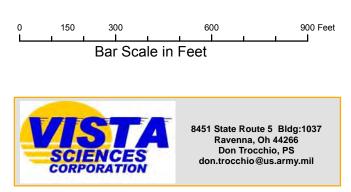
US Army Corps of Engineers

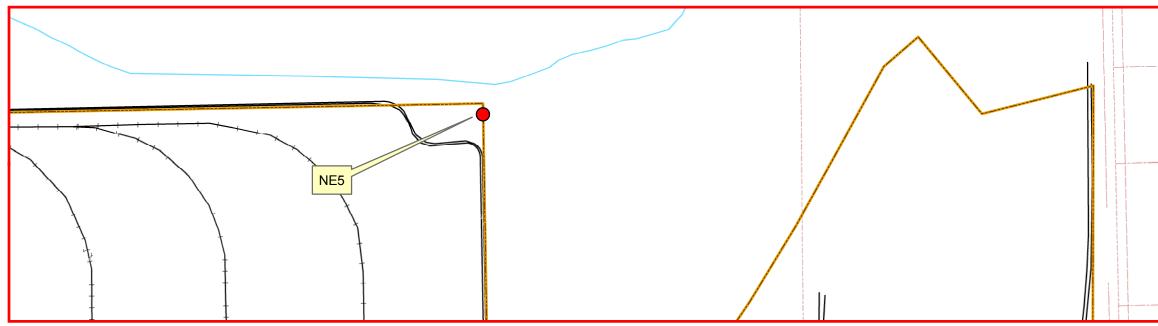
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE5

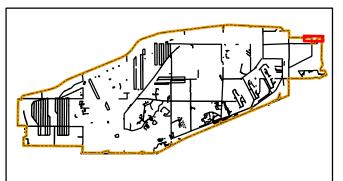
Legend



Opening in fence (2'≥) and/or fabric missing Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



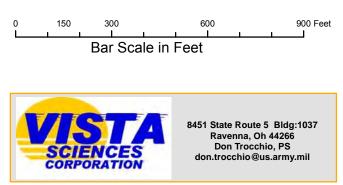
US Army Corps of Engineers

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

Louisville District



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



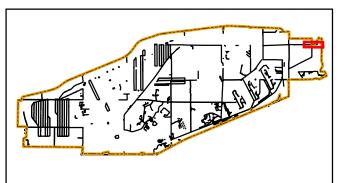
LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE6 REPAIRED

PHOTO NE6



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



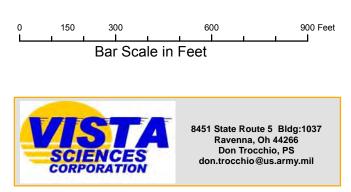
US Army Corps of Engineers

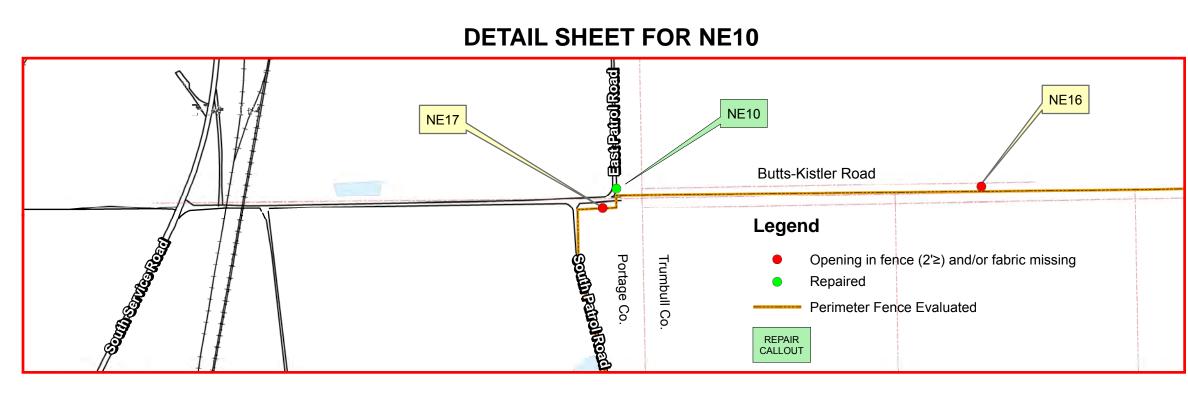
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





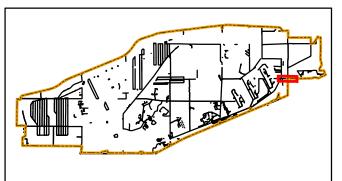
LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE10 REPAIRED

PHOTO NE10



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



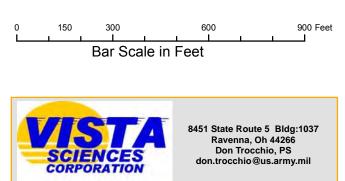
US Army Corps of Engineers

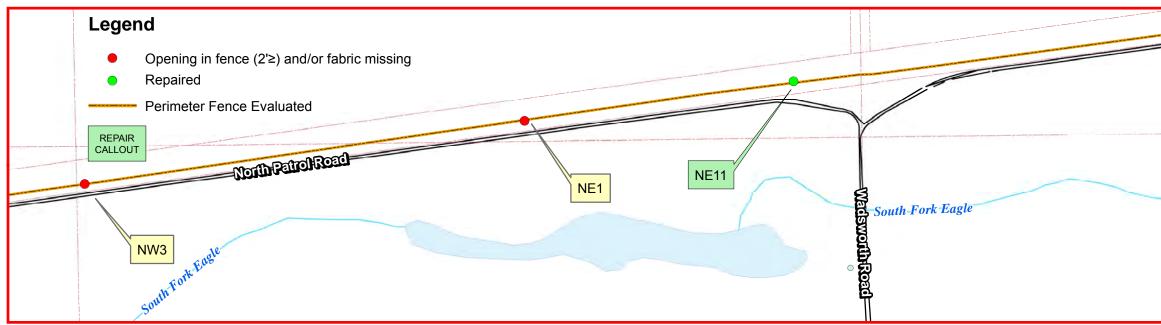
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





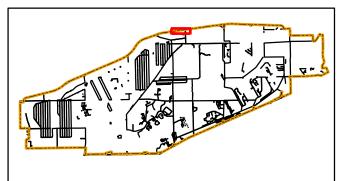
LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

Repairs made by Vista Sciences Corp. on fence in picture No.5 at right

PHOTO NE11 (1st qtr report fence picture No.5)



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in April 2013 for:



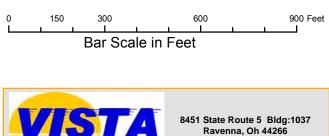
US Army Corps of Engineers

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

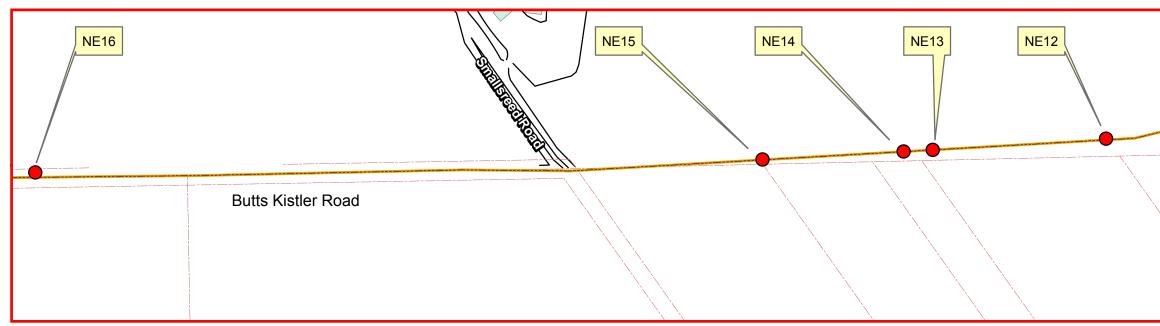
Louisville District



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



Don Trocchio, PS don.trocchio@us.army.mil



LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE12

Legend

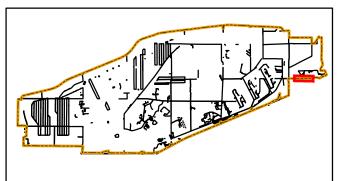


Opening in fence (2'≥) and/or fabric missing

Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



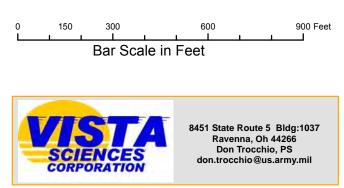
US Army Corps of Engineers

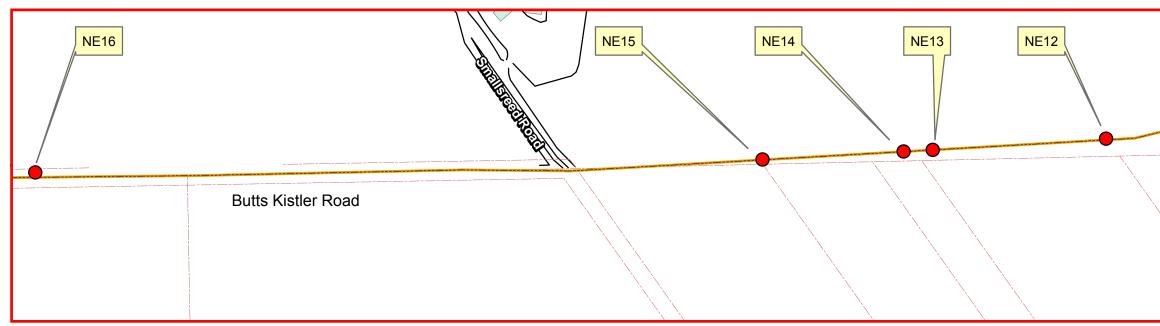
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE13

Legend

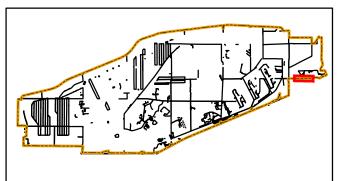


Opening in fence (2'≥) and/or fabric missing

Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



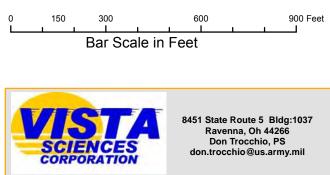
US Army Corps of Engineers

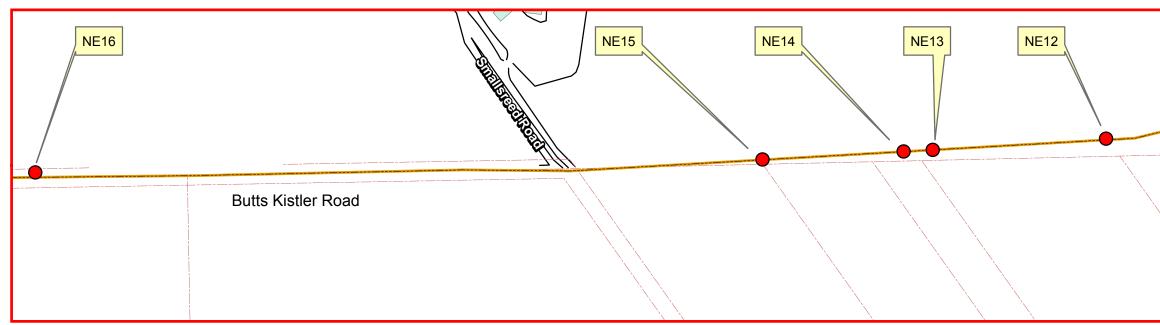
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE14

Legend

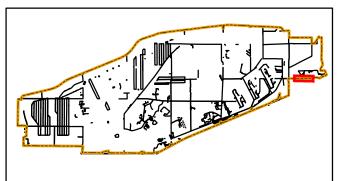


Opening in fence (2'≥) and/or fabric missing

Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



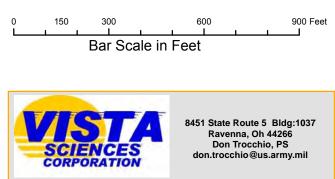
US Army Corps of Engineers

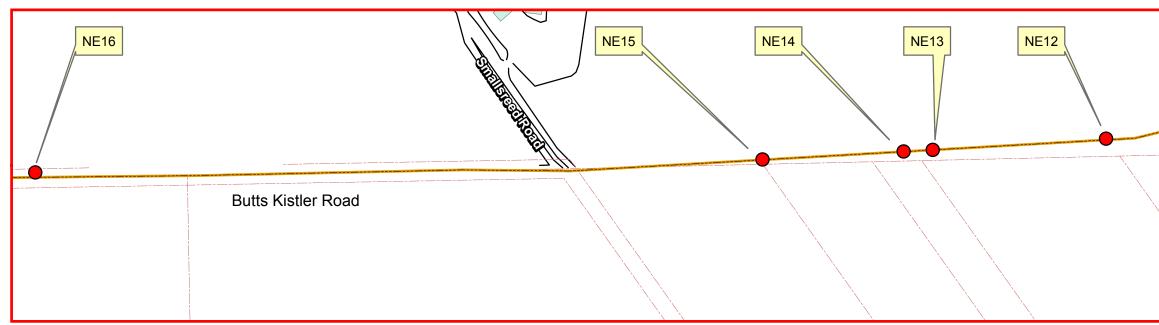
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE15

Legend

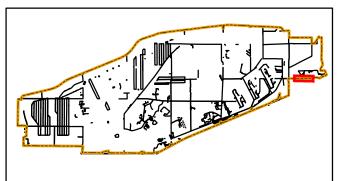


Opening in fence (2' \geq) and/or fabric missing

Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



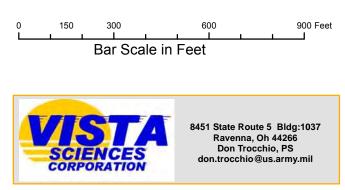
US Army Corps of Engineers

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

Louisville District



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



LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE16

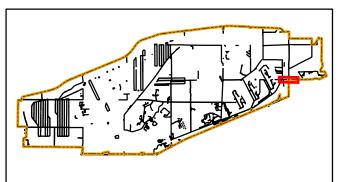
- Opening in fence (2'≥) and/or fabric missing
- Repaired
 - Perimeter Fence Evaluated

REPAIR CALLOUT

Legend



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



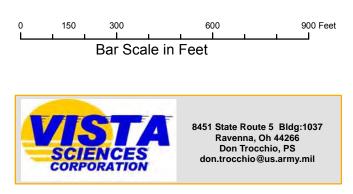
US Army Corps of Engineers

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

Louisville District



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

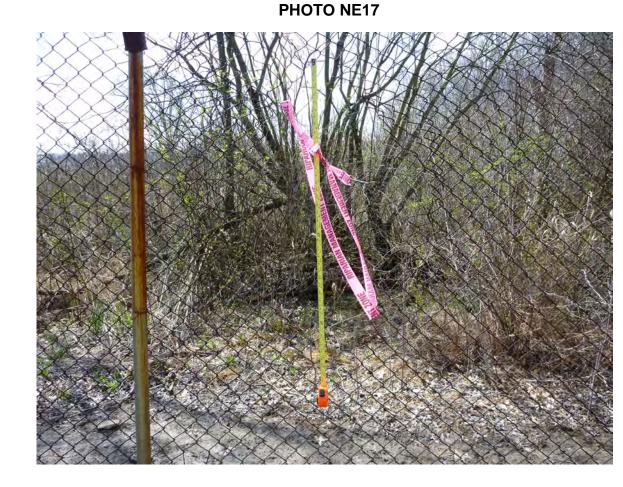


LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

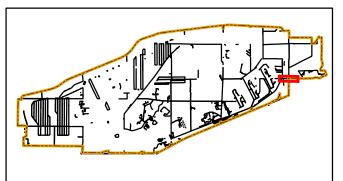
Legend

- Opening in fence (2'≥) and/or fabric missing
- Repaired
 - --- Perimeter Fence Evaluated





Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



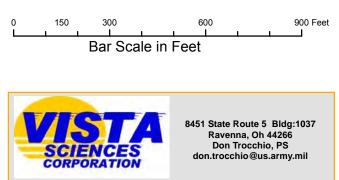
US Army Corps of Engineers

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

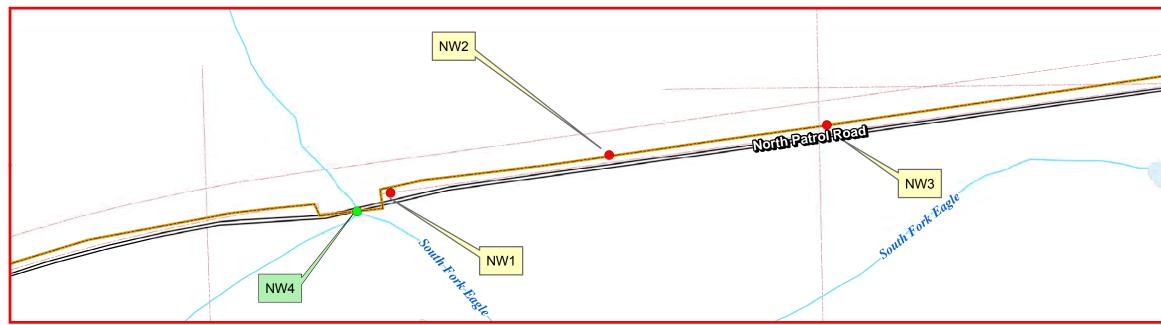
Louisville District



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



NW (Northwest) Quadrant



LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

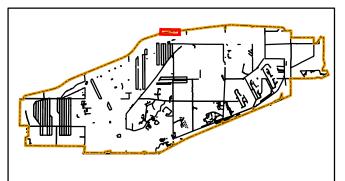
Legend

- Opening in fence (2'≥) and/or fabric missing
- Repaired
 - Perimeter Fence Evaluated





Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



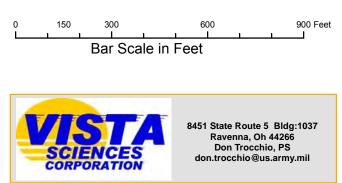
US Army Corps of Engineers

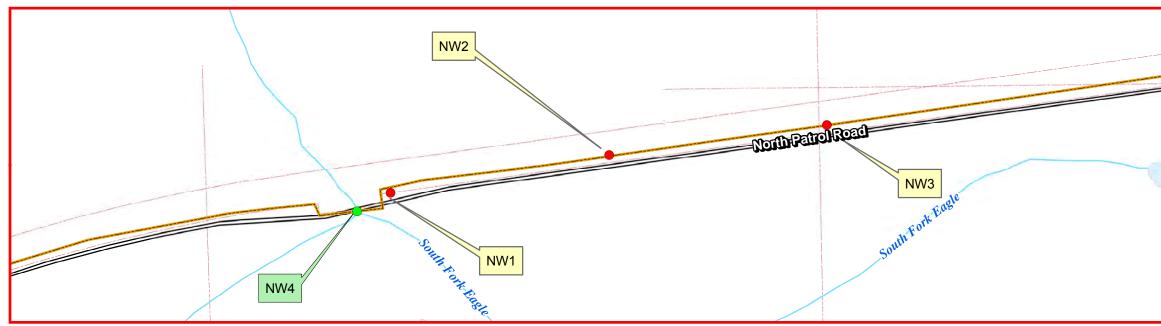
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

Legend

- Opening in fence (2'≥) and/or fabric missing
- Repaired
 - Perimeter Fence Evaluated



T

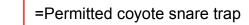
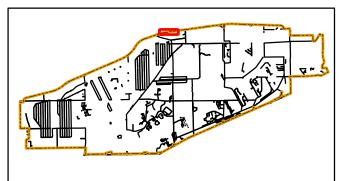




PHOTO NW2

Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



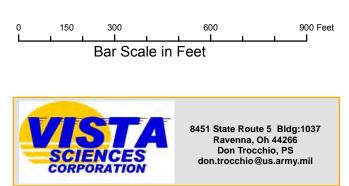
US Army Corps of Engineers

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

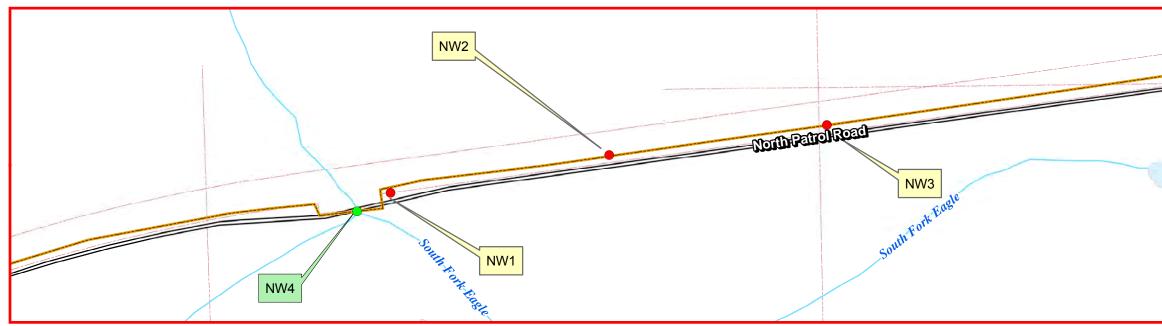
Louisville District



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







LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

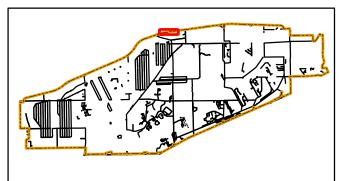
Legend

- Opening in fence (2'≥) and/or fabric missing
- Repaired
 - Perimeter Fence Evaluated





Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



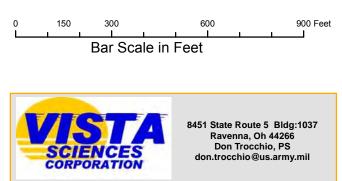
US Army Corps of Engineers

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

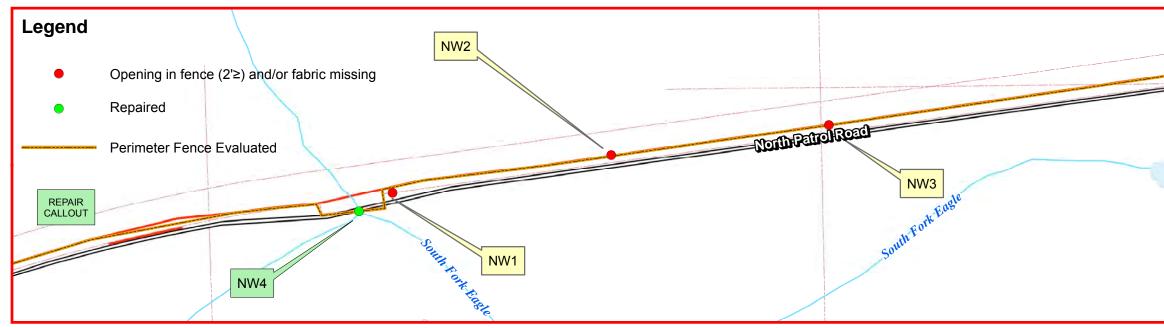
Louisville District



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







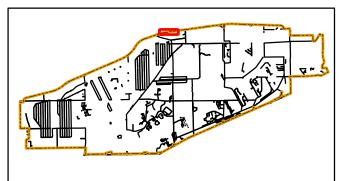
LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NW4 Repaired

PHOTO NW4 (Photo No.3 in 1qtr report)



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



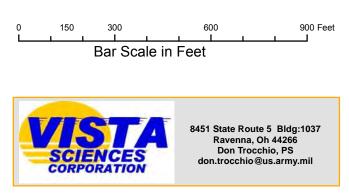
US Army Corps of Engineers

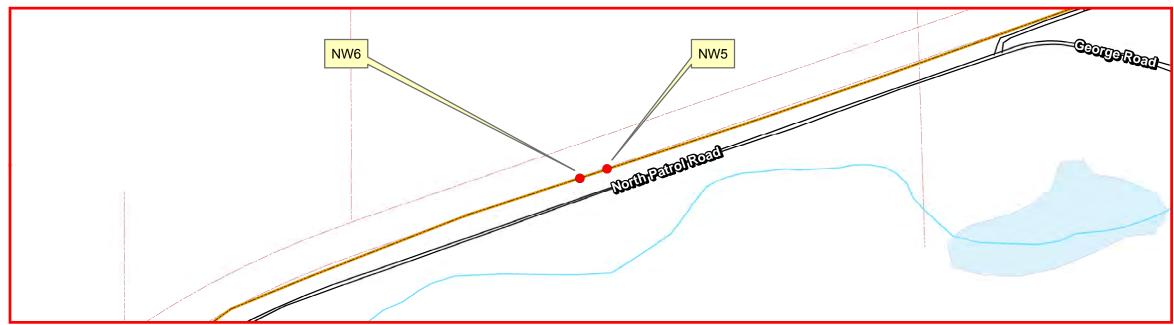
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

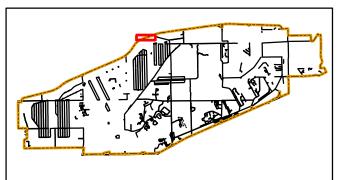
Legend

- Opening in fence (2'≥) and/or fabric missing
- Repaired
 - Perimeter Fence Evaluated





Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



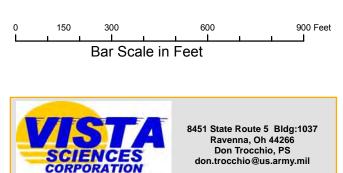
US Army Corps of Engineers

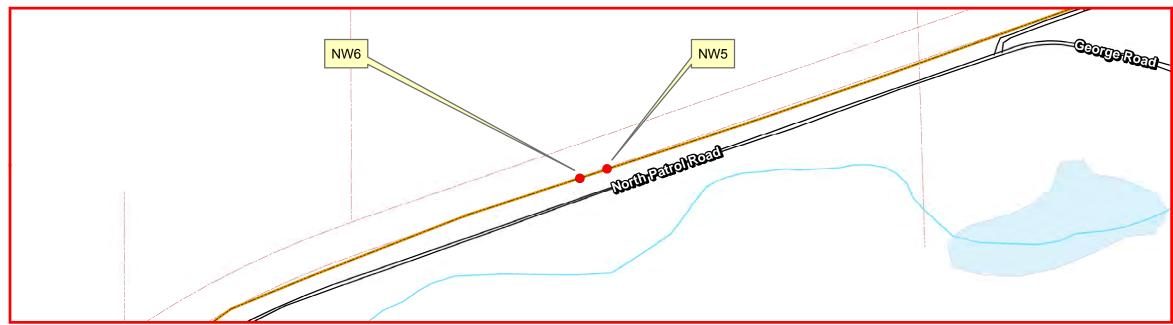
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

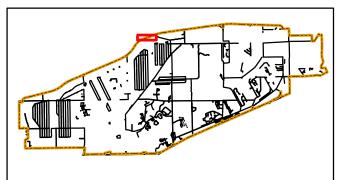
Legend

- Opening in fence (2'≥) and/or fabric missing
- Repaired
 - Perimeter Fence Evaluated

REPAIR CALLOUT



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



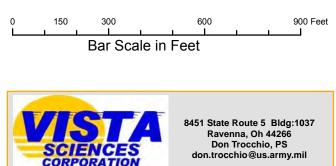
US Army Corps of Engineers

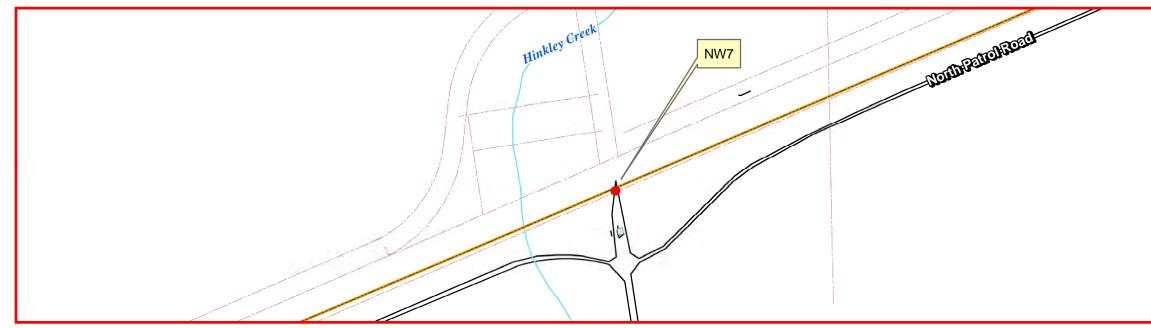
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



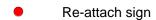
Projection Datum is NAD83, Ohio State Plane Rectangular Grid, North Zone





LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

Legend



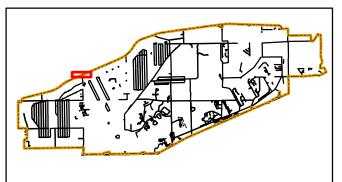
- Repaired
 - Perimeter Fence Evaluated

REPAIR CALLOUT



PHOTO NW7 (re-attach sign)

Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



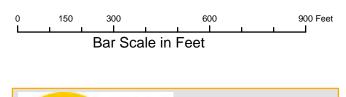
US Army Corps of Engineers

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

Louisville District



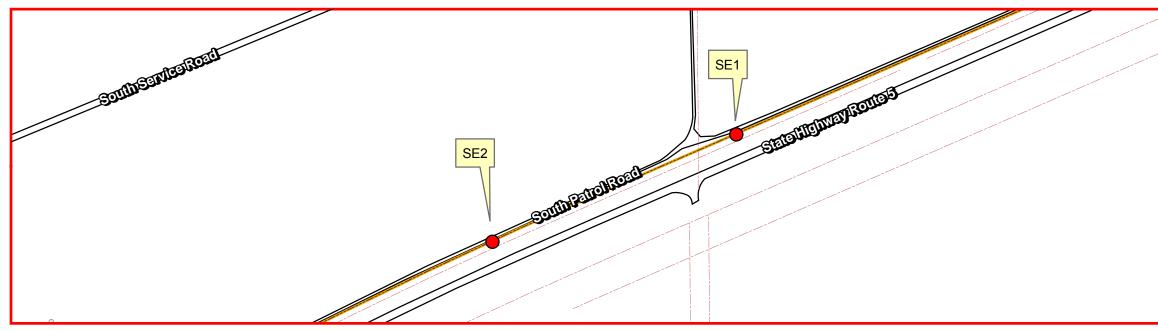
Projection Datum is NAD83, Ohio State Plane Rectangular Grid, North Zone





8451 State Route 5 Bldg:1037 Ravenna, Oh 44266 Don Trocchio, PS don.trocchio@us.army.mil

SE (Southeast) Quadrant



LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SE1 (Washout area, 2 more just to the southwest)

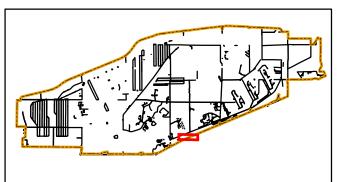
Legend



Opening in fence (2'≥) and/or fabric missing Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



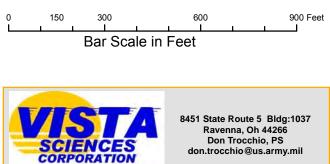
US Army Corps of Engineers

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

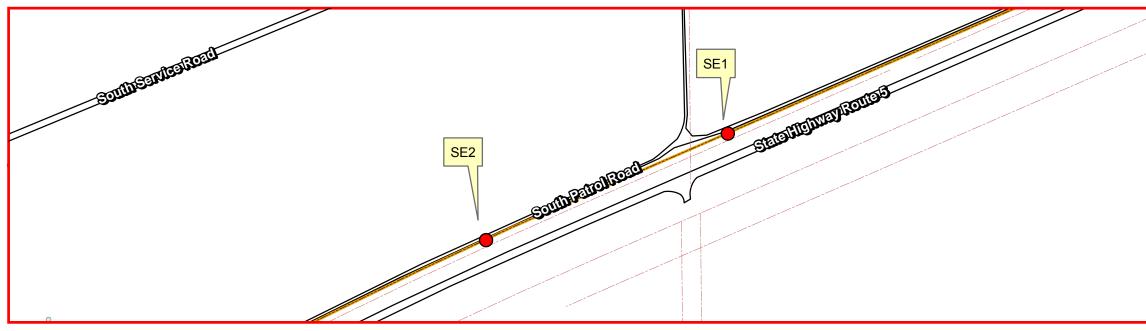
Louisville District



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



DETAIL SHEET FOR SE1



LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SE2

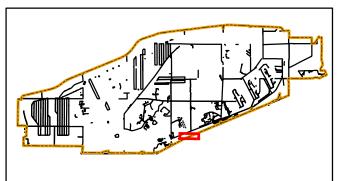
Legend



Opening in fence (2'≥) and/or fabric missing Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



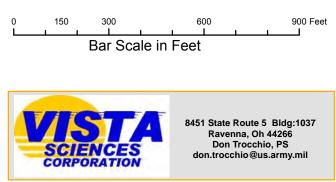
US Army Corps of Engineers

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

Louisville District

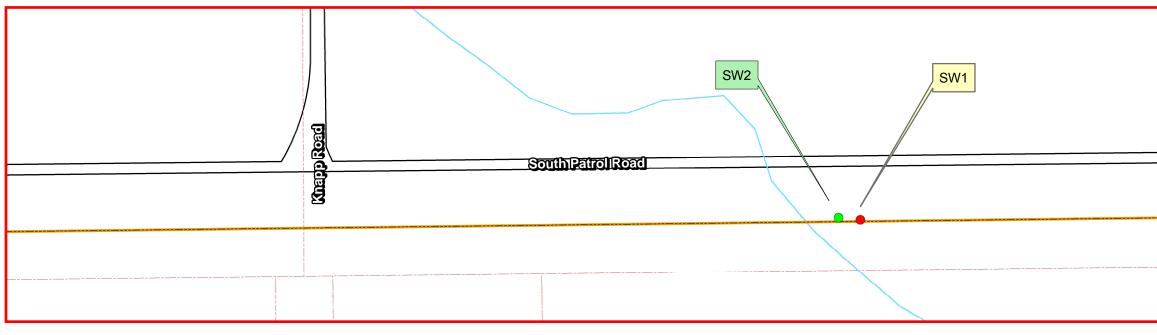


Projection Datum is NAD83, Ohio State Plane Rectangular Grid, North Zone



DETAIL SHEET FOR SE2

SW (Southwest) Quadrant



LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

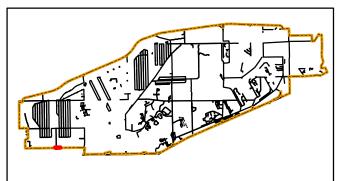
PHOTO SW1

Legend

- Opening in fence (2'≥) and/or fabric missing
- Repaired
 - ---- Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



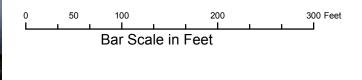
US Army Corps of Engineers

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

Louisville District

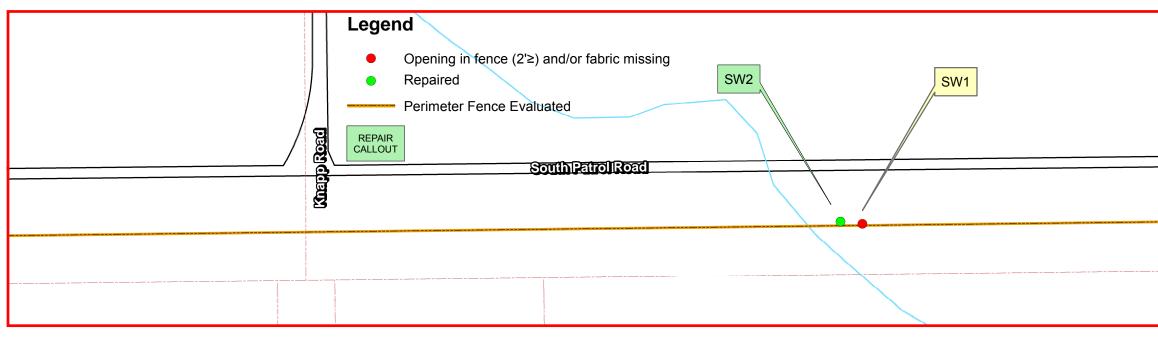


Projection Datum is NAD83, Ohio State Plane Rectangular Grid, North Zone





8451 State Route 5 Bldg:1037 Ravenna, Oh 44266 Don Trocchio, PS don.trocchio@us.army.mil



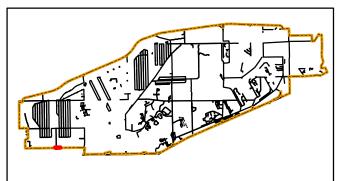
LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SW2 REPAIRED

PHOTO SW2



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP







Produced in May 2013 for:



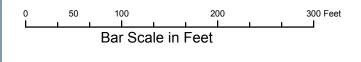
US Army Corps of Engineers

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

Louisville District

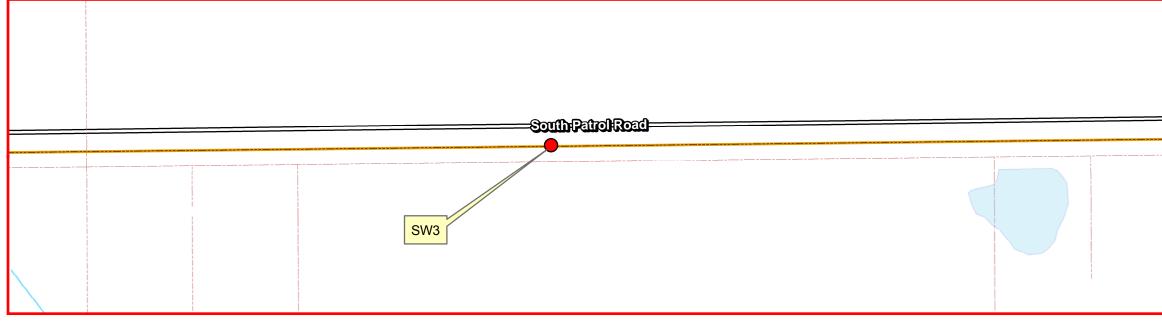


Projection Datum is NAD83, Ohio State Plane Rectangular Grid, North Zone





8451 State Route 5 Bldg:1037 Ravenna, Oh 44266 Don Trocchio, PS don.trocchio@us.army.mil



LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SW3

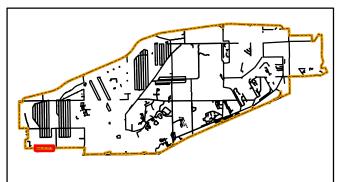
Legend

- Opening in fence (2'≥) and/or fabric missing
- Repaired
 - Perimeter Fence Evaluated

REPAIR
CALLOUT



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



US Army Corps of Engineers

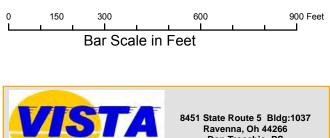
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

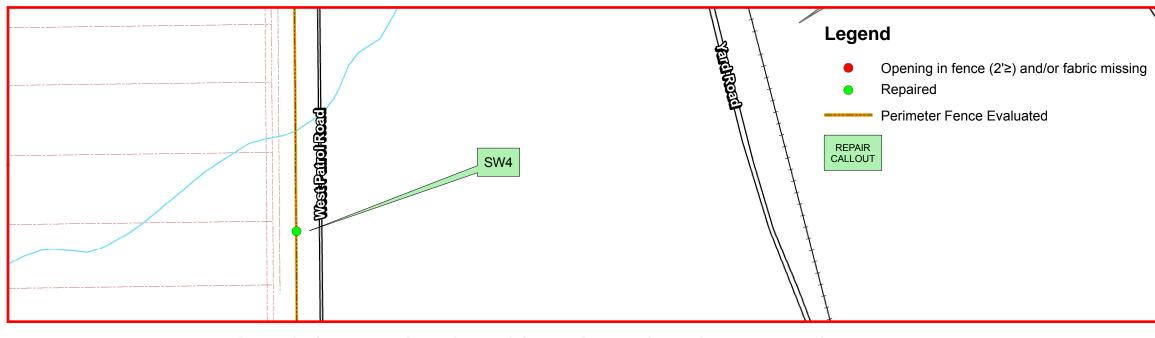
Louisville District

CORPORATION



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





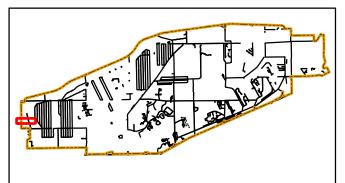
LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

SW4 REPAIR PHOTO

PHOTO SW4



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



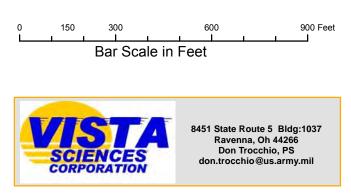
US Army Corps of Engineers

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

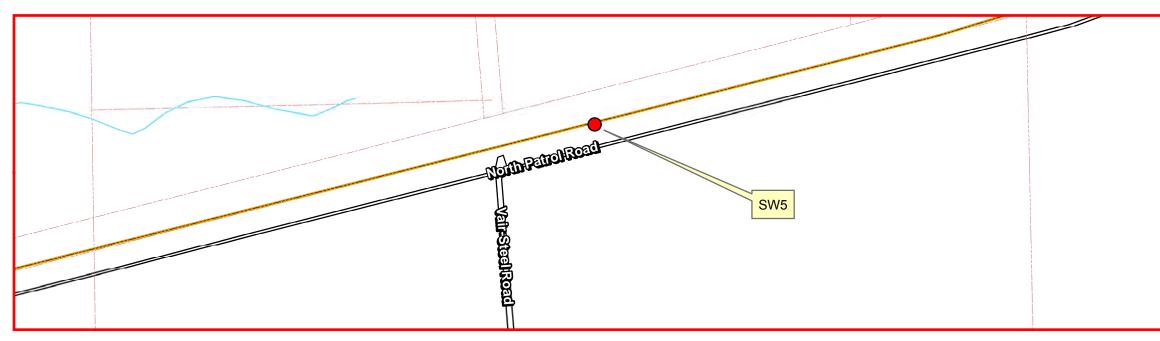
Louisville District



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







LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SW5

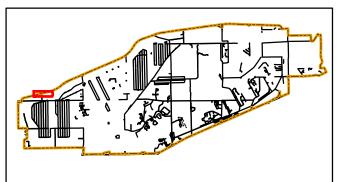
Legend

- Opening in fence (2'≥) and/or fabric missing
- Repaired
- ----- Perimeter Fence Evaluated





Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



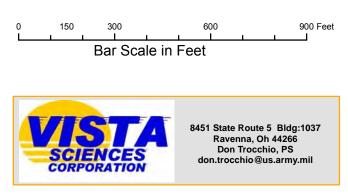
US Army Corps of Engineers

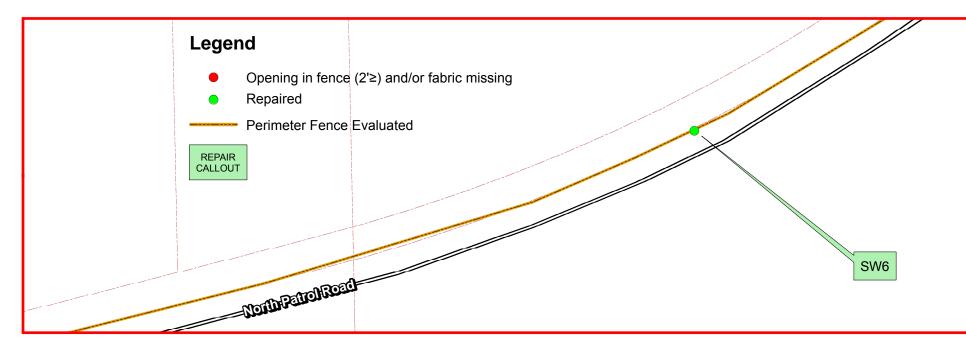
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





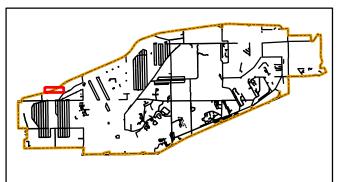
LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

SW6 Repair Photo

PHOTO SW6



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



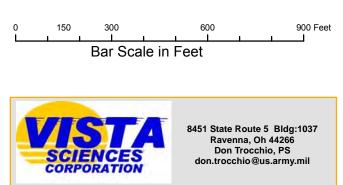
US Army Corps of Engineers

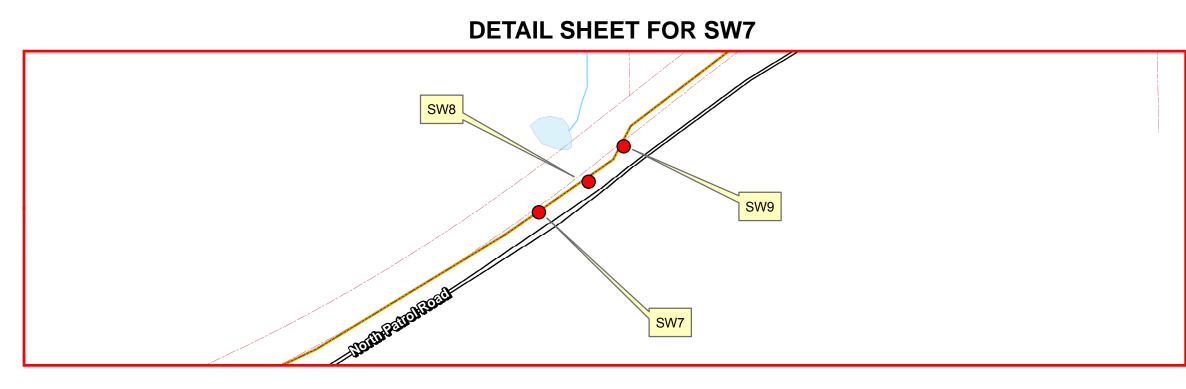
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

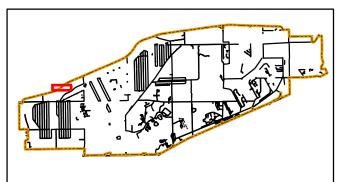
PHOTO SW7 About 100' of fabric is missing

Legend

Opening in fence (2'≥) and/or fabric missing Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



US Army Corps of Engineers

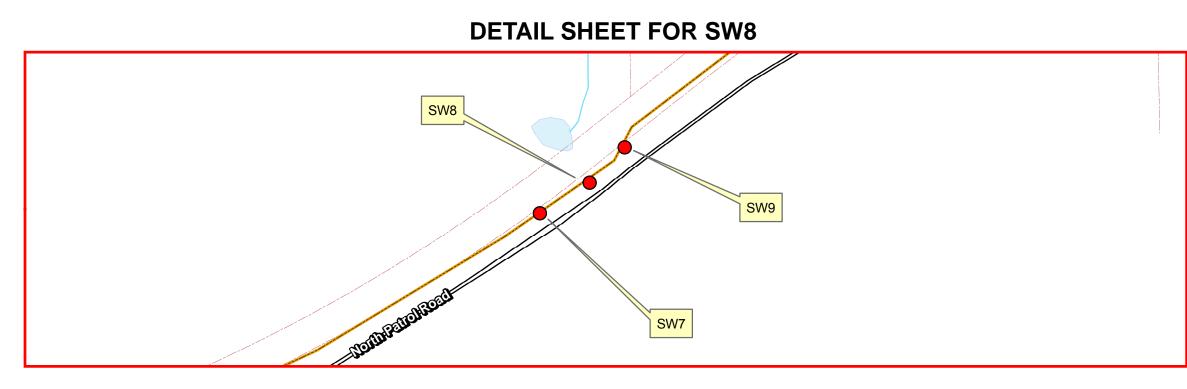
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SW8 Fabric missing

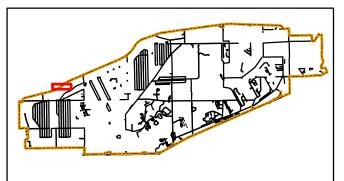
Legend

•

Opening in fence (2'≥) and/or fabric missing Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



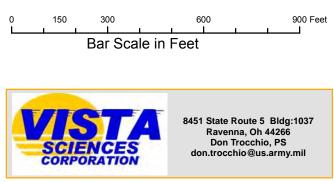
US Army Corps of Engineers

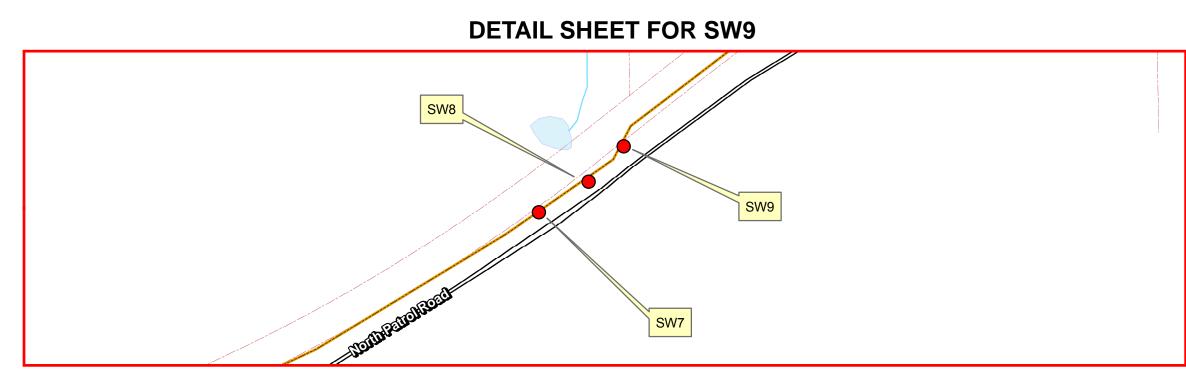
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 3rd QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SW9

Legend

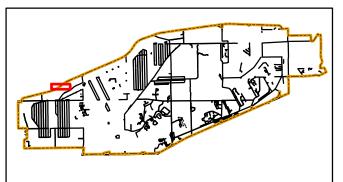
•

Opening in fence (2'≥) and/or fabric missing

Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in May 2013 for:



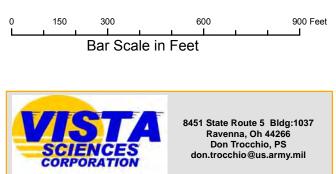
US Army Corps of Engineers

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

Louisville District



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



Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP)

Third Quarter FY2013 Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds Ravenna Army Ammunition Plant, Ravenna, Ohio

ATTACHMENT 2

Description of Land Use Control (LUC) – OHARNG Activities

CAMP RAVENNA MDAY ENVIRONMENTAL TRAINING

27 April 2013

1

2 OHARNG Environmental Office Introduction

3 Environmental Program Purpose

- □Work directly for TAG
- □We exist to make sure the OHARNG stays compliant with Federal, State and local environmental laws
- □Allow for long term use of the training area by maintaining sustainable ecological systems and functions while supporting the military mission

4 MGOH-IMR-FS-ENV

- Columbus Office
- 2 CPT Steve Vicario, Environmental Program Manager
 - Tom Daugherty, Environmental Supervisor
- □4 Staff Members
- 3 Camp Ravenna Office
- ∃ □Tim Morgan, Environmental Supervisor
 □3 Staff Members
- 5 Land Use Control Training

6 Why do you have to take this training?

□Need awareness of cleanup sites and land use controls/restrictions at Camp Ravenna and where they are imposed and located.

□Requirement to access certain cleanup sites

□Legal requirement as set forth under the CERCLA cleanup program.

□Annual requirement

7 What is a Land Use Control?

□A limitation or restriction on use of land

Facilitates specific land use on contaminated sites

Protects human health and the environment

Complies with legal requirements

□Memorialized in a Decision Document (DD) and Property Management Plan (PMP) □LUCs are <u>NOT</u> Optional

8 Property Management Plan (PMP)

□Finalized in August 2012

□As cleanup completed at AOCs/MRSs, appendix is added to PMP

□Identifies established legally enforceable LUCs for each AOC/MRS

□Requires LUC training, inspections, annual report

□Requires monitoring of LUC effectiveness

OHARNG responsible land use control management at Camp Rvenna

9 Types of Land Use Controls

□Fencing

Warning signs
Seibert stakes
Digging restrictions
Access restrictions
AOC-specific training prior to access
Ground and surface water use restrictions
Administrative policies
Catch and release fishing

10 Brief Facility History

Former Ravenna Army Ammunition Plant (RVAAP)
 Load Assemble and Pack Facility
 Four major caliber load lines – melt-pour munitions loading
 One ammonium nitrate line
 Seven fuze and booster lines
 Storage Depot – Explosives, Finished rounds, Inert materials and equipment
 Demilitarization Activities
 Research and Development

11 Result Of Past Land Use

□Contamination

Explosives

Residue from burning operations

Residue from demolition operations

Munitions and Explosives of Concern (MEC)

Landfills or dumps sites

□Hazardous materials storage areas

Vehicle Maintenance Areas

Water and sewage treatment plants

Approx. 81 Areas of Concern (AOCs) – primary contaminant is chemical (metals, explosives, pesticides etc)

In 17 Munitions Response Sites (MRSs) – primary contaminant is munitions and explosives of concern (MEC)

12 Location of AOCs and MRSs

Cleanup sites are located all over/throughout the facility.

Most (but not all) are marked with signage and siebert stakes marking location
 Most AOCs/MRSs are off limits until nature and extent/hazard or nonhazard determined and No Further Action or remedy reached.

13 AOC and MRS Locations

14 LUC Enforcement

□Who is responsible?

□NGB/OHARNG

Ohio EPA - Enforceability

□What to do if you see or suspect a LUC violation?

Take immediate action to stop the violation

Report it through the chain of command immediately

□Follow up with a written report to Camp Ravenna ENV

I5 General Controls/Restrictions at Camp Ravenna Most AOCs/MRSs marked off-limits with Siebert Stakes – Access to an AOC/MRS

requires coordination with ENV office

□All training requests reviewed and approved by CR staff

□Using units receive mandatory in-brief

 \Box CR service team assigned oversight of using units

□Annual LUC training given to all full-time staff

□All ground disturbance prohibited unless approved by ENV office

□Use of vehicles off road is prohibited except in designated areas

□Mud must be knocked off of vehicles and equipment on site in the field before leaving the site and before using wash rack

Groundwater use prohibited/limited base-wide

□Perimeter fence must be maintained

□Only permitted to enter authorized areas.

16 Examples of AOC Signage

17 Examples of AOC Signage

18 MK-19 Range Site History

□The MK-19 Range was constructed on the former Winklepeck Burning Grounds (WBG). □WBG was cleaned up specifically to facilitate construction and operation of the MK-19 range.

□Soil was remediated and munitions removed to variable depths (surface and 1 foot) at the target arrays, firing points, parking area, and a few burn pads.

□Munitions were not removed in areas outside of the target arrays, firing points, and parking area.

□Use of the WBG is limited to a MK-19 range/small arms range and includes specific limitations on activities (land use controls/restrictions)

19

20 Controls/Restrictions for the MK-19 Range

- □ The MK-19 Range SOP must be followed. Includes environmental section.
- □ Access is controlled by CR Range Control
- □ All OICs, NCOICs, Safety Officers and NCIOCs must attend an annual briefing on LUCs/restrictions and environmental concerns applicable to this site.
- □ No one except trained CR Range Maintenance and Environmental personnel are permitted down range beyond the firing points.
- □ Any suspect MEC item must be reported immediately to CR Range Control. These items should not be disturbed.

²¹ Controls/Restrictions for the MK-19 Range (continued)

- □ Targets may only be accessed by trained and approved CR staff and only on designated target access roads.
- □ Off road vehicle travel within the old WBG area is only permitted for mowing and vegetation control and only in dry soil conditions. Soil rutting is not permitted.
- Activities on the range are limited to only those activities necessary for training, maintenance operations, and range or environmental management.

22 Controls/Restrictions for the MK-19 Range (continued)

Due to the potential to encounter munitions, no ground disturbance of any kind is permitted on the range.

□Culvert replacements must be coordinated with CR Range Operations and CR-ENV.

 \Box No dirt or fill from the old WBG area may leave the site – includes dirt in old culverts. \Box Only fill approved by CR-ENV may be brought onto the MK-19 range.

 \Box Pad at T-5301 may not be used as a storage area.

23 General Restrictions for Streams

 \Box Dredging prohibited

□Vehicles may only cross at bridge/culvert

□Foot traffic limited to incidental crossing

□Water extraction must be approved in advance

□Sediments may not be disturbed

□Bridge and culvert replacement projects must be coordinated in advance and reviewed by CR-ENV

24 General Restrictions for Ponds

Swimming prohibited in all ponds

□Catch and release fishing (all former process ponds)

□Mack's pond

■Access prohibited except for fire emergency

Sediments may not be disturbed

Upper and Lower Cobb's, Kelly's Pond, Criggy's Pond, and WW III Ponds Wading prohibited

Sediments may not be disturbed

25 Procedures for Cultural Resources

□Some cultural sites marked with Siebert stakes – Stay Out □Do not collect bottles, arrowheads, etc – Leave them in the field □CRJMTC Inadvertent Discovery Policy

Outlines steps to be taken upon inadvertent discovery of human remains or artifacts at CRJMTC during construction, demolition, training events, or other ground disturbing activities.

■It is intended for all OHARNG personnel and contractors.

■If found, stop what your doing and call Range Control at 6041

26 Questions??

I Tim Morgan – Fort Ohio Environmental Supervisor, 6568

□Katie Tait, Environmental Specialist (Compliance and Cleanup), 6136 □Kim Ludt, Environmental Specialist (Cultural Resources), 6569 □

2 DBrian Riley, Environmental Specialist (Natural Resources), 4564

RVAAP-05 Winklepeck Burning Grounds – Land Use Control (LUC) Brief for Contractors/Visitors

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a MK19/small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC), the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities executed within WBG must be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

All groundwater activities must be coordinated with the OHARNG prior to work activities.

- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

I have been briefed and understand the requirements and LUCs/restrictions at Winklepeck Burning Grounds. I will comply with all requirements.

Printed Name	Signature	Company	Date
Kaye Grob	Cen	CARDNO JENEW	5-15-13
3			

RVAAP-05 Winklepeck Burning Grounds – Land Use Control (LUC) Brief for Contractors/Visitors

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a MK19/small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC), the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities executed within WBG must be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

All groundwater activities must be coordinated with the OHARNG prior to work activities.

- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

I have been briefed and understand the requirements and LUCs/restrictions at Winklepeck Burning Grounds. I will comply with all requirements.

Printed Name	Signature	Company	Date
Veronica Porsell	Ver Parsell	Cardno JFNew	5/13/13
			, , ,

RVAAP-05 Winklepeck Burning Grounds - Land Use Control (LUC) Brief for Contractors/Visitors

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a MK19/small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC), the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities executed within WBG must be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

All groundwater activities must be coordinated with the OHARNG prior to work activities.

- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

÷

I have been briefed and understand the requirements and LUCs/restrictions at Winklepeck Burning Grounds. I will comply with all requirements.

Printed Name	Signature	Company	Date
Amy Farret	MU-NN	Cardno JENew	5/3/13
P	Children and Chi		

RVAAP-05 Winklepeck Burning Grounds - Land Use Control (LUC) Brief for Contractors/Visitors

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a MK19/small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC), the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities executed within WBG must be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

All groundwater activities must be coordinated with the OHARNG prior to work activities.

- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

I have been briefed and understand the requirements and LUCs/restrictions at Winklepeck Burning Grounds. I will comply with all requirements.

Printed Name	Signature	Company	Date
myles west	malt	UKA-e-	13mA 2013

1 🖬 Land Use Control (LUC) Training for Camp Ravenna

Presented by:

Camp Ravenna Environmental

12 December 2012 - 35 CRIMTC Personnel trained. Rosters are on file at

- 2 Why do you have to take this training? Th CRIMTC ENV OFFICE
 - Legal requirement as set forth under the CERCLA cleanup program.
 - Annual requirement
 - Need awareness of cleanup sites and LUCs at Camp Ravenna and where they are imposed and located.
 - Requirement to access certain cleanup sites

3 What is a Land Use Control?

- A limitation or restriction on use of land
 - Facilitates a particular use
 - Protects human health and the environment
 - Comply with legal requirements
- Memorialized in a Decision Document (DD) and the Property Management Plan
- LUCs are <u>NOT</u> Optional

4 Types of Land Use Controls

- Fencing
- Warning signs
- Selbert stakes
- ging restrictions
- Access restrictions
- AOC-specific training prior to access
- Ground and surface water use restrictions
- Administrative policies

5 Brief Facility History

- Former Ravenna Army Ammunition Plant (RVAAP)
- Load Assemble and Pack Facility
 - Four major caliper load lines melt-pour munitions loading
 - One ammonium nitrate line
 - Seven fuze and booster lines
 - Torage Depot Explosives, Finished rounds, Inert materials and equipment
- Demilitarization Activities
- Research and Development
- •

6 Result Of Past Land Use

- Contamination
 - Explosives
 - Residue from burning operations
 - Residue from demolition operations
 - Munitions and Explosives of Concern (MEC)
 - Landfills or dumps sites
 - Hazardous materials storage areas
 - Vehicle Maintenance Areas
 - Water and sewage treatment plants
- Approx. 81 Areas of Concern (AOCs) primary contaminant is chemical
- 17 Munitions Response Sites (MRSs) primary contaminant is MEC

Various stages of investigation and cleanup

7 Location of AOCs and MRSs

- On both OHARNG property and RVAAP property
 Property transfer to occur in 2013
- OHARNG accountable for 20,423 acres
 - •All roads, railroads, power lines
 - All buildings except those retained by BRAC
- BRAC accountable for 1,260 acres
 - •A few buildings in the Post 1 area
 - Load Lines and a few other areas
- BRAC and ARNGD responsible for clean up will transition in 2013
- Most AOCs/MRSs off limits until nature and extent/hazard or nonhazard determined and No Further Action or remedy reached.
- 8 AOC and MRS Locations

9 Property Management Plan (PMP)

- Finalized in August 2012
- As cleanup completed at AOCs/MRSs, appendix is added to PMP
- Identifies established LUCs for each AOC/MRS
- Requires LUC training, inspections, annual report
- Requires monitoring of LUC effectiveness
- OHARNG responsible for using units, Camp Ravenna personnel, contractors and quests
- 10 III LUC Enforcement
 - Who is responsible?
 - RVAAP property BRAC currently conducted by contractor
 - OHARNG property OHARNG and ARNGD
 - Ohio EPA
 - What to do if you ssuspect a LUC violation?
 - Take immediate action to stop the violation
 - Report it through the chain of command immediately
 - Follow up with a written report to Camp Ravenna ENV
- 11 General LUCs at Camp Ravenna
 - Most AOCs/MRSs marked off-limits with Siebert Stakes Access to an area requires coordination with ENV office
 - All training requests reviewed and approved by CR staff
 - Using units receive mandatory in-brief
 - CR service team assigned oversight of using units
 - Annual LUC training given to all full-time staff
 - All ground disturbance prohibited unless approved by ENV office
 - Use of vehicles offroad is prohibited except in designated areas
 - Mud must be knocked off of vehicles and equipment on site in the field before leaving the site and before using wash rack
 - Only authorized personnel permitted on BRAC property no training permitted
 - Groundwater use prohibited/limited base-wide
 - Perimeter fence
 - Only enter authorized areas.
- 12 Restrictions for Streams
 - Dredging prohibited
 - Vehicles may only cross at bridge/culvert
 - Foot traffic limited to incidental crossing

ż

- Water extraction must be approved in advance
- Sediments may not be disturbed
- Bridge and culvert replacement projects must be coordinated in advance and reviewed by CR-ENV

13 Restrictions for Ponds

- Swimming prohibited in all ponds
- Catch and release fishing (all former process ponds)
- Mack's pond

4.

2

- Access prohibited except for fire emergency
- Sediments may not be disturbed
- Upper and Lower Cobb's, Kelly's Pond, Criggy's Pond, and WW III Ponds
 - Wading prohibited
 - Sediments may not be disturbed

14 BRAC Property - Restrictions

- Prohibited access
 - Load lines 1, 3, 4, 5, 7, 8, 9, 10, and 11 fence
 - Open Demo Area #1 TA-G Seibert stakes
 - Open Demo Area #2 fence across road
 - Wet Storage fence
 - 40 mm Firing Range Seibert stakes
 - Anchor Test Area Seibert stakes
 - Landfill North of Winklepeck locked gate to MK-19 range
 - Ramsdell Quarry Landfill signs
 - C-Block Quarry Seibert stakes
- Suspect Mustard Site TA-G Seibert stakes
- Limited Access LL2, LL6, LL9, LL12

15 MK-19 Range Site History

- The MK-19 Range was constructed on the former Winklepeck Burning Grounds (WBG).
- The WBG was cleaned up specifically to facilitate construction and operation of the MK-19 range.
- Soil was remediated and MEC removed to variable depths (surface and 1 foot) on the target arrays, firing points, the parking area, and a few burning pads.
- MEC was not removed in areas outside of the target arrays, firing points, and parking area.
- Use of the WBG is limited to a MK-19 range/small arms range and includes specific limitations on activities
- LUCs set forth in the Property Management Plan

16 🔙 17 🗔

18 JUCs for the MK-19 Range

- The MK-19 Range SOP must be followed.
- Access is controlled by CR Range Control
- All CRJMTC staff who access the site must attend an annual briefing on the restrictions, environmental concerns, and LUCs applicable to this site (Range Maintenance or similar authorized personnel).
- No one except trained CR Range Maintenance and Environmental personnel are permitted down range beyond the firing points.
- Any suspect MEC item must be reported immediately to CR Range Control. These items may not be disturbed.

19 LUCs for the MK-19 Range (continued)

- Due to the potential to encounter MEC, no ground disturbance of any kind is permitted on the range.
- Culvert replacements must be coordinated with CR Range Operations and CR-ENV.
- No dirt or fill from the old WBG area may leave the site includes dirt in old culverts.
- Only fill approved by CR-ENV may be brought onto the MK-19 range.
- Pad at T-5301 may not be used as a storage area.
- Contractor activities must be coordinated with ENV office to make sure activities are approved and contractors are properly briefed.

20 Specific LUCs for the MK-19 Range as Designated in the PMP

- Land use shall be limited by the maintenance of the facility perimater fence
- All activities at Winklepeck must be in compliance with OHARNG range safety regulations, established digging restrictions, and exposure limits.
- The range should be marked with signage in conformance with the requirements set forth by the Armyfor active ranges.
- Groundwater use is prohibited excepts as related to the cleanup activities sampling existing wells, new development of wells etc)
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MECcleared areas within the MK19 Range/Winklepeck is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts;
 - 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 1 foot below ground surface.
- Periodic inspections (quarterly) with annual report shall be performed

21 B Other Sites with Decision Documents with LUCs

- Load Lines 1 4 and 12 mounted training, no digging currently off limits
- Ramsdell Quarry Landfill asbestos in soil restricted access
- To date, not memorialized in the Property Management Plan

22 🔜 Interim Siebert Staked Areas

- 23 🖾 Tips for You LUC Management
 - When in doubt, ask the ENV Office
 - Don't make any assumptions...coordination is key.
 - Report any potential or known LUC violations.
 - Work where assigned. Don't wander around.
- 24 Questions?
 - •
 - •
 - Tim Morgan 6568
 - Katie Tait 6136

RVAAP-05 Winklepeck Burning Grounds – Land Use Control (LUC) Brief for Contractors/Visitors

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a MK19/small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC), the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities executed within WBG must be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- Groundwater use or extraction of groundwater located at or underlying the WBG AOC or any portion thereof prohibited, except for the following:
 - he 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

All groundwater activities must be coordinated with the OHARNG prior to work activities.

- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

I have been briefed and understand the requirements and LUCs/restrictions at Winklepeck Burning Grounds. I will comply with all requirements.

Printed Name	Signature	Company	Date

RVAAP-05 Winklepeck Burning Grounds - Land Use Control (LUC) Brief for Contractors/Visitors

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC) the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all appropriate individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities within WBG shall be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.

All groundwater activities must be coordinated with the OHARNG prior to work activities.

- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

I have been briefed and understand the requirements and LUCs/restrictions at Winklepeck Burning Grounds. I will comply with all requirements.

Name	Company	Date	
John m melle	Fan	1/13/13	
Sett A. Brissharto	EQM	1/15/13	
and S. Browly	LAM	1/15/13	
/			
/			

RVAAP-05 Winklepeck Burning Grounds - Land Use Control (LUC) Brief for Contractors/Visitors

The Army is required to conduct Long Term Management (LTM)/LUC monitoring at RVAAP-05 Winklepeck Burning Grounds (WBG) at the former Ravenna Army Ammunition Plant (RVAAP)/Camp Ravenna. LUCs include any type of physical, legal, or administrative mechanisms that restrict use of, or limit access to, real property to prevent or reduce risks to human health and the environment. Established LUCs are set forth in a Property Management Plan for the facility.

The WBG Area of Concern (AOC) consists of approximately 211 acres and was formerly used for munitions burning/demilitarization activities. The AOC was remediated to accommodate use of the site as a MK19/small arms range. Due to residual contamination and potential for munitions and explosives of concern (MEC), the AOC requires LTM due to established LUCs. The AOC is now utilized by the Ohio Army National Guard (OHARNG) as a MK19 range.

The following LUCs have been established for WBG and must be adhered to:

- LUC awareness training will be provided to all individuals (e.g., personnel, visitors, visiting units) before they are granted access to any area with a LUC.
- Land use of the WBG AOC shall be limited by the maintenance of the existing Camp Ravenna perimeter fence.
- All activities executed within WBG must be in compliance with OHARNG range safety regulations/SOP, established digging restrictions, and established exposure limits.
- All digging, intrusive activities, or excavation on the WBG AOC outside of the UXO/MEC-cleared areas within the MK19 Range is prohibited with the following exceptions:
 - Routine maintenance of roads, ditches, culverts, and activities listed in Section A-1.4 of the PMP.
 - 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 1 foot below ground surface.
- The range must be marked with appropriate range signage in compliance with Department of Army regulations.
- 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 (FGWMPP).
 - The abandonment and replacement of monitoring wells damaged by on-installation activities, and wells no longer utilized as part of IRP or FGWMPP activities, in accordance with Ohio EPA guidance, the most recent FWSAP and applicable Ohio Administrative Code requirements.
 - All groundwater activities must be coordinated with the OHARNG prior to work activities.
- Quarterly inspections and annual reports must be completed. These will supplement the 5-year review. These are the responsibility of the Army.
- If a LUC violation is identified, please contact Range Control at (614)336-6041 to report.

I have been briefed and understand the requirements and LUCs/restrictions at Winklepeck Burning Grounds. I will comply with all requirements.

Printed Name	Signature	Company	Date
les Teter	an ort	Firstz	11-27-12
Henry Millard	Henry Willard	Frontz	11-27-12
nemy / mara			

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP)

Third Quarter FY2013 Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds Ravenna Army Ammunition Plant, Ravenna, Ohio

ATTACHMENT 3

Camp Ravenna Fence Repair Log – 2013

Location of Fence Section Repaired	Description of Repair	Initials of Person Performing the Repair	Date of Repair	Notes
Approximately 150 feet west of the intersection of North Patrol Road and Wadsworth Road; along northern perimeter fence	Fence fabric was installed over missing section of fence	Vista	12/2012	Repair documented in Winklepeck Quarterly Inspection Report
NWI, NWZ, NW3	FENCE FABRIC OVER HOLE	MAIN.	4.5.13	
PHOTO 3	REPAIRED WATER GATE	MAIN	4.9.13	
5109	FENCE FABLIC OVER HOLE	MAIN	49.13	
SW7	REQUIRES CONTRACTOR	1	4.9.13	
SWB	REQUIRES CONTRACTOR		4.19/13	
SW6	FORCE FABRIC OVER HOLE	MAN	4/9/13	
9W5	TOO MUCH WATER	"	4.9.12	
Jw 4	REPAILED (PATCHED)	" Rich LADDY 30	\$ 4/9/13	
201	REPAIRED "		4-10-13	
Sw-2	REPAILED "	"	9-10-13	
5E-1	CONTRACTOR REPAIR NEEDED CONTRACTOR REPAIR NEEDED		4-1013	
うだーん	CONTRACTOR REPAIR NEEDED		4-10-13	
NE-6	RETAILED	, (£-11-13	1 V
NE-7	REPAILED	Ring book	4/11/15	
NE-8	11	1.	1 1	
NE-D	REPLACED FABRIC	MAIN	4.12.13	
NE-3	CONTRACTOR REQUIRED		4-11-13	
NE-4	REPLALED FABRIL	MAIN	4.11.13	
NE-5	REPLACED FABRIC	MAIN	4.11.13	
NE-9	NOT A PERIMETER FENCE			
NE-1	REPLALED FABRIC	MAIN	4.11.13	

2 P

E-2 REPLACED FABRIC		MAIN	4.11.13	
V Proparton ANOY, IN HOLIE	Re-	60000	7 4	als is I Take
RD ON NORTH PATROL	BETWEEN	GROUP	F_AND_	NEWTON HALLS

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP)

Third Quarter FY2013 Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds Ravenna Army Ammunition Plant, Ravenna, Ohio

ATTACHMENT 4

Comment Response Tables

Final Third Quarter, Response to Comments:

This document is dated August 01, 2013, 2013 and was received at Ohio EPA on August 02, 2013. The document was prepared for the USACE- Louisville District by Vista Sciences Inc. under contract number W912QR-11P-0086. This is the second version of the inspection report that has been submitted and reviewed. Pursuant to the June 10, 2004 Director's Final Findings and Orders paragraphs 39-44, the above-referenced document is disapproved. Disapproval is based upon the following comments:

 Please provide the rationale behind the selection of the fence areas that were repaired. For example, one area not repaired is the "permitted coyote" trap (NW2), which is clearly accessible to non-base personnel, and which has been identified in previous Ohio EPA comments. Additionally, two places along State Route (SR) 5 (SE1 and SE2), have also been previously referenced in Ohio EPA comments.

Each time a preliminary draft inspection report is issued by Vista, the details for the fence deficiencies (required repair areas) are given to the OHARNG state maintenance staff for repair. State maintenance workers repair the minor fence deficiencies as best as possible with in house capabilities. These repairs are noted on a log and the log is given back to the OHARNG Environmental Office for forwarding to Vista for reporting purposes. The State maintenance staff has many work duties to conduct (mowing, snow removal, equipment repair etc) and do the fence repairs as time allows but typically within a month of the report being issued. Please note that some repair areas are larger and outside the capability of the in house maintenance worker staff (such as SE2). These repairs need to be contracted and repaired by a contractor. If this is the case, the state maintenance staff report which repairs need contracted and the engineering staff submits cost estimates, a bid package, and request for funds to the OHARNG headquarters office in Columbus, Ohio. These repairs are subject to funding availability. NW2 and SE1 have been repaired.

- On the Index Sheet: Provide in a key, an explanation for the absence of NE7, NE8, and NE9. Please note the explanation for the absence of NE7, NE8, and NE9 is clearly identified on Index map and in the Inspection Form of the Final 2nd Quarter LUC report.
- 3. It is difficult to tell in a number of photos how the fence was repaired. Please provide details in the text or on the bottom of the detail sheet. (Example, not all inclusive: SW2, SW6). Repair information is given in the Repair Log (e.g. 'Fabric over hole')
- 4. From the detail sheets, NE12, NE13, NE14, NE15, and NE16 all appear to be newer sections of fencing. [The second quarterly inspection noted that the north-south fence running along the western edge of SR 534 will replace Group 7 as the perimeter fence.] It is not understood why these sections have fallen into disrepair so quickly. Based upon the provided photographs, it is difficult to agree that this fence is in better condition than the old Group 7 fence. Although a couple issues may be due to tree falls (cut wood is seen in the background in minimally the photo for NE14); the origin/source of other damage is not as readily apparent at other sections. Additionally, it appears as if many of these areas do not have the upper cross bar and V-post bracket/triple strands of barb wire; and there is concern that, as a result, these sections are not as resistant to impact/deterioration. Finally on NE16, there is a fence post that is lying on the ground and there doesn't seem to be corresponding uprooted turf as is generally visible when the posts have been installed in concrete and have been ultimately displaced. Provide confirmation as to the mechanism of installation.

The Army confirms that NE12, NE13, NE14, NE15, and NE16 have been repaired. This is noted and confirmed in the 4th quarter inspection report which will be submitted to the Ohio EPA.

 Detail sheet SW7: the Ohio EPA notes again that, according to the report there is approximately 100 feet of fabric missing in this location. This area was easily accessed by Ohio EPA during the winter. Fence fabric needs to be re-installed to prevent access by trespassers in areas of concern.

Comment noted. This is a larger repair area that cannot be repaired by in house OHARNG staff (please also see response to Comment 1). This repair area has been contracted for repair and repairs are currently underway. A repair, once completed, will be reported in subsequent reports.

 Attachment 3: It is not clear as to the criteria for determining which areas get repaired and which ones do not.
 See response to Comment 1.

Camp Ravenna Joint Military Training Center (CRJMTC) Ravenna Army Ammunition Plant (RVAAP)

Third Quarter FY2013 Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds Ravenna Army Ammunition Plant, Ravenna, Ohio

ATTACHMENT 5

Historical Inspection Reports

Draft FY 2013 Third Quarter Property Management Plan Quarterly Land Use Control (LUC) Inspection RVAAP-05 Winklepeck Burning Grounds

Date of Submission:

August 1, 2013

90	Camp Ravenna Joint Military Training Center (Camp Ravenna) /
91	Ravenna Army Ammunition Plant (RVAAP)
92	Quarterly LUC Inspection Form – RVAAP-05 Winklepeck Burning Grounds
93	
94	In accordance with the Camp Ravenna Joint Military Training Center/Ravenna Army Ammunition Plant
95	Property Management Plan (PMP) dated August 2012 and Appendix A-1, an inspection of RVAAP-05
96	Winklepeck Burning Grounds (WBG) was conducted by Don Trocchio on April 18, 22, 23, 25, & 29,
97	<u>2013</u> .
98	
99	The quarterly inspections shall include the following:
100	 Review of Land Use Control (LUC) training and documentation as applicable to WBG.
100	 Evaluation of the facility perimeter fence to ensure that it is maintained in a manner that is
101	• Evaluation of the facility permitter fence to ensure that it is maintained in a mainter that is protective and effective and deters trespassers.
103 104	• Evaluation of activities at WBG to ensure that all activities executed within WBG are in
104	compliance with Ohio Army National Guard (OHARNG) range safety regulations/SOP, established digging restrictions, and established exposure limits. All digging, intrusive activities,
105	or excavation on the WBG Area of Concern (AOC) outside of the Unexploded Ordnance (UXO)/
100	Munitions and Explosives of Concern (MEC)-cleared areas within the Mark 19 Grenade
107	Machinegun Range is prohibited with the following exceptions:
100	• Routine maintenance of roads, ditches, culverts and activities listed in A-1.4 of the
110	Property Management Plan (PMP) (maintenance of targetry and associated lifting
111	mechanisms, range maintenance activities including removal of practice rounds,
112	vegetation management, compatible natural resource management activities, nuisance
113	wildlife control, drainage maintenance, wetland delineation, grassland management,
114	scientific research and sampling activities);
115	o Ground surface repairs by authorized range personnel in support of authorized range
116	activities;
117	• Digging along target array areas by authorized range personnel to a depth of 1 foot bgs.
118	This shall also include evaluation of required range signage. The range is required to be marked
119	with signage in conformance with the requirements of the current Department of Army
120	regulations.
121	• Evaluation of groundwater activities to ensure that any groundwater activities are being conducted
122	in a manner consistent with established LUCs. Groundwater use or extraction of groundwater
123	located at or underlying the WBG AOC or any portion thereof is prohibited, except for the
124	following:
125 126	• 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)
120	as part of the AOC-specific IRP or Facility-Wide Ground Water Monitoring Program Plan
127	(FWGWMPP).
120	• The abandonment and replacement of monitoring wells damaged by activities conducted
130	on the Installation and wells no longer utilized as part of Instillation Restoration Program
131	(IRP) or FWGWMPP activities, in accordance with Ohio Environmental Protection
132	Agency (Ohio EPA) guidance, the most recent FWSAP, and applicable Ohio
133	Administrative Code requirements.
134	
135	Please note that if LUC deficiencies or inconsistent land uses are identified, they must be reported and
136	identified on the quarterly inspection form/report. These deficiencies must also be reported immediately to
137	the Army. Suggestions on how to remedy the deficiencies must also be provided.
128	

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 18, 2013 by Don Trocchio, PS, and it is current with respect to AOC boundaries, land activities and prescribed LUCs.

2. Installation Perimeter Fence

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

The Camp Ravenna perimeter fence has missing sections, openings/holes in the fence fabric, and locations in general disrepair. See Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" and attached Detail Sheets. Please Note that due to the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

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 (MSG Rex Hufenbach) on 25 April 2013 at Camp Ravenna (Butts-Kistler Road at the Portage/Trumbull County Line), no residential land use has occurred. Additionally, there has been no change in land use at the AOC.

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

Winklepeck Burning Grounds/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 25 April 2013, 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 is conformance with Army regulations. Some signage repairs were performed in December 2012.

- 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:
 - a. 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.
 - b. 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?

Facility –Wide Ground Water Monitoring Well sampling is conducted by Environmental Quality Management, Inc. (EQM) on a quarterly basis in this area (last one performed January 2013). During an interview in RVAAP Building 1036 with Mr. John Miller (25 April 2013) of EQM 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.
4 In	spections and Reporting
	Inspections are required on a quarterly basis. Are quarterly inspections being completed?
<i>a)</i>	This is the third FY 2013 Quarterly Inspection conducted in accordance with the approved PMP
	dated August 2012.
b)	An annual report is required. Has the annual report been completed and submitted?
0)	The annual report will be completed and submitted in conjunction with the FY 2013 4 th
	Quarterly Inspection.
- m	
	raining (as applicable to WBG)
a.)	Was LUC training (specific to Winklepeck) being conducted as applicable? Describe the training
	(content/who attended/who provided/documentation of training).
	Annual LUC training is provided to Camp Ravenna staff and tenant units at Camp Ravenna.
	Full-time Camp Ravenna staff received their annual LUC Training on 12 December 2012. LUC
	training was provided to MDay soldiers during this quarter inspection on 27 April 2013. The
	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 Winklepeck. 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 Winklepeck 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. All documentation of training is provided in Attachment 2.
	Note: Signed training rosters have not been included for security purposes and are on file at the Camp Ravenna Environmental Office.
	If training was not provided, explain why and what corrective actions were initiated? N/A
0. De	escription of any observed/noted Land Use Control (LUC) violation(s):
	The Camp Ravenna perimeter fence has missing sections, openings/holes in the fence fabric, and
	locations in general disrepair. See Attachment 1- "Figure 1 Index Map to Facility Perimeter
	Fence Inspection" and attached Detail Sheets. Please Note that due to the current financial
	climate, funding is limited. The OHARNG will continue to complete spot repairs as current
	available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.
7 D4	ate of Notification of LUC violation (if applicable):
/. De	The Condition of the Perimeter Fence has been documented in the Quarterly FY 2013 LUC
	Inspections and provided to the Army and Ohio EPA.
8. D	escription of any corrective actions taken to remedy observed LUC violation(s) of
	mmended corrective actions:
	Please Note that due to the current financial climate, funding is limited. The OHARNG will
	continue to complete spot repairs as current available resources allow and will continue to request
	funding from the appropriate fund accounts to support perimeter fence maintenance.
	Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" shows locations that
	have been repaired that have previously been noted as deficiencies. Attachment 3 shows a log of
	repairs completed by the Ohio Army National Guard.
) A	Iditional Notes/Comments:
л. Л	
л. А	For future inspections (beginning with the FY2013 4th Quarter Inspection), the person
7. AU	completing the inspection will provide daily reports to the Army documenting where any new

Form Completed by:	
Signature:	
Printed Name: Don Trocchio	
Title: Project Manager	Organization: Vista Sciences Corporation
Date: May 23, 2013	

Appendix G

Final FY 2013 Fourth Quarter Property Management Plan Land Use Control (LUC) Inspection Report for RVAAP-05 Winklepeck Burning Grounds Final

FY 2013 Fourth Quarter Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

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

> > Contract No. W912QR-11-P-0086

Prepared for:



US Army Corps of Engineers

Prepared by:



Vista Sciences Corporation

April 3, 2014

Final

FY 2013 Fourth Quarter Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

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

> > Contract No. W912QR-11-P-0086

Prepared for:



US Army Corps of Engineers 600 Dr. Martin Luther King Jr. Place Louisville, Kentucky 40202

Prepared by:



Vista Sciences Corporation Camp Ravenna Joint Military Training Center 1438 State Route 534 SW Newton Falls, OH 44444

April 3, 2014

LIST OF ACRONYMS AND ABBREVIATIONS

AEC	Army Environmental Command
AOC	Area of Concern
AR	Army Regulation
BRACD	Base Realignment and Closure Division
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CR	Camp Ravenna
CR-ENV	Camp Ravenna Environmental
CRJMTC	Camp Ravenna Joint Military Training Center
DD	Decision Document
DLA	Defense Logistics Agency
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
LTM	Long Term Management
MEC	Munitions and Explosives of Concern
MRS	Munitions Response Site
NBC	Nuclear, Biological, Chemical
NCOIC	Noncommissioned Officer in Charge
OIC	Officer in Charge
Ohio EPA	Ohio Environmental Protection Agency
OHARNG	Ohio Army National Guard
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) / Ravenna Army Ammunition Plant (RVAAP) Quarterly LUC Inspection Form – RVAAP-05 Winklepeck Burning Grounds

In accordance with the Camp Ravenna Joint Military Training Center/Ravenna Army Ammunition Plant 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>July 15, 16, 17, 18, 23 & 29, 2013</u>.

The quarterly inspections shall include the following:

- Review of Land Use Control (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 Ohio Army National Guard (OHARNG) range safety regulations/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 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 Property Management Plan (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 1 foot 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 Instillation Restoration Program (IRP) or FWGWMPP activities, in accordance with Ohio Environmental Protection Agency (Ohio EPA) guidance, the most recent FWSAP, and applicable Ohio Administrative Code requirements.

Please note that if LUC deficiencies or inconsistent land uses are identified, they must be reported and identified on the quarterly inspection form/report. These deficiencies must also be reported immediately to the Army. Suggestions on how to remedy the deficiencies must also be provided.

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 15, 2013 by Don Trocchio, PS, and it is current with respect to AOC boundaries, land activities and prescribed LUCs.

2. Installation Perimeter Fence

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

The Camp Ravenna perimeter fence has missing sections, openings/holes in the fence fabric, and locations in general disrepair. See Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" and attached Detail Sheets. Please Note that due to the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

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 (MSG Rex Hufenbach) on 31 July 2013 at Building 1037 no residential land use has occurred. Additionally, there has been no change in land use at the AOC.
- b) What activities have occurred at WBG since the last inspection? Winklepeck Burning Grounds/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 31 July 2013, 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 were placed at 200 meter intervals and found to be upright and intact. Some repairs were performed in December 2012. Some signage has been relocated to increase the central impact area. This was done in June 2013.

- 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:
 - a. 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.
 - b. 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?

Facility Ground Water Monitoring Well sampling is conducted by Environmental Quality Management, Inc. (EQM) on a quarterly basis in this area (last one performed January 2013). During a phone interview on July 25, 2013 with Mr. Scott Spesshardt of EQM 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.

4. Inspections and Reporting

- a.) Inspections are required on a quarterly basis. Are quarterly inspections being completed? This is the fourth FY 2013 Quarterly Inspection 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 annual report will be completed and submitted now that the FY 2013 4th Quarterly Inspection has occurred.

5. Training (as applicable to WBG)

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

Annual LUC training is provided to Camp Ravenna staff and tenant units at Camp Ravenna (See Attachment 2). Camp Ravenna staff received their annual LUC Training on 12 December 2012. The annual training is provided by Katie Tait and 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 Winklepeck. 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 Winklepeck 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. All documentation of training is provided in Attachment 2.

Note: Signed training rosters have not been included for security purposes and are on file at the OHARNG Environmental Office.

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

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

The Camp Ravenna perimeter fence has missing sections, openings/holes in the fence fabric, and locations in general disrepair. See Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" and attached Detail Sheets. Please Note that due to the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

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

The Army was notified on July 18, 2013 via e-mail (Katie Tait, Derek Kinder PE, Mark Patterson, Brett Merkel) of six new fence defects discovered during the 4th qtr. facility perimeter fence evaluation.

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

Please Note that due to the current financial climate, funding is limited. The OHARNG will continue to complete spot repairs as current available resources allow and will continue to request funding from the appropriate fund accounts to support perimeter fence maintenance.

Attachment 1- "Figure 1 Index Map to Facility Perimeter Fence Inspection" shows locations that have been repaired that have previously been noted as deficiencies. Attachment 3 shows a log of repairs completed by the Ohio Army National Guard.

9. Additional Notes/Comments:					
Form Completed by:					
Signature:					
Printed Name: Don Trocchio					
Title: Project Manager	Organization: Vista Sciences Corporation				
Date: July 29, 2013					

Camp Ravenna Joint Military Training Center Ravenna Army Ammunition Plant

Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

ATTACHMENT 1

Figure 1 Index Map And Detailed Quadrant Maps Index Map

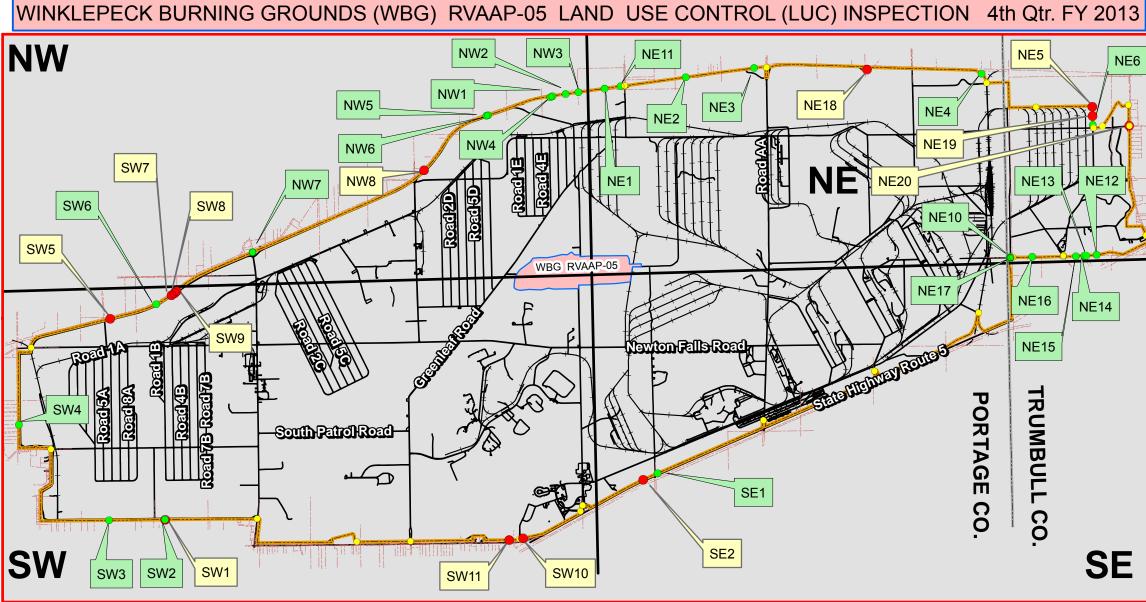


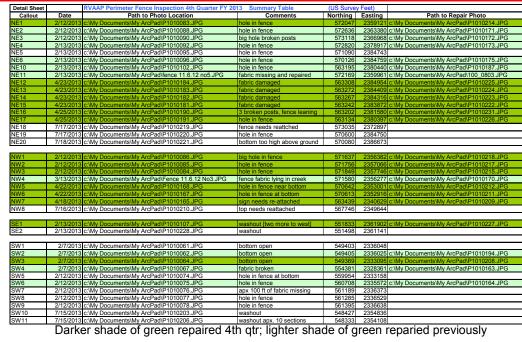
FIGURE 1 INDEX MAP TO FACILITY PERIMETER FENCE INSPECTION SEE ATTACHED DETAIL SHEETS FOR EACH DESIGNATED CALLOUT LOCATION

Legend

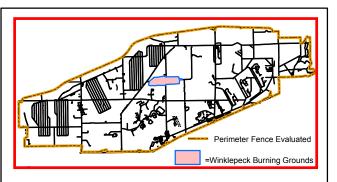
LUC Inspection of Perimeter Fence

- Opening in fence (2'≥) and/or fabric missing (13 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 (29.8 miles)





Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



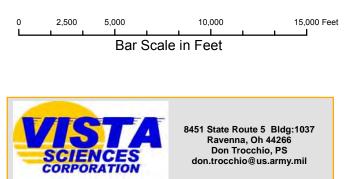
US Army Corps of Engineers

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

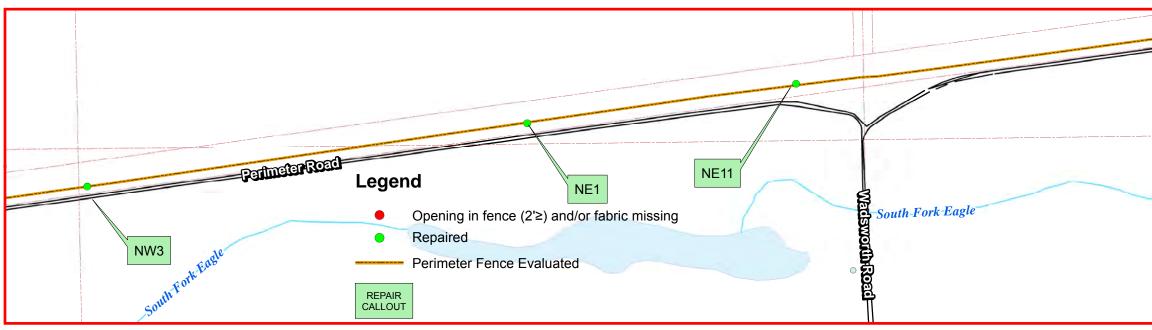
Louisville District

(N

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



NE (Northeast) Quadrant



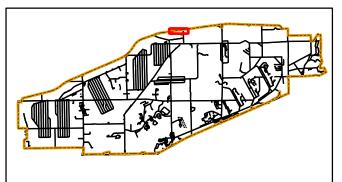
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE1 REPAIRED Photo taken July 17, 2013

PHOTO NE1 dated 02/12/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



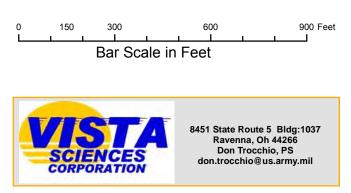
US Army Corps of Engineers

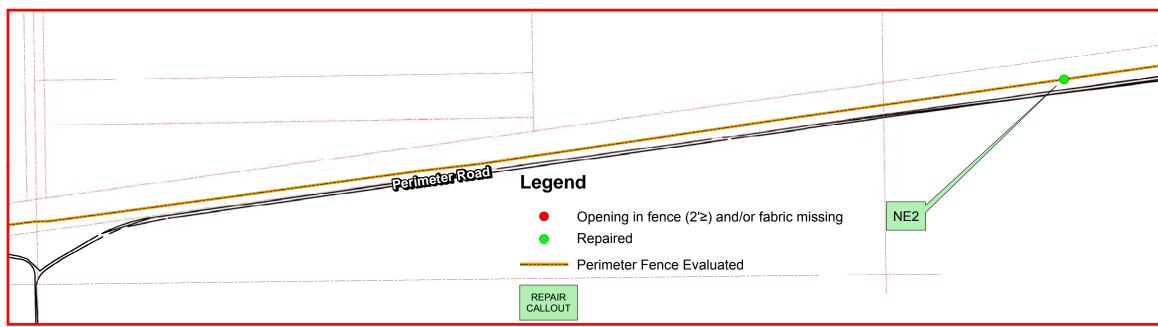
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





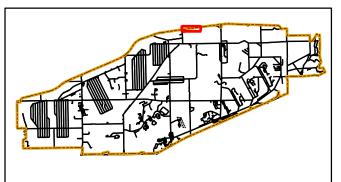
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO OF NE2 REPAIRED photo taken 04/22/2013

PHOTO NE2 dated 02/12/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



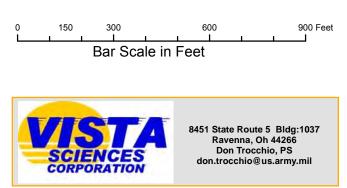
US Army Corps of Engineers

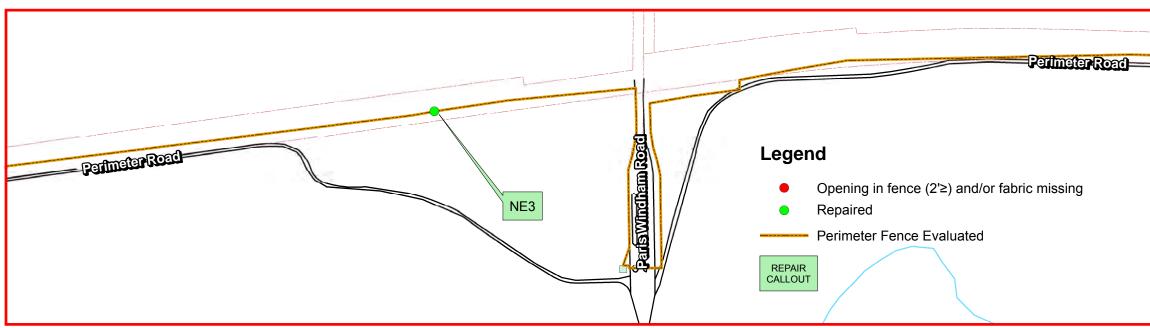
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





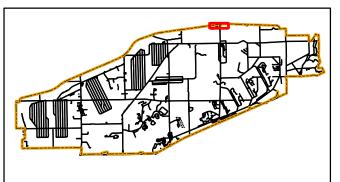
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO OF NE3 REPAIRED photo taken 04/22/2013

PHOTO NE3 dated 02/12/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



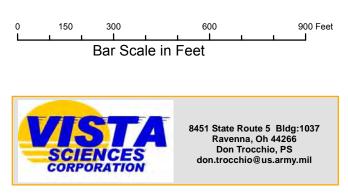
US Army Corps of Engineers

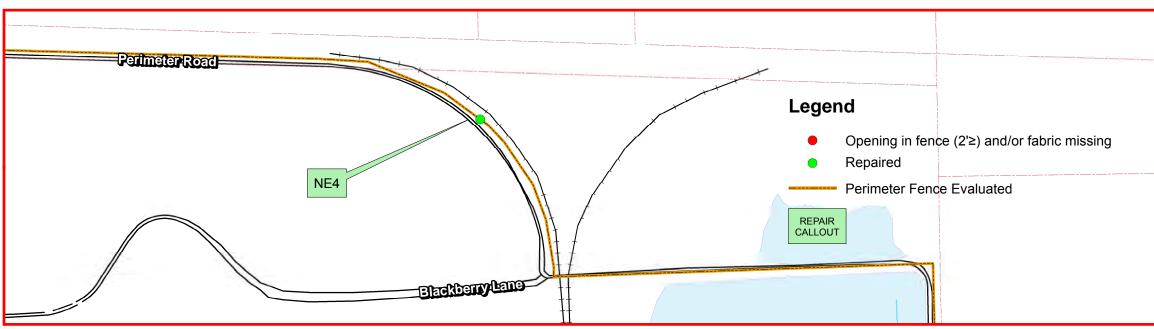
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





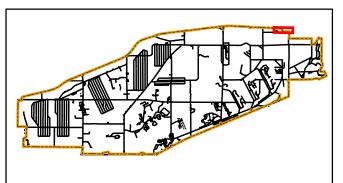
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE4 REPAIRED photo taken 04/23/2013

PHOTO NE4 dated 02/13/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



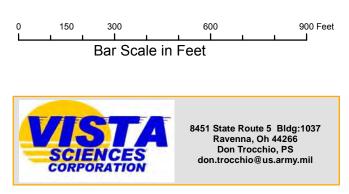
US Army Corps of Engineers

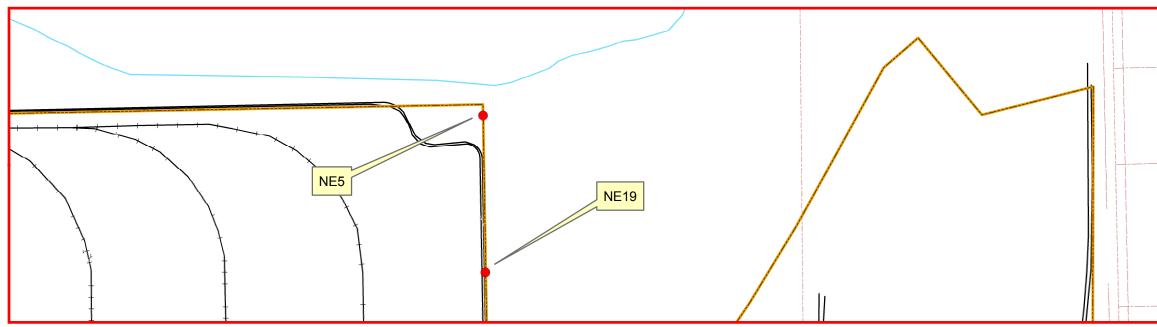
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE5 dated 02/13/2013

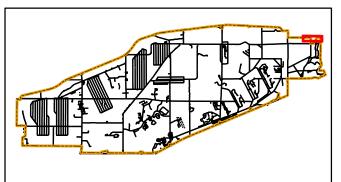
Legend



Opening in fence (2'≥) and/or fabric missing Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP







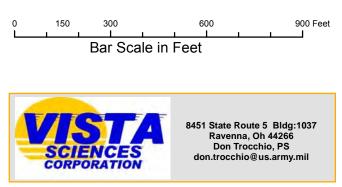
US Army Corps of Engineers

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

Louisville District



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



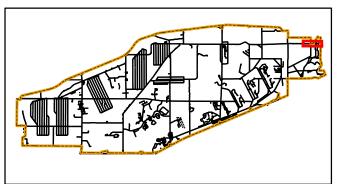
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE6 REPAIRED photo taken 04/23/2013

PHOTO NE6 dated 02/13/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



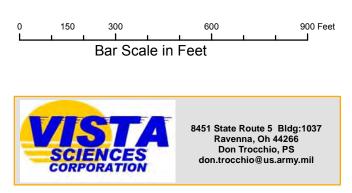
US Army Corps of Engineers

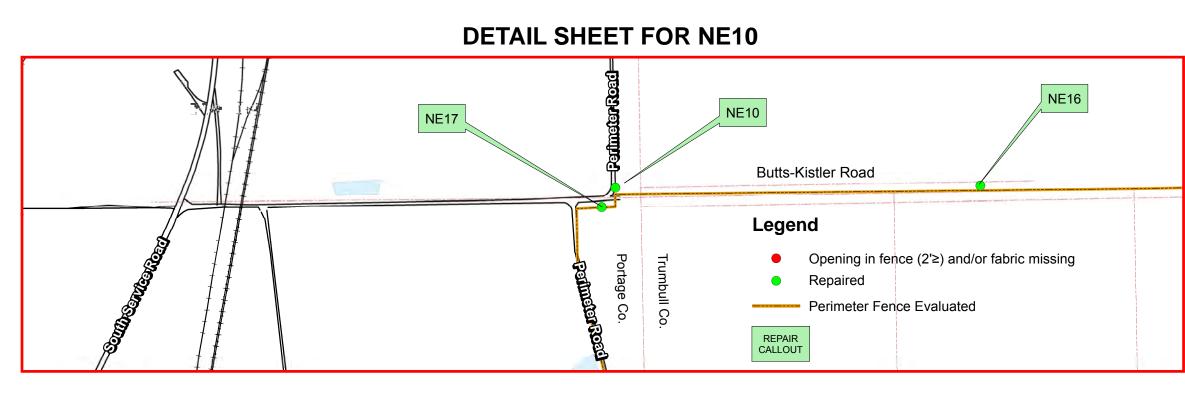
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





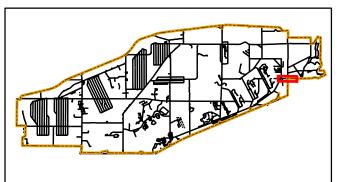
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE10 REPAIRED photo taken 04/25/2013

PHOTO NE10 dated 02/13/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



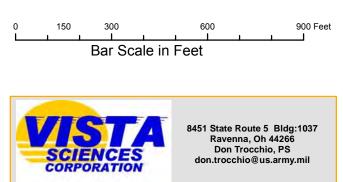
US Army Corps of Engineers

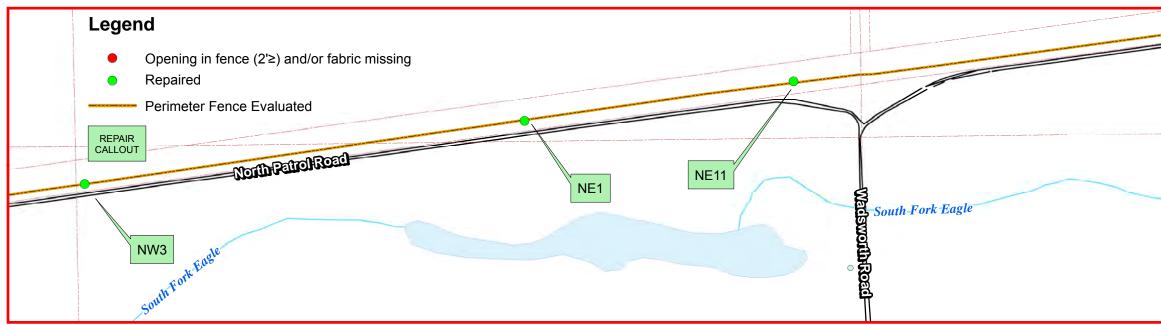
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





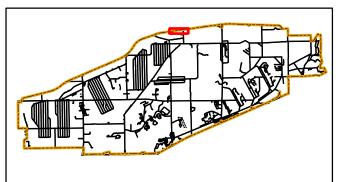
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

Repairs made by Vista Sciences Corp. on fence in picture No.5 at right

PHOTO NE11 (1st qtr report fence picture No.5)



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in Julyl 2013 for:



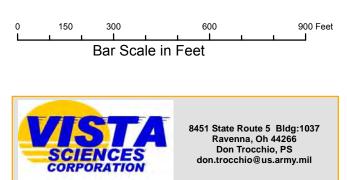
US Army Corps of Engineers

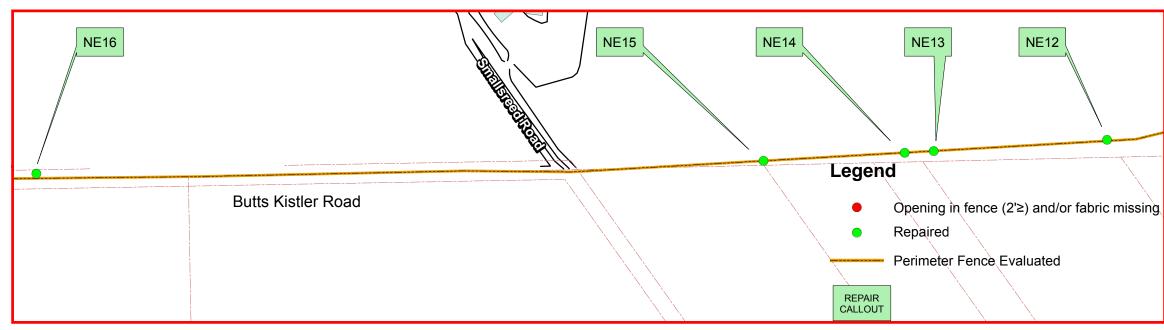
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





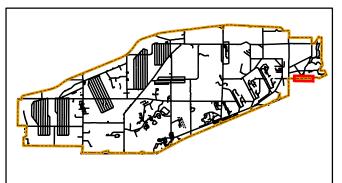
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE12 REPAIRED photo taken 07/18/2013

PHOTO NE12 dated 04/23/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



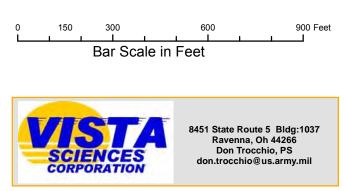
US Army Corps of Engineers

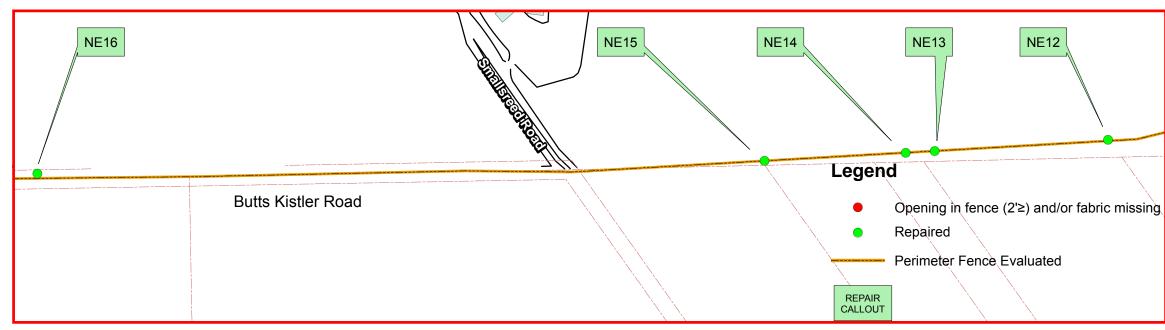
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





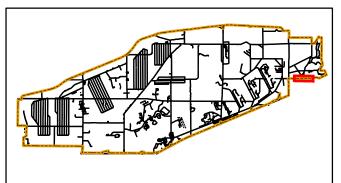
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE13 REPAIRED photo taken 07/18/2013

PHOTO NE13 dated 04/23/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



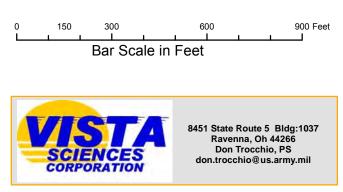
US Army Corps of Engineers

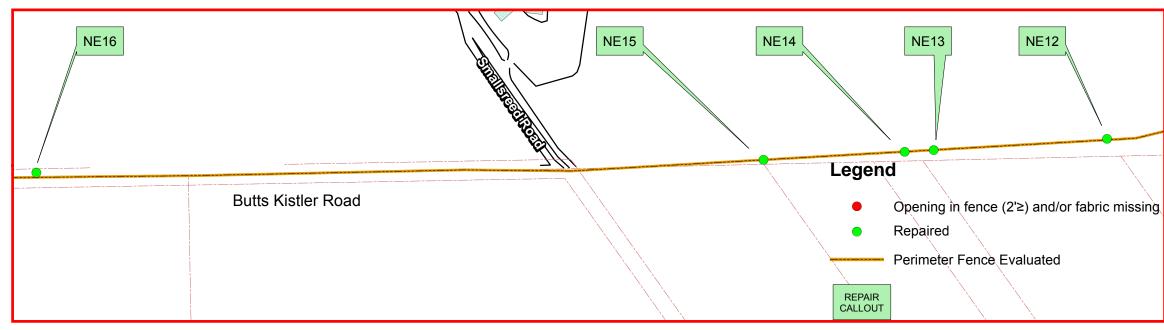
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





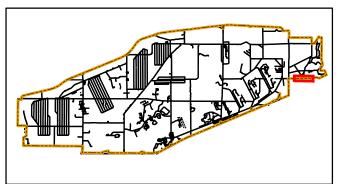
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE14 REPAIRED photo taken 07/18/2013

PHOTO NE14 dated 04/23/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



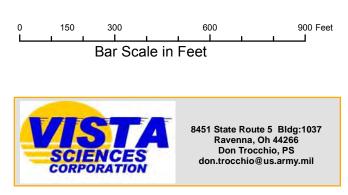
US Army Corps of Engineers

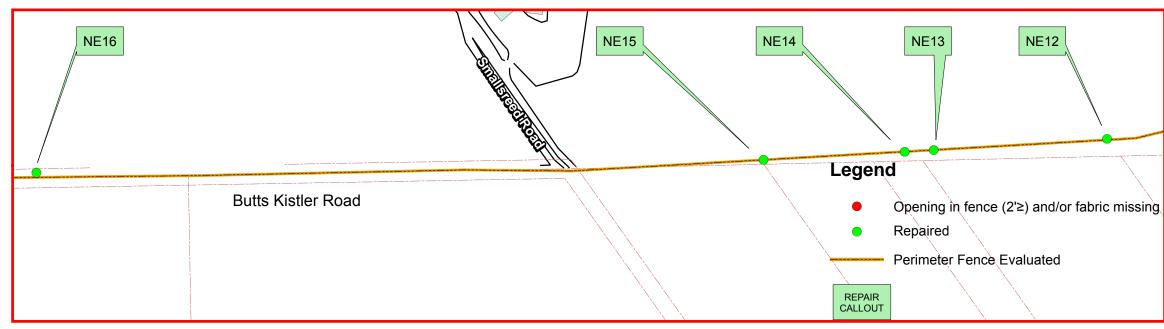
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





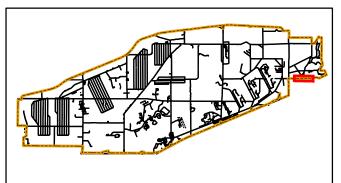
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE15 REPAIRED photo taken 07/18/2013

PHOTO NE15 dated 04/23/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



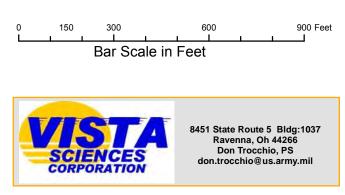
US Army Corps of Engineers

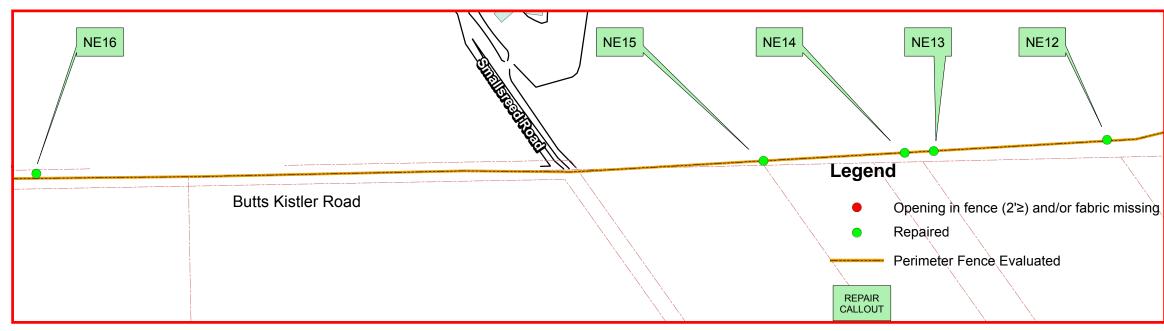
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





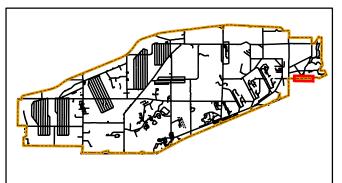
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE16 REPAIRED photo taken 07/23/2013

PHOTO NE16 dated 04/25/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



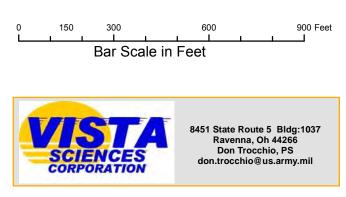
US Army Corps of Engineers

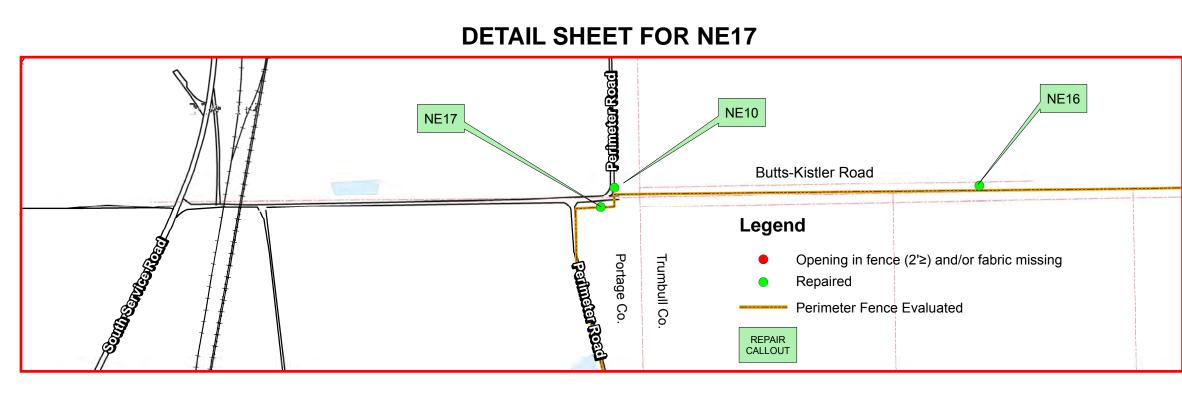
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





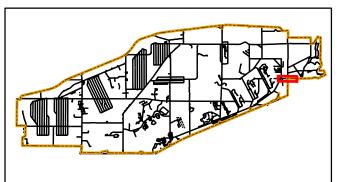
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE17 REPAIRED photo taken 07/18/2013

PHOTO NE17 dated 04/25/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



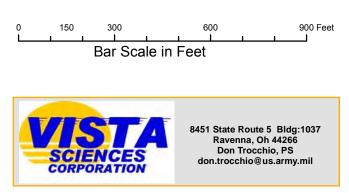
US Army Corps of Engineers

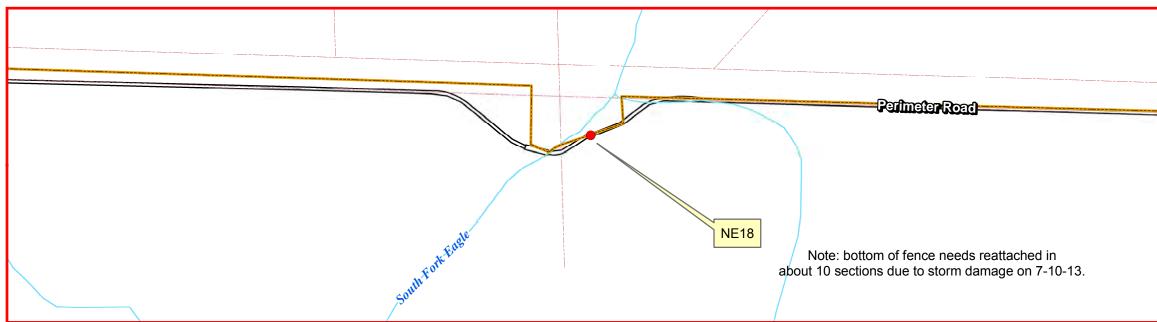
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE18 dated 07/17/2013

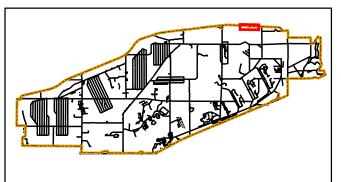
Legend



Opening in fence (2'≥) and/or fabric missing Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



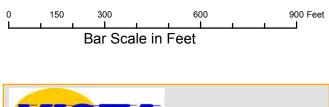
US Army Corps of Engineers

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

Louisville District



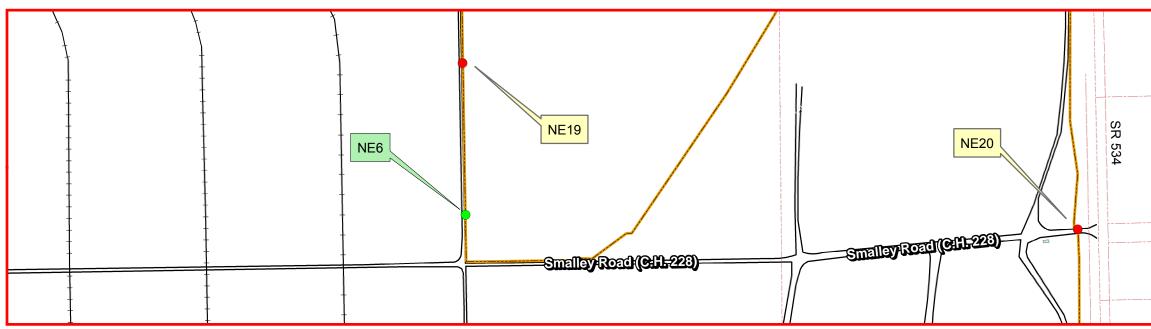
Projection Datum is NAD83, Ohio State Plane Rectangular Grid, North Zone





8451 State Route 5 Bldg:1037 Ravenna, Oh 44266 Don Trocchio, PS don.trocchio@us.army.mil





LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE19 dated 07/17/2013

Legend

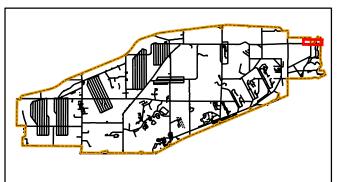
REPAIR CALLOUT

- Opening in fence (2'≥) and/or fabric missing
- Repaired
 - Perimeter Fence Evaluated





Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



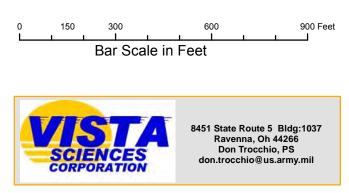
US Army Corps of Engineers

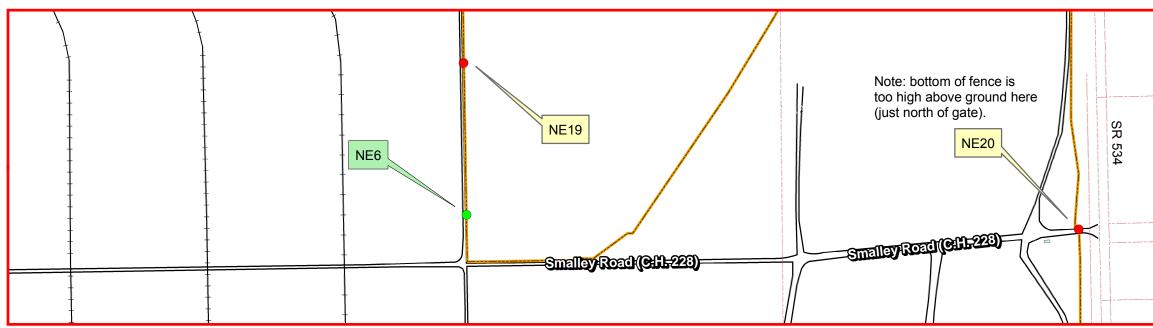
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NE20 dated 07/18/2013

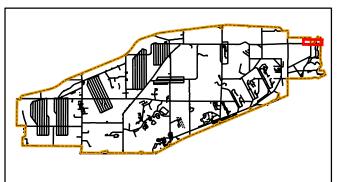
Legend

- Opening in fence (2'≥) and/or fabric missing
- Repaired
 - Perimeter Fence Evaluated

REPAIR CALLOUT



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



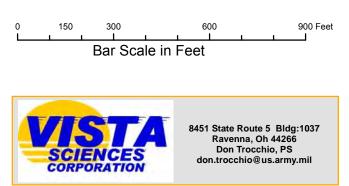
US Army Corps of Engineers

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

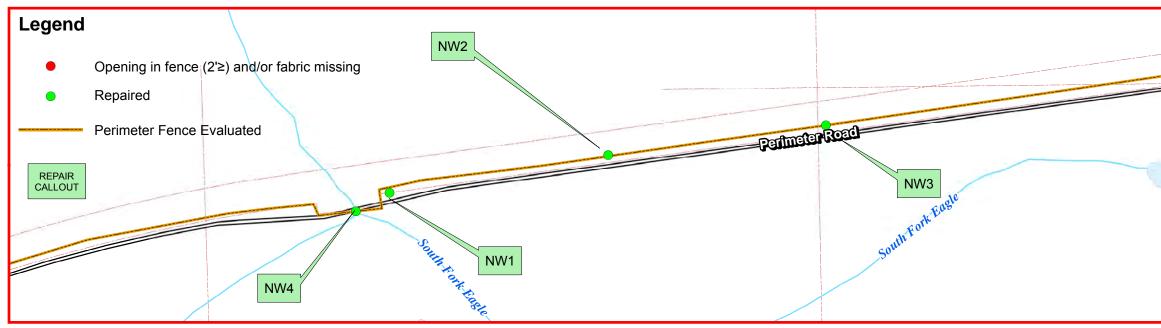
Louisville District



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



NW (Northwest) Quadrant



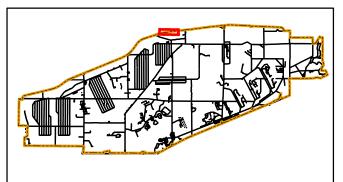
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NW1 REPAIRED photo taken 07/17/2013

PHOTO NW1 dated 02/12/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



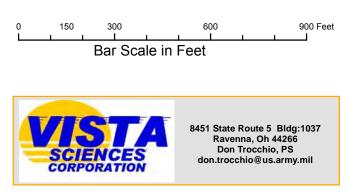
US Army Corps of Engineers

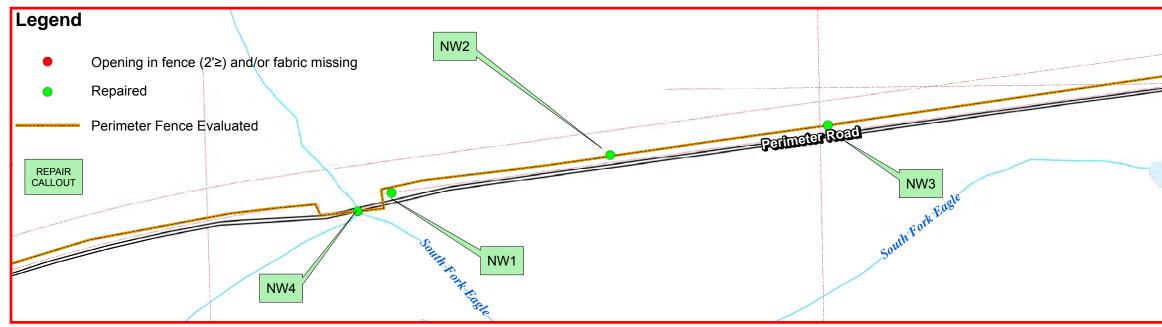
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





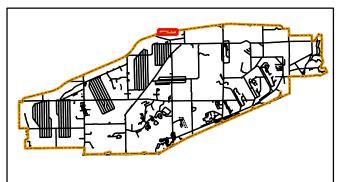
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NW2 REPAIRED photo taken 07/17/2013

PHOTO NW2 dated 02/12/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



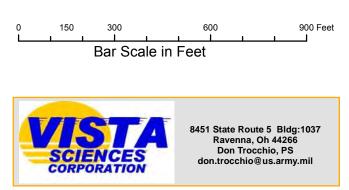
US Army Corps of Engineers

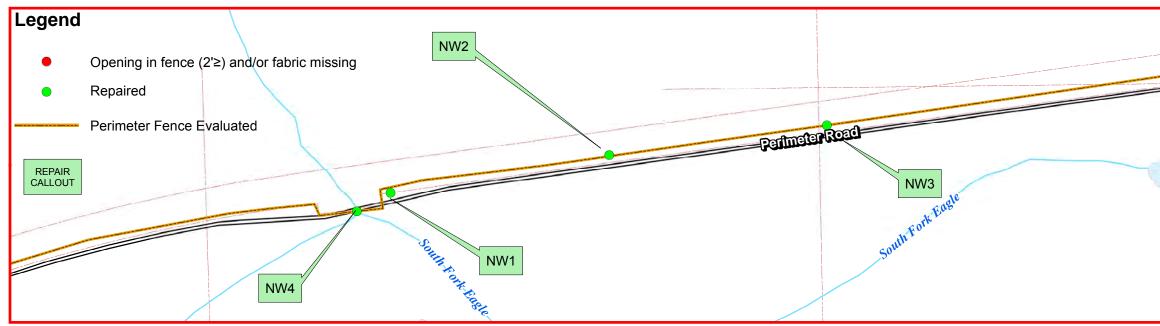
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





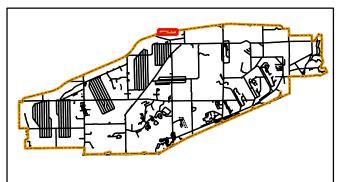
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NW3 REPAIRED 07/17/2013

PHOTO NW3 dated 02/12/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



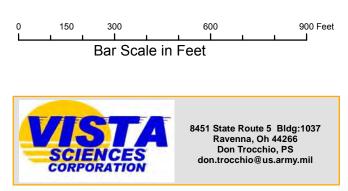
US Army Corps of Engineers

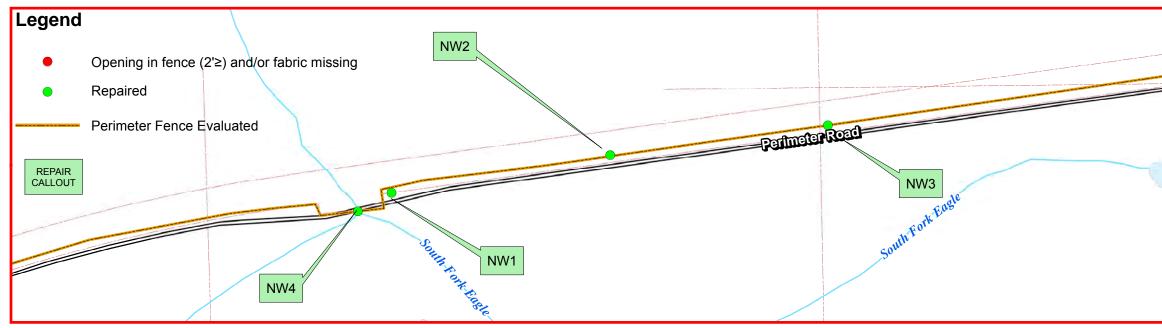
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





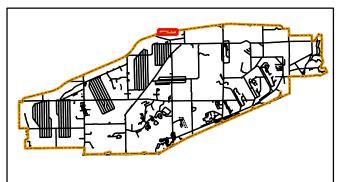
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NW4 REPAIRED photo 04/22/2013

PHOTO NW4 dated 11/06/2012



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



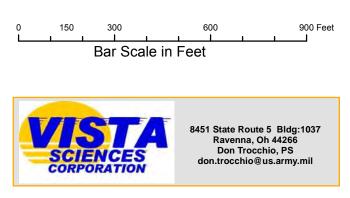
US Army Corps of Engineers

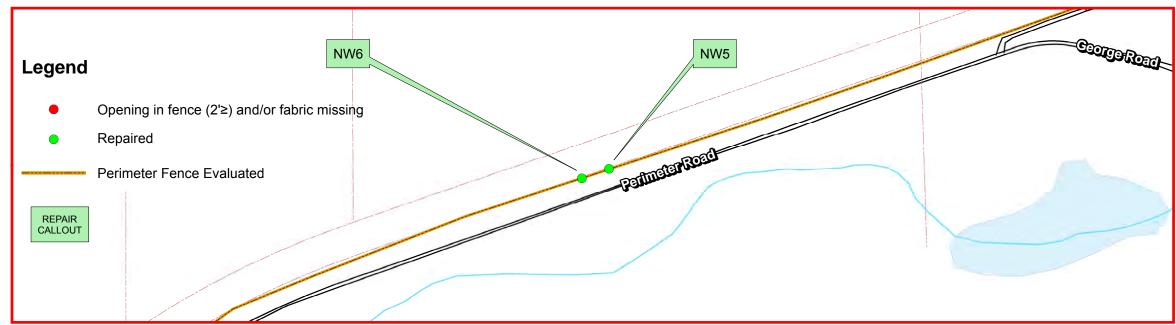
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





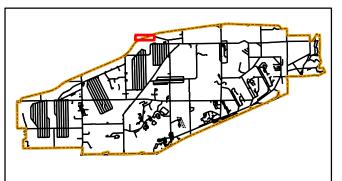
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NW5 REPAIRED photo 07/16/2013

PHOTO NW5 dated 04/22/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



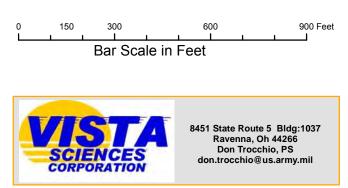
US Army Corps of Engineers

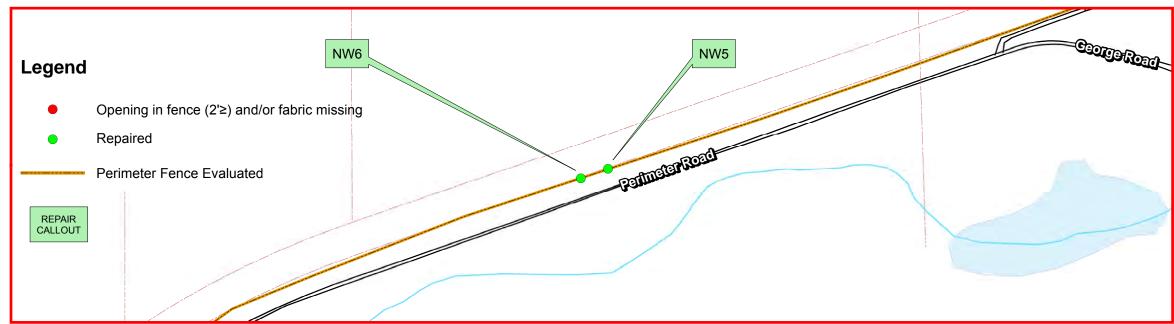
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





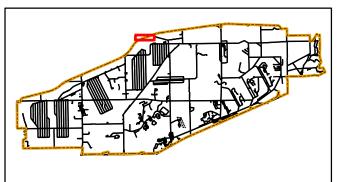
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NW6 REPAIRED photo taken 07/16/2013

PHOTO NW6 dated 04/22/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



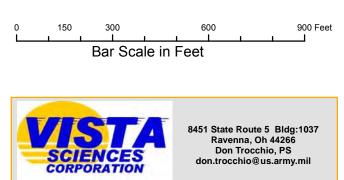
US Army Corps of Engineers

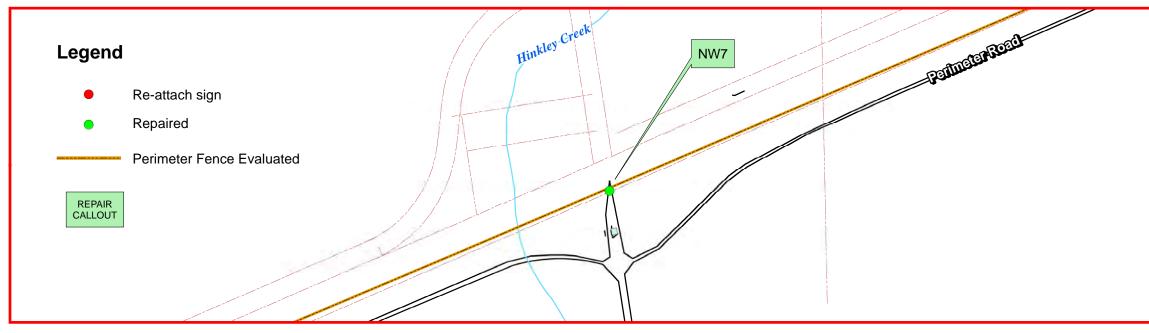
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





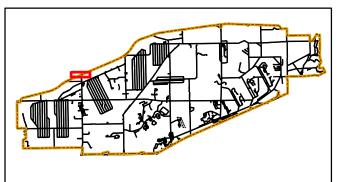
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO NW7 REPAIRED photo taken 07/16/2013

PHOTO NW7 (re-attach sign) photo taken 04/18/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

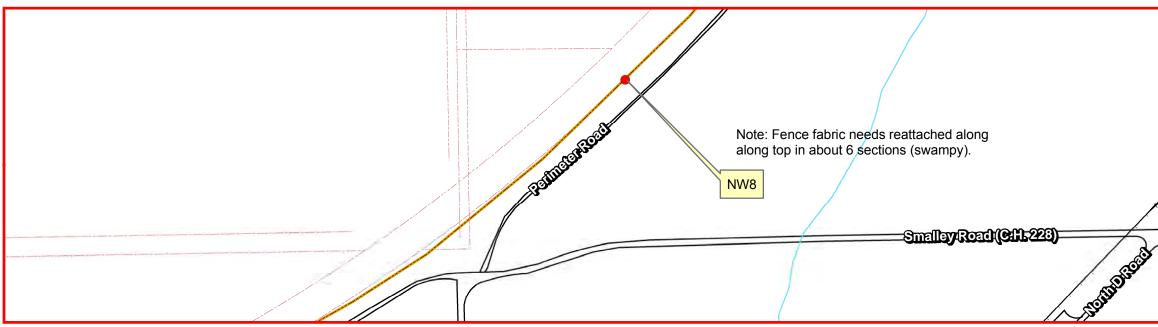
LOCATOR MAP











LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

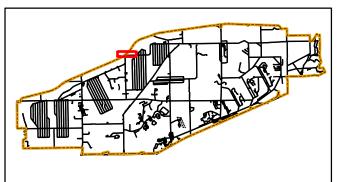
PHOTO NW8 dated 07/16/2013

Legend

Opening in fence (2'≥) and/or fabric missing Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



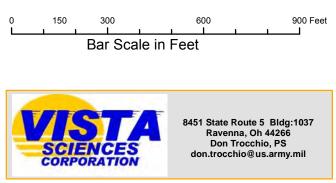
US Army Corps of Engineers

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

Louisville District

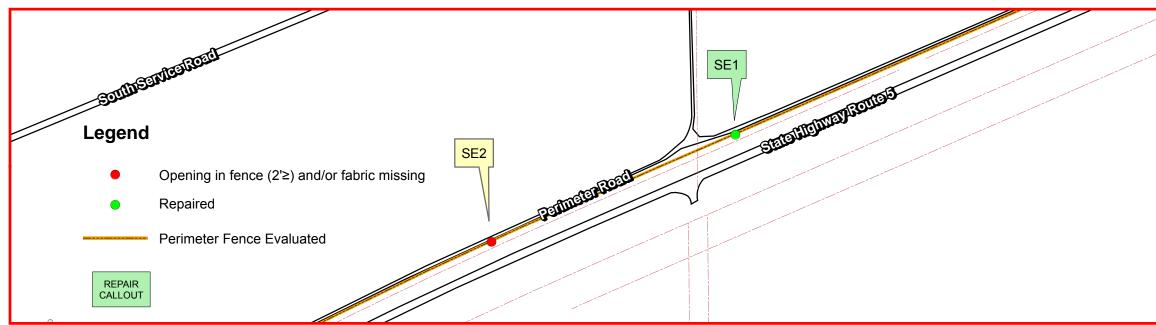


Projection Datum is NAD83, Ohio State Plane Rectangular Grid, North Zone





SE (Southeast) Quadrant



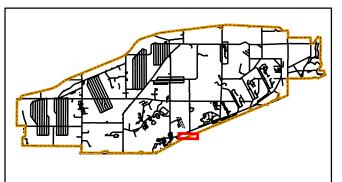
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SE1 ALL AREAS REPAIRED photo taken 07/18/2013

PHOTO SE1 (Washout area, 2 more just to the southwest) photo dated 02/13/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



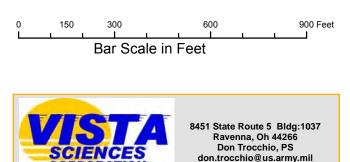
US Army Corps of Engineers

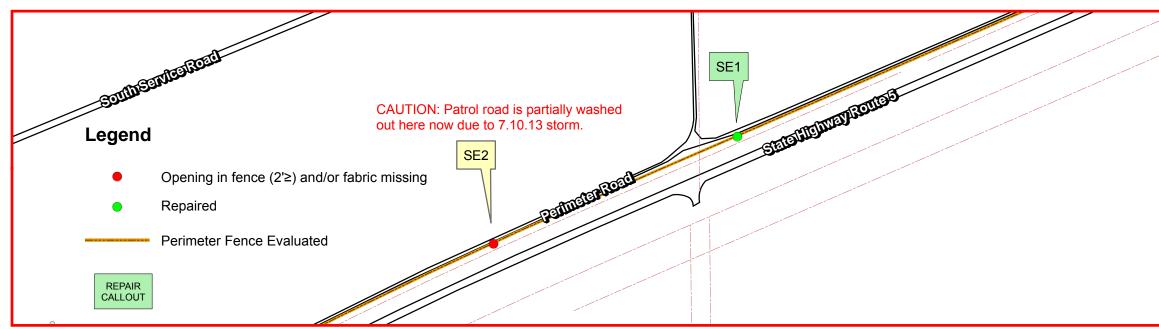
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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



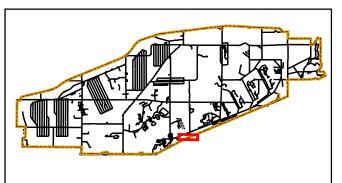


LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SE2 updated photo below 07/18/2013 first photo taken 02/13/2013 shown on 2nd qtr



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



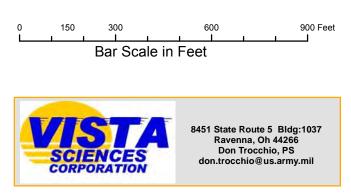
US Army Corps of Engineers

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

Louisville District



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



SW (Southwest) Quadrant



LAND USE CONTROL (LUC) INSPECTION 2nd QUARTER FY2013 PERIMETER FENCE INSPECTION

Legend

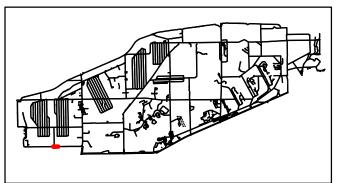
•

Opening in fence (2'≥) and/or fabric missing

PHOTO SW1 dated 02/07/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in February 2013 for:



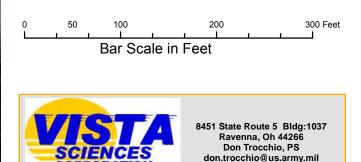
US Army Corps of Engineers

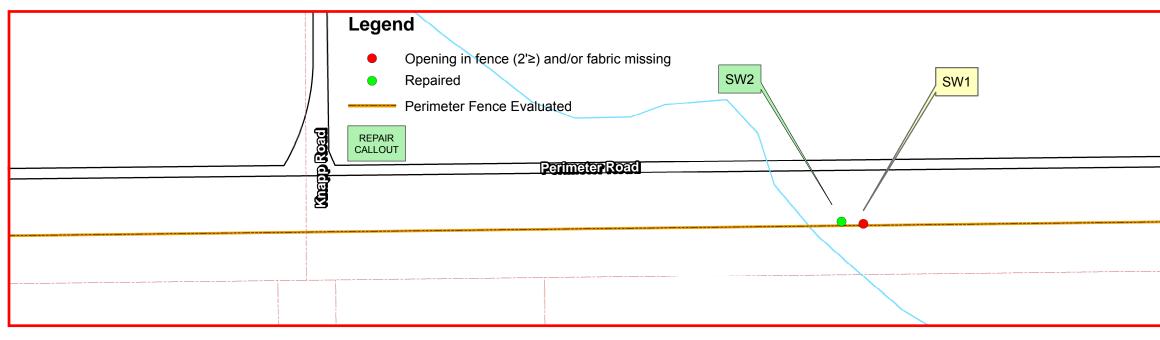
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District

CORPORATION

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





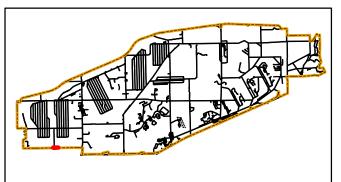
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SW2 REPAIRED photo taken 04/29/2013

PHOTO SW2 dated 02/07/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



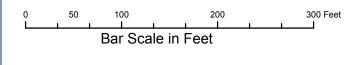
US Army Corps of Engineers

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

Louisville District

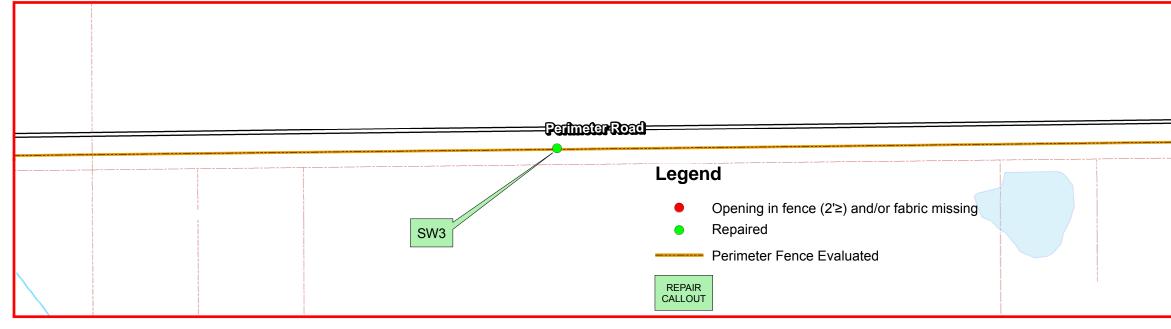


Projection Datum is NAD83, Ohio State Plane Rectangular Grid, North Zone





8451 State Route 5 Bldg:1037 Ravenna, Oh 44266 Don Trocchio, PS don.trocchio@us.army.mil



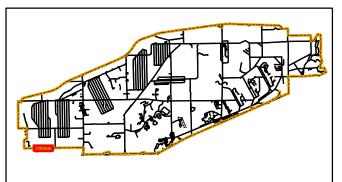
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SW3 REPAIRED photo taken 07/15/2013

PHOTO SW3 dated 02/07/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



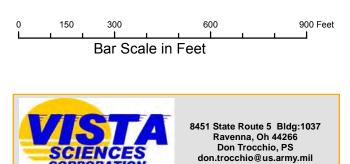
US Army Corps of Engineers

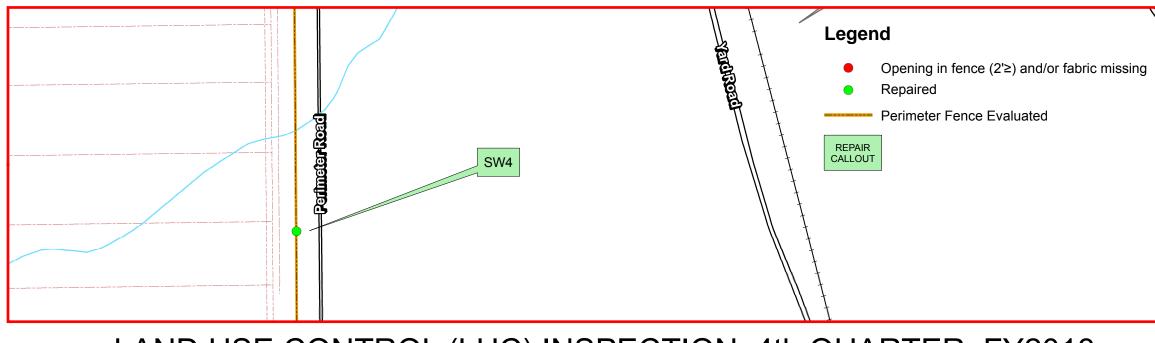
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





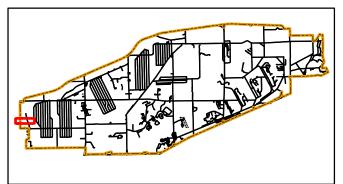
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

SW4 REPAIR PHOTO taken 04/18/2013

PHOTO SW4 dated 02/07/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



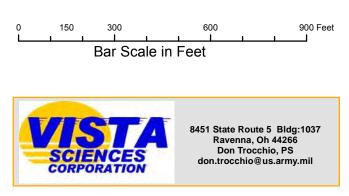
US Army Corps of Engineers

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

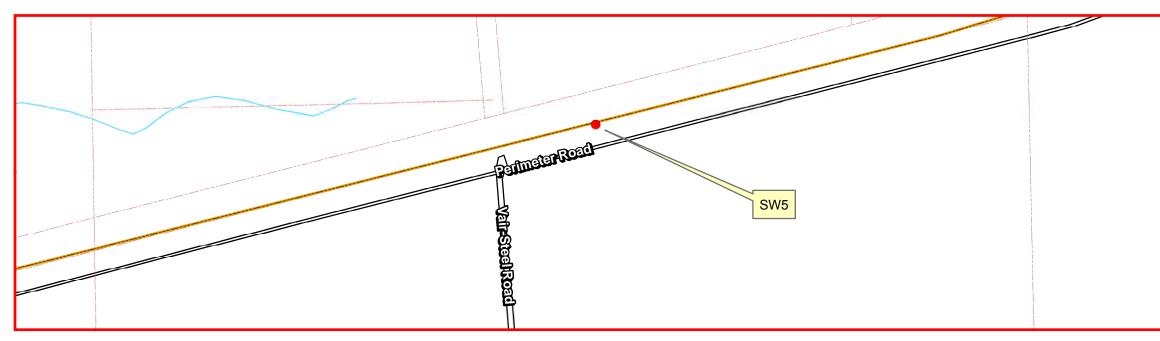
Louisville District



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







LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SW5 dated 02/12/2013

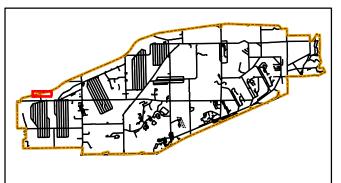
Legend

- Opening in fence (2'≥) and/or fabric missing
- Repaired
- ----- Perimeter Fence Evaluated





Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



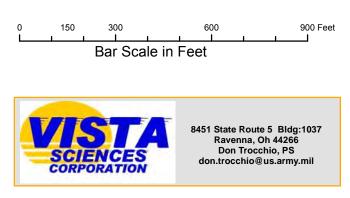
US Army Corps of Engineers

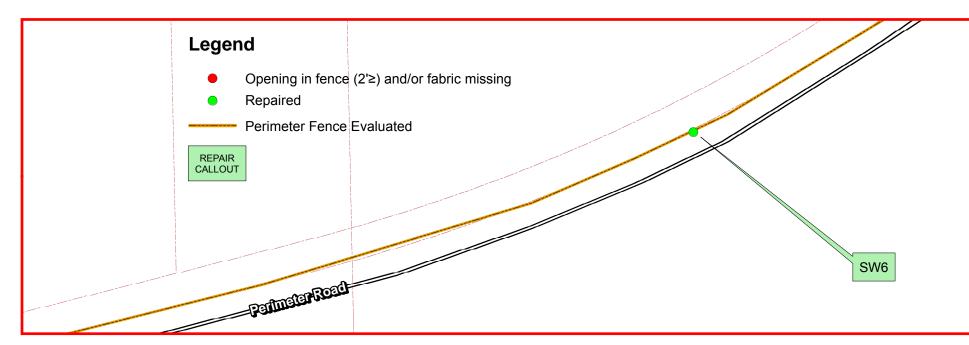
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





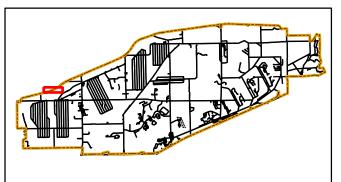
LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

SW6 Repair Photo taken 04/18/2013

PHOTO SW6 dated 02/12/2013



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



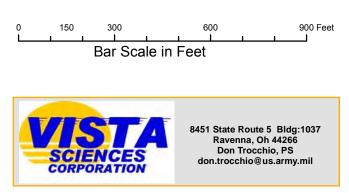
US Army Corps of Engineers

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

Louisville District



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



LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

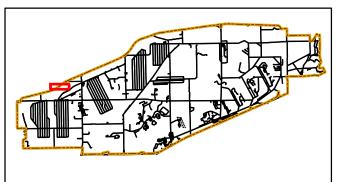
PHOTO SW7 About 100' of fabric is missing; photo taken 02/12/2013

Legend

Opening in fence (2'≥) and/or fabric missing Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



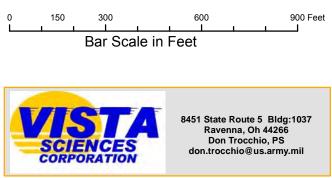
US Army Corps of Engineers

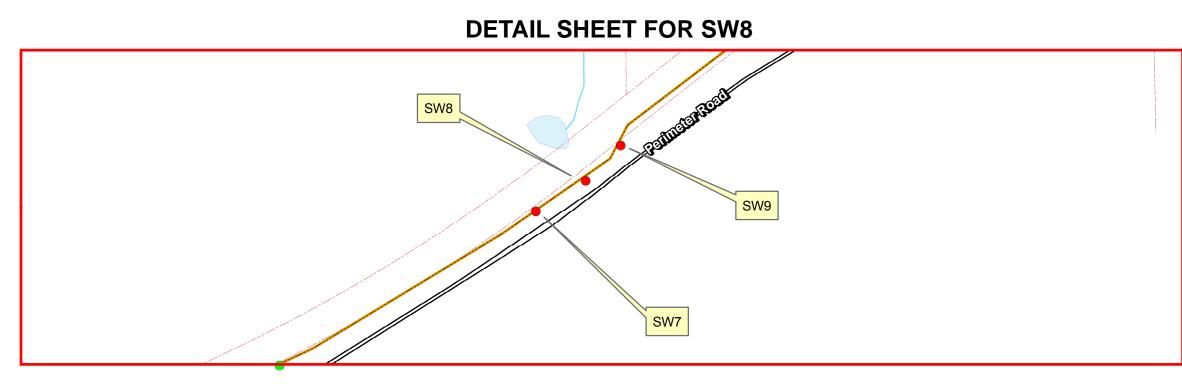
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

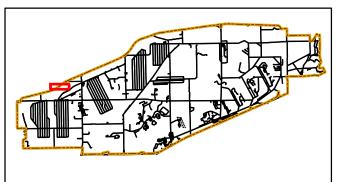
PHOTO SW8 Fabric missing; photo taken 02/12/2013



Opening in fence (2'≥) and/or fabric missing Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



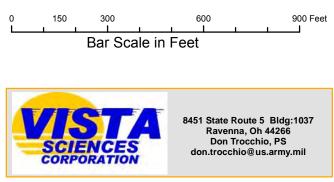
US Army Corps of Engineers

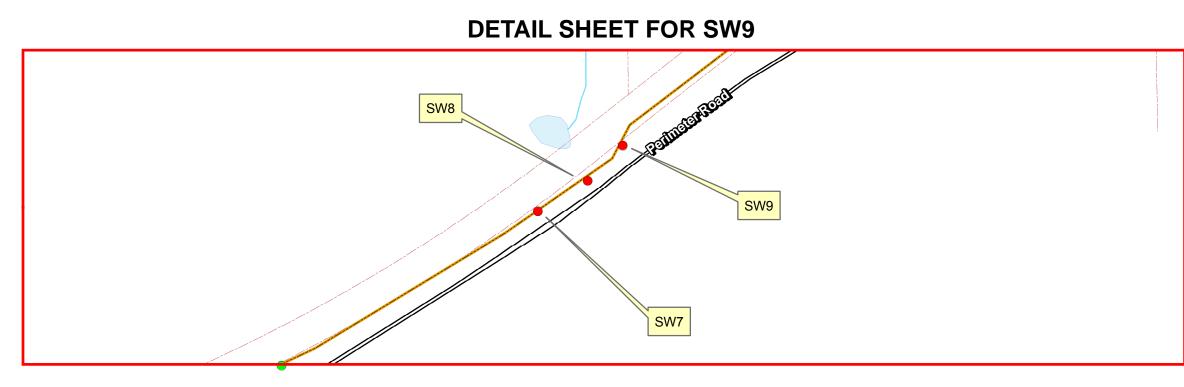
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SW9 dated 02/12/2013

Legend

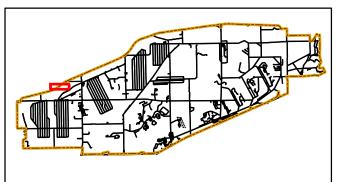
•

Opening in fence (2'≥) and/or fabric missing

Perimeter Fence Evaluated



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



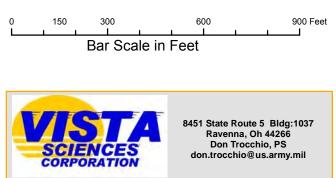
US Army Corps of Engineers

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

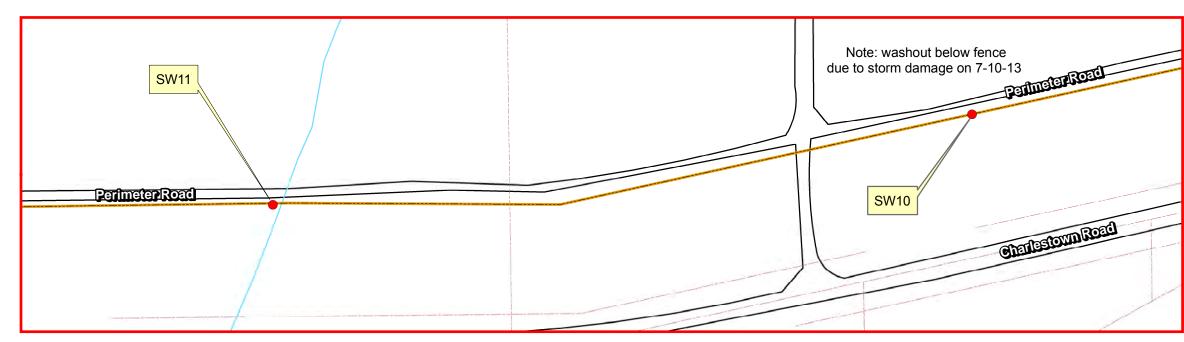
Louisville District



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







LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SW10 dated 07/15/2013

Legend

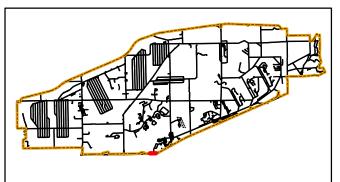
- Opening in fence (2'≥) and/or fabric missing
- Repaired

--- Perimeter Fence Evaluated

REPAIR CALLOUT



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:



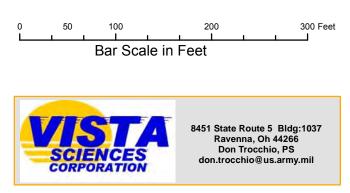
US Army Corps of Engineers

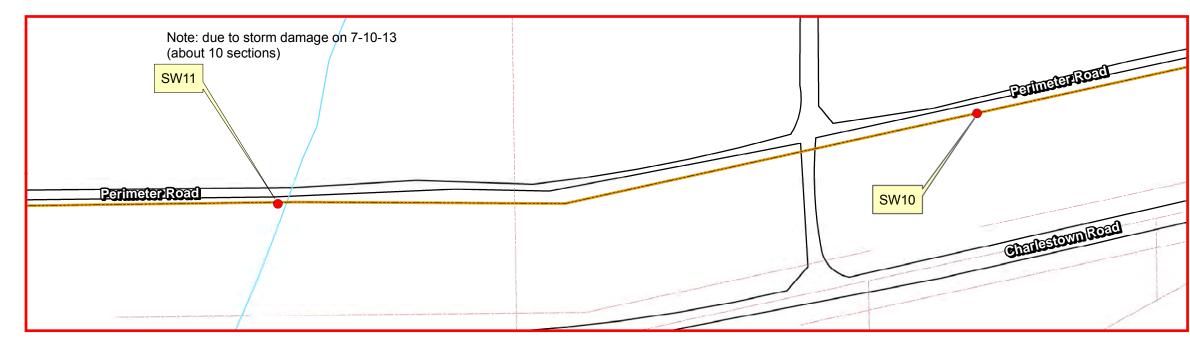
600 Dr. Martin Luther King Jr. Place Louisville, KY 40202

Louisville District



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





LAND USE CONTROL (LUC) INSPECTION 4th QUARTER FY2013 PERIMETER FENCE INSPECTION

PHOTO SW11 dated 07/15/2013

Legend

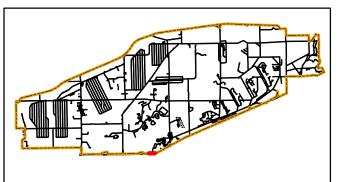
- Opening in fence (2'≥) and/or fabric missing
- Repaired

--- Perimeter Fence Evaluated

REPAIR CALLOUT



Ravenna Army Ammunition Plant Ravenna, Ohio



Portage & Trumbull County

LOCATOR MAP





Produced in July 2013 for:

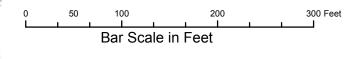


US Army Corps of Engineers

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

Louisville District

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





8451 State Route 5 Bldg:1037 Ravenna, Oh 44266 Don Trocchio, PS don.trocchio@us.army.mil

Camp Ravenna Joint Military Training Center Ravenna Army Ammunition Plant

Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

ATTACHMENT 2

Description of Land Use Control OHARNG Activities

Training and/or Contractor Briefs Quarter Time Period

July 2013 – September 2013

No Training or Contractors Briefs Were Conducted During This Quarter

Camp Ravenna Joint Military Training Center Ravenna Army Ammunition Plant

Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

ATTACHMENT 3

Camp Ravenna Fence Repair Log – 2013

FENCE REPAIR LOG FROM BRETT OXLEY

SW7-8-9 NEEDS CONTRACTED, FENCE UNDER WATER 6/20/13 NE 12 REPLACED APPROX 20 FT OF FABRE 6/23/ NE 13-14-15-16 REPLACED FABRIC APPROX 50FT, 2 PATCHES OF 4 A/1. FABRIC, 5 BARBARINS, 5 FORCE POLES 6/18/13 NO# COUNTY LINE ZET FABRIC PART 6/20/13 NO PK - NEAR NE 16 Note NO BE NORTH OF GATE 17 PATCH SMALL HOLE 6/20/13 No # REMOVED TREE FROM N. PERMETER FEARE, WEST OF GATE 17 6/20/13 No Pic No Pic NO * REDLACED FABRIC ON SMALL HOLE IN FONCE ON N. PERIMETER /2/13 No Re WASH OUT ON N. PERIMETER FORE, HINE FABRIC, PINNED TO GROUND 3FT OF FABRIC (12/12 No# NoPic 6/20/13 No# REMOVED TREE OFF FENCE BY SNOW RD. DUMP 6/20/13 NOAL REPLACED 4FT OF FABRIC OVER HOLE, BETWEEN P.WINDOM AND No# NOPIC WADSWORTH RD. ON N. PERMETER 6/20/13 NW2 REPLACED 2 FT OF FABRIC WER HOLE IN FONCE 6/20/13 #NO REPLACED 3FT OF FADRIC OVER HOLE IN FONCE WEST OF WAPSWORKH NO PIL ROAD 6/20/13

NWI REPLACED ZET OF FABRIC ALL HOLE 6/20/13 扁 REPLACED ZET OF FABRIC OVER 1FOLE 6/20/13 No # NoPic EAST OF NW1 REPLACED 2 FT OF FABRIC OVER HOLE IN FEARE 6/20/13 NW 5 (WG) REPURED 2FT OF FABRIC OVER HALS IN FENCE 6/20/13 RE-ATTACHED SIGN TO THE GATE 6/20/13 REDURCED FABRIC OVER ZET HOLE WEST OF FREEDOM GATE 6/20/13 NO# SWE COULDN'T GET TO HOLE DO TO WATER AND HIGH BRUSH USED OF FABRIC TO REPAIR FLOW 2/20/13 SW3 SEZ REPAIRED FABRIC 16 FT & BOTTOM 6/21/13

Camp Ravenna Joint Military Training Center Ravenna Army Ammunition Plant

Property Management Plan Quarterly Land Use Control Inspection RVAAP-05 Winklepeck Burning Grounds

ATTACHMENT 4

Comment Responses



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

March 17, 2014

Mr. Brett Merkel Army National Guard Directorate ARNGD-ILE Clean UP 111 South George Mason Drive Arlington, VA 22203

RE: APPROVAL OF THE "DRAFT FOURTH QUARTER PROPERTY MANAGEMENT PLAN, QUARTERLY LAND USE CONTROL INSPECTION, RVAAP-05 WINKLEPECK BURNING GROUNDS AT THE RAVENNA ARMY AMMUNITION PLANT, RAVENNA, OHIO," DATED FEBRUARY 7, 2014 (WORK ACTIVITY NO. 267-000859-029)

Dear Mr. Merkel:

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, *"Draft Fourth Quarter Property Management Plan, Quarterly Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds at the Ravenna Army Ammunition Plant, Ravenna, Ohio,"* dated February 7, 2014. This document, received by Ohio EPA's NEDO on February 11, 2014, was prepared for the U.S. Army Corps of Engineers (USACE) Louisville District, by Vista Sciences Corporation.

Ohio EPA has reviewed this documentation and has found no significant deficiencies. As a result, the "Final Fourth Quarter Property Management Plan, Quarterly Land Use Control Inspection, RVAAP-05 Winklepeck Burning Grounds" can be submitted for approval.

If you have any questions or concerns, please do not hesitate to contact me at (330) 963-1249.

Sincerely,

tha bach

Andrew C. Kocher, Site Coordinator Division of Environmental Response and Revitalization

ACK/nvr

- cc: Katie Tait/Kevin Sedlak, Camp Ravenna Environmental Office, Newton Falls Haney/Harris, Camp Ravenna Environmental Office, Vista Sciences, Newton Falls Glen Beckham, USACE Louisville District
- ec: Rod Beals, Ohio EPA, NEDO, DERR Nancy Zikmanis, Ohio EPA, NEDO, DERR Justin Burke, Ohio EPA, CO, DERR



Scanned By: ANLA Date: 03-20-2014

Northeast District Office • 2110 East Aurora Road • Twinsburg, OH 44087-1924 www.epa.ohio.gov • (330) 963-1200 • (330) 487-0769 (fax)

