

**FINAL  
OPERATIONAL RANGE ASSESSMENT PROGRAM  
PHASE I QUALITATIVE ASSESSMENT REPORT  
CRAB ORCHARD TRAINING AREA ANNEX  
CRAB ORCHARD, ILLINOIS**

---

FEBRUARY 2009

Prepared for:

**UNITED STATES ARMY CORPS OF ENGINEERS, BALTIMORE DISTRICT**  
P.O. Box 1715  
Baltimore, Maryland 21203

and

**UNITED STATES ARMY ENVIRONMENTAL COMMAND**  
Aberdeen Proving Ground, Maryland 21010

Prepared by:

**MALCOLM PIRNIE, INC.**  
701 Town Center Drive  
Suite 600  
Newport News, Virginia 23606



## ABBREVIATIONS/ACRONYMS

ARID-GEO	Army Range Inventory Database-Geodatabase
CSM	Conceptual Site Model
DoD	Department of Defense
GIS	Geographic Information System
ILARNG	Illinois Army National Guard
JFHQ-IL	Joint Force Headquarters-Illinois
MCOC	Munitions Constituents of Concern
ORAP	Operational Range Assessment Program
TA	Training Area
U.S.	United States
USACE	United States Army Corps of Engineers

## EXECUTIVE SUMMARY

The United States (U.S.) Army is conducting qualitative assessments at operational ranges to meet the requirements of Department of Defense policy and to support the U.S. Army Sustainable Range Program. The operational range qualitative assessment (hereinafter referred to as Phase I Assessment) is the first phase of the U.S. Army Operational Range Assessment Program. This Phase I Assessment evaluates the operational range area at Crab Orchard Training Area (TA) Annex to assess whether further investigation is needed to determine if potential munitions constituents of concern (MCOC) are or could be migrating off-range at levels that may pose an unacceptable risk to human health or the environment. In conducting the Phase I Assessment, MCOC sources, potential off-range migration pathways, and potential off-range human and ecological receptors are evaluated as appropriate.

Crab Orchard TA Annex encompasses approximately 0.68 acres in Williamson County, Illinois, approximately 10 miles southeast of Pittsburg, Illinois. The property is privately owned and is part of a 700-acre reclaimed strip mine. The Illinois Army National Guard (ILARNG) entered into a lease agreement with the landowner in 1992 to utilize the property to conduct light maneuver/training activities during weekend training events. Currently, no ILARNG training activities are conducted at Crab Orchard TA Annex. Historical training activities did not include the use of munitions (live-fire or non-live-fire).

A review of available records and background data, as well as interviews with ILARNG personnel, indicate that training activities at Crab Orchard TA Annex do not involve, and historically have not involved, the use of military munitions. Potential sources of MCOC were not identified at Crab Orchard TA Annex; therefore, potential off-range migration pathways and potential off-range human and ecological receptors were not evaluated. The one operational range area at Crab Orchard TA Annex is categorized as Unlikely.

Installations with operational ranges where no munitions or only small caliber blanks have been utilized are categorized as Unlikely. That is, based on a review of available information, there is sufficient evidence to show that due to the lack of munitions use there are no known releases or source-receptor interactions that could present an unacceptable risk to human health or the environment. Ranges categorized as Unlikely are required to be re-evaluated at least every five years. Re-evaluation may occur sooner if significant changes (e.g., change in range operations or site conditions, regulatory changes) occur that affect determinations made during this Phase I Assessment. **Table ES-1** summarizes the Phase I Assessment findings.

**Table ES-1: Summary of Findings and Conclusions for Crab Orchard TA Annex**

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human and Ecological Receptors	Conclusions
Unlikely	One operational range; 0.68 acres	No source—no current or historical use of live-fire military munitions	Not evaluated (no source identified)		Re-evaluate during the five-year review.