

**FINAL
OPERATIONAL RANGE ASSESSMENT PROGRAM
PHASE I QUALITATIVE ASSESSMENT REPORT
CAMP HALE
LEADVILLE, COLORADO**

JUNE 2008

Prepared for:

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The logo for Malcolm Pirnie, Inc. consists of the words "MALCOLM" and "PIRNIE" stacked vertically in a bold, white, sans-serif font. The text is centered within a solid black rectangular background.

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 (ORAP). This Phase I Assessment evaluates the operational range area at Camp Hale 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.

Camp Hale, occupying approximately 7,648 acres of land in north-central Colorado, is located approximately 120 miles west of Denver near the town of Leadville. Camp Hale was established in 1942 for use as a winter and mountain warfare training area for the Active Army's 10th Mountain Division during World War II. Various types of munitions training were conducted on the training area until it was deactivated in 1965. Camp Hale has served as a light maneuver and training area for the Colorado Army National Guard (COARNG) since 1987.

As part of the Operational Range Inventory Sustainment, an update to the Army Range Inventory Database-Geodatabase (ARID-GEO) was submitted to the U.S. Army Environmental Command. The ARID-GEO (2005) identified one operational range area encompassing 21,482 acres; however, a more current training area and operational range area footprint was provided by the COARNG. Therefore, the boundary of Camp Hale, as described in the COARNG's current memorandum of understanding (MOU) and special use permit (SUP), was used for the purposes of this Phase I Assessment. The MOU and SUP identify one operational range area encompassing 7,648 acres and no other than operational area.

A review of available records and background site data, as well as interviews with COARNG personnel, indicates that the COARNG has not used military munitions at Camp Hale. MCOC associated with the historical use of the training area by the Active Army from 1942 to 1965 is being addressed under the Formerly Used Defense Site (FUDS) program and, therefore, are not evaluated in this Phase I Assessment. The COARNG Camp Hale range is completely encircled by the boundaries of the FUDS. Because all potential sources of MCOC are being addressed under the FUDS program, the range at Camp Hale is categorized as Unlikely.

Unlikely – Five-Year Review

The range at Camp Hale, totaling 7,648 acres, is categorized as Unlikely. Ranges where, based upon a review of readily available information, there is sufficient evidence to show that there are no known releases or source-receptor interactions off-range that could present an unacceptable risk to human health or the environment are categorized as Unlikely. 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 Camp Hale

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale
Unlikely	One operational range; 7,648 acres	No current source - historical source being addressed under the Army's FUDS program.				Re-evaluate during the five-year review. All potential sources of MCOC are being addressed under the FUDS program.

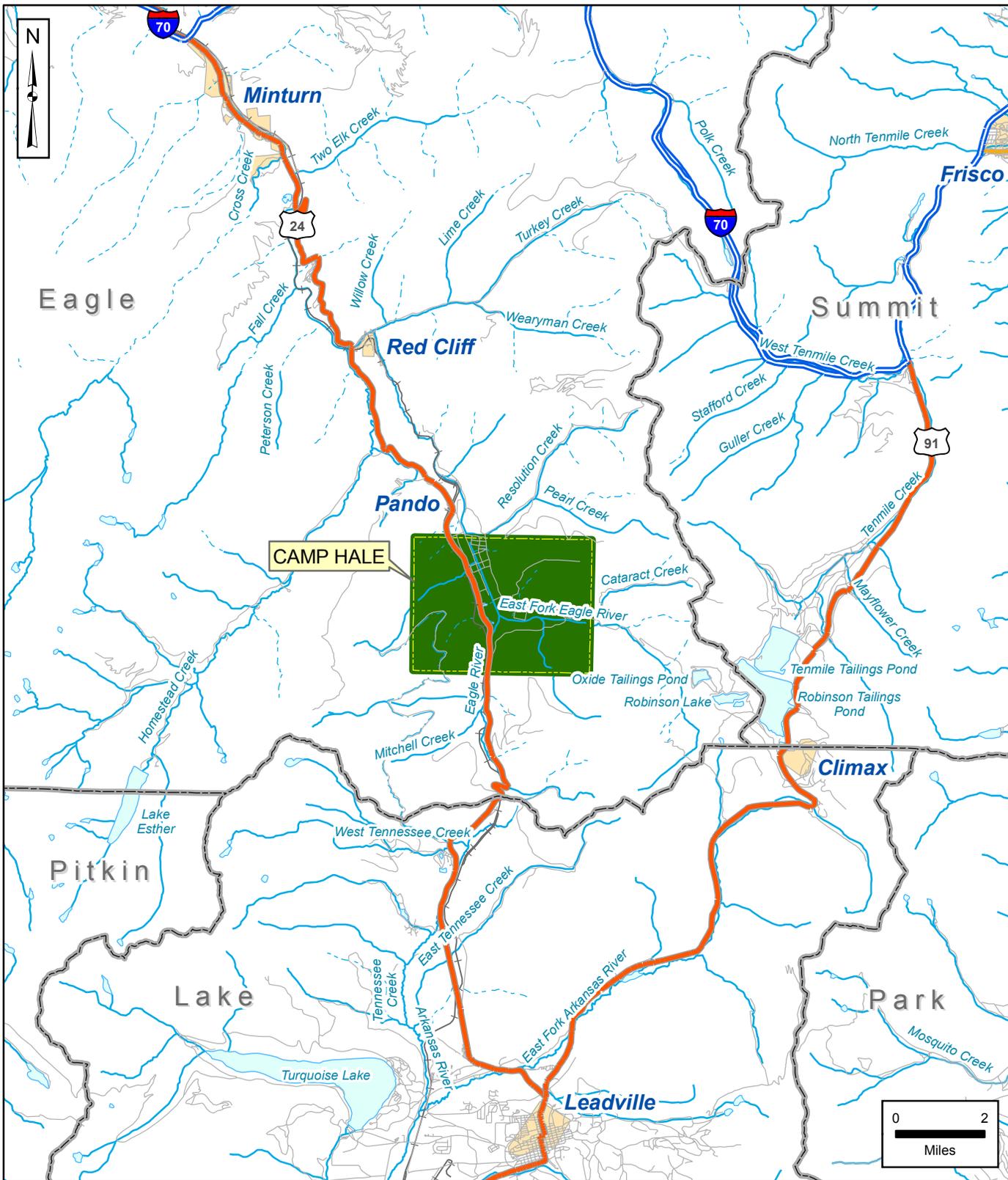
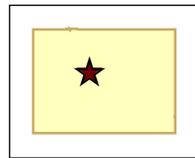
ABBREVIATIONS/ACRONYMS

ARID-GEO	Army Range Inventory Database-Geodatabase
bgs	Below Ground Surface
COARNG	Colorado Army National Guard
CSM	Conceptual Site Model
DoD	Department of Defense
DODI	Department of Defense Instruction
E	Ecological receptors identified. (This refers to range grouping; pathway designation always precedes E designation.)
EOD	Explosive Ordnance Disposal
FUDS	Formerly Used Defense Site
gpm	Gallons per Minute
GW	Groundwater pathway identified. (This refers to range grouping; M designation always precedes GW designation.)
H	Human receptors identified. (This refers to range grouping; pathway designation always precedes H designation.)
HUC	Hydrologic Unit Code
LS	Limited Source
M	Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)
MCOC	Munitions Constituents of Concern
MOU	Memorandum of Understanding
ORAP	Operational Range Assessment Program
PU	Pathway unlikely or incomplete. (This refers to range grouping; M designation always precedes PU designation.)
SUP	Special Use Permit
SW	Surface water pathway identified. (This refers to range grouping; M designation always precedes SW designation.)
TCRA	Time Critical Removal Action
U.S.	United States
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine
USEPA	United States Environmental Protection Agency
USFS	United States Department of Agriculture Forest Service
WWII	World War II
°F	Degrees Fahrenheit



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**Operational Range Assessment Program
Phase I Qualitative Assessment
Camp Hale, CO
Figure 1-1
General Camp Hale Location**



Installation
Installation Boundary
Operational Area

Hydrology
River/Stream (Perennial)
Stream (Intermittent)
Canal/Ditch
Water Body

Transportation
Interstate
Highway
Major Road
Local Road
Railroad

Administrative
County Boundary
Urbanized Area

Data Sources:
Camp Hale, 2008
ESRI, StreetMap USA, 2005

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