



FINAL

Operational Range Assessment Program Phase I Qualitative Assessment Report De Bremond Training Site, New Mexico

U.S. Army Operational Range Assessment Program
Qualitative Operational Range Assessments

Prepared for:

U.S. Army Environmental Command and
U.S. Army Corps of Engineers Baltimore District



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ABBREVIATIONS/ACRONYMS

AFB	Air Force Base
AOI	Area of Interest
ARID-GEO	Army Range Inventory Database-Geodatabase
ASR	Archives Search Report
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
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.)
ESRI	Environmental Systems Research Institute, Inc.
FUDS	Formerly Used Defense Site
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.)
LS	Limited Source
M	Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)
MCL	Maximum Contaminant Level
MCOC	Munitions Constituents of Concern
MEC	Munitions and Explosives of Concern
mg/L	Milligram per Liter
MMRP	Military Munitions Response Program
MRS	Munitions Response Site
NCO	Non-Commissioned Officer
NDAI	No Department of Defense Action Indicated
NG	Nitroglycerin
NMARNG	New Mexico Army National Guard
NRCS	Natural Resources Conservation Service
OHM	OHM Remediation Services Corporation
ORAP	Operational Range Assessment Program
Parsons	Parsons Corporation
PU	Pathway unlikely or incomplete. (This refers to range grouping; M designation always precedes PU designation.)
RFMSS	Range Facility Management Support System
RI/FS	Remedial Investigation / Feasibility Study
RIAC	Roswell Industrial Air Center
Shaw	Shaw Environmental, Inc.
SI	Site Inspection
SLRA	Screening Level Risk Assessment
SW	Surface water pathway identified. (This refers to range grouping; M designation always precedes SW designation.)
TechLaw	TechLaw, Inc.
TS	Training Site

U.S.	United States
USACE	United States Army Corps of Engineers
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine
USAEC	United States Army Environmental Command
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WRCC	Western Region Climate Center
°F	Degree Fahrenheit

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 De Bremond Training Site (TS) 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.

De Bremond TS occupies 1,397.03 acres of land located at the Roswell Industrial Air Center in the southern portion of Roswell, New Mexico. The installation consists of an operational range footprint of 1,342.46 acres, which includes one live-fire small arms range and four non-live-fire light maneuver training areas. Additionally, De Bremond TS has a non-operational use area of 54.57 acres (Army Range Inventory Database-Geodatabase [ARID-GEO], 2007). The total operational range area was derived from the Operational Use Area (total range area) acreage as reported in ARID-GEO (2007). The installation is used for weekend field training exercises for battery size and smaller units of the New Mexico Army National Guard. Training activities include the use of the small arms range and light training and maneuver areas.

Potential sources of MCOC identified at De Bremond TS derive from small caliber munitions used at the live-fire small arms range. In general, MCOC from the primary source area potentially impact the source medium of soil. Although small caliber munitions were used on the small arms range at De Bremond TS, the migration of on-range MCOC to off-range receptors is unlikely. There are no perennial surface water bodies or storm water washes located within the small arms range. Given the limited precipitation, high evaporation rates in the area, and surface water runoff being contained on-range by the side berms and downrange impact berms, the transport of MCOC is unlikely via a surface water pathway. Considering the depth to groundwater (136-153 feet below ground surface), artesian conditions of the underlying aquifers, pH of soil (7.4-8.4) not being conducive to lead migration, and the limited precipitation available for infiltration into subsurface soils, combined with the high evaporation rate in the area, transport of MCOC is unlikely via a groundwater pathway. Additionally, a geochemical evaluation performed in 2003 determined that concentrations of lead in groundwater were naturally occurring in areas down gradient of the small arms range. The five operational ranges at De Bremond TS are categorized as Unlikely.

Approximately 228.4 acres of the maneuver training area footprint at De Bremond TS is being investigated under the Military Munitions Response Program (MMRP). The MMRP will address potential migration of munitions constituents; therefore, this area is programmatically excluded from the ORAP.

Unlikely – Five-Year Review

All five ranges at De Bremond TS are categorized as Unlikely, totaling 1,114.06¹ acres. These ranges consist of one small arms range and four maneuver training areas for light forces. 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.

¹ The 228.4 acres of programmatically excluded area has been deducted from the total operational range area categorized as Unlikely.

Table ES-1: Summary of Findings and Conclusions for De Bremond Training Site

Category	Total Number of Ranges and Acreage	Source(s)	Pathway(s)	Human Receptors	Ecological Receptors	Conclusions and Rationale
Unlikely	1 operational range; 18.91 acres	Firing line, impact berm, and localized areas surrounding targets of the live-fire small arms range	None	Not evaluated (no migration pathway identified)		Re-evaluate during the five-year review. No migration pathway was identified.
	4 operational ranges; 1,095.15 acres*	No source—no military munitions use	Not evaluated (no source identified)		Re-evaluate during the five-year review. No source was identified.	
* The 228.4 acres of programmatically excluded area has been deducted from the operational range area categorized as Unlikely.						