

**FINAL  
OPERATIONAL RANGE ASSESSMENT PROGRAM  
PHASE I QUALITATIVE ASSESSMENT REPORT  
BELTON LOCAL TRAINING AREA  
BELTON, MISSOURI**

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Prepared for:

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## ABBREVIATIONS/ACRONYMS

|          |  |
|----------|--|
| AFB      | Air Force Base   |
| AOC      | Area of Concern  |
| ARID-GEO | Army Range Inventory Database-Geodatabase  |
| B        | Parameter detected in laboratory blank.  |
| bgs      | Below Ground Surface   |
| BRAC     | Base Realignment and Closure   |
| BTEX     | Benzene, Toluene, Ethylbenzene, Xylene   |
| CERCLA   | Comprehensive Environmental Response, Compensation, and Liability Act  |
| CSM      | Conceptual Site Model  |
| DoD      | Department of Defense  |
| DODI     | Department of Defense Instruction  |
| Dup      | Duplicate sample.  |
| E        | Ecological receptors identified. (This refers to range grouping; pathway designation always precedes E designation.) |
| EOD      | Explosive Ordnance Disposal  |
| GIS      | Geographic Information System  |
| 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.)      |
| HMX      | Cyclotetramethylenetetranitramine  |
| ID       | Identification Number  |
| LS       | Limited Source   |
| LTA      | Local Training Area  |
| M        | Munitions used. (This refers to range grouping; M designation always precedes applicable pathway.)                   |
| MCOC     | Munitions Constituents of Concern  |
| MDNR     | Missouri Department of Natural Resources   |
| mg/kg    | Milligram per Kilogram   |
| MRBCA    | Missouri Risk-Based Corrective Action  |
| NA       | Not Available  |
| ND       | Not Detected   |
| NFRAP    | No Further Response Action Planned   |
| NG       | Nitroglycerin  |
| ORAP     | Operational Range Assessment Program   |
| PA       | Preliminary Assessment   |
| PAH      | Polyaromatic Hydrocarbon   |
| PETN     | Pentaerythritoltetranitrate  |
| PU       | Pathway unlikely or incomplete. (This refers to range grouping; M designation always precedes PU designation.)       |
| RDX      | Cyclotrimethylenetrinitramine  |
| RI       | Remedial Investigation   |
| RRC      | Regional Readiness Command   |
| SDZ      | Surface Danger Zone  |
| SI       | Site Inspection  |

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|----------|--|
| SW       | Surface water pathway identified. (This refers to range grouping; M designation always precedes SW designation.) |
| TNT      | Trinitrotoluene  |
| 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   |
| USEPA    | United States Environmental Protection Agency  |
| UXO      | Unexploded Ordnance  |
| WQC      | Water Quality Criteria   |
| WP       | White Phosphorus   |
| °F       | Degrees Fahrenheit   |
| µg/L     | Microgram per Liter  |

## 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 Belton Local Training Area (LTA) 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.

Belton LTA is located in west-central Missouri within Cass County. The installation lies approximately 20 miles south of downtown Kansas City, Missouri, and just south of Belton, Missouri. The closest major roads near Belton LTA are U.S. Route 71 to the east, State Road 58 to the north, and State Road D to the west. Access to the installation is possible only via a gravel road that intersects Prospect Avenue (DAF, 2001). Belton LTA was formerly part of Richards-Gebaur Air Force Base (AFB) and used by the U.S. Air Force as a drop zone to practice troop and cargo drops from 1977 through the 1980s (DAF, 2001). Richards-Gebaur AFB was closed in 1994 under the Base Realignment and Closure Act of 1990. While part of Richards-Gebaur AFB, Belton LTA (now part of the 89<sup>th</sup> Regional Readiness Command [RRC]) was known as Belton Training Complex. The 89<sup>th</sup> RRC acquired the site from the Air Force in 1998 and uses Belton LTA as a training and maneuver area for land navigation and driver training.

According to ARID-GEO (2002), there are three operational ranges consisting of approximately 460 acres; however two of these ranges (approximately 278 acres) are privately owned lands consisting of a safety easement and a road easement. The total operational range area was derived from the Operational Use Area (total range area) acreage as reported in ARID-GEO (2002). The installation itself (i.e., the portion used for training and owned by the Army) occupies 183 acres and is octagonal in shape and surrounded by a fence. The fenced area is surrounded by a 277-acre so called "safety easement," also octagonal in shape, on property that is privately owned. The safety easement is contiguous with a road easement (approximately one acre) to the northwest that provides access through the safety easement to the installation gate. The safety easement was never part of any surface danger zone, and it does not and has never received any MCOC from direct firing. The two privately owned easement parcels are not part of the installation and are recommended for removal from the installation footprint at Belton LTA.

The few structures at Belton LTA were built in the mid-1950s and mid-1960s and include two large concrete bunkers for storing military munitions and a hazardous materials storage locker (Versar, 1998). The two concrete storage bunkers are considered other than operational area and occupy approximately 1.2 acres (ARID-GEO, 2002).

The single operational range at Belton LTA used for training is categorized as Unlikely because no potential human or ecological receptors were identified that could face an unacceptable risk due to potential MCOC exposure. The site currently is used as a training and maneuver area where small arms blanks are fired occasionally. Historically, the Air Force used the range as a drop zone, where pyrotechnics may have been used. They also conducted munitions disposal activities without permits.

**Unlikely – Five-Year Review**

The single range at Belton LTA, totaling 183 acres, is categorized as Unlikely. This range consists of a training and maneuver area that previously was used as a drop zone and for munitions disposal by the Air Force. 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 Belton LTA**

| Category | Total Number of Ranges and Acreage  | Source(s)   | Pathway(s)                     | Human Receptors | Ecological Receptors | Conclusions and Rationale  |
|----------|-------------------------------------|---|--------------------------------|-----------------|----------------------|--|
| Unlikely | One operational range;<br>183 acres | Historical areas where munitions disposal occurred using open burning and open detonation | East Creek and shallow aquifer |                 | None                 | Re-evaluate during the five-year review. No receptors were identified. |