

# WORK PLAN AND SAMPLING AND ANALYSIS PLAN ADDENDUM

## SOLID WASTE MANAGEMENT UNIT B-4



*Prepared for:*

## Camp Stanley Storage Activity Boerne, Texas

*Prepared for:*

**PARSONS**

Austin, Tx

August 2011

## **ADDENDUM TO WORK PLAN AND SAMPLING AND ANALYSIS PLAN WASTE MANAGEMENT INVESTIGATION FOR SWMU B-4**

Parsons is currently under contract to provide an investigation at solid waste management unit B-4 (SWMU B-4), Camp Stanley Storage Activity (CSSA), Boerne, Texas. This document serves as an addendum to the existing CSSA Work Plan (see CSSA Environmental Encyclopedia, Volume 1-1: Work Plan, February, 1996), and work plan addenda contained herein.

An investigation was performed to remove impacted media and waste located at SWMU B-4 (Figure 1). This Addendum describes additional activities to be conducted as part of this investigation. Work will be performed in accordance with requirements of the Resource Conservation and Recovery Act (RCRA) 3008(h) Order in effect for CSSA and in accordance with 30 Texas Administrative Code (TAC) §350, the Texas Risk Reduction Program (TRRP) administered by the Texas Commission on Environmental Quality (TCEQ).

Additional specific activities associated with this investigation are described in the RCRA Facility Investigations (RFI) Interim Measures Waste Management Plan (IM WMP), Parsons 2006 and the RFI IM/WMP Addendum for SWMU B-4, August, 2011.

### **1.0 SITE DESCRIPTION AND BACKGROUND**

#### **1.1 Description**

SWMU B-4 is located in the inner cantonment area northeast of the main compound near Well 16 and adjacent to area of concern 64 (AOC-64) (Figure 1). According to records, the area was used for the disposal of classified documents, trash, and ordnance-related materiel for an indeterminate period prior to the 1990s. The original site boundary, which encompassed a total of four trenches, covers approximately two acres (Figure 2). Additional background information on SWMU B-4 can be found in CSSA Environmental Encyclopedia, Volume 3-1.

#### **1.2 Previous Investigations**

Previous investigations at SWMU B-4 included two geophysical surveys (1995) that were used to delineate the trench locations; two soil gas surveys (1995); and surface and subsurface soil sampling for volatile organic compounds (VOCs), metals and explosives (2000).

Most recently in February, 2011, the four identified trenches were excavated. The excavated soils were sifted to remove debris and rock greater than 3-inches in diameter. A total of approximately 9,110 cubic yards (CYs) of soil was removed from the site for management at the east pasture berm.

## **2.0 INVESTIGATION PROCEDURES**

This investigation involves the management of the approximately 2,420 CY of media remaining at the site. The media is mixed and contains an assortment of numerous munitions debris (MD) items, possible munitions and explosives of concern (MEC) items, metal scrap, and other miscellaneous debris. Activities include screening of the excavated media; the sorting and management of the various debris items; the storage for disposal of any MEC items encountered during previous and current activities; and waste characterization and management of any resulting soils.

There are three different types of media piles present at the site: piles containing small arms ammunition (Small Arms Ammunition Piles); piles consisting of soil with some metal debris (Soil/Metal Piles); and pile consisting of mainly metal debris (Metal Debris Piles). The management of the small arms piles and the soil/metal piles is described in Section 2.1. The management of the metal debris piles is described in Section 2.1.

All work will be performed in Level D personal protective equipment and under the health and safety protocol outlined in the Health and Safety Plan (HASP) (*Health and Safety Plan*, December, 2010). Because MEC may be encountered during the investigation, all activities will be supervised by a UXO technician. The Senior Unexploded Ordnance Supervisor (SUXOS) will provide an ESS (see Section 2.4) that delineates munitions and explosives of concern (MEC) avoidance, identification, clearance, certification of the excavated media, and will be on site to address any MEC safety issues associated with the investigation. In addition, the following protocol will be followed during the debris management.

1. All media designated for management, disposal, or recycling will be certified free of MEC/Material Potentially Presenting an Explosive Hazard (MPPEH) by UXO technicians.
2. Any suspect MEC/MD encountered during the investigation will be placed in lockable connexes.
3. Gun and gun related items will be stored with like parts recovered from the Salado Creek Area for demilitarization in coordination with CSSA.
4. The resulting soil from the screening and sorting efforts described below will be characterized and managed according to Section 2.3.

### **2.1 Debris Management**

### **2.1.1 Screening Effort**

The screening operations will be conducted within the designated staging area (Figure 2). Both the Small Arms Ammunitions Piles and the Soil/Metal Piles will be processed using a screening plant to separate the debris from rock and soils.

The two Small Arms Ammunitions Piles (Figure 2) will be screened using a small screen (1/4 inch) to separate the assorted MD (cartridges, projectiles and cartridge cases) from the rocks and soil. The three piles categorized as Soil/Metal Piles consist of mostly soil with some metal debris. These piles will be screened using a 2 inch screen to separate metal and possible other debris from the soils.

### **2.1.2 Sorting Effort**

The two Metal Debris Piles (Figure 2) contain metal debris of all types and sizes, including machine gun bodies and at least one 3 inch practice Stokes Mortar. These piles will be sorted for management using an excavator, which will pick up a pile of metal using its “thumb” attachment and/or by scraping the pile with the bucket and pulling metal away from the pile for inspection.

## **2.2 MEC/MD Holding Area**

There are currently numerous suspect MEC items currently located within the designated MEC Holding Area including various models of practice hand grenades, 75mm projectiles, and 3.5 inch rocket warheads. These items will be placed in lockable containers along with any additional suspect MEC/MD items encountered during this effort.

## **2.3 Waste Management**

It is anticipated that approximately 2,420 CY of excavated materials will require some form of management. All contaminated soils will be managed in accordance with CSSA’s *RFI Interim Measures Waste Management Plan*, Parsons, 2006 and the *RFI/IM Addendum for SWMU B-4*, Parsons, 2011. Samples will be collected as described in the *CSSA SAP*, February, 1996. The necessary turnaround time (TAT) for the samples will be based on the current timeframe of the soil management and may range from expedited (3-day) to the standard TAT (21-day).

For previously excavated soils, waste characterization sampling will occur at a frequency of 1 sample per 500 CY. Impacted soil media suspected or known through laboratory analysis to contain potential contaminants of concern (COCs) greater than 20 times the regulated TCLP criteria (*i.e.*, 20 times rule) will undergo waste characterization sampling at a frequency of 1 sample per 200 CY. Waste characterization samples will be analyzed by the toxicity characteristic leaching procedure (TCLP) for RCRA 8 metals.

Any soil media identified above characteristic hazardous criteria (40 Code of Federal Regulations [CFR] 261.24) will be treated in accordance with the *RFI/Interim Measures Waste Management Plan* (i.e. with use of Apatite II, etc.) to non-hazardous levels. All impacted soil media that meets non-hazardous criteria, and CSSA standards for berm reuse (e.g. no pieces of metal greater than six inches, no materials identified as MEC items, etc.), will be transported to the East Pasture berm for reuse. Parsons will coordinate the transportation of soils to the East Pasture berm with CSSA personnel.

#### **2.4 Site-Specific Explosive Safety Submission**

An ESS annex for this site was developed in accordance with Department of Defense Instruction 6055.9F. The SUXOS will coordinate the ESS with CSSA's Safety and Environmental Office. The ESS outlines site-specific requirements and incorporates all health and safety protocol included in the *Health and Safety Plan*, December, 2010. All personnel entering the site will sign a daily entry log. Routine safety briefings will be conducted. In the event that MEC is encountered, the call down tree found in the ESS will be activated and all operations will halt until the SUXOS or the supporting Explosive Ordinance Disposal (EOD) authorizes the project to continue.

#### **2.5 Erosion Control Measures and Site Rehabilitation**

Erosion control will follow the *Storm Water Pollution Prevention Plan (SWPPP)* for *SWMU B-4*, August, 2011.

### **3.0 SCHEDULE**

Work on the investigation may occur at any time. The sifting operations and subsequent transport and disposal are proposed to take approximately 5 weeks to complete.



Aerial Photo Date: 2008



2,500 1,250 0 2,500 Feet

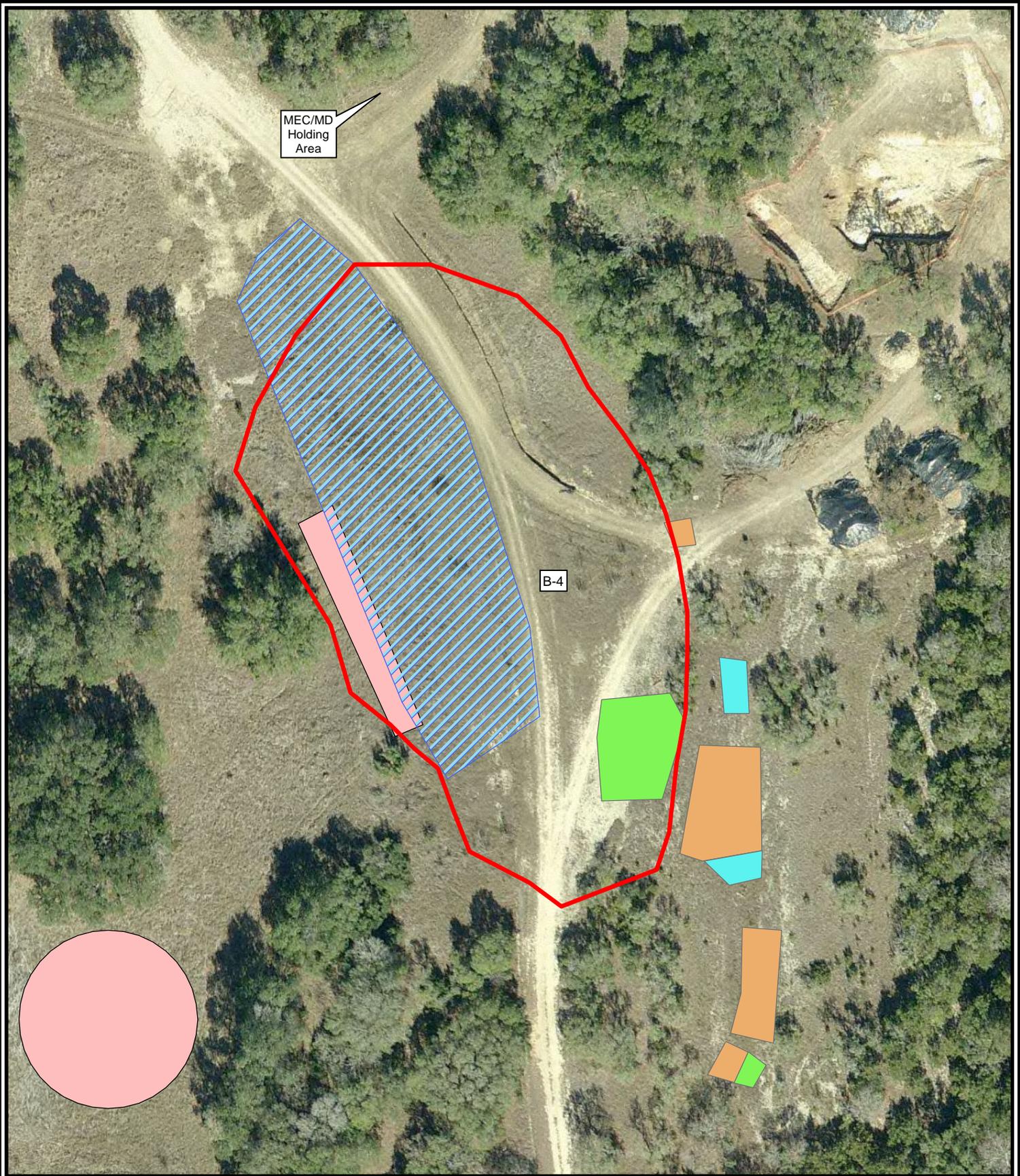


- CSSA Boundary
- SWMU B-4 Boundary

Figure 1

SWMU B-4  
 Site Location Map  
 Camp Stanley Storage Activity

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- Gun and Gun Related Holding Area
- Metal Debris Piles
- Small Arms Ammunition Piles
- Soil/Metal Piles
- Staging Area
- Site Boundary



Figure 2

SWMU B-4  
Site Map  
Camp Stanley Storage Activity

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