



December 20, 2007

SHAW-MC-CK10-1125  
Project No. 796887

Mr. Lee Coker  
U.S. Army Corps of Engineers, Mobile District  
Attn: EN-GE/Lee Coker  
109 St. Joseph Street  
Mobile, Alabama 36602

**Contract: DACA21-96-D-0018, Task Order CK10  
Fort McClellan, Alabama**

**Subject: XRF Soil Sampling at OA-03, Former Pistol Range**

Dear Mr. Coker:

Based upon the discussions during the November 14-15, 2007 BCT meeting, Shaw will perform x-ray fluorescence (XRF) soil sampling at OA-03, Former Pistol Range identified in the Fort McClellan Archives Search Report (ASR). The objective of this sampling is to collect sufficient data to determine the presence or absence of contamination to allow completion of a Department of Defense (DoD) Relative Risk Site Evaluation. Based on its indicated use as a pistol range, the primary contaminants of potential concern are metals (notably lead).

### **Site Description and History**

The ASR indicates that this pistol range appears on maps during the Inter-War period. Review of available aerial photographs clearly shows this range on the September 1940 aerial photograph. The ASR also notes that the range was abandoned by World War II and review of post-1940 aerial photographs confirms this to be the case. This range was not identified in the Environmental Baseline Survey (EBS) and no additional information could be found detailing actual site use or weapons fired at this range.

### **Proposed Field Activities**

Shaw proposes to collect 30 surface soil samples for XRF analysis at the locations shown on Figure 1. The samples will be collected at a depth of 0 to 6 inches below ground surface. Proposed sample locations were determined based on the 1940 aerial photograph and apparent west-to-east direction of fire into the hillside along the western border of the T-38 area of investigation. The sample locations shown on Figure 1 correspond to apparent firing lines or

investigation. The sample locations shown on Figure 1 correspond to apparent firing lines or target lines as well as potential impact areas farther to the east. The primary contaminant of concern is lead since lead accounts for the majority of small arms ammunition. Other metals results (e.g., antimony, copper, zinc) may also be recorded during this field sampling effort. Twenty percent of the XRF soil samples will be selected for confirmation analysis at an offsite analytical laboratory. The confirmation samples will be analyzed for target analyte list (TAL) metals using the U.S. Environmental Protection Agency's *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (SW-846) analytical methods. Table 1 summarizes the offsite confirmation sample designations and analytical parameters.

Sample locations will be surveyed using global positioning system (GPS) survey techniques following procedures specified in the SAP.

All XRF field screening and other soil sampling activities, including sample documentation, sample packaging/shipping, and chain of custody, will follow the procedures in the FTMC Installation-Wide Sampling and Analysis Plan (SAP) (IT, 2002). The SAP addresses the supplies and equipment to be used and procedures for field personnel. Health and safety requirements will conform to the FTMC Installation-Wide Safety and Health Plan (Appendix A of the SAP). Shaw will also conduct UXO avoidance procedures as outlined in the Installation-Wide Ordnance and Explosives Management Plan (Appendix E of the SAP).

At your request, I have distributed copies of this work plan as indicated below. Shaw is prepared to initiate field activities during the first week of January 2008. If you have any questions, or need further information, please contact me at (865) 694-7361.

Sincerely,

  
Stephen G. Moran, P.G.  
Project Manager

Enclosure

Distribution: Lisa Holstein, U.S. Army TF (6 copies; 2 CDs)  
Brandi Little, ADEM (2 copies, 1 CD)  
Doyle Brittain, EPA Region 4 (1 copy; 1 CD)  
Miki Schneider, JPA (1 copy; 1 CD)  
Michelle Beekman, Matrix Environmental (1 copy; 1 CD)

**Table 1**

**Confirmation Soil Sample Designations and Analytical Parameters  
OA-03, Former Pistol Range  
Fort McClellan, Alabama**

Sample Location	Sample Designation	Sample Depth (ft bgs)	QA/QC Samples	Analytical Parameters*
			MS/MSD	
OA3-XRF##	OA3-XRF##-CS-AF0001-REG	0-1		TAL Metals
OA3-XRF##	OA3-XRF##-CS-AF0002-REG	0-1		TAL Metals
OA3-XRF##	OA3-XRF##-CS-AF0003-REG	0-1		TAL Metals
OA3-XRF##	OA3-XRF##-CS-AF0004-REG	0-1	OA3-XRF##-CS-AF0004-MS/MSD	TAL Metals
OA3-XRF##	OA3-XRF##-CS-AF0005-REG	0-1		TAL Metals
OA3-XRF##	OA3-XRF##-CS-AF0006-REG	0-1		TAL Metals

\* Samples to be analyzed for target analyte list (TAL) metals using EPA SW-846 methods.

## - XRF location for offsite confirmation analysis to be selected at discretion of analyst in the field.

CS - Confirmation sample.

FD - Field duplicate.

ft bgs - Feet below ground surface.

MS/MSD - Matrix spike/matrix spike duplicate.

QA/QC - Quality assurance/quality control.

REG - Field sample.



# Figure 1 Site Map

OA-03 (Pistol Range)  
Fort McClellan, Alabama

Legend	
	Proposed XRF Sample Location
	OA-03 Boundary
	Current Roads

LOCATION	NORTHING	EASTING
1	1173622.204	673407.958
2	1173494.301	673453.482
3	1173355.558	673520.686
4	1173218.984	673570.546
5	1173067.234	673620.407
6	1172908.981	673681.107
7	1172781.078	673728.799
8	1172882.967	673778.660
9	1173036.884	673722.296
10	1173186.466	673657.260
11	1173318.705	673613.903
12	1173468.286	673557.539
13	1173602.693	673492.504
14	1173704.582	673544.532
15	1173559.336	673603.064
16	1173433.601	673652.925
17	1173270.603	673711.211
18	1173155.912	673764.630
19	1173006.330	673821.403
20	1172841.573	673886.030
21	1172900.310	673969.431
22	1173094.884	673853.430
23	1173147.731	673932.045
24	1173184.298	673841.527
25	1173401.083	673748.310
26	1173479.126	673815.513
27	1173502.972	673724.464
28	1173652.554	673681.107
29	1173726.046	673745.568
30	1173731.724	673659.163



Contract No. DACA21-96-D-0018

Photo Date: September, 1940