

**ITS REWORK DATA VERIFICATION SUMMARY REPORT**  
**for explosives samples collected from**  
**CAMP STANLEY STORAGE ACTIVITY**  
**BOERNE, TEXAS**

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**INTRODUCTION**

The following data validation summary report covers environmental soil samples collected from the Camp Stanley Storage Activity (ITS Rework) on March 16 and 17, 2000. The samples from the following laboratory Sample Delivery Groups (SDGs) were analyzed for explosives:

00C-0051-01

00C-0059-01

Field quality control samples collected were an equipment blank; matrix spike/matrix spike duplicates (MS/MSD); and field duplicates. All field quality control samples were analyzed for the same parameters as their associated samples. The equipment blank (RW-RL17-EB11) was analyzed and reported in SDG 00C-0059-02 and is associated with both SDGs (00C-0051-01 and 00C-0059-01).

All samples were collected by Parsons and analyzed for explosives compounds by DataChem Laboratories following procedures outlined in the AFCEE QAPP, version 3.0. Target analytes included: 1,3,5-trinitrobenzene, 1,3-dinitrobenzene, 2,4,6-trinitrotoluene, 2,4-dinitrotoluene, 2,6-dinitrotoluene, 2-nitrotoluene, 3-nitrotoluene, 4-nitrotoluene, HMX, nitrobenzene, RDX and tetryl.

**EVALUATION CRITERIA**

The data submitted by the laboratory has been reviewed and verified following the guidelines outlined in the AFCEE QAPP, version 3.0. Information reviewed in the data packages includes sample results; the summary of laboratory quality control results; case narrative; raw data; chain-of-custody forms, cooler or container information checklist and a nonconformance corrective action report. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the AFCEE QAPP were met.

**EXPLOSIVES SDG 00C-0051-01**

**General**

This SDG consisted of six (6) environmental soil samples. The samples were collected on March 16, 2000 and analyzed for explosives. There was one set of matrix spike/matrix spike duplicate samples, and two soil field duplicate samples analyzed with these samples that were from SDG 00C-0059-01.

The explosives analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8330. All samples for this SDG were analyzed following the procedures in the AFCEE QAPP. All samples collected were prepared and analyzed within the holding times required by the method.

**Accuracy**

Accuracy was evaluated using the %R results for the MS/MSD samples, LCS sample, and surrogate spikes. No sample was designated by the field team as an MS/MSD in this SDG. The laboratory reported the batch MS/MSD sample, RW-B5-SS01(0.5), which was from SDG 00C-0059-01.

The MS/MSD, LCS, and surrogate spike %Rs were within acceptance criteria.

### **Precision**

Precision was evaluated using the Relative Percent Difference (RPD) results obtained from MS/MSD values and the field duplicate values. No sample was designated by the field team as an MS/MSD in this SDG. The laboratory reported the batch MS/MSD sample, RW-B5-SS01(0.5), which was SDG 00C-0051-01. No samples were designated by the field team as field duplicate pairs in this SDG. There were two samples, RW-B5-SS01(0.5) and RW-B22-SS01(0.5), collected in duplicate and analyzed as field duplicates from SDG 00C-0059-01.

The laboratory reported the batch field duplicate pairs, All MS/MSD and field duplicate RPDs were within acceptance criteria.

### **Completeness**

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All results were considered usable. The completeness for this SDG is 100% compared to the minimum acceptance limit of 90%.

### **Representativeness**

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the chain-of-custody procedures to those described in the AFCEE QAPP;
- Comparing actual analytical procedures to those described in the AFCEE QAPP;
- Evaluating holding times; and
- Examining laboratory blanks for cross contamination of samples during analysis.

All samples in this SDG were analyzed following the chain-of-custody (COC) and analytical procedures described in the AFCEE QAPP. All samples were prepared and analyzed within the holding times required for the analysis. The average of three injections for each initial calibration standard was used to establish the linearity check.

- All initial and continuing calibration criteria were met.
- All second source calibration verification criteria were met.
- Second column confirmation was not required since all sample results were non-detect.
- All MDLs were < half the AFCEE approved reporting limit for all compounds except 2-nitrotoluene. No action was taken on the samples since the 2-nitrotoluene RL is less than the action level.

There was one method blank and one equipment blank associated with the explosive analyses in this SDG. Both blanks were free of any target compounds above the RL.

The equipment blank (RW-RL17-EB11) was analyzed in a different SDG (00C-0059-02). The 2,4,6-trinitrotoluene result in RW-RL17-EB11 was rejected based on the low recovery in the associated LCS and LCSD. No action was taken on the soil samples associated with RW-RL17-EB11 since all LCS recoveries associated with the soil samples were acceptable.

All data are considered usable and all flags are correct according to AFCEE QAPP, version 3.0.

## **EXPLOSIVES SDG 00C-0059-01**

### **General**

This SDG consisted of fifteen (15) samples, including eleven (11) environmental soil samples, two soil field duplicate samples, and one set of MS/MSD samples. The samples were collected on March 17, 2000 and analyzed for explosives.

The explosives analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8330. All samples for this SDG were analyzed following the procedures in the AFCEE QAPP. All samples collected were prepared and analyzed within the holding times required by the method.

### **Accuracy**

Accuracy was evaluated using the %R results for the MS/MSD samples, LCS sample, and surrogate spikes. Sample RW-B5-SS01(0.5) was used as the MS/MSD sample for this SDG.

The MS/MSD, LCS, and surrogate spike %Rs were within acceptance criteria.

### **Precision**

Precision was evaluated using the RPD results obtained from MS/MSD values and the field duplicate values. Sample RW-B5-SS01(0.5) was used as the MS/MSD sample for this SDG. There were two field duplicate pairs analyzed in this SDG. Samples RW-B5-SS01(0.5) and RW-B22-SS01(0.5) were collected in duplicate and analyzed as field duplicate samples in this SDG.

All MS/MSD and field duplicate RPDs were within acceptance criteria.

### **Completeness**

Completeness has been evaluated by comparing the total number of samples collected with the total number of samples with valid analytical data.

All results were considered usable. The completeness for this SDG is 100% compared to the minimum acceptance limit of 90%.

### **Representativeness**

Representativeness expresses the degree to which sample data accurately and precisely represents actual site conditions. Representativeness has been evaluated by:

- Comparing the chain-of-custody procedures to those described in the AFCEE QAPP;
- Comparing actual analytical procedures to those described in the AFCEE QAPP;
- Evaluating holding times; and
- Examining laboratory blanks for cross contamination of samples during analysis.

All samples in this SDG were analyzed following the COC and analytical procedures described in the AFCEE QAPP. All samples were prepared and analyzed within the holding times required for the analysis. The average of three injections for each initial calibration standard was used to establish the linearity check.

- All initial and continuing calibration criteria were met.
- All second source calibration verification criteria were met.
- Second column confirmation was not required since all sample results were non-detect.
- All MDLs were < half the AFCEE approved reporting limit for all compounds except 2-nitrotoluene. No action was taken on the samples since the 2-nitrotoluene RL is less than the action level.

There was one method blank and one equipment blank associated with the explosive analyses in this SDG. Both blanks were free of any target compounds above the RL.

The equipment blank (RW-RL17-EB11) was analyzed in a different SDG (00C-0059-02). The 2,4,6-Trinitrotoluene result in RW-RL17-EB11 was rejected based on the low recovery in the associated LCS and LCSD. No action was taken on the soil samples associated with RW-RL17-EB11 since all LCS recoveries associated with the soil samples were acceptable.

All data are considered usable and all flags are correct according to AFCEE QAPP, version 3.0.