

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

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INTRODUCTION

The following data validation summary report covers environmental soil samples and associated field quality control (QC) samples collected from the Camp Stanley CSSA (for ITS rework) on March 9, 2000. Samples in the following laboratory Sample Delivery Group (SDG) were analyzed for semivolatile organic compounds (SVOCs) and volatile organic compounds (VOCs):

32185

Field quality control samples collected were trip blanks, equipment blank, matrix spike/matrix spike duplicates (MS/MSD), and field duplicates. During the initiation of this project, it was determined that ambient blanks were not necessary due to the absence of a source at the site. The trip blanks were analyzed for volatile organics only. All other field quality control samples were analyzed for the same parameters as their associated samples.

All samples were collected by Parsons. All analyses were performed by APPL, Inc. following procedures outlined in the AFCEE QAPP, version 3.0.

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 include sample results; the summary of laboratory quality control results; case narrative; raw data; and chain-of-custody forms. The analyses and findings presented in this report are based on the reviewed information, and whether guidelines in the AFCEE QAPP were met.

SVOC SDG 32185

General

This SDG consisted of twenty (20) samples, including fifteen (15) confirmation environmental soil samples, two field duplicate soil samples, one set of matrix spike/matrix spike samples and one equipment blank sample. The samples were collected on March 9, 2000 and analyzed for semivolatile organic compounds (SVOCs).

SVOC analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8270C. All samples for this SDG were analyzed following the procedures outlined 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 samples; and surrogate spikes. Sample RW-B13-SB01 (0.5-1.0') was used as the MS/MSD sample for this SDG.

All MS/MSD %Rs were within acceptance criteria except for as follows:

Sample RW-B13-SB01 (0.5-1.0')

| Analyte | MS (%R) | MSD (%R) | QC (%) |
|-------------------|---------|----------|--------|
| 2,4-dinitrophenol | 14.1 | 13.5 | 25-161 |
| benzoic acid | 8.2 | 8.8 | 25-172 |

The 2,4-dinitrophenol and benzoic acid results in the samples from Site B13 with similar matrix as the MS/MSD sample were flagged "M" to indicate a matrix effect was present.

All LCS and surrogate %Rs were within acceptance criteria.

Precision

Precision was evaluated using the Relative Percent Difference (RPD) results obtained from MS/MSD results; and the field duplicate analyte values. Sample RW-B13-SB01 (0.5-1.0') was used as the MS/MSD sample for this SDG. Sample RW-B29-SS02 (0.5-1.0') FD was the field duplicate of sample RW-B29-SS02 (0.5-1.0'). Sample RW-B13-SB01 (0.5-1.0') FD was the field duplicate of sample RW-B13-SB01 (0.5-1.0').

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 100.0% 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 field and laboratory blanks for cross contamination of samples during sample collection or analysis.

All samples in this SDG were analyzed following chain-of-custody forms (COCs) and analytical procedures described in the AFCEE QAPP. All samples were prepared and analyzed within the holding time required for the analysis.

- All instrument performance check criteria was met.
- All initial calibration criteria were met.
- All continuing calibration criteria were met.
- All second source verification criteria were met.
- All internal standard criteria were met.

There were two method blanks and one equipment blank associated with the SVOC analyses in this SDG. The blanks were free of SVOCs above the reporting limit.

VOC SDG 32185

General

This SDG consisted of fourteen (14) samples, including eight (8) confirmation environmental soil samples, one field duplicate soil sample, one set of matrix spike/matrix spike duplicate samples, one equipment blank sample and two trip blank samples. The samples were collected on March 9, 2000 and analyzed for volatile organic compounds (VOCs).

VOC analyses were performed using United States Environmental Protection Agency (USEPA) SW846 Method 8260B. All samples for this SDG were analyzed following the procedures outlined 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 samples; and surrogate spikes. Sample RW-B13-SB01 (0.5-1.0') was used as the MS/MSD sample in this SDG.

All MS/MSD %Rs were within acceptance criteria except for as follows:

Sample RW-B13-SB01 (0.5-1.0')

| Analyte | MS (%R) | MSD (%R) | QC (%R) |
|---------------------------|---------|----------|---------|
| 1,1,2,2-tetrachloroethane | - | 138 | 64-135 |
| 1,2,3-trichlorobenzene | 32.1 | 33.9 | 65-147 |
| 1,2,3-trichloropropane | 145 | 155 | 65-135 |
| 1,2,4-trichlorobenzene | 37.5 | 41.1 | 65-145 |
| bromomethane | 57.1 | - | 62-135 |
| hexachlorobutadiene | 32.1 | 35.7 | 65-135 |
| naphthalene | 48.2 | 55.4 | 65-135 |

- The %R was compliant.

The results for the non-compliant analytes in samples from Site B13 with similar matrix as the MS/MSD sample were flagged "M" to indicate matrix interference was present.

All LCS %R were within acceptance criteria except for as follows:

LCS – Soil- 3/15/00

| Analyte | LCS (%R) | QC (%) |
|----------------|-----------------|---------------|
| chloromethane | 148 | 65-135 |

No action was needed since the chloromethane result was already flagged “R” in the associated samples due to non-compliant second source %D.

All surrogate %Rs were within acceptance criteria.

Precision

Precision was evaluated using the Relative Percent Difference (RPD) results obtained from MS/MSD results; and the field duplicate analyte values. Sample RW-B13-SB01 (0.5-1.0') was used as the MS/MSD sample in this SDG. Sample RW-B13-SB01 (0.5-1.0') FD was the field duplicate of sample RW-B13-SB01 (0.5-1.0').

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.

Five chloromethane results in the samples in this SDG were considered to be unusable and flagged “R” due to non-compliant second source calibration %Ds. The completeness for this SDG is 99.4% 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 field and laboratory blanks for cross contamination of samples during sample collection or analysis.

All samples in this SDG were analyzed following chain-of-custody forms (COCs) and analytical procedures described in the AFCEE QAPP. All samples were prepared and analyzed within the holding time required for the analysis.

- All instrument performance check criteria was met.
- All initial calibration criteria were met.
- All continuing calibration criteria were met.
- All second source verification criteria were met except for as follows:

| Date | Analyte | %D | Affected Samples |
|-------------|----------------|-----------|----------------------------|
| 3/15/00 | chloromethane | -48 | RW-B13-SB01 (0.5-1.0') |
| | | | RW-B13-SB01 (0.5-1.0) MS |
| | | | RW-B13-SB01 (0.5-1.0') MSD |
| | | | RW-B13-SB01 (0.5-1.0') DUP |
| | | | RW-B13-SB01 (11.5-12.0') |

The chloromethane result in the affected samples was considered to be unusable and flagged "R".

- All internal standard criteria were met.

There were four method blanks, one equipment blank and two trip blanks associated with the VOC analyses in this SDG. The method blanks and trip blanks were free of VOCs above the RL. The equipment blank, RW-RL17-EB01, contained 5.9 µg/l of chloroform. No action was needed since there was no chloroform in the associated samples.