



ICF International / Laboratory Data Consultants

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MEMORANDUM

TO: Lisa Hanusiak, Remedial Project Manager
Site Cleanup Section 3, SFD-7-3

THROUGH: Rose Fong, ESAT Task Order Manager (TOM)
Quality Assurance (QA) Program, MTS-3

FROM: Doug Lindelof, Data Review Task Manager
Region 9 Environmental Services Assistance Team (ESAT)

ESAT Contract No.: EP-W-06-041
Technical Direction Form No.: 00105050 Amendment 1

DATE: April 16, 2007

SUBJECT: Review of Analytical Data, Tier 3

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

Site:	Alhambra
Site Account No.:	09 ES LA01
CERCLIS ID No.:	CAD980818579
Case No.:	Not Provided
SDG No.:	06-1578
Laboratory:	Applied P & CH Laboratories (APCL)
Analysis:	1,2,3-Trichloropropane (1,2,3-TCP) and n-Nitrosodimethylamine (NDMA)
Samples:	4 Water Samples (see Case Summary)
Collection Date:	March 1, 2006
Reviewer:	Nanny Estrada, ESAT/Laboratory Data Consultants (LDC)

This report has been reviewed by the EPA TOM for the ESAT contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

SAMPLING ISSUES: Yes No

00105050-7788/05I+/06-1578-NT

Data Validation Report – Tier 3

Case No.: Not Provided
SDG No.: 06-1578
Site: Alhambra
Laboratory: APCL
Reviewer: Nanny Estrada, ESAT/LDC
Date: April 16, 2007

I. CASE SUMMARY

Sample Information

Samples: Y2DZ3, Y2DZ4, Y2DZ5, and Y2DZ6
Concentration and Matrix: Low Concentration Water
Analysis: 1,2,3-TCP (GC) and NDMA (GC/MS/MS CI)
SOW: EPA Methods EPA 504.1 and 1625 Modified
Collection Date: March 1, 2006
Sample Receipt Date: March 1, 2006
Extraction Date: March 2, 2006
Analysis Date: March 1 and 3, 2006

Field QC

Field Blanks (FB): Not Provided
Trip Blanks (TB): Not Provided
Equipment Blanks (EB): Y2DZ4
Background Samples (BG): Not Provided
Field Duplicates (D1): Y2DZ5 and Y2DZ6

Laboratory QC

Method Blanks & Associated Samples:
06G1296MB01: (1,2,3-TCP) All samples
06G1301MB01: (NDMA) All samples

Tables

1B: Data Qualifier Definitions for Organic Data Review

Sampling Issues

Detected results for 1,2,3-TCP and NDMA are qualified as nondetected and estimated (U,J) due to equipment blank contamination (see Comment B).

Additional Comments

The laboratory logged the samples in as Y2D23, Y2D24, Y2D25, and Y2D26.

For the NDMA analysis, decafluorotriphenylphosphine (DFTPP) was not analyzed. Since NDMA is analyzed by the chemical ionization (CI) technique, no adverse effect is expected.

This report was prepared in accordance with the following documents:

- X ESAT Region 9 Standard Operating Procedure 901, *Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Volatile and Semivolatile Data Packages*;
- X ESAT Region 9 Standard Operating Procedure 902, *Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Pesticide/PCB Data Packages*;
- X EPA Method 504.1, *1,2-Dibromoethane (EDB), 1,2-Dibromo-3-chloro-propane (DBCP), and 1,2,3-Trichloropropane (123TCP) in Water by Microextraction and Gas Chromatography*, Revision 1.1, 1995;
- X EPA Method 1625C, *Semivolatile Organic Compounds by Isotope dilution GC/MS*, June 1989; and
- X *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	<u>Parameter</u>	<u>Acceptable</u>	<u>Comment</u>
1.	Holding Time/Preservation	Yes	
2.	GC/MS and GC Performance	Yes	
3.	Initial Calibration	Yes	
4.	Continuing Calibration	Yes	
5.	Laboratory Blanks	Yes	
6.	Field Blanks	No	B
7.	Surrogate (Method 504.1)	Yes	
8.	Labeled Compound (Method 1625)	No	D
9.	Matrix Spike/Matrix Spike Duplicates	N/A	
10.	Laboratory Control Samples/Duplicates	Yes	
11.	Compound Identification	Yes	
12.	Compound Quantitation	No	A, C
13.	System Performance	Yes	
14.	Field Duplicate Sample Analysis	Yes	

N/A = Not Applicable

III. VALIDITY AND COMMENTS

A. The following detected result is qualified as estimated and should be flagged AJ@.

- X NDMA in sample Y2DZ4 (below the practical quantitation limit)

Results below the practical quantitation limits (PQLs) are considered to be qualitatively acceptable, but quantitatively unreliable, due to the uncertainty in analytical precision near the limit of detection.

- B. The following results are qualified as nondetected and estimated due to equipment blank contamination and should be flagged AU,J@.

X 1,2,3-TCP in samples Y2DZ5 and Y2DZ6

X NDMA in samples Y2DZ3, Y2DZ5, and Y2DZ6

1,2,3-TCP and NDMA were found in equipment blank Y2DZ4 at concentrations of 0.008 ug/L and 0.0008 ug/L, respectively. Results for the samples listed above are considered nondetected and estimated (U,J) and quantitation limits have been raised according to the blank qualification rules presented below.

No positive results are reported unless the concentration of the compound in the sample exceeds 5 times the amount in any associated blank. If the sample result is greater than the PQL, the quantitation limit is raised to the sample result and reported as nondetected. If the sample result is less than the PQL, the result is reported as nondetected at the PQL.

An equipment blank is clean water that has been collected as a sample using decontaminated sampling equipment. The intent of an equipment blank is to monitor for contamination introduced by the sampling activity, although any laboratory introduced contamination will also be present.

- C. The laboratory reported an NDMA sample practical quantitation limit (PQL) of 0.002 ug/L and an NDMA detected result of 0.002 ug/L for sample Y2DZ6. However, the signal to noise (S/N) ratio is only 5 and the area is only 673 for the concentration of 0.002 ug/L (see attached quantitation report, p. 1357 in data package). Furthermore, the area for 0.002 ug/L standard of the initial calibration is only 1074 (see attached quantitation report, p. 1364 in data package). In the reviewer's professional judgment, the sample PQL should be raised to 0.02 ug/L. Non-detected sample results should be reported as 0.02U.
- D. The laboratory did not spike the samples and method blanks with a labeled compound (i.e., surrogate; see Method 1625C Sections 6.8, 10.2.1.3, and 10.2.3.2 and Figure 4). Consequently, the extraction efficiency (surrogate recovery) for NDMA cannot be evaluated. The NDMA-d6 spiked by the laboratory was used as an internal standard.

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," October 1999.

- U The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.