



ICF Consulting / Laboratory Data Consultants

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MEMORANDUM

TO: Chris Lichens, Remedial Project Manager
Site Cleanup Section 4, SFD-7-4

THROUGH: Rose Fong, ESAT Task Order Project Officer (TOPO)
Quality Assurance (QA) Program, PMD-3

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

ESAT Contract No.: 68-W-01-028
Technical Direction Form No.: 00905072

DATE: February 27, 2006

SUBJECT: Review of Analytical Data, Tier 3

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

Site:	Omega Chem OU2 ACE
Site Account No.:	09 BC LA02
CERCLIS ID No.:	CAD042245001
Case No.:	Not Provided
SDG No.:	G4L100385
Laboratory:	STL Sacramento
Analysis:	N-Nitrosodimethylamine and 1,2,3-Trichloropropane
Samples:	5 Water Samples (see Case Summary)
Collection Date:	December 9, 2004
Reviewer:	Nanny Estrada, ESAT/Laboratory Data Consultants (LDC)

This report has been reviewed by the EPA TOPO 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

Data Validation Report

Case No.: Not Provided
SDG No.: G4L100385
Site: Omega Chem OU2 ACE
Laboratory: STL Sacramento
Reviewer: Nanny Estrada, ESAT/LDC
Date: February 27, 2006

I. CASE SUMMARY

Sample Information

Samples: OC2-MW8A-W-0-107, OC2-MW8B-W-0-108, OC2-MW8C-W-0-109, OC2-MW8D-W-0-110, and OC2-00-W-2-111
Concentration and Matrix: Low Concentration Water
Analysis: N-Nitrosodimethylamine (NDMA) and 1,2,3-Trichloropropane
Method: USEPA Method 1625, Semivolatile Organic Compounds by Isotope Dilution GCMS
Collection Date: December 9, 2004
Sample Receipt Date: December 10, 2004
Extraction Date: December 15 and 22, 2004
Analysis Date: December 17 and 29, 2004

Field QC

Field Blanks (FB): Not Provided
Equipment Blanks (EB): Not Provided
Background Samples (BG): Not Provided
Field Duplicates (D1): Not Provided

Laboratory QC

Method Blanks & Associated Samples:
G4L150000-473: All samples
G4L220000-371: NDMA for OC2-00-W-2-111

Tables

1A: Analytical Results with Qualifications
1B: Data Qualifier Definitions for Organic Data Review

Sampling Issues

None.

Additional Comments

Although NDMA was found in the laboratory method blanks (3.3 ng/L and 18 ng/L), no data are qualified since NDMA was not found in the samples. NDMA was detected above the reporting limit in the initial analysis of sample OC2-00-W-2-111. The sample was re-extracted outside of the 7-day extraction holding time specified in EPA Method 1625 (see Comment A). No NDMA was found above the reporting limit in the re-analysis of sample OC2-00-W-2-111RX.

Method specific quality control (QC) limits are used to evaluate the quality of data. For QC where the method does not specify limits, the laboratory QC limits are used.

This report was prepared in accordance with the following documents:

- X USEPA Office of Water, *Method 1625C: Semivolatile Organic Compounds by Isotope Dilution GCMS*, June 1989;
- X ESAT Region 9 Standard Operating Procedure 901, *Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Volatile and Semivolatile Data Packages*; 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	No	A
2.	GC/MS Tune/GC Performance	Yes	
3.	Initial Calibration	Yes	
4.	Continuing Calibration	Yes	
5.	Laboratory Blanks	Yes	
6.	Field Blanks	N/A	
7.	Matrix Spike/Matrix Spike Duplicates	N/A	
8.	Laboratory Control Samples/Duplicates	No	C
9.	Internal Standards/Surrogates	No	B
10.	Compound Identification	Yes	
11.	Compound Quantitation	Yes	
12.	System Performance	Yes	
13.	Field Duplicate Sample Analysis	N/A	

N/A = Not Applicable

III. VALIDITY AND COMMENTS

A. The result for the following analyte is qualified as estimated due to a holding time problem and is flagged "J" in Table 1A.

- N-Nitrosodimethylamine (NDMA) in sample OC2-00-W-2-111

The sample was collected on December 9, 2004 and extracted on December 22, 2004, which exceeded the 7-day method-specific holding time by 6 days. Since the results are nondetected, false negatives may exist.

- B. Results for the following analyte are qualified as estimated due to internal standard/surrogate recovery outside QC limits and are flagged AJ@ in Table 1A.

{NDMA-d6}

X NDMA in samples OC2-MW8A-W-0-107, OC2-MW8B-W-0-108, OC2-MW8C-W-0-109, and OC2-MW8D-W-0-110 and method blank G4L150000-473

Internal standard/surrogate recoveries fell below the QC limits as shown below.

<u>Sample</u>	<u>Internal Standard</u>	<u>% Recovery</u>	<u>QC Limits</u>
OC2-MW8A-W-0-107	NDMA-d6	21	25 - 150
OC2-MW8B-W-0-108	NDMA-d6	19	25 - 150
OC2-MW8C-W-0-109	NDMA-d6	16	25 - 150
OC2-MW8D-W-0-110	NDMA-d6	20	25 - 150
G4L150000-473	NDMA-d6	17	25 - 150

Since sample results are nondetected, false negatives may exist.

- C. The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) results for ongoing precision and recovery (OPR) samples G05QJ1AC-LCS and G05QJ1AD-LCSD did not meet the laboratory criteria for precision. Relative percent differences (RPDs) are presented below.

<u>Analyte</u>	<u>RPD</u>	<u>QC Limits</u> <u>RPD</u>
NDMA	28	0 - 20
1,2,3-TCP	23	0 - 20

Results obtained may indicate poor laboratory technique which may interfere with accurate analysis. The effect on the data quality is not known.

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.