Fort Ord OU CT Bio Pilot Study
Data Validation Reports
LDC# 11183

Carbon Tetrachloride

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: Fort Ord OU CT Bio Pilot Study

Collection Date: November 4, 2003

LDC Report Date: December 2, 2003

Matrix: Water

Parameters: Carbon Tetrachloride

Validation Level: EPA Level III

Laboratory: Curtis & Tompkins, Ltd.

Sample Delivery Group (SDG): 168620

Sample Identification

A
B
C
D
E

Introduction

This data review covers 5 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8260B for Carbon Tetrachloride.

The review follows a the USACE Environmental Data Quality Management Program Specifications, USACE Sacramento District (Version 1.08) and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (October 1999) as there are no current guidelines for the methods stated above.

A table summarizing all data qualification is provided at the end of this report. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Blank results are summarized in Section V.

Field duplicates are summarized in Section XVI.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

J+ Data are qualified as estimated, with a high bias likely to occur. False positives or false negatives are unlikely to have been reported.

J- Data are qualified as estimated, with a low bias likely to occur. False positives or false negatives are unlikely to have been reported.

J Data are qualified as estimated; it is not possible to assess the direction of the potential bias. False positives or false negatives are unlikely to have been reported.

R Data are qualified as rejected. There is a significant potential for the reporting of false negatives or false positives.

U Data are qualified as non-detected, because the analyte was observed in an associated laboratory or field blank.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC/MS Instrument Performance Check

Instrument performance was checked at 12 hour intervals.

All ion abundance requirements were met.

III. Initial Calibration

Initial calibration was performed using required standard concentrations.

Percent relative standard deviations (%RSD) were less than or equal to 30.0% for carbon tetrachloride.

Average relative response factors (RRF) for carbon tetrachloride were within method and validation criteria.

IV. Continuing Calibration

Continuing calibration was performed at the required frequencies.

Percent differences (%D) between the initial calibration RRF and the continuing calibration RRF were within the method criteria of less than or equal to 25.0% for carbon tetrachloride.

All of the continuing calibration RRF values were within method and validation criteria.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No carbon tetrachloride was found in the method blanks.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QC limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

Raw data were not reviewed for this SDG.

XII. Compound Quantitation and CRQLs

Raw data were not reviewed for this SDG.

XIII. Tentatively Identified Compounds (TICs)

Raw data were not reviewed for this SDG.

XIV. System Performance

Raw data were not reviewed for this SDG.

XV. Overall Assessment of Data

Data flags have been summarized at the end of the report.

XVI. Field Duplicates

No field duplicates were identified in this SDG.

XVII. Field Blanks

No field blanks were identified in this SDG.

Fort Ord OU CT Bio Pilot Study
Carbon Tetrachloride - Data Qualification Summary - SDG 168620

No Sample Data Qualified in this SDG

Fort Ord OU CT Bio Pilot Study
Carbon Tetrachloride - Laboratory Blank Data Qualification Summary - SDG 168620

No Sample Data Qualified in this SDG

LDC #: 11183A1

SDG #: 168620

Laboratory: Curtis & Tompkins, Ltd.

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 12/3/03

Page: 1 of 1

Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: GC/MS Carbon Tetrachloride (EPA SW 846 Method 8260B)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 11/4/03
II.	GC/MS Instrument performance check	A	
III.	Initial calibration	A	
IV.	Continuing calibration	A	
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	client specified.
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	N	
XII.	Compound quantitation/CRQLs	N	
XIII.	Tentitatively identified compounds (TICs)	N	
XIV.	System performance	N	
XV.	Overall assessment of data	A	
XVI.	Field duplicates	N	
XVII.	Field blanks	N	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:

MW H2O's

1	A	11		21		31	
2	B	12		22		32	
3	C	13		23		33	
4	D	14		24		34	
5	E	15		25		35	
6	85926MB	16		26		36	
7	85964MB	17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	