ICF International / 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 Manager (TOM) RF
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.: 00105041 Amendment 7

DATE: January 8, 2008

SUBJECT: Review of Analytical Data, Tier 2

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

Site:	Omega Chem OU2
Site Account No.:	09 BC LA02
CERCLIS ID No.:	CAD042245001
Case No.:	None
SDG Nos.:	05-3862, 05-3874, and 05-3884
Laboratory:	Applied Physics & Chemistry Laboratory
Analysis:	Hexavalent Chromium
Samples:	17 Groundwater Samples (see Case Summary)
Collection Dates:	August 30, 31, and September 1, 2005
Reviewer:	Stan Kott, ESAT/Laboratory Data Consultants

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: [X] Yes [ ] No

Data Validation Report

Case No.: None
SDG Nos.: 05-3862, 05-3874, and 05-3884
Site: Omega Chem OU2
Laboratory: Applied Physics & Chemistry Laboratory
Reviewer: Stan Kott, ESAT/LDC
Date: January 8, 2008

I. CASE SUMMARY

Sample Information

SDG 05-3862 Samples:	OC2-MW4C-W-0-133, OC2-MW4B-W-0-134, OC2-MW4A-W-0-135, OC2-MW6-W-0-137, OC2-MW6-W-1-138, OC2-MW5-W-5-139, and OC2-MW7-W-0-140
SDG 05-3874 Samples:	OC2-MW8D-W-0-141, OC2-MW8C-W-0-142, OC2-MW8B-W-0-143, OC2-MW8A-W-0-144, OC2-MW9B-W-0-145, and OC2-MW9A-W-0-146
SDG 05-3884 Samples:	OC2-MW1A-W-0-147, OC2-MW1B-W-0-148, OC2-MW3-W-0-150, and OC2-MW10-W-0-151
Concentration and Matrix:	Low Concentration Groundwater
Analysis:	Hexavalent Chromium
SOW:	EPA Method 218.6
Collection Date:	August 30, 31, and September 1, 2005
Sample Receipt Date:	August 30, 31, and September 1, 2005
Preparation Date:	August 30, 31, and September 1, 2005
Analysis Date:	August 30, 31, and September 1, 2005

Field QC

Field Blanks (FB):	Not Provided
Equipment Blanks (EB):	Not Provided
Background Samples (BG):	Not Provided
Field Duplicates (D1):	OC2-MW6-W-0-137 and OC2-MW6-W-1-138

Laboratory QC

Method Blanks (MB):	MB
Associated Samples:	Samples listed above
Matrix Spike (MS)/MS Duplicate (MSD):	OC2-MW5-W-5-139MS/MSD, OC2-MW8A-W-0-144MS/MSD, and OC2-MW3-W-0-150MS/MSD (See Additional Comments)
Duplicate:	MSDs listed above and Laboratory Control Sample Duplicate (LCSD)
Analysis:	Hexavalent Chromium

Analyte	Sample Preparation Date	Analysis Date
Hexavalent Chromium	August 30, 31, and September 1, 2005	August 30, 31, and September 1, 2005

Sampling Issues

The Chain of Custody (COC) record form did not specify a sample to be used for laboratory quality control (QC) for SDGs 05-3874 and 05-3884. As a result, the laboratory selected sample OC2-MW8A-W-0-144 from SDG 05-3874 and sample OC2-MW3-W-0-150 from SDG 05-3884 for QC analysis. No adverse effect on data quality is expected.

Additional Comments

As directed by the EPA TOM, a Tier 2 data review of all QC results and calibrations, minus calculation check, was performed. Table 1As are not requested.

For SDGs 05-3862, 05-3874, and 05-3884, raw data chromatograms for field samples and laboratory QC samples were not provided in the data package. For SDG 05-3884, only the raw data for sample OC2-MW3-W-0-150 and associated laboratory QC were found in SDG 05-3891. The data for all samples in all the SDGs, except sample OC2-MW3-W-0-150, were evaluated using the laboratory summary forms provided. The chromatogram results and analysis times could not be evaluated. The effect on data quality is not known.

This report was prepared in accordance with the following documents:

- Region 9 Standard Operating Procedure 906, *Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Inorganic Data Packages*;
- *Methods For The Determination Of Metals In Environmental Samples*, EPA-600/4-91-010, June 1991; and
- *USEPA Method 218.6, Determination of Dissolved Hexavalent Chromium in Drinking Water, Groundwater, and Industrial Wastewater Effluents by Ion Chromatography*, Revision 3.3, May 1994.

II. VALIDATION SUMMARY

The data were evaluated based on the following parameters:

	Parameter	Acceptable	Comment
1.	Data Completeness	Yes	
2.	Sample Preservation and Holding Times	Yes	
3.	Calibration	Yes	
	a. Initial		
	b. Initial and Continuing Calibration Verification		
4.	Blanks	Yes	
5.	Laboratory Control Sample (LCS)	Yes	
6.	Duplicate Sample Analysis	Yes	
7.	Matrix Spike Sample Analysis	Yes	
8.	Field Duplicate Sample Analysis	Yes	
9.	Sample Quantitation	Yes	
10.	Overall Assessment	Yes	

N/A = Not Applicable

III. OVERALL ASSESSMENT OF DATA

All of the method requirements specified in Method 218.6 have been met.
Reported results for hexavalent chromium in all of the samples were appropriately and correctly calculated.

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR INORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared in accordance with the document *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, October 2004.

U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.