



ICF International / Laboratory Data Consultants

Environmental Services Assistance Team, Region 9
1337 South 46th Street, Building 201, Richmond, CA 94804-4698
Phone: (510) 412-2300 Fax: (510) 412-2304

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, PMD-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 11, 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.:	None Provided
SDG No.:	06F050
Laboratory:	EMAX Laboratories, Inc. (EMAX)
Analysis:	Hexavalent Chromium
Samples:	3 Groundwater Samples (see Case Summary)
Collection Dates:	June 5, 2006
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: Yes No

Data Validation Report

Case No.: None Provided
SDG No.: 06F050
Site: Alhambra
Laboratory: EMAX Laboratories, Inc. (EMAX)
Reviewer: Stan Kott, ESAT/LDC
Date: April 11, 2007

I. CASE SUMMARY

Sample Information

Samples: MY2HN7, MY2HN8, and MY2HN9
Concentration and Matrix: Low Concentration Groundwater
Analysis: Hexavalent Chromium
SOW: EPA Method 218.6
Collection Date: June 5, 2006
Sample Receipt Date: June 5, 2006
Preparation Date: June 5, 2006
Analysis Date: June 6, 2006

Field QC

Field Blanks (FB): Not Provided
Equipment Blanks (EB): MY2HN9
Background Samples (BG): Not Provided
Field Duplicates (D1): Not Provided

Laboratory QC

Method Blanks: MBLK
Associated Samples: Samples listed above
Matrix Spike: MY2HN9MS
Duplicate: MY2HN9D

Analysis: Hexavalent Chromium

<u>Analyte</u>	<u>Sample Preparation Date</u>	<u>Analysis Date</u>
Hexavalent Chromium	June 5, 2006	June 6, 2006

Sampling Issues

The Chain of Custody (COC) record form did not specify a sample to be used for laboratory quality control (QC). As a result, the laboratory selected sample MY2HN9, which is an equipment blank and not representative of the environmental sample matrix. The effect on data quality is not known.

Additional Comments

As directed by the EPA TOPO, a Tier 3 data review was performed. A Table 1A is not requested.

Method 218.6 specifies a hexavalent chromium spike concentration of 100 µg/L for the laboratory control sample (LCS) and matrix spike (MS) samples. The laboratory used a 2.0 µg/L spike concentration for the LCS and a 1.0 µg/L spike concentration for the MS sample. Since the instrument calibration range is 0 µg/L to 5.0 µg/L and LCS and MS recoveries meet laboratory control limits, no adverse effect on data quality is expected.

The method specifies the sample pH be adjusted to 9.0 to 9.5 prior to analysis; however, there is no method specific requirement to document the sample pH. The pH of the samples prior to analysis could not be evaluated. The effect on data quality is not known.

This report was prepared in accordance with the following documents:

- X Region 9 Standard Operating Procedure 906, *Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Inorganic Data Packages*;
- X *Methods For The Determination Of Metals In Environmental Samples*, EPA-600/4-91-010, June 1991; and
- X *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:

	<u>Parameter</u>	<u>Acceptable</u>	<u>Comment</u>
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	N/A	
9.	Sample Quantitation	Yes	
10.	Overall Assessment	Yes	

N/A = Not Applicable

III. OVERALL ASSESSMENT OF DATA

All of the method requirements specified in the EPA 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.

