**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, 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.: 00105123

DATE: April 9, 2008

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 QB01 |
| CERCLIS ID No.: | CAD980818579 |
| Case No.: | None |
| SDG No.: | 07H274 |
| Laboratory: | EMAX Laboratories, Inc. (EMAX) |
| Analysis: | Hexavalent Chromium |
| Samples: | 2 Groundwater Samples (see Case Summary) |
| Collection Dates: | August 20, 2007 |
| Reviewer: | Santiago Lee, 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: [X] Yes [ ] No

Data Validation Report

Case No.: None
SDG No.: 07H274
Site: Alhambra
Laboratory: EMAX Laboratories, Inc. (EMAX)
Reviewer: Santiago Lee, ESAT/LDC
Date: April 9, 2008

## I. CASE SUMMARY

Sample Information

| | |
|---|---|
| Samples: | MY3ES9 and MY3ET0 |
| Concentration and Matrix: | Low Concentration Groundwater |
| Analysis: | Hexavalent Chromium |
| SOW: | EPA Method 218.6 |
| Collection Date: | August 20, 2007 |
| Sample Receipt Date: | August 20, 2007 |
| Preparation Date: | August 20, 2007 |
| Analysis Date: | August 20, 2007 |

Field QC

| | |
|---|---|
| Field Blanks (FB): | Not Provided |
| Equipment Blanks (EB): | MT3ET0 |
| Background Samples (BG): | Not Provided |
| Field Duplicates (D1): | Not Provided |

Laboratory QC

| | |
|---|---|
| Method Blanks (MB): | MBLK1W |
| Associated Samples: | Samples listed above |
| Matrix Spike (MS): | Not Analyzed |
| Duplicates: | LCS and LCS Duplicate (LCD) |

Analysis: Hexavalent Chromium

| Analyte | Sample Preparation Date | Analysis Date |
|---|---|---|
| Hexavalent Chromium | August 20, 2007 | August 20, 2007 |

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, no matrix-specific QC was performed. The effect on data quality is not known.

Additional Comments

**As directed by the EPA TOM, a Tier 3 data review was performed.**

Since field duplicate, matrix duplicate, and matrix spike samples were not analyzed, matrix-specific accuracy and precision could not be evaluated.

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:

- 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 | N/A | |
| 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 USEPA Method 218.6 and available for evaluation have been met. Reported results for hexavalent chromium in all of the samples were appropriate 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. |