

0071634

SAF-RC-048
100 Area and 300 Area Component of the
RCBRA Water Sampling
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

Jill Thomson

H4-22

KW 11/1/06
INITIAL/DATE

COMMENTS:

RECEIVED
NOV 14 2006

EDMC

SDG EAS091806

SAF-RC-048

Rad only

Chem only

Rad & Chem

Complete

Partial

Waste Site: HEXCHROM Results for Samples
J135Y0, J135Y1, J13DT0, J13DT1



Report of Analysis

For: Environmental Assessment Services
SDG: EAS091806

Attn: Brett Tiller

Project Manager: [Signature]

20-Sep-06

Client Sample ID: J13D70

Lab Sample ID: 07181-01

Site:

Collection Date: 9/17/2006 12:45 PM

| Analyte | Sample Result | Method | Detection Limit |
|----------------------|---------------|------------|-----------------|
| Chromium, hexavalent | 24 µg/L | SM 3500-Cr | 3 µg/L |

Client Sample ID: J13D71

Lab Sample ID: 07181-02

Site:

Collection Date: 9/17/2006 11:00 AM

| Analyte | Sample Result | Method | Detection Limit |
|----------------------|---------------|------------|-----------------|
| Chromium, hexavalent | < 3 µg/L | SM 3500-Cr | 3 µg/L |

NA = not analyzed



350 Hills Street, Suite 107
Richland, WA 99354-5511
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**ENERGY
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SDG: EAS091806

Concentration Results

Date: 9/18/06 Time: 10:21:57 AM
 Instrument: Perkin-Elmer Lambda 2 Serial No: 5939
 Method: HEXCHROM
 Scan mode: Single wavelength
 Wavelength: UV/VIS: 2.00 nm
 Wavelength correction: (0.00 0.00)
 Output File: Cr091806.RCO
 Zero performed: 9/18/06 10:18:22 AM
 Wavelengths:

| Wavelength(s) | Sample ID | Ordinate | Factor | Concentration | Sample Info | |
|---------------|-----------|----------|--------|---------------|-------------|----------------|
| 0.0 | 0.0 | PrepBk | 0.0050 | 1.0000 | -2.437 ug/L | Prep Blank |
| 0.0 | 0.0 | LCS | 0.0847 | 1.0000 | 98.283 ug/L | 100 ug/L Check |
| 0.0 | 0.0 | SSJ13D10 | 0.1071 | 1.0000 | 126.58 ug/L | 102% |
| 0.0 | 0.0 | REP10 | 0.0260 | 1.0000 | 24.132 ug/L | 02-27-06 1430 |
| 0.0 | 0.0 | J13D10 | 0.0252 | 1.0000 | 23.122 ug/L | |

Cr#1
 ST

J13D10 ICG (E)

centration Results

pe: 9/18/06 Time: 11:02:40 AM
Instrument: Perkin-Elmer Lambda 2 Serial No: 5939
Method: HEXCHROM
Scan mode: Single Wavelength
Wavelength: UV/VIS: 2.00 nm
Spectral Line: No correction (0.00 0.00)
Output Filename: HC091806.RCO
Zero performed: 9/18/06 11:02:18 AM
Wavelengths:

| Wavelength(s) | Sample ID | Ordinate | Factor | Concentration | Sample Info |
|---------------|-------------------|----------|--------|---------------|-------------|
| 0.0 | 0.0 J13DTD ICG | 0.0228 | 1.0000 | 20.078 ug/L | |

COPY

Concentration Results

Date: 9/18/06 Time: 12:24:02 PM
 Instrument: Perkin-Elmer Lambda 2 Serial No: 5939
 Method: HEXCHROM
 Scan mode: Single Wavelength
 Wavelength: UV/VIS: 2.00 nm
 Baseline: No correction (0.00 0.00)
 Output Filename: J13DT1.RCO
 Baseline zero performed: 9/18/06 12:23:46 PM
 Analyst:

| Wavelength(s) | Sample ID | Ordinate | Factor | Concentration | Sample Info |
|---------------|------------|----------|---------------|---------------|-------------|
| 0.0 | 0.0 J13DT1 | 0.0121 | <u>2.0000</u> | 13.284 ug/L | |

↑
Sr5

centration Results

9/18/06 Time: 10:28:43 AM
Instrument: Perkin-Elmer Lambda 2 Serial No: 5939
Method: HEXCHROM
Scan mode: Single Wavelength
Wavelength: UV/VIS: 2.00 nm
Slope: No correction (0.00 0.00)
Output Filename: Cr091806.RCO
Baseline performed: 9/18/06 10:28:14 AM
Display:

| Wavelength(s) | Sample ID | Ordinate | Factor | Concentration | Sample Info |
|---------------|-----------|----------|--------|---------------|-------------|
| 0.0 | 0.0 | J13DT1 | 0.0052 | 1.0000 | -2.171 ug/L |

506 EA5091806

IBRATION

e: 9/18/06 Time: 10:18:22 AM
 Instrument: Perkin-Elmer Lambda 2 Serial No: 5939
 Method: HEXCHROM
 Scan mode: Single wavelength
 Wavelength: No correction (0.00 0.00)
 Wavelength list:

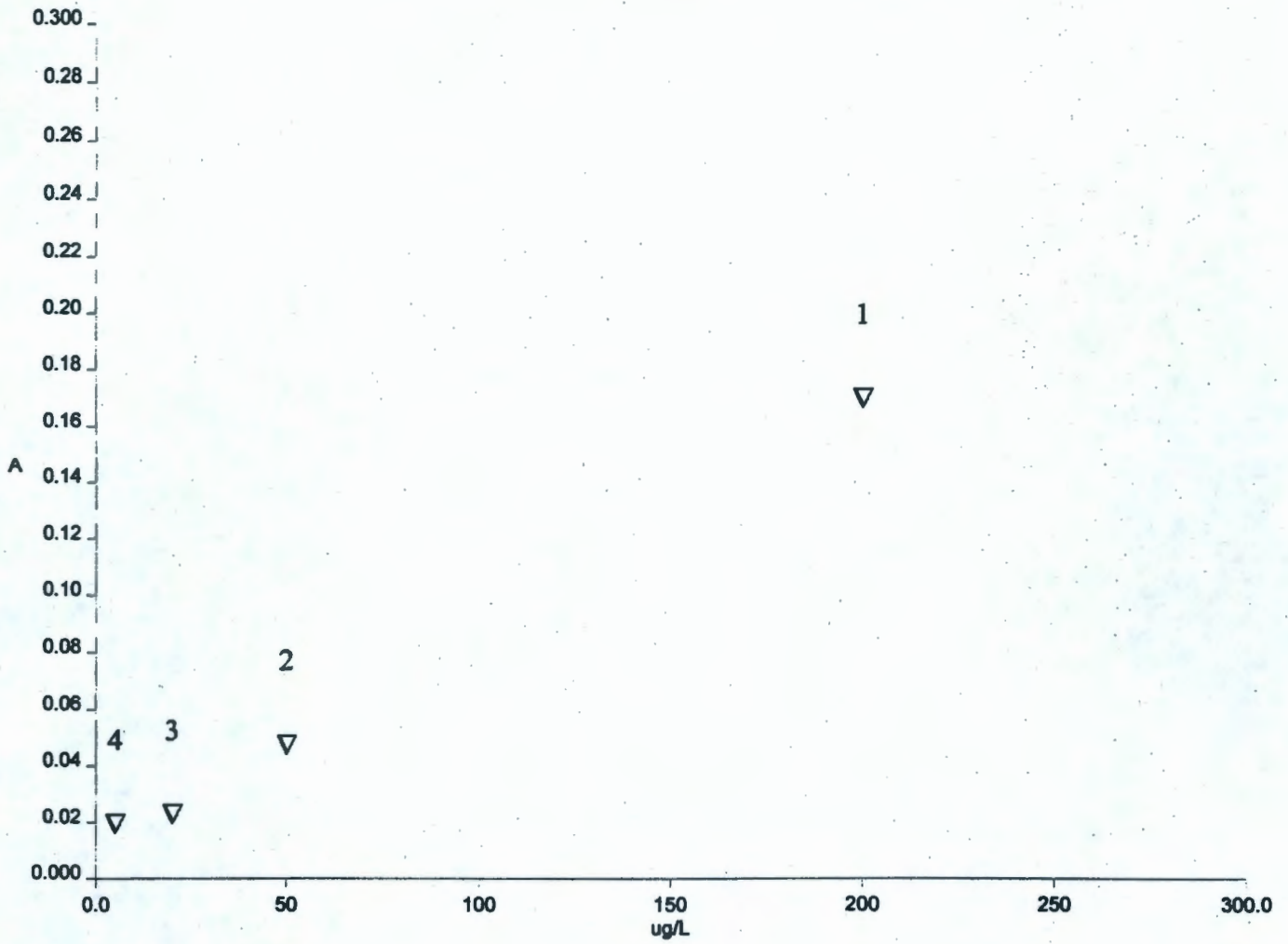
| Wavelength(s) | Sample ID | Concentration | Ord. value | Comment |
|---------------|-----------|-------------------|------------|--------------|
| 0.0 | 0.0 | A.A01 200.00 ug/L | 0.1661 | 200 ug/L std |
| 0.0 | 0.0 | B.A02 50.000 ug/L | 0.0439 | 50 ug/L std |
| 0.0 | 0.0 | C.A03 20.000 ug/L | 0.0193 | 20 ug/L std |
| 0.0 | 0.0 | D.A04 5.0000 ug/L | 0.0160 | 5 ug/L std |

Equation: $y = 6.879906e-03 + 7.918923e-04 * x$

Standard error: 0.004761

Correlation coefficient: 0.998499

Calibration Curve



Spectrum Name: HEXCHROM

Description: $y = 6.879906e-03 + 7.918923e-04 * x$

Comments: RE = 4.760577e-03, CC = 9.984987e-01

Date Created: Mon Sep 18 10:20:54 2006



Report of Analysis

For: Environmental Assessment Services
SDG ~~500~~ 90506

Attn: Brett Tiller

Project Manager: T. C.

06-Sep-06

Client Sample ID: J135Y0

Lab Sample ID: 07155 07155-01

Site:

Collection Date: 9/5/2006 11:20 AM

| Analyte | Sample Result | Method | Detection Limit | Analysis Date |
|----------------------|---------------|------------|-----------------|---------------|
| Chromium, hexavalent | < 3 mg/L | SM 3500-Cr | 3 mg/L | 9/5/2006 |

Client Sample ID: J135Y1

Lab Sample ID: 07155 07155-02

Site:

Collection Date: 9/5/2006 10:15 AM

| Analyte | Sample Result | Method | Detection Limit | Analysis Date |
|----------------------|---------------|------------|-----------------|---------------|
| Chromium, hexavalent | < 3 mg/L | SM 3500-Cr | 3 mg/L | 9/5/2006 |

J = Reported value is an estimate because concentration is less than reporting limit

ND = not detected

centration Results

Date: 9/5/06 Time: 3:17:51 PM
 Instrument: Perkin-Elmer Lambda 2 Serial No: 5939
 Method: HEXCHROM
 Acquisition mode: Single Wavelength
 Wavelength: UV/VIS: 2.00 nm
 Correction: No correction (0.00 0.00)
 Output File: Cr090506.RCO
 Acquisition performed: 9/5/06 3:17:40 PM
 Analyst:

| Wavelength(s) | Sample ID | Ordinate | Factor | Concentration | Sample Info |
|---------------|--------------------------|----------|--------|---------------|-----------------|
| 0.0 | 0.0 J13 ⁵ Y0F | -0.012 | 1.0000 | -2.518* ug/L | FILTERED SAMPLE |

This is using the same
 sample that read 11.962
 filtering with a 0.45um
 syringe filter

Concentration Results

Date: 9/5/06 Time: 3:08:03 PM
 Instrument: Perkin-Elmer Lambda 2 Serial No: 5939
 Method: HEXCHROM
 Ordinate mode: Single wavelength
 Wavelength: UV/VIS: 2.00 nm
 Baseline: No correction (0.00 0.00)
 Result Filename: Cr090506.RCO
 Wavelength zero performed: 9/5/06 3:05:20 PM
 Analyst:

| Wavelength(s) | Sample ID | Ordinate | Factor | Concentration | Sample Info | |
|---------------|-----------|------------|--------|---------------|-------------|----------------------|
| 140.0 | 0.0 | PrepBk | -0.009 | 1.0000 | 1.1180 ug/L | Prep Blank |
| 140.0 | 0.0 | LCS | 0.0700 | 1.0000 | 104.06 ug/L | 100 ug/L Check |
| 140.0 | 0.0 | J135Y1S | 0.0731 | 1.0000 | 108.03 ug/L | 100 ug/L SPIKE |
| 140.0 | 0.0 | J135Y0R | -0.001 | 1.0000 | 12.220 ug/L | REP Turbid |
| 140.0 | 0.0 | J135Y0 | -0.001 | 1.0000 | 11.962 ug/L | 09-05-06 1120 Turbid |
| 140.0 | 0.0 | J135Y0 DFS | -0.009 | 51.0000 | 1.5048 ug/L | 09-05-06 1120 |
| 140.0 | 0.0 | J135YI | -0.009 | 1.0000 | 1.2856 ug/L | 09-05-06 1015 |

Filtered J135Y0

Concentration Results

Date: 9/5/06 Time: 3:17:51 PM
Instrument: Perkin-Elmer Lambda 2 Serial No: 5939
Method: HEXCHROM
Ordinate mode: Single Wavelength
Wavelength: UV/VIS: 2.00 nm
Baseline: No correction (0.00 0.00)
Result Filename: Cr090506.RCO
Zero performed: 9/5/06 3:17:40 PM
Analyst:

| Wavelength(s) | Sample ID | Ordinate | Factor | Concentration | Sample Info |
|---------------|-------------|----------|--------|---------------|-----------------|
| 40.0 | 0.0 J133Y0F | -0.012 | 1.0000 | -2.518* ug/L | FILTERED SAMPLE |

*This is using the same
sample that read 11.962
filtering with a 0.45um
syringe filter*

ALIBRATION

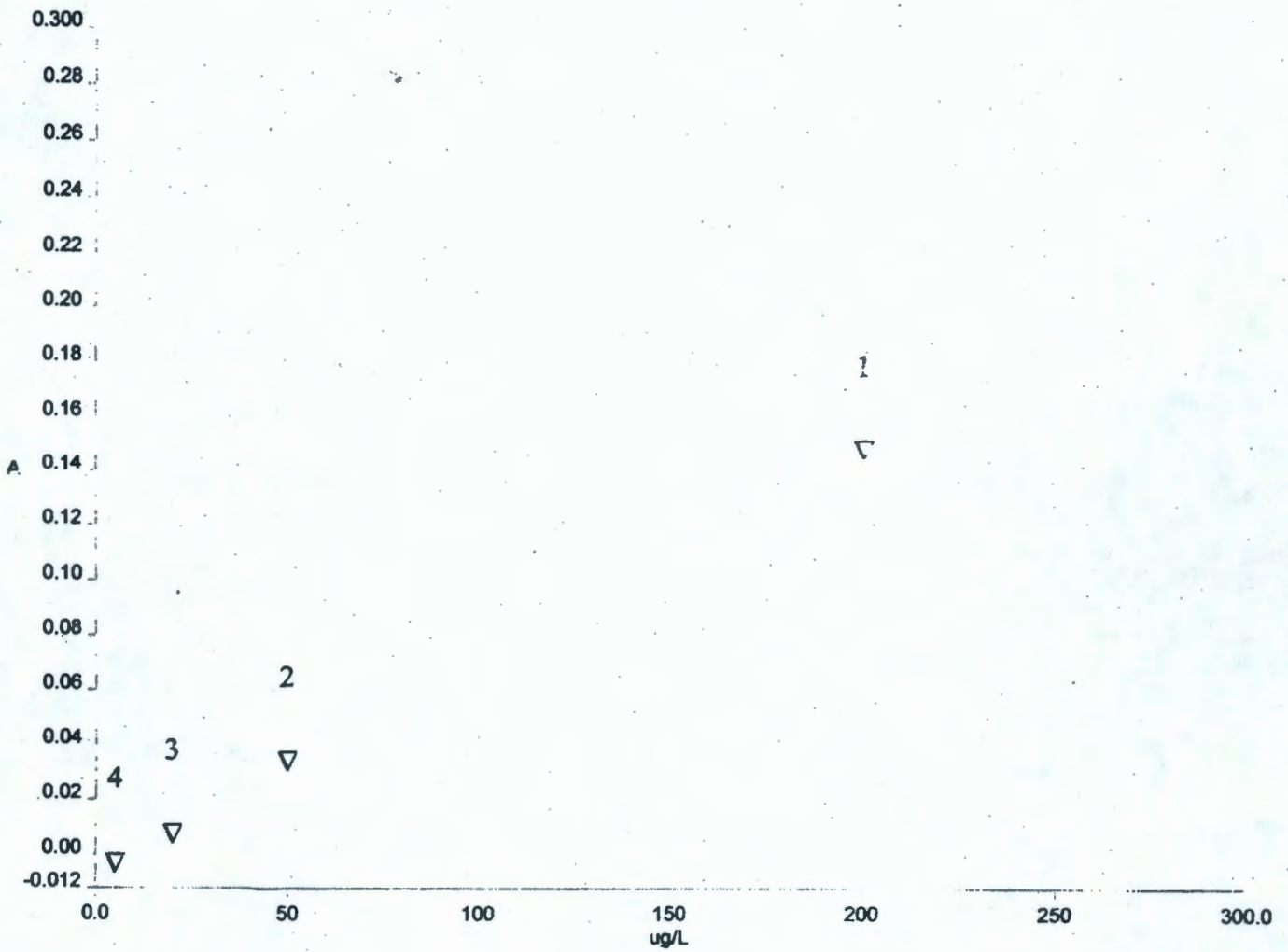
Date: 9/5/06 Time: 3:05:21 PM
Instrument: Perkin-Elmer Lambda 2 Serial No: 5939
Method: HEXCHROM
Coordinate mode: Single wavelength
Baseline: No correction (0.00 0.00)
Analyst:

| Wavelength(s) | Sample ID | Concentration | Ord. value | Comment |
|---------------|-----------|---------------|------------|--------------|
| 340.0 | 0.0 A.A01 | 200.00 ug/L | 0.1440 | 200 ug/L std |
| 340.0 | 0.0 B.A02 | 50.000 ug/L | 0.0302 | 50 ug/L std |
| 340.0 | 0.0 C.A03 | 20.000 ug/L | 0.0033 | 20 ug/L std |
| 340.0 | 0.0 D.A04 | 5.0000 ug/L | -0.007 | 5 ug/L std |

Equation: $y = -1.071697e-02 + 7.754832e-04 * x$

Residual error: 0.001870
Correlation coefficient: 0.999758

Calibration Curve



Spectrum Name: HEXCHROM

Description: $y = -1.071697e-02 + 7.754832e-04 * x$

Comments: RE = 1.870035e-03, CC = 9.997580e-01

Date Created: Tue Sep 05 15:06:42 2006