

WSCF Laboratory

PO Box 1000 S3-30
Richland, WA 99352
(509) 373-7005
(509) 372-0456

Memorandum

To: Michael Neely
CH2M-HILL PRC
PO Box 1600
Richland, WA 99352

Date: March 5, 2009

From: WSCF Laboratory
WSCF Analytical Chemistry

CC:

Subject: FINAL RESULT FOR SAMPLE DELIVERY GROUP WSCF90090

Reference: (1) MOA-FH-CHPRC-2008
(2) HNF-SD-CD-QAPP-017, Rev 9, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following information for sample delivery group WSCF90090

- * Cover Sheet (Attachment 1)
- * Narrative (Attachment 2)
- * Analytical Results (Attachment 3)
- * Sample Receipt Information (Attachment 4)

Electronically signed by Scot Fitzgerald
For Lab Manager

Attachments 4

RECEIVED
JUN 11 2009
EDMC

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF Number Cross Reference

Group # WSCF90090
Data Deliverable Date 03/05/09

SAF #	Sample ID	Sample #	Matrix	Sampled	Received
S09-002	B1YK41	90090001	WATER	02/18/09	02/18/09
S09-002	B1YK42	90090002	WATER	02/18/09	02/18/09
S09-002	B1YK56	90090003	WATER	02/18/09	02/18/09
I09-021	B1YHB4	90090004	WATER	02/18/09	02/18/09
I09-021	B1YHB6	90090005	WATER	02/18/09	02/18/09
I09-021	B1YHJ2	90090006	WATER	02/18/09	02/18/09
I09-021	B1YHJ4	90090007	WATER	02/18/09	02/18/09
I09-021	B1YHJ5	90090008	WATER	02/18/09	02/18/09
I09-021	B1YHJ6	90090009	WATER	02/18/09	02/18/09
I09-021	B1YHH3	90090010	WATER	02/18/09	02/18/09
I09-021	B1YHH1	90090011	WATER	02/18/09	02/18/09
I09-021	B1YHD7	90090012	WATER	02/18/09	02/18/09

ATTACHMENT 2

NARRATIVE

Consisting of 2 pages
Including cover page

Introduction

Twelve (12) groundwater samples were received at the WSCF Laboratory on February 18, 2009. Samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Memorandum of Agreement (MOA-FH-CHPRC-2008, Rev.0)*, referenced in the cover letter.

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving, indicating the presence of ice in the transport container.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Inorganic Comments

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Sample results were D flagged if dilution(s) were required.
- Sample results that were less than the reportable limit, however greater than the method detection limit, were B flagged.
- Duplicate Relative Percent Difference (RPD) exceeded established laboratory limits due to low sample concentration. No flags issued.

All other QC controls are within the established limits.

I certify that this data package is in compliance with the MOA, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Laboratory Analytical Manager and Client Services.

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 18 pages
Including cover page

WSCF ANALYTICAL RESULTS REPORT

For

CH2M Hill Plateau Remediation

PO Box 1600
Richland, WA 99352

Attention: Michael Neely

Contract # MOA-FH-CHPRC-2008
Group # WSCF90090
Report Date March 5, 2009

Analytical: Electronically signed by Scot Fitzgerald

Client Services: Electronically signed by Pauline Mix

All radiochemistry results are reported on an "as received" basis.

This information is intended for the use of the addressee only. If the reader of this report is not the intended recipient or is not authorized by the recipient to receive the report, you are hereby notified that any dissemination, distribution or copying of this report is strictly prohibited. If you have received this report in error, please notify WSCF Laboratory immediately by telephone at (509) 373-7020 or (509) 531-8004. Information designation of this report is the responsibility of the customer.

Batch QC List

Attention Michael Neely
 Department Inorganic

Group # WSCF90090
 Project Number S09-002

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
19219		1	BLANK	4442	BLANK		Hexavalent chromium Discrete Analyzer
19219		2	LCS	4443	LCS		Hexavalent chromium Discrete Analyzer
19219		19	DUP	4449	B1XR40(90088011DUP)	90088011	Hexavalent chromium Discrete Analyzer
19219		20	MS	4450	B1XR40(90088011MS)	90088011	Hexavalent chromium Discrete Analyzer
19219		23	SAMPLE	90090001	B1YK41		Hexavalent chromium Discrete Analyzer
19219		24	SAMPLE	90090002	B1YK42		Hexavalent chromium Discrete Analyzer
19219		25	SAMPLE	90090003	B1YK56		Hexavalent chromium Discrete Analyzer
19219		26	SAMPLE	90090004	B1YHB4		Hexavalent chromium Discrete Analyzer
19219		27	SAMPLE	90090005	B1YHB6		Hexavalent chromium Discrete Analyzer
19219		28	SAMPLE	90090006	B1YHJ2		Hexavalent chromium Discrete Analyzer
19219		29	SAMPLE	90090007	B1YHJ4		Hexavalent chromium Discrete Analyzer
19219		32	LCS	4453	LCS		Hexavalent chromium Discrete Analyzer
19219		33	SAMPLE	90090008	B1YHJ5		Hexavalent chromium Discrete Analyzer
19219		34	DUP	4454	B1YHJ5(90090008DUP)	90090008	Hexavalent chromium Discrete Analyzer
19219		35	MS	4455	B1YHJ5(90090008MS)	90090008	Hexavalent chromium Discrete Analyzer
19219		36	SAMPLE	90090009	B1YHJ6		Hexavalent chromium Discrete Analyzer
19219		37	SAMPLE	90090010	B1YHH3		Hexavalent chromium Discrete Analyzer
19219		38	SAMPLE	90090011	B1YHH1		Hexavalent chromium Discrete Analyzer
19219		39	SAMPLE	90090012	B1YHD7		Hexavalent chromium Discrete Analyzer

Method Reference

Attention Michael Neely
Department Inorganic

Group # WSCF90090
Project Number S09-002

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory, industry methods or HEIS methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-265-403	Hexavalent Chromium Analysis		
	EPA SW-846	7196A	Hexavalent Chromium
	HEIS	7196_CR6	Hexavalent Chromium

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at <http://www7.rl.gov/rapidweb/AS-DOL/index.cfm>

WSCF Analytical Results Report

Attention Michael Neely
 Department Inorganic

Group # WSCF90090
 Project Number S09-002

Sample # 90090001
 SAF# S09-002
 Sample ID B1YK41

Matrix WATER
 Sampled 02/18/09
 Received 02/18/09

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403		0.0134		mg/L	1	0.0020	0.0050	02/18/09

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 DF = Dilution Factor
 + - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL. (Inorganic)
 C - Analyte was found in the Associated Blank. (Inorganic)
 D - Analyte was reported at a secondary dilution factor.
 E - Analyte is an estimate, see comment section.
 N - MS and/or MSD sample recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
 X, Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
 Department Inorganic

Group # WSCF90090
 Project Number S09-002

Sample # 90090002
 SAF# S09-002
 Sample ID B1YK42

Matrix WATER
 Sampled 02/18/09
 Received 02/18/09

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.0020		mg/L	1	0.0020	0.0050	02/18/09

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 DF = Dilution Factor
 + - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL. (Inorganic)
 C - Analyte was found in the Associated Blank. (Inorganic)
 D - Analyte was reported at a secondary dilution factor.
 E - Analyte is an estimate, see comment section.
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U - Analyzed for but not detected above limiting criteria.
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WSCF Analytical Results Report

Attention Michael Neely
 Department Inorganic

Group # WSCF90090
 Project Number S09-002

Sample # 90090003
 SAF# S09-002
 Sample ID B1YK56

Matrix WATER
 Sampled 02/18/09
 Received 02/18/09

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403		0.0561		mg/L	1	0.0020	0.0050	02/18/09

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 DF = Dilution Factor
 +- Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL. (Inorganic)
 C - Analyte was found in the Associated Blank. (Inorganic)
 D - Analyte was reported at a secondary dilution factor.
 E - Analyte is an estimate, see comment section.
 N - MS and/or MSD sample recovery outside control limits.

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WSCF Analytical Results Report

Attention Michael Neely
 Department Inorganic

Group # WSCF90090
 Project Number S09-002

Sample # 90090004
 SAF# 109-021
 Sample ID B1YHB4

Matrix WATER
 Sampled 02/18/09
 Received 02/18/09

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403		0.104		mg/L	1	0.0020	0.0050	02/18/09

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 DF = Dilution Factor
 +- Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL. (Inorganic)
 C - Analyte was found in the Associated Blank. (Inorganic)
 D - Analyte was reported at a secondary dilution factor.
 E - Analyte is an estimate, see comment section.
 N - MS and/or MSD sample recovery outside control limits.

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WSCF Analytical Results Report

Attention Michael Neely
 Department Inorganic

Group # WSCF90090
 Project Number S09-002

Sample # 90090005
 SAF# I09-021
 Sample ID B1YHB6

Matrix WATER
 Sampled 02/18/09
 Received 02/18/09

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.0020		mg/L	1	0.0020	0.0050	02/18/09

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 DF = Dilution Factor
 + - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL. (Inorganic)
 C - Analyte was found in the Associated Blank. (Inorganic)
 D - Analyte was reported at a secondary dilution factor.
 E - Analyte is an estimate, see comment section.
 N - MS and/or MSD sample recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
 X, Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF90090
Project Number S09-002

Sample # 90090006
SAF# 109-021
Sample ID B1YHJ2

Matrix WATER
Sampled 02/18/09
Received 02/18/09

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403		0.181		mg/L	1	0.0020	0.0050	02/18/09

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 DF = Dilution Factor
 + - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL. (Inorganic)
 C - Analyte was found in the Associated Blank. (Inorganic)
 D - Analyte was reported at a secondary dilution factor.
 E - Analyte is an estimate, see comment section.
 N - MS and/or MSD sample recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
 X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF90090
Project Number S09-002

Sample # 90090007
SAF# I09-021
Sample ID B1YHJ4

Matrix WATER
Sampled 02/18/09
Received 02/18/09

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403		0.0107		mg/L	1	0.0020	0.0050	02/18/09

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 DF = Dilution Factor
 + - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL. (Inorganic)
 C - Analyte was found in the Associated Blank. (Inorganic)
 D - Analyte was reported at a secondary dilution factor.
 E - Analyte is an estimate, see comment section.
 N - MS and/or MSD sample recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
 X, Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
 Department Inorganic

Group # WSCF90090
 Project Number S09-002

Sample # 90090008
 SAF# I09-021
 Sample ID B1YHJ5

Matrix WATER
 Sampled 02/18/09
 Received 02/18/09

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	B1	0.00240		mg/L	1	0.0020	0.0050	02/18/09

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 DF = Dilution Factor
 + - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL. (Inorganic)
 C - Analyte was found in the Associated Blank. (Inorganic)
 D - Analyte was reported at a secondary dilution factor.
 E - Analyte is an estimate, see comment section.
 N - MS and/or MSD sample recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
 X, Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
 Department Inorganic

Group # WSCF90090
 Project Number S09-002

Sample # 90090009
 SAF# I09-021
 Sample ID B1YHJ6

Matrix WATER
 Sampled 02/18/09
 Received 02/18/09

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.0020		mg/L	1	0.0020	0.0050	02/18/09

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 DF = Dilution Factor
 + - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL. (Inorganic)
 C - Analyte was found in the Associated Blank. (Inorganic)
 D - Analyte was reported at a secondary dilution factor.
 E - Analyte is an estimate, see comment section.
 N - MS and/or MSD sample recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
 X, Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
 Department Inorganic

Group # WSCF90090
 Project Number S09-002

Sample # 90090010
 SAF# I09-021
 Sample ID B1YHH3

Matrix WATER
 Sampled 02/18/09
 Received 02/18/09

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403		0.0795		mg/L	1	0.0020	0.0050	02/18/09

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 DF = Dilution Factor
 +- Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL. (Inorganic)
 C - Analyte was found in the Associated Blank. (Inorganic)
 D - Analyte was reported at a secondary dilution factor.
 E - Analyte is an estimate, see comment section.
 N - MS and/or MSD sample recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
 X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF90090
Project Number S09-002

Sample # 90090011
SAF# I09-021
Sample ID B1YHH1

Matrix WATER
Sampled 02/18/09
Received 02/18/09

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	D	2.22		mg/L	9.3	0.17	0.43	02/18/09

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 DF = Dilution Factor
 +- Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL. (Inorganic)
 C - Analyte was found in the Associated Blank. (Inorganic)
 D - Analyte was reported at a secondary diltution factor.
 E - Analyte is an estimate, see comment section.
 N - MS and/or MSD sample recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
 X, Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF90090
Project Number S09-002

Sample # 90090012
SAF# I09-021
Sample ID B1YHD7

Matrix WATER
Sampled 02/18/09
Received 02/18/09

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Cr(VI)										
Hexavalent chromium	18540-29-9	LA-265-403	D	1.11		mg/L	9.3	0.17	0.43	02/18/09

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 DF = Dilution Factor
 + - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL. (Inorganic)
 C - Analyte was found in the Associated Blank. (Inorganic)
 D - Analyte was reported at a secondary dilution factor.
 E - Analyte is an estimate, see comment section.
 N - MS and/or MSD sample recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
 X, Y or Z - See comment detail and/or narrative.

Quality Control Report

Attention Michael Neely
 Department Inorganic

Group # WSCF90090
 Project Number S09-002

QC Batch 19219 Test Hexavalent chromium Discrete Analyzer
 Associated Samples 90090001, 90090002, 90090003, 90090004, 90090005, 90090006, 90090007, 90090008, 90090009, 90090010, 90090011, 90090012

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK										
			QC Sample #4442							
Hexavalent chromium LCS	18540-29-9	<0.0020		mg/L					U	02/18/09
			QC Sample #4443							
Hexavalent chromium DUP	18540-29-9	0.0506		mg/L	100.8	90 - 110				02/18/09
			QC Sample #4449							
			Original 90088011							
Hexavalent chromium MS	18540-29-9	0.0176		mg/L			0.00	20		02/18/09
			QC Sample #4450							
			Original 90088011							
Hexavalent chromium LCS	18540-29-9	0.0726		mg/L	103	85 - 115				02/18/09
			QC Sample #4453							
Hexavalent chromium DUP	18540-29-9	0.0506		mg/L	100.8	90 - 110				02/18/09
			QC Sample #4454							
			Original 90090008							
Hexavalent chromium MS	18540-29-9	.0024	0.00380	mg/L			45.20	20	* B1	02/18/09
			QC Sample #4455							
			Original 90090008							
Hexavalent chromium	18540-29-9	.0024	0.0589	mg/L	105.8	85 - 115				02/18/09

Analytical Comment Report

Attention Michael Neely

Group # WSCF90090
Project Number S09-002

90090008 B1YHJ5

Department Inorganic

Analyte Hexavalent chromium - Hexavalent chromium Discrete Analyzer

[1] Duplicate is flagged for RPD out-of-limits. RPD does not apply to samples concentrations below the calibration range. RPD is calculated on measured values and not applicable for a result below the RDL.

Quality Control Comments

Department Inorganic

4454 B1YHJ5(90090008DUP)

Analyte Hexavalent chromium - Hexavalent chromium Discrete Analyzer

[1] Duplicate is flagged for RPD out-of-limits. RPD does not apply to samples concentrations below the calibration range. RPD is calculated on measured values and not applicable for a result below the RDL.

ATTACHMENT4

SAMPLE RECEIPT

Consisting of 15 pages
Including cover page

Sample Receipt

Waste Sampling and Characterization Facility
P.O. Box 1970 S3-30, Richland WA 99352
Phone: (509) 373-7004/FAX: (509) 373-7134

ACKNOWLEDGEMENT OF SAMPLES RECEIVED

WSCF Laboratory
PO Box 1000 S3-30
Richland, WA 99352

ATTN: Michael Neely

Customer Code: CHPRC
PO #: 131280
Work Order #: 90090
Profile #: S09-002-4
Proj. Mgr.:
Phone:

The following samples were received from you on 2/18/2009 1:00:00 PM. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample #	Sample ID	Matrix	Collected	Received
		Tests scheduled		
90090001	B1YK41	WATER	2/18/2009 08:21	2/18/2009 13:00
		CR6DA-W		
90090002	B1YK42	WATER	2/18/2009 07:30	2/18/2009 13:00
		CR6DA-W		
90090003	B1YK56	WATER	2/18/2009 09:17	2/18/2009 13:00
		CR6DA-W		
90090004	B1YHB4	WATER	2/18/2009 09:17	2/18/2009 13:00
		CR6DA-W		
90090005	B1YHB6	WATER	2/18/2009 12:09	2/18/2009 13:00
		CR6DA-W		
90090006	B1YHJ2	WATER	2/18/2009 10:20	2/18/2009 13:00
		CR6DA-W		
90090007	B1YHJ4	WATER	2/18/2009 10:41	2/18/2009 13:00
		CR6DA-W		
90090008	B1YHJ5	WATER	2/18/2009 10:15	2/18/2009 13:00
		CR6DA-W		
90090009	B1YHJ6	WATER	2/18/2009 10:15	2/18/2009 13:00
		CR6DA-W		
90090010	B1YHH3	WATER	2/18/2009 10:30	2/18/2009 13:00
		CR6DA-W		
90090011	B1YHH1	WATER	2/18/2009 11:54	2/18/2009 13:00
		CR6DA-W		

Sample Receipt

Waste Sampling and Characterization Facility
P.O. Box 1970 S3-30, Richland WA 99352
Phone: (509) 373-7004/FAX: (509) 373-7134

90090012	B1YHD7	WATER	2/18/2009 12:32	2/18/2009 13:0
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CR6DA-W

Test Acronym Description

Test Acronym	Description
CR6DA-W	Cr6 (W,Discrete analyzer)

CHPRC		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				C.O.C. # S09-002-4	
						Page <u>1</u> of <u>1</u>	
Collector KE Hamilton CHPRC		Contact/Requester Dana Widrix		Telephone No. 509-376-2858		MSIN FAX	
SAF No. S09-002		Sampling Origin Harford Site		Purchase Order/Charge Code			
Project Title SIIRV FEBRUARY 2009		HNE-N-508-20 1 58		Ice Chest No. 602-1		Temp. N/A	
Shipped To (Lab) Waste Sampling & Characterization		Method of Shipment Govt. Vehicle		Bill of Lading/Air Bill No.			
Protocol SIIRV		Priority: 24 Hours PRIORITY		Offsite Property No.			
POSSIBLE SAMPLE HAZARDS/REMARKS <p style="text-align: center; font-size: 1.2em;">9090</p>				SPECIAL INSTRUCTIONS Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Site-Wide Generator Knowledge information Form applies.			

Sample No.	Lab ID	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B1YK41	001	2/18/09	0521	1x500-mL aG	7196_CR6: Hexavalent Chromium (1)	24 Hours	Cool-4C
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <p style="font-size: 1.5em; font-weight: bold; transform: rotate(-45deg);">FEB 18 2009</p> </div> <div style="text-align: center;"> <p style="font-size: 1.5em; font-weight: bold; border: 2px solid black; padding: 5px;">ICED</p> </div> </div>							

Released By: KE Hamilton Print Sign KE Hamilton Date/Time FEB 18 2009 1300 CHPRC KE Hamilton FEB 18 2009	Received By: Victor B... Print Sign Victor B... Date/Time FEB 18 2009 1302 Received By: Date/Time
Released By: Date/Time	Received By: Date/Time
Released By: Date/Time	Received By: Date/Time

Matrix * S - Soil DS - Drum Solid SF - Sediment DN - Drum Liquid SC - Solid T - Tissue SI - Sludge W - Wine W - Water L - Liquid O - Oil V - Vegetation A - Air X - Other

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Report ID: 90090
Group # WSCFP90090



CHPRC		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				C.O.C.# S09-002-151	
Collector KE Hamilton CHPRC		Contact/Requester Dana Widrix		Telephone No. 509-376-2858		MSN FAX	
SAF No. S09-002		Sampling Origin Hanford Site		Purchase Order/Charge Code			
Project Title SURV. FEBRUARY 2009		HNF-N-508-20 158		Ice Chest No. 6W-1		Temp.	
Shipped To (Lab) Waste Sampling & Characterization		Method of Shipment Govt Vehicle		Bill of Lading/Air Bill No.			
Protocol SURV		Priority: 24 Hours PRIORITY		Offsite Property No.			
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)				SPECIAL INSTRUCTIONS Site-Wide Generator Knowledge Information Form applies.		Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sample No	Lab ID	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B1YK56	003	2-18-09	0917	1x500-mL #G	7198_CR6: Hexavalent Chromium (I)	24 Hours	Cool-4C
<div style="border: 1px solid black; padding: 5px; display: inline-block;">ICED</div>							
<div style="border: 1px solid black; padding: 5px; display: inline-block; transform: rotate(-45deg);">FEB 18 2009</div>							
Relinquished By KE Hamilton CHPRC		Print <i>KE Hamilton</i>		Signature <i>KE Hamilton</i>		Date/Time FEB 18 2009 1300	
Received By <i>Victor Sims</i>		Print <i>Victor Sims</i>		Signature <i>Victor Sims</i>		Date/Time FEB 18 2009 1300	
Relinquished By		Date/Time		Received By		Date/Time	
Relinquished By		Date/Time		Received By		Date/Time	
Relinquished By		Date/Time		Received By		Date/Time	

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Report ID: 90090
Group # WSCF90090



CHPRC		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				C.O.C.# 109-021-2	
Collector DJ Sparks CHPRC		Contact/Requester Dana Widzie		Telephone No. 509-376-2858		MSIN FAX	
SAF No. 109-021		Sampling Origin Hanford Site		Purchase Order/Charge Code			
Project Title 100KRAIAM(1/2) FEBRUARY 2009		HNF-N-508-19 177		Ice Chest No. 6WS 21		Temp.	
Shipped To (Lab) Waste Sampling & Characterization		Method of Shipment Govt. Vehicle		BIN of Loading/Air Bill No.			
Protocol CERCLA		Priority: 24 Hours PRIORITY		Offsite Property No.			
POSSIBLE SAMPLE HAZARDS/REMARKS ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)				SPECIAL INSTRUCTIONS 100 Area Generator Knowledge Information Form applies		Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Sample No.	Lab ID	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B1YHB4	004	2-18-09	0936	1x600-mL aG	7196_CR6: Hexavalent Chromium (1)	24 Hours	Cool-4C
<i>[Large diagonal signature across the table]</i>							
ICED							

Relinquished By DJ Sparks CHPRC	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time FEB 18 2009	Received By <i>[Signature]</i>	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time FEB 18 2009	Matrix *
Relinquished By			Date/Time	Received By			Date/Time	S = Soil DS = Drum Solid SF = Sediment TH = Drum Liquid SO = Solid T = Tissue SL = Sludge WI = Wire W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	

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Group # WSCF90090



CHPRC		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				C.O.C. # 109-021-76	
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Collector DJ Sparks CHPRC		Contact/Requester Dana Widrie		Telephone No. MSIN FAX 509-376-2858			
SAF No. 109-021		Sampling Origin Hanford Site		Purchase Order/Charge Code			
Project Title 100K R41AM(1/2), FEBRUARY 2009		HNF-N-508-19 177		Ice Chest No. 6WS03		Temp.	
Shipped To (Lab) Water Sampling & Characterization		Method of Shipment Govt. Vehicle		Bill of Lading/Air Bill No.			
Protocol CERCLA		Priority: 24 Hours PRIORITY		Offsite Property No.			
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)				SPECIAL INSTRUCTIONS 100 Area Generator Knowledge Information Form applies.		Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Sample No.	Lab ID	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B1YHJ2	006	2-8-09	1020	1x500-mL aG	7196_CR6: Hexavalent Chromium (I)	24 Hours	Cool-4C
<div style="position: absolute; top: 50px; left: 50px; font-size: 2em; opacity: 0.5;"> DJW 2-8-09 </div> <div style="position: absolute; bottom: 50px; right: 50px; border: 2px solid black; padding: 5px; font-weight: bold; font-size: 1.5em;"> ICED </div>							

Requisitioned By DJ Sparks CHPRC	Date/Time FEB 18 2009	Received By <i>[Signature]</i>	Date/Time FEB 18 2009	Matrix *
Requisitioned By	Date/Time	Received By	Date/Time	S = Soil DS = Dried Solid SE = Sediment DL = Dried Liquid SO = Solid T = Tissue SL = Sludge W = Wine W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Requisitioned By	Date/Time	Received By	Date/Time	
Requisitioned By	Date/Time	Received By	Date/Time	

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CHPRC		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # 109-021-80	
Collector DJ Sparks		Contact/Requester Dana Wickie		Telephone No. MSIN FAX 509-376-2858	
SAF No. CHPRC 109-021		Sampling Origin Hanford Site		Purchase Order/Charge Code	
Project Title 106KRAM(1/2) FEBRUARY 2009		HNF-N-506-19 177		Ice Chest No. 64501 Temp.	
Shipped To (Lab) Waste Sampling & Characterization		Method of Shipment Govt. Vehicle		Bill of Lading/Air Bill No.	
Protocol CERCLA		Priority: 24 Hours PRIORITY		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5(1990/1993)			SPECIAL INSTRUCTIONS 100 Area Generator Knowledge Information Form applies		Hold Time
					Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Sample No.	Lab ID	* Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
BIYH4	007	W 2-18-09	1041	1x500-ml. aG	7196_CR6: Hexavalent Chromium (1)	24 Hours	Cool-4C
ICED							

Relinquished By DJ Sparks CHPRC	Print <i>[Signature]</i>	Date/Time FEB 18 2009	300	Received By Victor Sims	Print <i>[Signature]</i>	Date/Time FEB 18 2009	300	Matrix *
Relinquished By		Date/Time		Received By		Date/Time		S = Soil
Relinquished By		Date/Time		Received By		Date/Time		SR = Sediment
Relinquished By		Date/Time		Received By		Date/Time		SO = Solid
Relinquished By		Date/Time		Received By		Date/Time		S. = Sludge
Relinquished By		Date/Time		Received By		Date/Time		W = Water
Relinquished By		Date/Time		Received By		Date/Time		O = Oil
Relinquished By		Date/Time		Received By		Date/Time		A = Air
								TKS = Drum Solid
								TL = Drum Liquid
								I = Tissue
								WI = Wire
								L = Liquid
								V = Vegetation
								X = Other



CHPRC		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				C.O.C.# 109-021-84	
Collector KE Hamilton		Contact/Requester Dina Widoe		Telephone No. 509-376-2858		MSIN FAX	
SAF No. 109-021		Sampling Origin Hanford Site		Purchase Order/Charge Code			
Project Title 100KR41AM(1/2) FEBRUARY 2009		HNF-N-508-20158		Ice Chest No. 6W-1		Temp. 4	
Shipped To (Lab) Waste Sampling & Characterization		Method of Shipment Govt Vehicle		Bill of Lading/Air Bill No.			
Protocol CERCLA		Priority: 24 Hours PRIORITY		Offsite Property No.			
POSSIBLE SAMPLE HAZARDS/REMARKS ** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)				SPECIAL INSTRUCTIONS 100 Area Generator Knowledge Information Form applies.		Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Sample No.	Lab ID	'	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B1YHJ5	608	W	2-18-09	1045	1x500-ml. zG	7196_CR6: Hexavalent Chromium (1)	24 Hours	Cool-4C
ICED								

Relinquished By KE Hamilton CHPRC	Print <i>KE Hamilton</i>	Signature <i>KE Hamilton</i>	Date/Time FEB 18 2009 1300	Received By <i>Victor Sims</i>	Print <i>Victor Sims</i>	Signature <i>Victor Sims</i>	Date/Time FEB 18 2009 1300	Matrix *
Relinquished By			Date/Time	Received By			Date/Time	S = Soil SE = Sediment SO = Solid SL = Slurries W = Water O = Oil A = Air
Relinquished By			Date/Time	Received By			Date/Time	DS = Drum Solid DL = Drum Liquid T = Tissue WI = Wine L = Liquid V = Vegetation X = Other
Relinquished By			Date/Time	Received By			Date/Time	

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CHPRC		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C. # 109-021-60	
Collector RD Julian CHPRC		Contact/Requester Dane Widrie	Telephone No. MSIN FAX 509-376-2858		Page 1 of 1
SAF No. 109-021		Sampling Origin Hanford Site	Purchase Order/Charge Code		
Project Title 100KRAIAM(1/2) FEBRUARY 2009		HNE-N-506-2/1/09		Ice Chest No. ERC-49052	Temp.
Shipped To (Lab) Waste Sampling & Characterization		Method of Shipment Govt Vehicle	Bill of Lading/Air Bill No.		
Protocol CERCLA		Priority: 24 Hours PRIORITY		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** **			SPECIAL INSTRUCTIONS 100 Area Generator Knowledge Information Form applies		Hold Time Total Activity Excretion: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Sample No.	Lab ID	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B1YHH3	0/D	2/18/09	1030	1x500-ml. aG	7106_CR6: Hexavalent Chromium (1)	24 Hours	Cool-4C
<i>[Handwritten signature and date 2/19/09]</i>							
ICED							

Relinquished By RD Julian CHPRC	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time/JSY FEB 18 2009	Received By TA Frazier	Print <i>[Signature]</i>	Sign <i>[Signature]</i>	Date/Time/JSY FEB 18 2009	Matrix * S = Soil DS = Dism Solid SF = Sediment DI = Dism Liquid SO = Solid T = Tissue SL = Sludge WI = Wire W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	

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CHPRC		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				C.O.C. # 109-021-56	
Collector RD Julian CHPRC		Contact/Requester Dana Widrie		Telephone No. 509-376-2858		MSIN FAX	
SAF No. 109-021		Sampling Origin Hanford Site		Purchase Order/Charge Code			
Project Title 100KR41AM(1/2) FEBRUARY 2009		Method of Shipment LINE-A-506 2/1/09		Ice Chest No. ERC-99056		Temp.	
Shipped To (Lab) Waste Sampling & Characterization		Govt. Vehicle		Bill of Lading/Air Bill No.			
Protocol CERCLA		Priority: 24 Hours PRIORITY		Offsite Property No.			
POSSIBLE SAMPLE HAZARDS/REMARKS ** **				SPECIAL INSTRUCTIONS 100 Area Geoscient Knowledge Information Form applies		Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No	

Sample No.	Lab ID	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B1YHH1	011	2/18/09	1154	1x500-mL aG	7198_CR6: Hexavalent Chromium (I)	24 Hours	Cool-4C
<i>[Handwritten signature and date: RD Julian 2/18/09]</i>							
ICED							

Relinquished By RD Julian CHPRC	Print <i>[Signature]</i>	Sign	Date/Time FEB 18 2009	Received By T A Frazier	Print <i>[Signature]</i>	Sign	Date/Time FEB 18 2009	Matrix #
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	
Relinquished By			Date/Time	Received By			Date/Time	

S = Soil DS = Dross Solid

SF = Sediment DL = Dross Liquid

SO = Solid T = Tissue

SL = Sludge WT = Waste

W = Water L = Liquid

O = Oil V = Vessel/Item

A = Air X = Other

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CHPRC		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		C.O.C.# 109-021-30	
Collector RD JULIAN CHPRC		Contact/Requester <i>Dana Widria</i>		Telephone No. MSIN FAX 509-376-2858	
SAF No. 109-021		Sampling Origin Hanford Site		Purchase Order/Charge Code	
Project Title 100KR41AM(1/2) FEBRUARY 2009		HNF-N-506-21113		Ice Chest No. Temp. <i>ESC-99-056</i>	
Shipped To (Lab) Waste Sampling & Characterization		Method of Shipment Govt. Vehicle		Bill of Lading/Air Bill No.	
Protocol CERCLA		Priority: 24 Hours PRIORITY		Offsite Property No.	
POSSIBLE SAMPLE HAZARDS/REMARKS ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1998)			SPECIAL INSTRUCTIONS 100 Area Generator Knowledge Information Form applies		Hold Time Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Sample No.	Lab ID	Date	Time	No/Type Containers	Sample Analysis	Holding Time	Preservative
B1YHD7	01Q	2/18/09	1232	1x500-mL aG	7196 CR6: Hexavalent Chromium (1)	24 Hours	Cool-4C
<i>[Handwritten signature and date: RD Julian 2/18/09]</i>							
ICED							

Relinquished By RD Julian CHPRC	<i>[Signature]</i>	Date/Time FEB 18 2009	Received By J A Frazier	<i>[Signature]</i>	Date/Time FEB 18 2009	Matrix *
Relinquished By		Date/Time	Received By		Date/Time	S = Soil SR = Sediment SO = Solid SL = Sludge W = Water Q = (M) A = Air
Relinquished By		Date/Time	Received By		Date/Time	TS = Dried Solid TL = Dried Liquid T = Tissue WI = Wires L = Liquid V = Vegetation X = Other
Relinquished By		Date/Time	Received By		Date/Time	

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