

JULY 23, 2012

**WSCF Laboratory**

PO Box 650 S3-30  
Richland, WA 99352



July 23, 2012

Scot Fitzgerald  
CH2M-HILL PRC  
PO Box 1600  
Richland, WA 99352

Dear Scot Fitzgerald,

FINAL RESULT FOR SAMPLE DELIVERY GROUP WSCF120814

Reference: (1) SOW, Mod 2, #36587, Release 3  
(2) MSC-SD-CD-QAPP-017, current version, Waste Sampling & Characterization Facility Quality Assurance Program Plan

This letter contains the following information for sample delivery group WSCF120814

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

Very truly yours,

A handwritten signature in black ink, appearing to read "Joseph Hale", is positioned above the typed name.

Electronically signed by Joseph Hale

For Lab Manager, Dan T. Smith

WSCF Analytical Lab

(509) 373-4804

Attachments 4

CC: w/Attachments

File/LB

ATTACHMENT 1

**COVER SHEET**

Consisting of 2 pages  
Including cover page

**WSCF SAF Number Cross Reference**

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Group # WSCF120814  
 Data Deliverable Date 08/06/12

SAF #	Sample ID	Sample #	Matrix	Sampled	Received
I12-032	B2LJ74	120814001	WATER	06/20/12	06/20/12
I12-032	B2LJ68	120814002	WATER	06/20/12	06/20/12
I12-021	B2KH55	120814003	WATER	06/20/12	06/20/12
I12-021	B2KJ02	120814004	WATER	06/20/12	06/20/12
I12-021	B2KH54	120814005	WATER	06/20/12	06/20/12
I12-021	B2KJ19	120814006	WATER	06/20/12	06/20/12
I12-021	B2KHL3	120814007	WATER	06/20/12	06/20/12

ATTACHMENT 2

**NARRATIVE**

Consisting of 3 pages  
Including cover page

### Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Master Contract 39818, Revision 3, "Laboratory Analytical Services to CHPRC Soil and Groundwater Remediation Project."*

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 not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

The following generic data qualifiers (i.e., B, C, D, J and U) may be applicable to this report, as appropriate.

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **C** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were C flagged (applies to inorganic and wet chemical analyses).
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **B (organic analyses)** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were B flagged.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

### Analytical Methodology for Requested Analyses

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

### Inorganic Comments

Attachment 2  
**Narrative**  
WSCF120814

**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):

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, 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 Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

ATTACHMENT 3

**ANALYTICAL RESULTS**

Consisting of 12 pages  
Including cover page

JULY 23, 2012

**WSCF ANALYTICAL RESULTS REPORT**

For

CH2M Hill Plateau Remediation

PO Box 1600  
Richland, WA 99352

Attention: Scot Fitzgerald

**Contract #** MOA-FH-CHPRC-2008  
**Group #** WSCF120814  
**Report Date** July 23, 2012

Analytical: Electronically signed by Joseph Hale

Client Services: Electronically signed by Marisol Avila

*Solid samples results that have a 'Percent Solid' test are reported on a "dry weight basis", except results of TCLP, Percent Solid, and Total Activity. If no 'Percent Solid' test is reported then the 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) 373-7005. Information designation of this report is the responsibility of the customer.

Batch QC List

Attention Scot Fitzgerald  
 Department Inorganic

Group # WSCF120814

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204553	204553	1	BLANK	77954	BLANK		Hexavalent chromium Discrete Analyzer
204553	204553	3	LCS	77956	LCS		Hexavalent chromium Discrete Analyzer
204553	204553	4	DUP	77957	B2LJ68(120814002DUP)	120814002	Hexavalent chromium Discrete Analyzer
204553	204553	5	MS	77958	B2LJ68(120814002MS)	120814002	Hexavalent chromium Discrete Analyzer
204553	204553	6	SAMPLE	120814001	B2LJ74		Hexavalent chromium Discrete Analyzer
204553	204553	7	SAMPLE	120814002	B2LJ68		Hexavalent chromium Discrete Analyzer
204553	204553	8	SAMPLE	120814003	B2KHY5		Hexavalent chromium Discrete Analyzer
204553	204553	9	SAMPLE	120814004	B2KJ02		Hexavalent chromium Discrete Analyzer
204553	204553	10	SAMPLE	120814005	B2KHY4		Hexavalent chromium Discrete Analyzer
204553	204553	11	SAMPLE	120814006	B2KJ19		Hexavalent chromium Discrete Analyzer
204553	204553	12	SAMPLE	120814007	B2KHL3		Hexavalent chromium Discrete Analyzer

Method Reference

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Attention Scot Fitzgerald  
Department Inorganic

Group # WSCF120814

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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.

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

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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** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF120814

**Sample #** 120814001  
**SAF#** 112-032  
**Sample ID** B2LJ74

**Matrix** WATER  
**Sampled** 06/20/12  
**Received** 06/20/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										06/20/12
<b>Hexavalent chromium Discrete Analyzer</b>										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.0020		mg/L	1	0.0020	0.0050	06/20/12

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

B - Analyte < the PQL(or EQL)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 recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.  
 X,Y or Z - See comment detail and/or narrative.  
 PQL is equivalent to Estimated Quantitation Limit (EQL)

**WSCF Analytical Results Report**

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF120814

**Sample #** 120814002  
**SAF#** 112-032  
**Sample ID** B2LJ68

**Matrix** WATER  
**Sampled** 06/20/12  
**Received** 06/20/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>06/20/12</b>										
<b>Hexavalent chromium Discrete Analyzer</b>										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.0020		mg/L	1	0.0020	0.0050	06/20/12

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

B - Analyte < the PQL(or EQL)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 recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.  
 X,Y or Z - See comment detail and/or narrative.  
 PQL is equivalent to Estimated Quantitation Limit (EQL)

**WSCF Analytical Results Report**

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF120814

**Sample #** 120814003  
**SAF#** 112-021  
**Sample ID** B2KHY5

**Matrix** WATER  
**Sampled** 06/20/12  
**Received** 06/20/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										06/20/12
<b>Hexavalent chromium Discrete Analyzer</b>										
Hexavalent chromium	18540-29-9	LA-265-403		0.00930		mg/L	1	0.0020	0.0050	06/20/12

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

B - Analyte < the PQL(or EQL)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 recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.  
 X,Y or Z - See comment detail and/or narrative.  
 PQL is equivalent to Estimated Quantitation Limit (EQL)

**WSCF Analytical Results Report**

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF120814

**Sample #** 120814004  
**SAF#** 112-021  
**Sample ID** B2KJ02

**Matrix** WATER  
**Sampled** 06/20/12  
**Received** 06/20/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>06/20/12</b>										
<b>Hexavalent chromium Discrete Analyzer</b>										
Hexavalent chromium	18540-29-9	LA-265-403		0.0300		mg/L	1	0.0020	0.0050	06/20/12

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

B - Analyte < the PQL(or EQL)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 recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.  
 X,Y or Z - See comment detail and/or narrative.  
 PQL is equivalent to Estimated Quantitation Limit (EQL)

**WSCF Analytical Results Report**

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF120814

**Sample #** 120814005  
**SAF#** 112-021  
**Sample ID** B2KHY4

**Matrix** WATER  
**Sampled** 06/20/12  
**Received** 06/20/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>06/20/12</b>										
<b>Hexavalent chromium Discrete Analyzer</b>										
Hexavalent chromium	18540-29-9	LA-265-403		0.00910		mg/L	1	0.0020	0.0050	06/20/12

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

B - Analyte < the PQL(or EQL)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 recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.  
 X,Y or Z - See comment detail and/or narrative.  
 PQL is equivalent to Estimated Quantitation Limit (EQL)

**WSCF Analytical Results Report**

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF120814

**Sample #** 120814006  
**SAF#** 112-021  
**Sample ID** B2KJ19

**Matrix** WATER  
**Sampled** 06/20/12  
**Received** 06/20/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										06/20/12
<b>Hexavalent chromium Discrete Analyzer</b>										
Hexavalent chromium	18540-29-9	LA-265-403		0.0225		mg/L	1	0.0020	0.0050	06/20/12

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

B - Analyte < the PQL(or EQL)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 recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.  
 X,Y or Z - See comment detail and/or narrative.  
 PQL is equivalent to Estimated Quantitation Limit (EQL)

**WSCF Analytical Results Report**

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF120814

**Sample #** 120814007  
**SAF#** 112-021  
**Sample ID** B2KHL3

**Matrix** WATER  
**Sampled** 06/20/12  
**Received** 06/20/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
<b>06/20/12</b>										
<b>Hexavalent chromium Discrete Analyzer</b>										
Hexavalent chromium	18540-29-9	LA-265-403		0.0260		mg/L	1	0.0020	0.0050	06/20/12

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

B - Analyte < the PQL(or EQL)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 recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.  
 X,Y or Z - See comment detail and/or narrative.  
 PQL is equivalent to Estimated Quantitation Limit (EQL)

**Quality Control Report**

**Attention** Scot Fitzgerald  
**Department** Inorganic

**Group #** WSCF120814

**Analytical Batch** 204553 (QC Batch: 204553)      **Test** Hexavalent chromium Discrete Analyzer  
**Associated Samples** 120814001, 120814002, 120814003, 120814004, 120814005, 120814006, 120814007

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
<b>BLANK</b>										
			<b>QC Sample #77954</b>							
Hexavalent chromium <b>LCS</b>	18540-29-9		<0.0020	mg/L					U	06/20/12
			<b>QC Sample #77956</b>							
Hexavalent chromium <b>DUP</b>	18540-29-9		0.0535	mg/L	107	90 - 110				06/20/12
			<b>QC Sample #77957</b>							
			<b>Original 120814002</b>							
Hexavalent chromium <b>MS</b>	18540-29-9	<0.0020	<0.0020	mg/L			47.60	20	* U	06/20/12
			<b>QC Sample #77958</b>							
			<b>Original 120814002</b>							
Hexavalent chromium	18540-29-9	<0.0020	0.0459	mg/L	114.8	85 - 115				06/20/12

\* - QC result out of range      n/a - Not Applicable

ATTACHMENT4

**SAMPLE RECEIPT**

Consisting of 9 pages  
Including cover page

**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 650 S3-30  
 Richland, WA 99352

ATTN: Scot Fitzgerald

Customer Code: CHPRC

PO #: 401647

Work Order #: 120814

Profile #: 112-032-074

Proj. Mgr.:

Phone:

The following samples were received from you on 6/20/2012 2:55:00 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
<b>Tests scheduled</b>				
120814001	B2LJ74	WATER	6/20/2012 11:38	6/20/2012 14:55
		CR6DA-W		
120814002	B2LJ68	WATER	6/20/2012 13:18	6/20/2012 14:55
		CR6DA-W		
120814003	B2KHY5	WATER	6/20/2012 10:28	6/20/2012 15:10
		CR6DA-W		
120814004	B2KJ02	WATER	6/20/2012 11:12	6/20/2012 15:10
		CR6DA-W		
120814005	B2KHY4	WATER	6/20/2012 10:28	6/20/2012 15:10
		CR6DA-W		
120814006	B2KJ19	WATER	6/20/2012 13:15	6/20/2012 15:10
		CR6DA-W		
120814007	B2KHL3	WATER	6/20/2012 13:50	6/20/2012 15:10
		CR6DA-W		

**Test Acronym Description**

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

Sample Receipt

C.O.C. # **112-032-074**  
Page 1 of 1

### CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

<b>CH2M Hill Plateau Remediation Company</b>	<b>Contact/Requester</b> Karen Waters-Husted	<b>Telephone No.</b> 376-4650	
<b>Collector</b> D.J. Woehle CHPRC	<b>Sampling Origin</b> Hanford Site	<b>Purchase Order/Charge Code</b> 300071ES20	
<b>SAF No.</b> 112-032	<b>Logbook No.</b> HNF-N-50648/27	<b>Ice Chest No.</b> N/A	
<b>Project Title</b> ZP1, AUGUST 2012	<b>Method of Shipment</b> GOVERNMENT VEHICLE	<b>Bill of Lading/Air Bill No.</b> N/A	
<b>Shipped To (Lab)</b> Waste Sampling & Characterization	<b>Priority:</b> 45 Days	<b>Offsite Property No.</b> N/A	
<b>Protocol</b> CERCLA	<b>SPECIAL INSTRUCTIONS</b> Hold Time 200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> *** 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)			

<b>Sample No.</b> 120814	<b>Filter</b> N	<b>Time</b> W 10:28/12 1138	<b>NO/Type Container</b> 1x500-ml. aG	<b>Sample Analysis</b> 7196_CR6. Hexavalent Chromium (1)	<b>Holding Time</b> 24 Hours	<b>Preservative</b> Cool-4C
--------------------------	-----------------	-----------------------------	---------------------------------------	--	------------------------------	-----------------------------

Total Activity Exemption: Yes  No

<b>Relinquished By</b> D.J. Woehle CHPRC	<b>Signature</b> <i>D.J. Woehle</i>	<b>Date/Time</b> JUN 20 2012 145T	<b>Received By</b> Cynthia R Johnson	<b>Signature</b> <i>Cynthia R Johnson</i>	<b>Date/Time</b> JUN 20 2012 145T	<b>Matrix *</b>
<b>Relinquished By</b>			<b>Received By</b>			S - Soil SE - Sediment SO - Solid W - Water O - Oil A - Air
<b>Relinquished By</b>			<b>Received By</b>			DS - Drum Solids DL - Drum Liquids T - Tissue WT - Waste L - Liquid V - Vegetation K - Other
<b>FINAL SAMPLE DISPOSITION</b>			<b>Disposed By</b>		<b>Date/Time</b>	

PRINTED ON 5/31/2012 A-6004-842 (REV 2)

Sample Receipt

Chain of Custody

<b>CH2MHill Plateau Remediation Company</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>		C.O.C. # <b>112-032-071</b>	
D.J. Woehle CHPRC		Contact/Requester Karen Waters-Illusted		Telephone No. 376-4650	
SAF No. 112-032		Sampling Origin Hanford Site		Purchase Order/Charge Code 300071ES20	
Project Title 2ZP1, AUGUST 2012		Logbook No. HNF-N-506 48/27		Ice Chest No. N/A	
Shipped To (Lab) Waste Sampling & Characterization		Method of Shipment GOVERNMENT VEHICLE		Bill of Lading/Air Bill No. N/A	
Protocol CERCLA		Priority: 45 Days		Offsite Property No. N/A	
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** 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)		<b>SPECIAL INSTRUCTIONS</b> 200 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.		Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Sample No. 2	Filter * N	Date 6/20/12	Time 1318	No./Type Container 1x500-mL aG	7196_CR6: Hexavalent Chromium (1)
				Sample Analysis	Holding Time 24 Hours
					Preservative Cool-4C

Relinquished By D.J. Woehle CHPRC	Print Date/Time JUN 20 2012 1455	Sign Date/Time JUN 20 2012 1455	Received By Cynthia R Johnson	Print Date/Time JUN 20 2012 1455	Sign Date/Time JUN 20 2012 1455	Matrix *
Relinquished By	Date/Time	Date/Time	Received By	Date/Time	Date/Time	S - Soil SE - Sediment SO - Solid SL - Sludge W - Water O - Oil A - Air
Relinquished By	Date/Time	Date/Time	Received By	Date/Time	Date/Time	DS - Decon Solids DL - Decon Liquids T - Tissue WI - Wipe L - Liquid V - Vegetation X - Other
Relinquished By	Date/Time	Date/Time	Received By	Date/Time	Date/Time	
<b>FINAL SAMPLE DISPOSITION</b>	Disposal Method (e.g., Return to customer, per lab procedure, used in process)					Date/Time
PRINTED ON 5/31/2012						A-6004-842 (REV 2)

Sample Receipt

Chain of Custody

CH2M Hill Plateau Remediation Company		C.O.C.# <b>112-021-285</b>	
Collector: <i>DAF</i> <b>112-021</b>		Contact/Requester: Karen Waters-Husted	Telephone No. 376-4650
Project Title: 100KR4, APRIL 2012		Sampling Origin: Hanford Site	Purchase Order/Charge Code: 30007IES20
Shipped To (Lab): <b>Waste Sampling &amp; Characterization</b>		Logbook No. HNF-N-506 <i>49 / 35</i>	Ice Chest No. N/A
Protocol: CERCLA		Method of Shipment: GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A
Priority: 45 Days		Offsite Property No. N/A	
<p><b>POSSIBLE SAMPLE HAZARDS/REMARKS</b>                  ** 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)</p>			
<p><b>SPECIAL INSTRUCTIONS</b> Held Time <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes                  100 Area Generator Knowledge Information from applies.                  The CACN for all analytical work at WSCF is 401647.</p>			
Sample No. <i>B2KHYS 3</i>	Filter: N	Date: JUN 20 2012 10:38	Time: 10:38
No/Type Contains: <i>1x500-mL <del>CR6</del> CR6</i>	Sample Analysis: Hexavalent Chromium (1)	Holding Time: 24 Hours	Preservative: Cool-4C

Relinquished By: <i>DAF</i>	Print: <i>DAF</i>	Sign: <i>DAF</i>	Received By: <i>CD Jones</i>	Print: <i>CD Jones</i>	Sign: <i>CD Jones</i>	Date/Time: JUN 20 2012 15:10
Relinquished By:	Date/Time: JUN 20 2012 15:10	Date/Time:	Received By:	Date/Time:	Date/Time:	Date/Time:
Relinquished By:	Date/Time:	Date/Time:	Received By:	Date/Time:	Date/Time:	Date/Time:
Relinquished By:	Date/Time:	Date/Time:	Received By:	Date/Time:	Date/Time:	Date/Time:
FINAL SAMPLE DISPOSITION			Disposal Method (e.g., Return to customer, per lab procedure, used in process)			
PRINTED ON 3/5/2012			A-6004-842 (REV 2)			



Sample Receipt

Chain of Custody

<b>CH2M Hill Plateau Remediation Company</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>		C.O.C. # <b>112-021-282</b>
Collector <b>DW Brotherton</b>		Contact/Requester Karen Waters-Husted	Telephone No. 376-4650	Page 1 of 1
SAF No. 112-021	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20	Ice Chest No. N/A	
Project Title 100KR4, APRIL 2012	Logbook No. HNF-N-506 49 / 35	Bill of Lading/Air Bill No. N/A	Offsite Property No. N/A	
Shipped To (Lab) Waste Sampling & Characterization	Method of Shipment GOVERNMENT VEHICLE			
Protocol CERCLA	Priority: 45 Days	SPECIAL INSTRUCTIONS Hold Time 100 Area Generator Knowledge Information: Form applies. The CACN for all analytical work at WSCF is 401647.	Total Activity Exemption: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
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)				
Sample No. BZKH4	Filter N	Date JUN 20 2012	Time 10:28	No/Type Container 1x500-mL aG
				Sample Analysis 7196_CR6: Hexavalent Chromium (1)
				Holding Time 24 Hours
				Preservative Cool-4C

Relinquished By DW Brotherton	Date/Time JUN 20 2012 1510	Received By [Signature]	Date/Time JUN 20 2012 1510	Matrix * S = Soil DS = Drum Solids SL = Sediment DL = Drum Liquids SO = Solid T = Tissue SL = Sludge W1 = Wire W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By [Signature]	Date/Time JUN 20 2012 1510	Received By [Signature]	Date/Time JUN 20 2012 1510	
Relinquished By [Signature]	Date/Time JUN 20 2012 1510	Received By [Signature]	Date/Time JUN 20 2012 1510	
Relinquished By [Signature]	Date/Time JUN 20 2012 1510	Received By [Signature]	Date/Time JUN 20 2012 1510	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)		Date/Time	

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Sample Receipt

Chain of Custody

CH2M Hill Plateau Remediation Company		C.O.C. # <b>112-021-297</b>	
<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>			
Collector <b>DW Brotherton</b>		Contact/Requester Karen Waters-Irusted	Telephone No. 376-4650
SAF No. 112-021	Project Title 100KR4, APRIL 2012	Sampling Origin Hanford Site	Purchase Order/Charge Code 300071ES20
Shipped To (Lab) CERCLA	Logbook No. HNF-N-506 49/35	Method of Shipment GOVERNMENT VEHICLE	Ice Chest No. N/A
Protocol CERCLA	Priority: 45 Days	Bill of Lading/Air Bill No. N/A	Offsite Property No. N/A
<b>POSSIBLE SAMPLE HAZARDS/REMARKS</b> ** 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)		<b>SPECIAL INSTRUCTIONS</b> 100 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 401647.	
Sample No. B2K119	Filter N	Date JUN 20 2012	Time 1315
No/Type Container 1x500 mL aG	Sample Analysis 7196_CR6: Hexavalent Chromium (1)	Holding Time 24 Hours	Preservative Cool-4C

Relinquished By <b>DW Brotherton</b>	Date/Time JUN 20 2012	1510	Received By <b>C. Johnson</b>	Date/Time JUN 20 2012	1510
Relinquished By	Date/Time		Received By	Date/Time	
Relinquished By	Date/Time		Received By	Date/Time	
Relinquished By	Date/Time		Received By	Date/Time	
<b>FINAL SAMPLE DISPOSITION</b>		Disposed By			

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Sample Receipt

Chain of Custody

<b>CH2M Hill Plateau Remediation Company</b>		<b>CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST</b>		C.O.C. # <b>112-021-235</b> Page 1 of 1
Collector <b>DW Brotherton</b>	Contact/Requester Karen Waiters-Husted	Telephone No. 376-4650	Purchase Order/Charge Code 300071ES20	
SAF No. 112-021	Sampling Origin Hanford Site	Logbook No. HNF-N-506 49 / 35	Ice Chest No. N/A	
Project Title 100KRA, APRIL 2012	Method of Shipment GOVERNMENT VEHICLE	Bill of Lading/Air Bill No. N/A	Offsite Property No. N/A	
Shipped To (Lab) Waste Sampling & Characterization	Priority: 45 Days	SPECIAL INSTRUCTIONS Hold Time 100 Area Generator Knowledge Information Form applies. The CACN for all analytical work at WSCF is 40/647.	Total Activity Exemption: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Protocol CIRCLA	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 (1992/1993)	Sample Analysis 7196_CR6: Hexavalent Chromium (1)	Holding Time 24 Hours	Preservative Cool-4C
Sample No. B2KHL3	Filter N	Date JUN 20 2012 1350	No/Type Container 1x500-mL aG	

Relinquished By DW Brotherton	Date/Time JUN 20 2012 1510	Received By [Signature]	Date/Time JUN 20 2012 1510	Matrix * S - Soil SE - Sediment SD - Solid SL - Sludge W - Water O - Oil A - Air
Relinquished By	Date/Time	Received By	Date/Time	DS - Drum Solids DL - Drum Liquids T - Tissue WT - Wipe L - Liquid V - Vegetation X - Other
Relinquished By	Date/Time	Received By	Date/Time	
Relinquished By	Date/Time	Received By	Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Date/Time

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