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SERVICES

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December 10, 2010

Mr. Michael Neely
CH2M Hill Plateau Remediation Company
P.O. Box 1600
Mail Stop - B6-06
Richland, WA 99352

Reference: **P.O. #33677**
Eberline Analytical S0-11-234-7752, SDG H4441

Dear Mr. Neely:

Enclosed is a data report for thirteen solid (soil) samples designated under SAF No. F11-013 received at Eberline Analytical on November 24, 2010. The samples were analyzed according to the accompanying chain-of-custody documents.

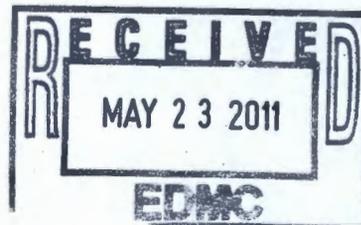
Please call if you have any questions concerning this report.

Sincerely,

N. Joseph Verville
Client Services Manager

NJV/ljb

Enclosure: Data Package



1.0 GENERAL

CH2M Hill Plateau Remediation Company (CHPRC) Sample Delivery Group H4441 was composed of thirteen solid (soil) samples designated under SAF No. F11-013 with a Project Designation of: ARRA 600-286-PL – Soil.

The samples were received as stated on the chain-of-custody documents. Any discrepancies are noted on the Eberline Analytical Sample Receipt Checklist.

2.0 ANALYSIS NOTES

2.1 Tritium Analysis

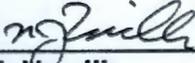
No problems were encountered during the course of the analyses. The results for both the original and duplicate analyses were less than their respective MDA's, therefore no RPD, or statistical control limit is calculated.

2.2 Nickel-63 Analysis

No problems were encountered during the course of the analysis. The results for both the original and duplicate analyses were less than their respective MDA's, therefore no RPD, or statistical control limit is calculated.

3.0 Case Narrative Certification Statement

"I certify that this data package is in compliance with the SQW, both technically and for completeness, for other than the conditions detailed above. Release of the data obtained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature."



N. Joseph Verville
Client Services Manager

12 | 10 | 10

Date

EBERLINE ANALYTICAL / RICHMOND
SAMPLE DELIVERY GROUP H4441

SDG 7752
Contact N. Joseph Verville

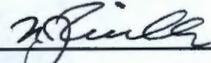
Client CHPRC
Contract No. 33677
Case no SDG_H4441

S U M M A R Y D A T A S E C T I O N

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Prepared by



Reviewed by

Lab id EBRLNE
Protocol CHPRC
Version Ver 1.0
Form DVD-TOC
Version 3.06
Report date 12/10/10

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4441

SDG 7752
Contact N. Joseph Verville

REPORT GUIDE

Client CHPRC
Contract No. 33677
Case no SDG H4441

ABOUT THE DATA SUMMARY SECTION

The Data Summary Section of a Data Package has all data, in several useful orders, necessary for first level, routine review of the data package for a Sample Delivery Group (SDG). This section follows the Data Package Narrative, which has an overview of the data package and a discussion of special problems. It is followed by the Raw Data Section, which has full details.

The Data Summary Section has several groups of reports:

SAMPLE SUMMARIES

The Sample and QC Summary Reports show all samples, including QC samples, reported in one SDG. These reports cross-reference client and lab sample identifiers.

PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches (lab groupings reflecting how work was organized) relevant to the reported SDG with information necessary to check the completeness and consistency of the SDG.

WORK SUMMARY

The Work Summary Report shows all samples and work done on them relevant to the reported SDG.

METHOD BLANKS

The Method Blank Reports, one for each Method Blank relevant to the SDG, show all results and primary supporting information for the blanks.

LAB CONTROL SAMPLES

The Lab Control Sample Reports, one for each Lab Control Sample relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

REPORT GUIDES

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SUMMARY DATA SECTION

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Lab id EBRINE
Protocol CHPRC
Version Ver 1.0
Form DVD-RG
Version 3.06
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EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4441

SDG 7752
Contact N. Joseph Verville

GUIDE, cont.

Client CHPRC
Contract No. 33677
Case no SDG H4441

ABOUT THE DATA SUMMARY SECTION

DUPLICATES

The Duplicate Reports, one for each Duplicate and Original sample pair relevant to the SDG, show all results, differences and primary supporting information for these QC samples.

MATRIX SPIKES

The Matrix Spike Reports, one for each Spiked and Original sample pair relevant to the SDG, show all results, recoveries and primary supporting information for these QC samples.

DATA SHEETS

The Data Sheet Reports, one for each client sample in the SDG, show all results and primary supporting information for these samples.

METHOD SUMMARIES

The Method Summary Reports, one for each test used in the SDG, show all results, QC and method performance data for one analyte on one or two pages. (A test is a short code for the method used to do certain work to the client's specification.)

REPORT GUIDES

The Report Guides, one for each of the above groups of reports, have documentation on how to read the associated reports.

REPORT GUIDES

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Lab id EBRLNE
Protocol CHPRC
Version Ver 1.0
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EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4441

SDG 7752
 Contact N. Joseph Verville

LAB SAMPLE SUMMARY

Client CHPRC
 Contract No. 33677
 Case no SDG H4441

LAB	CLIENT SAMPLE ID	LOCATION	MATRIX	LEVEL	SAF NO	CHAIN OF CUSTODY	COLLECTED
S011234-01	B29B52	600-286 V-1	SOLID		F11-013	F11-013-031	11/18/10 11:34
S011234-02	B29B53	600-286 V-2	SOLID		F11-013	F11-013-032	11/18/10 11:42
S011234-03	B29B54	600-286 V-3	SOLID		F11-013	F11-013-033	11/18/10 11:52
S011234-04	B29B55	600-286 V-4	SOLID		F11-013	F11-013-034	11/18/10 12:04
S011234-05	B29B56	600-286 V-5	SOLID		F11-013	F11-013-035	11/18/10 10:55
S011234-06	B29B57	600-286 V-6	SOLID		F11-013	F11-013-036	11/18/10 11:05
S011234-07	B29B58	600-286 V-7	SOLID		F11-013	F11-013-037	11/18/10 10:48
S011234-08	B29B59	600-286 V-8	SOLID		F11-013	F11-013-038	11/18/10 12:14
S011234-09	B29B60	600-286 V-8 Dup	SOLID		F11-013	F11-013-039	11/18/10 12:14
S011234-10	B29B61	600-286 In-Process Samp1	SOLID		F11-013	F11-013-040	11/18/10 11:13
S011234-11	B29B62	600-286 In-Process Samp2	SOLID		F11-013	F11-013-041	11/18/10 11:22
S011234-12	B29B63	600-286 In-Process Samp3	SOLID		F11-013	F11-013-042	11/18/10 11:30
S011234-13	B29B64	600-286 In-Process Samp4	SOLID		F11-013	F11-013-043	11/18/10 11:55
S011234-14	Lab Control Sample		SOLID		F11-013		
S011234-15	Method Blank		SOLID		F11-013		
S011234-16	Duplicate (S011234-01)	600-286 V-1	SOLID		F11-013		11/18/10 11:34

LAB SUMMARY

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SUMMARY DATA SECTION

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EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4441

SDG 7752
 Contact N. Joseph Verville

QC SUMMARY

Client CHPRC
 Contract No. 33677
 Case no SDG H4441

QC BATCH	CHAIN OF CUSTODY	CLIENT SAMPLE ID	MATRIX	% SOLIDS	SAMPLE AMOUNT	BASIS AMOUNT	DAYS SINCE RECEIVED	LAB COLL	LAB SAMPLE ID	DEPARTMENT SAMPLE ID
7752	F11-013-031	B29B52	SOLID	92.1	320 g		11/24/10	6	S011234-01	7752-001
	F11-013-032	B29B53	SOLID	92.7	292 g		11/24/10	6	S011234-02	7752-002
	F11-013-033	B29B54	SOLID	92.9	324 g		11/24/10	6	S011234-03	7752-003
	F11-013-034	B29B55	SOLID	92.3	312 g		11/24/10	6	S011234-04	7752-004
	F11-013-035	B29B56	SOLID	90.5	241 g		11/24/10	6	S011234-05	7752-005
	F11-013-036	B29B57	SOLID	91.0	206 g		11/24/10	6	S011234-06	7752-006
	F11-013-037	B29B58	SOLID	93.7	250 g		11/24/10	6	S011234-07	7752-007
	F11-013-038	B29B59	SOLID	94.2	243 g		11/24/10	6	S011234-08	7752-008
	F11-013-039	B29B60	SOLID	94.5	241 g		11/24/10	6	S011234-09	7752-009
	F11-013-040	B29B61	SOLID	92.8	205 g		11/24/10	6	S011234-10	7752-010
	F11-013-041	B29B62	SOLID	93.5	219 g		11/24/10	6	S011234-11	7752-011
	F11-013-042	B29B63	SOLID	91.9	222 g		11/24/10	6	S011234-12	7752-012
	F11-013-043	B29B64	SOLID	92.1	250 g		11/24/10	6	S011234-13	7752-013
		Method Blank	SOLID						S011234-15	7752-015
		Lab Control Sample	SOLID						S011234-14	7752-014
		Duplicate (S011234-01)	SOLID	92.1	320 g		11/24/10	6	S011234-16	7752-016

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EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4441

SDG 7752
 Contact N. Joseph Verville

PREP BATCH SUMMARY

Client CHPRC
 Contract No. 33677
 Case no SDG H4441

TEST MATRIX	METHOD	PREPARATION ERROR			PLANCHETS ANALYZED			QUALI-
		BATCH	2σ %	CLIENT MORE	RE BLANK	LCS	DUP/ORIG MS/ORIG	
Liquid Scintillation Counting								
H SOLID	Tritium in Solids	7274-116	10.0	13	1	1	1/1	
NI_L SOLID	Nickel 63 in Solids	7274-116	11.2	13	1	1	1/1	

Blank, LCS, Duplicate and Spike planchets are those in the same preparation batch as some Client sample.

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EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4441

LAB WORK SUMMARY

SDG 7752
Contact N. Joseph Verville

Client CHPRC
Contract No. 33677
Case no SDG H4441

LAB SAMPLE COLLECTED RECEIVED	CLIENT SAMPLE ID LOCATION CUSTODY	SAF No	MATRIX	PLANCHET	TEST	SUF-FIX	ANALYZED	REVIEWED	BY	METHOD
S011234-01 11/18/10 11/24/10	B29B52 600-286 V-1 F11-013-031	F11-013		7752-001 7752-001	H NI_L		12/06/10 12/06/10	12/09/10 12/08/10	BW BW	Tritium in Solids Nickel 63 in Solids
S011234-02 11/18/10 11/24/10	B29B53 600-286 V-2 F11-013-032	F11-013		7752-002 7752-002	H NI_L		12/06/10 12/06/10	12/09/10 12/08/10	BW BW	Tritium in Solids Nickel 63 in Solids
S011234-03 11/18/10 11/24/10	B29B54 600-286 V-3 F11-013-033	F11-013		7752-003 7752-003	H NI_L		12/06/10 12/06/10	12/09/10 12/08/10	BW BW	Tritium in Solids Nickel 63 in Solids
S011234-04 11/18/10 11/24/10	B29B55 600-286 V-4 F11-013-034	F11-013		7752-004 7752-004	H NI_L		12/06/10 12/06/10	12/09/10 12/08/10	BW BW	Tritium in Solids Nickel 63 in Solids
S011234-05 11/18/10 11/24/10	B29B56 600-286 V-5 F11-013-035	F11-013		7752-005 7752-005	H NI_L		12/06/10 12/06/10	12/09/10 12/08/10	BW BW	Tritium in Solids Nickel 63 in Solids
S011234-06 11/18/10 11/24/10	B29B57 600-286 V-6 F11-013-036	F11-013		7752-006 7752-006	H NI_L		12/06/10 12/06/10	12/09/10 12/08/10	BW BW	Tritium in Solids Nickel 63 in Solids
S011234-07 11/18/10 11/24/10	B29B58 600-286 V-7 F11-013-037	F11-013		7752-007 7752-007	H NI_L		12/06/10 12/06/10	12/09/10 12/08/10	BW BW	Tritium in Solids Nickel 63 in Solids
S011234-08 11/18/10 11/24/10	B29B59 600-286 V-8 F11-013-038	F11-013		7752-008 7752-008	H NI_L		12/06/10 12/06/10	12/09/10 12/08/10	BW BW	Tritium in Solids Nickel 63 in Solids
S011234-09 11/18/10 11/24/10	B29B60 600-286 V-8 Dup F11-013-039	F11-013		7752-009 7752-009	H NI_L		12/06/10 12/06/10	12/09/10 12/08/10	BW BW	Tritium in Solids Nickel 63 in Solids
S011234-10 11/18/10 11/24/10	B29B61 600-286 In-Process Sampl F11-013-040	F11-013	SOLID	7752-010 7752-010	H NI_L		12/06/10 12/06/10	12/09/10 12/08/10	BW BW	Tritium in Solids Nickel 63 in Solids

WORK SUMMARY

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EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4441

SDG 7752
Contact N. Joseph Verville

WORK SUMMARY, cont.

Client CHPRC
Contract No. 33677
Case no SDG H4441

LAB SAMPLE	CLIENT SAMPLE ID				SUF-					
COLLECTED	LOCATION	MATRIX			FLX	ANALYZED	REVIEWED	BY	METHOD	
RECEIVED	CUSTODY	SAF No	PLANCHET	TEST						
S011234-11	B29B62		7752-011	H		12/06/10	12/09/10	BW	Tritium in Solids	
11/18/10	600-286 In-Process Samp2	SOLID	7752-011	NI_L		12/06/10	12/08/10	BW	Nickel 63 in Solids	
11/24/10	F11-013-041	F11-013								
S011234-12	B29B63		7752-012	H		12/06/10	12/09/10	BW	Tritium in Solids	
11/18/10	600-286 In-Process Samp3	SOLID	7752-012	NI_L		12/06/10	12/08/10	BW	Nickel 63 in Solids	
11/24/10	F11-013-042	F11-013								
S011234-13	B29B64		7752-013	H		12/06/10	12/09/10	BW	Tritium in Solids	
11/18/10	600-286 In-Process Samp4	SOLID	7752-013	NI_L		12/06/10	12/08/10	BW	Nickel 63 in Solids	
11/24/10	F11-013-043	F11-013								
S011234-14	Lab Control Sample		7752-014	H		12/07/10	12/09/10	BW	Tritium in Solids	
		SOLID	7752-014	NI_L		12/06/10	12/08/10	BW	Nickel 63 in Solids	
		F11-013								
S011234-15	Method Blank		7752-015	H		12/06/10	12/09/10	BW	Tritium in Solids	
		SOLID	7752-015	NI_L		12/06/10	12/08/10	BW	Nickel 63 in Solids	
		F11-013								
S011234-16	Duplicate (S011234-01)		7752-016	H		12/06/10	12/09/10	BW	Tritium in Solids	
11/18/10	600-286 V-1	SOLID	7752-016	NI_L		12/06/10	12/08/10	BW	Nickel 63 in Solids	
11/24/10		F11-013								

COUNTS OF TESTS BY SAMPLE TYPE

TEST	SAF No	METHOD	REFERENCE	CLIENT	MORE	RE	BLANK	LCS	DUP SPIKE	TOTAL
H	F11-013	Tritium in Solids	TRITIUM_COX_LSC	13			1	1	1	16
NI_L	F11-013	Nickel 63 in Solids	NI63_LSC	13			1	1	1	16
TOTALS				26			2	2	2	32

WORK SUMMARY

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EBERLINE ANALYTICAL / RICHMOND
SAMPLE DELIVERY GROUP H4441

7752-015

Method Blank

METHOD BLANK

SDG <u>7752</u>	Client/Case no <u>CHPRC</u>	SDG <u>H4441</u>
Contact <u>N. Joseph Verville</u>	Contract <u>No. 33677</u>	
Lab sample id <u>S011234-15</u>	Client sample id <u>Method Blank</u>	
Dept sample id <u>7752-015</u>	Material/Matrix <u>SOLID</u>	
	SAF No <u>F11-013</u>	

ANALYTE	CAS NO	RESULT pCi/g	2 σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS	TEST
Tritium	10028-17-8	-1.02	5.5	9.54	400	U	H
Nickel 63	13981-37-8	1.36	1.4	2.38	30.0	U	NI_L

QC-BLANK #76223

Lab id <u>EBRLNE</u>
Protocol <u>CHPRC</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/10/10</u>

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4441

7752-014

Lab Control Sample

LAB CONTROL SAMPLE

SDG <u>7752</u> Contact <u>N. Joseph Verville</u> Lab sample id <u>9011234-14</u> Dept sample id <u>7752-014</u>	Client/Case no <u>CHPRC</u> <u>SDG H4441</u> Contract No. <u>33677</u> Client sample id <u>Lab Control Sample</u> Material/Matrix _____ <u>SOLID</u> SAF No <u>F11-013</u>
---	--

ANALYTE	RESULT	2σ ERR	MDA	RDL	QUALI-	ADDED	2σ ERR	REC	3σ LMYS	PROTOCOL
	pCi/g	(COUNT)	pCi/g	pCi/g	FIERS TEST	pCi/g	pCi/g	%	(TOTAL)	LIMITS
Tritium	1020	25	9.67	400	H	1060	42	96	84-116	80-120
Nickel 63	219	5.6	2.49	30.0	NI_L	260	10	84	84-116	80-120

QC-BLANK #76222

Lab id <u>EBRLINE</u>
Protocol <u>CHPRC</u>
Version <u>Ver 1.0</u>
Form <u>DVD-LCS</u>
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EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4441

7752-016

B29B52

DUPLICATE

SDG <u>7752</u> Contact <u>N. Joseph Verville</u> DUPLICATE Lab sample id <u>S011234-16</u> Dept sample id <u>7752-016</u> % solids <u>92.1</u>	Client/Case no <u>CHPRC</u> SDG <u>H4441</u> Contract No. <u>33677</u> ORIGINAL Lab sample id <u>S011234-01</u> Dept sample id <u>7752-001</u> Received <u>11/24/10</u> % solids <u>92.1</u>	Client sample id <u>B29B52</u> Location/Matrix <u>600-286 V-1</u> <u>SOLID</u> Collected/Weight <u>11/18/10 11:34</u> <u>320 g</u> Custody/SAF No <u>F11-013-031</u> <u>F11-013</u>
--	--	--

ANALYTE	DUPLICATE	2σ ERR	MDA	RDL	QUALI-	ORIGINAL	2σ ERR	MDA	QUALI-	RPD	3σ	DER
	pCi/g	(COUNT)	pCi/g	pCi/g	FIERS TEST		pCi/g	(COUNT)	pCi/g	FIERS	%	TOT
Tritium	4.78	5.5	8.99	400	U H	-4.46	4.8	8.63	U	-		2.5
Nickel 63	1.84	1.7	2.76	30.0	U NI_L	0.285	1.8	2.99	U	-		1.3

QC-DUP#1 76224

ARRA 600-286-PL - Soil

Lab id <u>EBRLNE</u>
Protocol <u>CHPRC</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DUP</u>
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EBERLINE ANALYTICAL / RICHMOND
SAMPLE DELIVERY GROUP H4441

7752-001

B29B52

DATA SHEET

SDG <u>7752</u>	Client/Case no <u>CHPRC</u>	SDG <u>H4441</u>
Contact <u>N. Joseph Verville</u>	Contract <u>No. 33677</u>	
Lab sample id <u>S011234-01</u>	Client sample id <u>B29B52</u>	
Dept sample id <u>7752-001</u>	Location/Matrix <u>600-286 V-1</u>	<u>SOLID</u>
Received <u>11/24/10</u>	Collected/Weight <u>11/18/10 11:34</u>	<u>320 g</u>
% solids <u>92.1</u>	Custody/SAF No <u>F11-013-031</u>	<u>F11-013</u>

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS	TEST
Tritium	10028-17-8	-4.46	4.8	8.63	400	U	H
Nickel 63	13981-37-8	0.285	1.8	2.99	30.0	U	NI_L

ARRA 600-286-PL - Soil

Lab id <u>EBRLNE</u>
Protocol <u>CHPRC</u>
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Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/10/10</u>

EBERLINE ANALYTICAL / RICHMOND
SAMPLE DELIVERY GROUP H4441

7752-002

B29B53

DATA SHEET

SDG <u>7752</u>	Client/Case no <u>CHPRC</u>	SDG <u>H4441</u>
Contact <u>N. Joseph Verville</u>	Contract <u>No. 33677</u>	
Lab sample id <u>S011234-02</u>	Client sample id <u>B29B53</u>	
Dept sample id <u>7752-002</u>	Location/Matrix <u>600-286 V-2</u>	<u>SOLID</u>
Received <u>11/24/10</u>	Collected/Weight <u>11/18/10 11:42</u>	<u>292 g</u>
% solids <u>92.7</u>	Custody/SAF No <u>F11-013-032</u>	<u>F11-013</u>

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALIFIERS	TEST
Tritium	10028-17-8	-4.06	4.5	8.09	400	U	H
Nickel 63	13981-37-8	2.43	1.7	2.74	30.0	U	NI_L

ARRA 600-286-PL - Soil

Lab id <u>EBRLINE</u>
Protocol <u>CHPRC</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/10/10</u>

EBERLINE ANALYTICAL / RICHMOND
SAMPLE DELIVERY GROUP H4441

7752-003

B29B54

DATA SHEET

SDG <u>7752</u>	Client/Case no <u>CHPRC</u>	SDG <u>H4441</u>
Contact <u>N. Joseph Verville</u>	Contract <u>No. 33677</u>	
Lab sample id <u>S011234-03</u>	Client sample id <u>B29B54</u>	
Dept sample id <u>7752-003</u>	Location/Matrix <u>600-286 V-3</u>	<u>SOLID</u>
Received <u>11/24/10</u>	Collected/Weight <u>11/18/10 11:52</u>	<u>324 g</u>
% solids <u>92.9</u>	Custody/SAF No <u>F11-013-033</u>	<u>F11-013</u>

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS	TEST
Tritium	10028-17-8	-2.82	4.5	8.05	400	U	H
Nickel 63	13981-37-8	0.520	1.9	3.18	30.0	U	NI_L

ARRA 600-286-PL - Soil

Lab id <u>EBRLNE</u>
Protocol <u>CHPRC</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/10/10</u>

EBERLINE ANALYTICAL / RICHMOND
SAMPLE DELIVERY GROUP H4441

7752-004

B29B55

DATA SHEET

SDG <u>7752</u>	Client/Case no <u>CHPRC</u>	SDG <u>H4441</u>
Contact <u>N. Joseph Verville</u>	Contract <u>No. 33677</u>	
Lab sample id <u>S011234-04</u>	Client sample id <u>B29B55</u>	
Dept sample id <u>7752-004</u>	Location/Matrix <u>600-286 V-4</u>	<u>SOLID</u>
Received <u>11/24/10</u>	Collected/Weight <u>11/18/10 12:04</u>	<u>312 g</u>
% solids <u>92.3</u>	Custody/SAF No <u>F11-013-034</u>	<u>F11-013</u>

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS	TEST
Tritium	10028-17-8	-1.86	5.0	8.72	400	U	H
Nickel 63	13981-37-8	0.766	1.8	2.96	30.0	U	NI_L

ARRA 600-286-PL - Soil

Lab id <u>EBRINE</u>
Protocol <u>CHPRC</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/10/10</u>

EBERLINE ANALYTICAL / RICHMOND
SAMPLE DELIVERY GROUP H4441

7752-005

B29B56

DATA SHEET

SDG <u>7752</u>	Client/Case no <u>CHPRC</u>	SDG <u>H4441</u>
Contact <u>N. Joseph Verville</u>	Contract <u>No. 33677</u>	
Lab sample id <u>S011234-05</u>	Client sample id <u>B29B56</u>	
Dept sample id <u>7752-005</u>	Location/Matrix <u>600-286 V-5</u>	<u>SOLID</u>
Received <u>11/24/10</u>	Collected/Weight <u>11/18/10 10:55</u>	<u>241 g</u>
% solids <u>90.5</u>	Custody/SAF No <u>F11-013-035</u>	<u>F11-013</u>

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS	TEST
Tritium	10028-17-8	-0.548	5.2	9.00	400	U	H
Nickel 63	13981-37-8	1.40	1.5	2.50	30.0	U	NI_L

ARRA 600-286-PL - Soil

Lab id <u>EBRLNE</u>
Protocol <u>CHPRC</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/10/10</u>

EBERLINE ANALYTICAL / RICHMOND
SAMPLE DELIVERY GROUP H4441

7752-006

B29B57

DATA SHEET

SDG <u>7752</u>	Client/Case no <u>CHPRC</u>	SDG <u>H4441</u>
Contact <u>N. Joseph Verville</u>	Contract <u>No. 33677</u>	
Lab sample id <u>S011234-06</u>	Client sample id <u>B29B57</u>	
Dept sample id <u>7752-006</u>	Location/Matrix <u>600-286 V-6</u>	<u>SOLID</u>
Received <u>11/24/10</u>	Collected/Weight <u>11/18/10 11:05</u>	<u>206 g</u>
% solids <u>91.0</u>	Custody/SAF No <u>F11-013-036</u>	<u>F11-013</u>

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS	TEST
Tritium	10028-17-8	-3.92	5.1	9.21	400	U	H
Nickel 63	13981-37-8	0.770	1.5	2.57	30.0	U	NI_L

ARRA-600-286-PL - Soil

Lab id <u>EBRLNE</u>
Protocol <u>CHPRC</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/10/10</u>

EBERLINE ANALYTICAL / RICHMOND
SAMPLE DELIVERY GROUP H4441

7752-007

B29B58

DATA SHEET

SDG <u>7752</u>	Client/Case no <u>CHPRC</u>	SDG <u>H4441</u>
Contact <u>N. Joseph Verville</u>	Contract <u>No. 33677</u>	
Lab sample id <u>S011234-07</u>	Client sample id <u>B29B58</u>	
Dept sample id <u>7752-007</u>	Location/Matrix <u>600-286 V-7</u>	<u>SOLID</u>
Received <u>11/24/10</u>	Collected/Weight <u>11/18/10 10:48</u>	<u>250 g</u>
% solids <u>93.7</u>	Custody/SAF No <u>F11-013-037</u>	<u>F11-013</u>

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALIFIERS	TEST
Tritium	10028-17-8	<u>-6.42</u>	4.8	8.80	400	U	H
Nickel 63	13981-37-8	<u>1.94</u>	1.6	2.64	30.0	U	NI_L

ARRA 600-286-PL - Soil

Lab id <u>EBRLNE</u>
Protocol <u>CHPRC</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/10/10</u>

EBERLINE ANALYTICAL / RICHMOND
SAMPLE DELIVERY GROUP H4441

7752-008

B29B59

DATA SHEET

SDG <u>7752</u>	Client/Case no <u>CHPRC</u>	SDG <u>H4441</u>
Contact <u>N. Joseph Verville</u>	Contract <u>No. 33677</u>	
Lab sample id <u>S011234-08</u>	Client sample id <u>B29B59</u>	
Dept sample id <u>7752-008</u>	Location/Matrix <u>600-286 V-8</u>	<u>SOLID</u>
Received <u>11/24/10</u>	Collected/Weight <u>11/18/10 12:14</u>	<u>243 g</u>
% solids <u>94.2</u>	Custody/SAF No <u>F11-013-038</u>	<u>F11-013</u>

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS	TEST
Tritium	10028-17-8	-1.95	4.9	8.56	400	U	H
Nickel 63	13981-37-8	2.76	1.7	2.78	30.0	U	NI_L

ARRA 600-286-PL - Soil

Lab id <u>EBRLNE</u>
Protocol <u>CHPRC</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/10/10</u>

EBERLINE ANALYTICAL / RICHMOND
SAMPLE DELIVERY GROUP H4441

7752-009

B29B60

DATA SHEET

SDG <u>7752</u>	Client/Case no <u>CHPRC</u>	SDG <u>H4441</u>
Contact <u>N. Joseph Verville</u>	Contract <u>No. 33677</u>	
Lab sample id <u>S011234-09</u>	Client sample id <u>B29B60</u>	
Dept sample id <u>7752-009</u>	Location/Matrix <u>600-286 V-8 Dup</u>	<u>SOLID</u>
Received <u>11/24/10</u>	Collected/Weight <u>11/18/10 12:14</u>	<u>241 g</u>
% solids <u>94.5</u>	Custody/SAF No <u>F11-013-039</u>	<u>F11-013</u>

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS	TEST
Tritium	10028-17-8	-0.681	5.2	8.96	400	U	H
Nickel 63	13981-37-8	0.234	1.7	2.86	30.0	U	NI_L

ARRA 600-286-PL - Soil

Lab id <u>EBRLNE</u>
Protocol <u>CHPRC</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/10/10</u>

EBERLINE ANALYTICAL / RICHMOND
SAMPLE DELIVERY GROUP H4441

7752-010

B29B61

DATA SHEET

SDG <u>7752</u>	Client/Case no <u>CHPRC</u>	SDG <u>H4441</u>
Contact <u>N. Joseph Verville</u>	Contract <u>No. 33677</u>	
Lab sample id <u>S011234-10</u>	Client sample id <u>B29B61</u>	
Dept sample id <u>7752-010</u>	Location/Matrix <u>600-286 In-Process Sampl</u>	<u>SOLID</u>
Received <u>11/24/10</u>	Collected/Weight <u>11/18/10 11:13</u>	<u>205 g</u>
% solids <u>92.8</u>	Custody/SAF No <u>F11-013-040</u>	<u>F11-013</u>

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS	TEST
Tritium	10028-17-8	<u>-6.85</u>	4.1	7.63	400	U	H
Nickel 63	13981-37-8	<u>1.82</u>	1.7	2.72	30.0	U	NI_L

ARRA 600-286-PL - Soil

Lab id <u>EBRLNE</u>
Protocol <u>CHPRC</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/10/10</u>

EBERLINE ANALYTICAL / RICHMOND
SAMPLE DELIVERY GROUP H4441

7752-011

B29B62

DATA SHEET

SDG <u>7752</u>	Client/Case no <u>CHPRC</u>	SDG <u>H4441</u>
Contact <u>N. Joseph Verville</u>	Contract <u>No. 33677</u>	
Lab sample id <u>S011234-11</u>	Client sample id <u>B29B62</u>	
Dept sample id <u>7752-011</u>	Location/Matrix <u>600-286 In-Process Samp2 SOLID</u>	
Received <u>11/24/10</u>	Collected/Weight <u>11/18/10 11:22 219 g</u>	
% solids <u>93.5</u>	Custody/SAF No <u>F11-013-041 F11-013</u>	

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS	TEST
Tritium	10028-17-8	<u>-5.01</u>	4.5	8.24	400	U	H
Nickel 63	13981-37-8	<u>1.06</u>	1.6	2.68	30.0	U	NI_L

ARRA 600-286-PL - Soil

Lab id <u>EBRINE</u>
Protocol <u>CHPRC</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/10/10</u>

EBERLINE ANALYTICAL / RICHMOND
SAMPLE DELIVERY GROUP H4441

7752-012

B29B63

DATA SHEET

SDG <u>7752</u>	Client/Case no <u>CHPRC</u>	SDG <u>H4441</u>
Contact <u>N. Joseph Verville</u>	Contract <u>No. 33677</u>	
Lab sample id <u>S011234-12</u>	Client sample id <u>B29B63</u>	
Dept sample id <u>7752-012</u>	Location/Matrix <u>600-286 In-Process Samp3</u>	<u>SOLID</u>
Received <u>11/24/10</u>	Collected/Weight <u>11/18/10 11:30</u>	<u>222 g</u>
% solids <u>91.9</u>	Custody/SAF No <u>F11-013-042</u>	<u>F11-013</u>

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS	TEST
Tritium	10028-17-8	-3.87	4.6	8.21	400	U	H
Nickel 63	13981-37-8	1.58	1.7	2.77	30.0	U	NI_L

ARRA 600-286-PL - Soil

Lab id <u>EBRINE</u>
Protocol <u>CHPRC</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/10/10</u>

EBERLINE ANALYTICAL / RICHMOND
SAMPLE DELIVERY GROUP H4441

7752-013

B29B64

DATA SHEET

SDG <u>7752</u>	Client/Case no <u>CHPRC</u>	SDG <u>H4441</u>
Contact <u>N. Joseph Verville</u>	Contract No. <u>33677</u>	
Lab sample id <u>S011234-13</u>	Client sample id <u>B29B64</u>	
Dept sample id <u>7752-013</u>	Location/Matrix <u>600-286 In-Process Samp4</u>	<u>SOLID</u>
Received <u>11/24/10</u>	Collected/Weight <u>11/18/10 11:55</u>	<u>250 g</u>
% solids <u>92.1</u>	Custody/SAF No <u>F11-013-043</u>	<u>F11-013</u>

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI- FIERS	TEST
Tritium	10028-17-8	-3.23	4.8	8.49	400	U	H
Nickel 63	13981-37-8	3.37	1.7	2.69	30.0		NI_L

ARRA 600-286-PL - Soil

Lab id <u>EBRLNE</u>
Protocol <u>CHPRC</u>
Version <u>Ver 1.0</u>
Form <u>DVD-DS</u>
Version <u>3.06</u>
Report date <u>12/10/10</u>

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4441

LAB METHOD SUMMARY

TRITIUM IN SOLIDS

LIQUID SCINTILLATION COUNTING

Test H Matrix SOLID
 SDG 7752
 Contact N. Joseph Verville

Client CHPRC
 Contract No. 33677
 Contract SDG H4441

RESULTS

LAB	RAW	SUF-		
SAMPLE ID	TEST FIX	PLANCHET	CLIENT SAMPLE ID	Tritium
Preparation batch 7274-116				
S011234-01		7752-001	B29B52	U
S011234-02		7752-002	B29B53	U
S011234-03		7752-003	B29B54	U
S011234-04		7752-004	B29B55	U
S011234-05		7752-005	B29B56	U
S011234-06		7752-006	B29B57	U
S011234-07		7752-007	B29B58	U
S011234-08		7752-008	B29B59	U
S011234-09		7752-009	B29B60	U
S011234-10		7752-010	B29B61	U
S011234-11		7752-011	B29B62	U
S011234-12		7752-012	B29B63	U
S011234-13		7752-013	B29B64	U
S011234-14		7752-014	Lab Control Sample	ok
S011234-15		7752-015	Method Blank	U
S011234-16		7752-016	Duplicate (S011234-01)	- U

Nominal values and limits from method RDLs (pCi/g) 400

Lab id EBRLNE
 Protocol CHPRC
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 12/10/10

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4441

Test H Matrix SOLID
 SDG 7752
 Contact N. Joseph Verville

LAB METHOD SUMMARY

TRITIUM IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
 Contract No. 33677
 Contract SDG H4441

METHOD PERFORMANCE

LAB	RAW	SUF-	MDA	ALIQ	PREP	DILU-	YIELD	EFF	COUNT	FWHM	DRIFT	DAYS	ANAL-				
SAMPLE ID	TEST	FIX	CLIENT	SAMPLE ID	pCi/g	g	FAC	TION	%	%	min	keV	KeV	HELD	PREPARED	YZED	DETECTOR
Preparation batch 7274-116 2σ prep error 10.0 % Reference Lab Notebook No. 7274 pg.116																	
S011234-01			B29B52		8.63	0.221			100		50		18	12/06/10	12/06		LSC-005
S011234-02			B29B53		8.09	0.234			100		50		18	12/06/10	12/06		LSC-005
S011234-03			B29B54		8.05	0.238			100		50		18	12/06/10	12/06		LSC-005
S011234-04			B29B55		8.72	0.220			100		50		18	12/06/10	12/06		LSC-005
S011234-05			B29B56		9.00	0.216			100		50		18	12/06/10	12/06		LSC-005
S011234-06			B29B57		9.21	0.208			100		50		18	12/06/10	12/06		LSC-005
S011234-07			B29B58		8.80	0.214			100		50		18	12/06/10	12/06		LSC-005
S011234-08			B29B59		8.56	0.224			100		50		18	12/06/10	12/06		LSC-005
S011234-09			B29B60		8.96	0.218			100		50		18	12/06/10	12/06		LSC-005
S011234-10			B29B61		7.63	0.245			100		50		18	12/06/10	12/06		LSC-005
S011234-11			B29B62		8.24	0.234			100		50		18	12/06/10	12/06		LSC-005
S011234-12			B29B63		8.21	0.233			100		50		18	12/06/10	12/06		LSC-005
S011234-13			B29B64		8.49	0.227			100		50		18	12/06/10	12/06		LSC-005
S011234-14			Lab Control Sample		9.67	0.200			100		50			12/06/10	12/07		LSC-005
S011234-15			Method Blank		9.54	0.200			100		50			12/06/10	12/06		LSC-005
S011234-16			Duplicate (S011234-01)		8.99	0.219			100		50		18	12/06/10	12/06		LSC-005
Nominal values and limits from method					400	0.200					25		180				

PROCEDURES REFERENCE TRITIUM_COX_LSC
 CP-251 Tritium/Carbon-14 Oxidation, rev 11

AVERAGES ± 2 SD MDA 8.67 ± 1.11
 FOR 16 SAMPLES YIELD 100 ± 0

Lab id EBRLNE
 Protocol CHPRC
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 12/10/10

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4441

Test NI L Matrix SOLID
 SDG 7752
 Contact N. Joseph Verville

LAB METHOD SUMMARY

NICKEL 63 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
 Contract No. 33677
 Contract SDG H4441

RESULTS

LAB RAW SUP-
 SAMPLE ID TEST FIX PLANCHET CLIENT SAMPLE ID Nickel 63

Preparation batch 7274-116

S011234-01	7752-001	B29B52	U
S011234-02	7752-002	B29B53	U
S011234-03	7752-003	B29B54	U
S011234-04	7752-004	B29B55	U
S011234-05	7752-005	B29B56	U
S011234-06	7752-006	B29B57	U
S011234-07	7752-007	B29B58	U
S011234-08	7752-008	B29B59	U
S011234-09	7752-009	B29B60	U
S011234-10	7752-010	B29B61	U
S011234-11	7752-011	B29B62	U
S011234-12	7752-012	B29B63	U
S011234-13	7752-013	B29B64	3.37
S011234-14	7752-014	Lab Control Sample	ok
S011234-15	7752-015	Method Blank	U
S011234-16	7752-016	Duplicate (S011234-01)	- U

Nominal values and limits from method RDLs (pCi/g) 30.0

METHOD SUMMARIES

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SUMMARY DATA SECTION

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Lab id EBRLNE
 Protocol CHPRC
 Version Ver 1.0
 Form DVD-LMS
 Version 3.06
 Report date 12/10/10

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4441

LAB METHOD SUMMARY

NICKEL 63 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Test NI L Matrix SOLID

SDG 7752

Contact N. Joseph Verville

Client CHPRC

Contract No. 33677

Contract SDG H4441

METHOD PERFORMANCE

LAB	RAW	SUF-	MDA	ALIQ	PREP	DILU-	YIELD	EFF	COUNT	FWHM	DRIFT	DAYS	ANAL-				
SAMPLE ID	TEST	FIX	CLIENT	SAMPLE ID	pCi/g	g	FAC	TION	%	%	min	keV	KeV	HELD	PREPARED	YZED	DETECTOR
Preparation batch 7274-116			2σ prep error 11.2 %			Reference Lab Notebook No. 7274			pg.116								
S011234-01			B29B52		2.99	0.500			90		50		18	12/06/10	12/06		LSC-004
S011234-02			B29B53		2.74	0.500			97		50		18	12/06/10	12/06		LSC-004
S011234-03			B29B54		3.18	0.500			84		50		18	12/06/10	12/06		LSC-004
S011234-04			B29B55		2.96	0.500			90		50		18	12/06/10	12/06		LSC-004
S011234-05			B29B56		2.50	0.500			104		50		18	12/06/10	12/06		LSC-004
S011234-06			B29B57		2.57	0.500			104		50		18	12/06/10	12/06		LSC-004
S011234-07			B29B58		2.64	0.500			100		50		18	12/06/10	12/06		LSC-004
S011234-08			B29B59		2.78	0.500			94		50		18	12/06/10	12/06		LSC-004
S011234-09			B29B60		2.86	0.500			93		50		18	12/06/10	12/06		LSC-004
S011234-10			B29B61		2.72	0.500			98		50		18	12/06/10	12/06		LSC-004
S011234-11			B29B62		2.68	0.500			100		50		18	12/06/10	12/06		LSC-004
S011234-12			B29B63		2.77	0.500			95		50		18	12/06/10	12/06		LSC-004
S011234-13			B29B64		2.69	0.500			97		50		18	12/06/10	12/06		LSC-004
S011234-14			Lab Control Sample		2.49	0.500			106		50			12/06/10	12/06		LSC-004
S011234-15			Method Blank		2.38	0.500			<u>112</u>		50			12/06/10	12/06		LSC-004
S011234-16			Duplicate (S011234-01)		2.76	0.500			95		50		18	12/06/10	12/06		LSC-004
Nominal values and limits from method					30.0	0.500			40-110		25			180			

PROCEDURES	REFERENCE	NI63_LSC
	SPP-070	Soil Dissolution, < 1.0g Aliquot, rev 1
	CP-281	Nickel-63 Purification By Extraction Chromatography, rev 5

AVERAGES ± 2 SD	MDA	<u>2.73</u> ± <u>0.405</u>
FOR 16 SAMPLES	YIELD	<u>97</u> ± <u>14</u>

METHOD SUMMARIES

Page 4

SUMMARY DATA SECTION

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Lab id	<u>EBRLNE</u>
Protocol	<u>CHPRC</u>
Version	<u>Ver 1.0</u>
Form	<u>DVD-LMS</u>
Version	<u>3.06</u>
Report date	<u>12/10/10</u>

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4441

SDG 7752
Contact N. Joseph Verville

REPORT GUIDE

Client CHPRC
Contract No. 33677
Case no SDG H4441

SAMPLE SUMMARY

The Sample and QC Summary Reports show all samples, including QC samples, reported in one Sample Delivery Group (SDG).

The Sample Summary Report fully identifies client samples and gives the corresponding lab sample identification. The QC Summary Report shows at the sample level how the lab organized the samples into batches and generated QC samples. The Preparation Batch and Method Summary Reports show this at the analysis level.

The following notes apply to these reports:

- * LAB SAMPLE ID is the lab's primary identification for a sample.
- * DEPARTMENT SAMPLE ID is an alternate lab id, for example one assigned by a radiochemistry department in a lab.
- * CLIENT SAMPLE ID is the client's primary identification for a sample. It includes any sample preparation done by the client that is necessary to identify the sample.
- * QC BATCH is a lab assigned code that groups samples to be processed and QCed together. These samples should have similar matrices.

QC BATCH is not necessarily the same as SDG, which reflects samples received and reported together.

- * All Lab Control Samples, Method Blanks, Duplicates and Matrix Spikes are shown that QC any of the samples. Due to possible reanalyses, not all results for all these QC samples may be relevant to the SDG. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.

REPORT GUIDES

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SUMMARY DATA SECTION

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Lab id EBRLNE
Protocol CHPRC
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 12/10/10

EBERLINE ANALYTICAL / RICHMOND

SAMPLE DELIVERY GROUP H4441

SDG 7752
Contact N. Joseph Verville

REPORT GUIDE

Client CHPRC
Contract No. 33677
Case no SDG H4441

PREPARATION BATCH SUMMARY

The Preparation Batch Summary Report shows all preparation batches in one Sample Delivery Group (SDG) with information necessary to check the completeness and consistency of the SDG.

The following notes apply to this report:

- * The preparation batches are shown in the same order as the Method Summary Reports are printed.
- * Only analyses of planchets relevant to the SDG are included.
- * Each preparation batch should have at least one Method Blank and LCS in it to validate client sample results.
- * The QUALIFIERS shown are all qualifiers other than U, J, B, L and H that occur on any analysis in the preparation batch. The Method Summary Report has these qualifiers on a per sample basis.

These qualifiers should be reviewed as follows:

- X Some data has been manually entered or modified. Transcription errors are possible.
- P One or more results are 'preliminary'. The data is not ready for final reporting.
- 2 There were two or more results for one analyte on one planchet imported at one time. The results in DVD may not be the same as on the raw data sheets.

Other lab defined qualifiers may occur. In general, these should be addressed in the SDG narrative.

EBERLINE ANALYTICAL / RICHMOND

SAMPLE DELIVERY GROUP H4441

SDG 7752
Contact N. Joseph Verville

REPORT GUIDE

Client CHPRC
Contract No. 33677
Case no SDG H4441

WORK SUMMARY

The Work Summary Report shows all samples, including QC samples, and all relevant analyses in one Sample Delivery Group (SDG). This report is often useful as supporting documentation for an invoice.

The following notes apply to this report:

- * TEST is a code for the method used to measure associated analytes. Results and related information for each analyte are on the Data Sheet Report. In special cases, a test code used in the summary data section is not the same as in associated raw data. In this case, both codes are shown on the Work Summary.
- * SUFFIX is the lab's code to distinguish multiple analyses (recounts, reworks, reanalyses) of a fraction of the sample. The suffix indicates which result is being reported. An empty suffix normally identifies the first attempt to analyze the sample.
- * The LAB SAMPLE ID, TEST and SUFFIX uniquely identify all supporting data for a result. The Method Summary Report for each TEST has method performance data, such as yield, for each lab sample id and suffix and procedures used in the method.
- * PLANCHET is an alternate lab identifier for work done for one test. It, combined with the TEST and SUFFIX, may be the best link to raw data.
- * For QC samples, only analyses that directly QC some regular sample are shown. The Lab Control Sample, Method Blank, Duplicate, Matrix Spike and Method Summary Reports detail these relationships.
- * The SAS (Special Analytical Services) Number is a client or lab assigned code that reflects special processing for samples, such as rapid turn around. Counts of tests done are lists by SAS number since it is likely to affect prices.

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Protocol CHPRC
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Form DVD-RG
Version 3.06
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SAMPLE DELIVERY GROUP H4441

SDG 7752
Contact N. Joseph Verville

REPORT GUIDE

Client CHPRC
Contract No. 33677
Case no SDG H4441

DATA SHEET

The Data Sheet Report shows all results and primary supporting information for one client sample or Method Blank. This report corresponds to both the CLP Inorganics and Organics Data Sheet.

The following notes apply to this report:

- * TEST is a code for the method used to measure an analyte. If the TEST is empty, no data is available; the analyte was not analyzed for.
- * The LAB SAMPLE ID and TEST uniquely identify work within the Summary Data Section of a Data Package. The Work Summary and Method Summary Reports further identify raw data that underlies this work.

The Method Summary Report for each TEST has method performance data, such as yield, for each Lab Sample ID and a list of procedures used in the method.

- * ERRORS can be labeled TOTAL or COUNT. TOTAL implies a preparation (non-counting method) error has been added, as square root of sum of squares, to the counting error denoted by COUNT. The preparation errors, which may vary by preparation batch, are shown on the Method Summary Report.
- * A RESULT can be 'N.R.' (Not Reported). This means the lab did this work but chooses not to report it now, possibly because it was reported at another time.
- * When reporting a Method Blank, a RESULT can be 'N.A.' (Not Applicable). This means there is no reported client sample work in the same preparation batch as the Blank's result. This is likely to occur when the Method Blank is associated with reanalyses of selected work for a few samples in the SDG.

The following qualifiers are defined by the DVD system:

- U The RESULT is less than the MDA (Minimum Detectable Activity).

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SUMMARY DATA SECTION

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Protocol CHPRC
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Form DVD-RG
Version 3.06
Report date 12/10/10

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SAMPLE DELIVERY GROUP H4441

SDG 7752
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GUIDE, cont.

Client CHPRC
 Contract No. 33677
 Case no SDG H4441

DATA SHEET

If the MDA is blank, the ERROR is used as the limit.

- J The RESULT is less than the RDL (Required Detection Limit) and no U qualifier is assigned.
 - B A Method Blank associated with this sample had a result without a U flag and, after correcting for possibly different aliquots, that result is greater than or equal to the MDA for this sample.
- Normally, B is not assigned if U is. When method blank subtraction is shown on this report, B flags are assigned based on the unsubtracted values while U's are assigned based on the subtracted ones. Both flags can be assigned in this case.
- For each sample result, all Method Blank results in the same preparation batch are compared. The Method Summary Report documents this and other QC relationships.
- L Some Lab Control Sample that QC's this sample had a low recovery. The lab can disable assignment of this qualifier.
 - H Similar to 'L' except the recovery was high.
 - P The RESULT is 'preliminary'.
 - X Some data necessary to compute the RESULT, ERROR or MDA was manually entered or modified.
 - 2 There were two or more results available for this analyte. The reported result may not be the same as in the raw data.

Other qualifiers are lab defined. Definitions should be in the SDG narrative.

The following values are underlined to indicate possible problems:

- * An MDA is underlined if it is bigger than its RDL.

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 Form DVD-RG
 Version 3.06
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EBERLINE ANALYTICAL/RICHMOND

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SDG 7752
Contact N. Joseph Verville

GUIDE, cont.

Client CHPRC
Contract No. 33677
Case no SDG H4441

DATA SHEET

- * An ERROR is underlined if the 1.645 sigma counting error is bigger than both the MDA and the RESULT, implying that the MDA may not be a good estimate of the 'real' minimum detectable activity.
- * A negative RESULT is underlined if it is less than the negative of its 2 sigma counting ERROR.
- * When reporting a Method Blank, a RESULT is underlined if greater than its MDA. If the MDA is blank, the 2 sigma counting error is used in the comparison.

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Protocol CHPRC
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 12/10/10

EBERLINE ANALYTICAL / RICHMOND

SAMPLE DELIVERY GROUP H4441

SDG 7752
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REPORT GUIDE

Client CHPRC
Contract No. 33677
Case no SDG H4441

LAB CONTROL SAMPLE

The Lab Control Sample Report shows all results, recoveries and primary supporting information for one Lab Control Sample.

The following notes apply to this report:

- * All fields in common with the Data Sheet Report have similar usage. Refer to its Report Guide for details.
- * An amount ADDED is the lab's value for the actual amount spiked into this sample with its ERROR an estimate of the error of this amount.

An amount added is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

- * REC (Recovery) is RESULT divided by ADDED expressed as a percent.
- * The first, computed limits for the recovery reflect:
 1. The error of RESULT, including that introduced by rounding the result prior to printing.

If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.
 2. The error of ADDED.
 3. A lab specified, per analyte bias. The bias changes the center of the computed limits.
- * The second limits are protocol defined upper and lower QC limits for the recovery.
- * The recovery is underlined if it is outside either of these ranges.

Lab id EBRLNE
Protocol CHPRC
Version Ver 1.0
Form DVD-RG
Version 3.06
Report date 12/10/10

EBERLINE ANALYTICAL / RICHMOND

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SDG 7752
 Contact N. Joseph Verville

REPORT GUIDE

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 Contract No. 33677
 Case no SDG_H4441

DUPLICATE

The Duplicate Report shows all results, differences and primary supporting information for one Duplicate and associated Original sample.

The following notes apply to this report:

- * All fields in common with the Data Sheet Report have similar usage. This applies both to the Duplicate and Original sample data. Refer to the Data Sheet Report Guide for details.

If the Duplicate has data for a TEST and the lab did not do this test to the Original, the Original's RESULTS are underlined.

- * The RPD (Relative Percent Difference) is the absolute value of the difference of the RESULTS divided by their average expressed as a percent.

If both RESULTS are less than their MDAs, no RPD is computed and a '-' is printed.

For an analyte, if the lab did work for both samples but has data for only one, the MDA from the sample with data is used as the other's result in the RPD.

- * The first, computed limit is the sum, as square root of sum of squares, of the errors of the results divided by the average result as a percent, hence the relative error of the difference rather than the error of the relative difference. The errors include those introduced by rounding the RESULTS prior to printing.

If this limit is labeled TOT, it includes the preparation error in the RESULTS. If labeled CNT, it does not.

This value reported for this limit is at most 999.

- * The second limit for the RPD is the larger of:

1. A fixed percentage specified in the protocol.

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DUPLICATE

2. A protocol factor (typically 2) times the average MDA as a percent of the average result. This limit applies when the results are close to the MDAs.

- * The RPD is underlined if it is greater than either limit.
- * If specified by the lab, the second limit column is replaced by the Difference Error Ratio (DER), which is the absolute value of the difference of the results divided by the quadratic sum of their one sigma errors, the same errors as used in the first limit.

Except for differences due to rounding, the DER is the same as the RPD divided by the first RPD limit with the limit scaled to 1 sigma.

- * The DER is underlined if it is greater than the sigma factor, typically 2 or 3, shown in the header for the first RPD limit.

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MATRIX SPIKE

The Matrix Spike Report shows all results, recoveries and primary supporting information for one Matrix Spike and associated Original sample.

The following notes apply to this report:

- * All fields in common with the Data Sheet Report have similar usage. This applies both to the Spiked and Original sample data. Refer to the Data Sheet Report Guide for details.

If the Spike has data for a TEST and the lab did not do this test to the Original, the Original's RESULTS are underlined.

- * An amount ADDED is the lab's value for the actual amount spiked into the Spike sample with its ERROR an estimate of the error of this amount.

An amount is underlined if its ratio to the corresponding RDL is outside protocol specified limits.

- * REC (Recovery) is the Spike RESULT minus the Original RESULT divided by ADDED expressed as a percent.

- * The first, computed limits for the recovery reflect:

1. The errors of the two RESULTS, including those introduced by rounding them prior to printing.

If the limits are labeled (TOTAL), they include preparation error in the result. If labeled (COUNT), they do not.

2. The error of ADDED.

3. A lab specified, per analyte bias. The bias changes the center of the computed limits.

- * The second limits are protocol defined upper and lower QC limits

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SUMMARY DATA SECTION

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 Version Ver 1.0
 Form DVD-RG
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MATRIX SPIKE

for the recovery.

These limits are left blank if the Original RESULT is more than a protocol defined factor (typically 4) times ADDED. This is a way of accounting for that when the spike is small compared to the amount in the original sample, the recovery is unreliable.

- * The recovery is underlined (out of spec) if it is outside either of these ranges.

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SUMMARY DATA SECTION

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Version Ver 1.0
Form DVD-RG
Version 3.06
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SDG 7752
 Contact N. Joseph Verville

REPORT GUIDE

Client CHPRC
 Contract No. 33677
 Case no SDG H4441

METHOD SUMMARY

The Method Summary Report has two tables. One shows up to five results measured using one method. The other has performance data for the method. There is one report for each TEST, as used on the Data Sheet Report.

The following notes apply to this report:

- * Each table is subdivided into sections, one for each preparation batch. A preparation batch is a group of aliquots prepared at roughly the same time in one work area of the lab using the same method.

There should be Lab Control Sample and Method Blank results in each preparation batch since this close correspondence makes the QC meaningful. Depending on lab policy, Duplicates need not occur in each batch since they QC sample dependencies such as matrix effects.

- * The RAW TEST column shows the test code used in the raw data to identify a particular analysis if it is different than the test code in the header of the report. This occurs in special cases due to method specific details about how the lab labels work.

The Lab Sample or Planchet ID combined with the (Raw) Test Code and Suffix uniquely identify the raw data for each analysis.

- * If a result is less than both its MDA and RDL, it is replaced by just 'U' on this report. If it is greater than or equal to the RDL but less than the MDA, the result is shown with a 'U' flag.

The J and X flags are as on the data sheet.

- * Non-U results for Method Blanks are underlined to indicate possible contamination of other samples in the preparation batch. The Method Blank Report has supporting data.
- * Lab Control Sample and Matrix Spike results are shown as: ok, No data, LOW or HIGH, with the last two underlined. 'No data'

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GUIDE, cont.

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METHOD SUMMARY

means no amount ADDED was specified. 'LOW' and 'HIGH' correspond to when the recovery is underlined on the Lab Control Sample or Matrix Spike Report. See these reports for supporting data.

- * Duplicate sample results are shown as: ok, No data, or OUT, with the last two underlined. 'No data' means there was no original sample data found for this duplicate. 'OUT' corresponds to when the RPD is underlined on the Duplicate Report. See this report for supporting data.
- * If the MDA column is labeled 'MAX MDA', there was more than one result measured by the reported method and the MDA shown is the largest MDA. If not all these results have the same RDL, the MAX MDA reflects only those results with RDL equal to the smallest one.

MDAs are underlined if greater than the printed RDL.

- * Aliquots are underlined if less than the nominal value specified for the method.
- * Preparation factors are underlined if greater than the nominal value specified for the method.
- * Dilution factors are underlined if greater than the nominal value specified for the method.
- * Residues are underlined if outside the range specified for the method. Residues are not printed if yields are.
- * Yields, which may be gravimetric, radiometric or some type of recovery depending on the method, are underlined if outside the range specified for the method.
- * Efficiencies are underlined if outside the range specified for the method. Efficiencies are detector and geometry dependent so this test is only approximate.

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SUMMARY DATA SECTION

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METHOD SUMMARY

- * Count times are underlined if less than the nominal value specified for the method.
- * Resolutions (as FWHM; Full Width at Half Max) are underlined if greater than the method specified limit.
- * Tracer drifts are underlined if their absolute values are greater than the method specified limit. Tracer drifts are not printed if percent moistures are.
- * Days Held are underlined if greater than the holding time specified in the protocol.
- * Analysis dates are underlined if before their planchet's preparation date or, if a limit is specified, too far after it.

For some methods, ratios as percentages and error estimates for them are computed for pairs of results. A ratio column header like '1+3' means the ratio of the first result column and the third result column.

Ratios are not computed for Lab Control Sample, Method Blank or Matrix Spike results since their matrices are not necessarily similar to client samples'.

The error estimate for a ratio of results from one planchet reflects only counting errors since other errors should be correlated. For a ratio involving different planchets, if QC limits are computed based on total errors, the error for the ratio allows for the preparation errors for the planchets.

The ratio is underlined (out of spec) if the absolute value of its difference from the nominal value is greater than its error estimate. If no nominal value is specified, this test is not done.

For Gross Alpha or Gross Beta results, there may be a column showing the sum of other Alpha or Beta emitters. This sum includes all relevant

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SDG 7752
 Contact N. Joseph Verville

GUIDE, cont.

Client CHPRC
 Contract No. 33677
 Case no SDG_H4441

METHOD SUMMARY

results in the DVD database, whether reported or not. Results in the sum are weighted by a particles/decay value specified by the lab for each relevant analyte. Results less than their MDA are not included. No sums are computed for Lab Control, Method Blank or Matrix Spike samples since their various planchets may not be physically related.

If a ratio of total isotopic to Gross Alpha or Beta is shown, the error for the ratio reflects both the error in the Gross result and the sum, as square root of sum of squares, of the errors in the isotopic results.

For total elemental uranium or thorium results, there may be a column showing the total weight computed from associated isotopic results. Ignoring results less than their MDAs, this is a weighted sum of the isotopic results. The weights depend on the molecular weight and half-life of each isotope so as to convert activities (decays) to weight (atoms).

If a ratio of total computed to measured elemental uranium or thorium is shown, the error for the ratio reflects the errors in all the measurements.

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SUMMARY DATA SECTION

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Lab id EBRLNE
 Protocol CHPRC
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 Form DVD-RG
 Version 3.06
 Report date 12/10/10

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-013-031	PAGE 1 OF 1
COLLECTOR KB Hulse CHPRC	COMPANY CONTACT WIDRIG, DL <i>AA441</i>	TELEPHONE NO. 376-2858 <i>7752</i>	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days	
SAMPLING LOCATION 600-286 V-1	PROJECT DESIGNATION ARRA 600-286-PL - Soil		SAF NO. F11-013	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO. <i>GWS-234</i>	FIELD LOGBOOK NO. HNF-N-507- <i>16-4</i>	ACTUAL SAMPLE DEPTH <i>0-12 inches</i>	COA 302222ES10	METHOD OF SHIPMENT FEDERAL EXPRESS		
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. <i>02451</i>		BILL OF LADING/AIR BILL NO. <i>7964 8176 8863</i>			
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)		PRESERVATION None	SEE ITEM (1) IN SPECIAL INSTRUCTIONS		
	SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B29B22		HOLDING TIME 6 Months			
			TYPE OF CONTAINER G/P			
			NO. OF CONTAINER(S) 1			
			VOLUME 250ml			
			SAMPLE ANALYSIS			
SAMPLE NO. 46 B29B22	MATRIX* SOIL	SAMPLE DATE NOV 18 2010	SAMPLE TIME 1134	X		

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM KB Hulse CHPRC	DATE/TIME NOV 18 2010	RECEIVED BY/STORED IN <i>SSU#1</i>	DATE/TIME NOV 18 2010	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.	
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME NOV 23 2010 1120	RECEIVED BY/STORED IN L.D. Wall	DATE/TIME NOV 23 2010 1120	* The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.	
RELINQUISHED BY/REMOVED FROM L.D. Wall	DATE/TIME NOV 23 2010 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	(1) Nickel-63 {Nickel-63}; Tritium - H3 {Tritium};	
RELINQUISHED BY/REMOVED FROM CHPRC	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
LABORATORY SECTION	RECEIVED BY	TITLE		DATE/TIME	
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY		DATE/TIME	

ORIGINAL

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-013-032	PAGE 1 OF 1
COLLECTOR KB Hulse CHPRC	COMPANY CONTACT WIDRIG, DL H4441	TELEPHONE NO. 376-2858 7752	PROJECT COORDINATOR WIDRIG, DL		PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-286 V-2	PROJECT DESIGNATION ARRA 600-286-PL - Soil		SAF NO. F11-013		AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. 6WS-234	FIELD LOGBOOK NO. HNF-N-507-16-4	ACTUAL SAMPLE DEPTH 0-12 inches	COA 302222E510		METHOD OF SHIPMENT FEDERAL EXPRESS	
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 11/23/10 02431		BILL OF LADING/AIR BILL NO. SEE PTR 7964 8176 8863			

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None		
		HOLDING TIME	6 Months		
		TYPE OF CONTAINER	G/P		
		NO. OF CONTAINER(S)	1		
		VOLUME	250ml		
SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B29B23		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS		
47	SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B29B53		SOIL	11/18/10	1142	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM KB Hulse	DATE/TIME 11/18/10	RECEIVED BY/STORED IN SSU#1	DATE/TIME 11/18/10	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.	
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME NOV 23 2010 1120	RECEIVED BY/STORED IN L.D. Wall	DATE/TIME NOV 23 2010 1120	* The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.	
RELINQUISHED BY/REMOVED FROM L.D. Wall	DATE/TIME NOV 23 2010 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	(1) Nickel-63 {Nickel-63}; Tritium - H3 {Tritium};	
RELINQUISHED BY/REMOVED FROM CHPRC	DATE/TIME	RECEIVED BY/STORED IN F. NATHANSON	DATE/TIME 11/24/10 0915		
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

 ORIGINAL

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-013-033	PAGE 1 OF 1
COLLECTOR KB Hulse CHPRC	COMPANY CONTACT WIDRIG, DL H4441	TELEPHONE NO. 376-2858 7752	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days	
SAMPLING LOCATION 600-286 V-3	PROJECT DESIGNATION ARRA 600-286-PL - Soil	SAF NO. F11-013	AIR QUALITY <input type="checkbox"/>	METHOD OF SHIPMENT FEDERAL EXPRESS		
ICE CHEST NO. GWS-234	FIELD LOGBOOK NO. HNF-N-507-12-4	ACTUAL SAMPLE DEPTH 0-12 inches	COA 302222ES10	BILL OF LADING/AIR BILL NO. SEE PTR 7964 8176 8863		
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 02431	PRESERVATION None				
MATRIX* A=Air DL=Drum L=Liquid DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)		HOLDING TIME 6 Months			
	SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B29B24		TYPE OF CONTAINER G/P			
			NO. OF CONTAINER(S) 1			
			VOLUME 250ml			
			SAMPLE ANALYSIS SEE ITEM (1) IN SPECIAL INSTRUCTIONS			
48 B29B24 59	SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
	B29B24	SOIL	NOV 18 2010	1152	X	

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM KB Hulse CHPRC	DATE/TIME NOV 18 2010 1600	RECEIVED BY/STORED IN SSU#1	DATE/TIME NOV 18 2010 1600	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.	
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME NOV 23 2010 1120	RECEIVED BY/STORED IN L.D. Wall	DATE/TIME NOV 23 2010 1120	* The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.	
RELINQUISHED BY/REMOVED FROM L.D. Wall	DATE/TIME NOV 23 2010 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME 11/24/10 0915	(1) Nickel-63 {Nickel-63}; Tritium - H3 {Tritium};	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-013-034	PAGE 1 OF 1
COLLECTOR KB Hulse CHPRC	COMPANY CONTACT WIDRIG, DL <i>H2441</i>	TELEPHONE NO. 376-2858 <i>4752</i>	PROJECT COORDINATOR WIDRIG, DL		PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-286 V-4	PROJECT DESIGNATION ARRA 600-286-PL - Soil		SAF NO. F11-013		AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. <i>6WS-234</i>	FIELD LOGBOOK NO. HNF-N-507- <i>16-4</i>	ACTUAL SAMPLE DEPTH <i>0.12 inches</i>		COA 302222ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	
SHIPPED TO Eberline Services		OFFSITE PROPERTY NO. <i>SEE PTR 20.11/23/10 02431</i>		BILL OF LADING/AIR BILL NO. <i>SEE PTR 20.11/23/10 7964 8176 8863</i>		
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION None	HOLDING TIME 6 Months	TYPE OF CONTAINER G/P	NO. OF CONTAINER(S) 1	VOLUME 250mL
SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B29825		SAMPLE ANALYSIS SEE ITEM (1) IN SPECIAL INSTRUCTIONS				
<i>49</i> SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B29825	SOIL	11/18/10	1204	✓		

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM KB Hulse CHPRC	DATE/TIME 11/18/10 1600	RECEIVED BY/STORED IN SSU#1	DATE/TIME 11/18/10 1600	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. * The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported. (1) Nickel-63 {Nickel-63}; Tritium - H3 {Tritium};	
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME NOV 23 2010 1120	RECEIVED BY/STORED IN L.D. Wall CHPRC	DATE/TIME NOV 23 2010 1120		
RELINQUISHED BY/REMOVED FROM L.D. Wall CHPRC	DATE/TIME NOV 23 2010 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME		
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN FEDEX	DATE/TIME 11/24/10 0915		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
LABORATORY SECTION	RECEIVED BY	TITLE		DATE/TIME	
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY		DATE/TIME	

 ORIGINAL

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-013-035	PAGE 1 OF 1
COLLECTOR KC Patterson CHPRC		COMPANY CONTACT WIDRIG, DL H4441	TELEPHONE NO. 376-2858 7752	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-286 V-5		PROJECT DESIGNATION ARRA 600-286-PL - Soil		SAF NO. F11-013	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. GWS-234		FIELD LOGBOOK NO. HNF-N-507-16.4	ACTUAL SAMPLE DEPTH 0-12 inches	COA 302222E510	METHOD OF SHIPMENT FEDERAL EXPRESS	
SHIPPED TO Eberline Services		OFFSITE PROPERTY NO. SECRET AD 11/23/10 02431		BILL OF LADING/AIR BILL NO. SECRET LW 11/23/10 7969 8176 8863		
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)		PRESERVATION None			
			HOLDING TIME 6 Months			
			TYPE OF CONTAINER G/P			
			NO. OF CONTAINER(S) 1			
			VOLUME 250mL			
	SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B29B26		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B29B56	SOIL	NOV 18 2010	1055	X		

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM KC Patterson	DATE/TIME NOV 18 2010 1600	RECEIVED BY/STORED IN SSUAH	DATE/TIME NOV 18 2010 1600	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.	
RELINQUISHED BY/REMOVED FROM SSU	DATE/TIME NOV 23 2010 1120	RECEIVED BY/STORED IN L.D. Wall CHPRC	DATE/TIME NOV 23 2010 1120	* The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.	
RELINQUISHED BY/REMOVED FROM L.D. Wall CHPRC	DATE/TIME NOV 23 2010 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME 11/24/10 0915	(1) Nickel-63 {Nickel-63}; Tritium - H3 {Tritium};	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN F. MATSON	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-013-036	PAGE 1 OF 1
COLLECTOR KC Patterson CHPRC		COMPANY CONTACT WIDRIG, DL <i>H4441</i>	TELEPHONE NO. 376-2858 <i>7752</i>	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-286 V-6		PROJECT DESIGNATION ARRA 600-286-PL - Soil		SAF NO. F11-013	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. <i>BWS-234</i>		FIELD LOGBOOK NO. <i>HNF-N-507-16-4</i>	ACTUAL SAMPLE DEPTH <i>012 inches</i>	COA 302222ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	
SHIPPED TO Eberline Services		OFFSITE PROPERTY NO. <i>02431</i>		BILL OF LADING/AIR BILL NO. <i>7964 8176 8863</i>		
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION <i>SEE PTR 11/23/10</i> None	HOLDING TIME 6 Months	TYPE OF CONTAINER G/P	NO. OF CONTAINER(S) 1	VOLUME 250mL
	SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B29B27	SAMPLE ANALYSIS SEE ITEM (1) IN SPECIAL INSTRUCTIONS				
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
<i>B29B57</i>	SOIL	<i>NOV 18 2010</i>	<i>1105</i>	<i>X</i>		

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>KC Patterson</i>	DATE/TIME <i>NOV 18 2010 1600</i>	RECEIVED BY/STORED IN <i>SSCH#1</i>	DATE/TIME <i>NOV 18 2010 1600</i>	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.	
RELINQUISHED BY/REMOVED FROM <i>SSU-1</i>	DATE/TIME <i>NOV 23 2010 1120</i>	RECEIVED BY/STORED IN <i>L.D. Wall</i>	DATE/TIME <i>NOV 23 2010 1120</i>	* The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.	
RELINQUISHED BY/REMOVED FROM <i>L.D. Wall</i>	DATE/TIME <i>NOV 23 2010 1400</i>	RECEIVED BY/STORED IN <i>FEDEX</i>	DATE/TIME <i>11/24/10 0915</i>	(1) Nickel-63 {Nickel-63}; Tritium - H3 {Tritium};	
RELINQUISHED BY/REMOVED FROM <i>CHPRC</i>	DATE/TIME <i>FEDEX</i>	RECEIVED BY/STORED IN <i>M. WACK</i>	DATE/TIME <i>11/24/10 0915</i>		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

 ORIGINAL

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2M Hill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-013-037	PAGE 1 OF 1
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL H-441	TELEPHONE NO. 376-2858 7752	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-286 V-7	PROJECT DESIGNATION ARRA 600-286-PL - Soil	SAF NO. F11-013	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO. GWS-234	FIELD LOGBOOK NO. HNF-N-507-16.4	ACTUAL SAMPLE DEPTH 0-12 inches	COA 302222ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 02431	BILL OF LADING/AIR BILL NO. SEE PTR 7964 8176 8863			

MATRIX* A=Air DL=Drum L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION None		
		HOLDING TIME 6 Months		
		TYPE OF CONTAINER G/P		
		NO. OF CONTAINER(S) 1		
		VOLUME 250mL		
SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B29B28	SAMPLE ANALYSIS SEE ITEM (1) IN SPECIAL INSTRUCTIONS			
SAMPLE NO. B29B28	MATRIX* SOIL	SAMPLE DATE NOV 18 2010	SAMPLE TIME 1048	<input checked="" type="checkbox"/>

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM KC Patterson	DATE/TIME NOV 18 2010 1600	RECEIVED BY/STORED IN SSU-1	DATE/TIME NOV 18 2010 1600	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. * The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported. (1) Nickel-63 {Nickel-63}; Tritium - H3 {Tritium};	
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME NOV 23 2010 1120	RECEIVED BY/STORED IN L.D. Wall	DATE/TIME NOV 23 2010 1120		
RELINQUISHED BY/REMOVED FROM L.D. Wall	DATE/TIME NOV 23 2010 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME		
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN M-F WATKINS	DATE/TIME 11/24/10 0915		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

 ORIGINAL

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-013-038	PAGE 1 OF 1
COLLECTOR KC Patterson CHPRC		COMPANY CONTACT WIDRIG, DL H4441	TELEPHONE NO. 376-2858 7752	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-286 V-8		PROJECT DESIGNATION ARRA 600-286-PL - Soil		SAF NO. F11-013	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. GWS-234		FIELD LOGBOOK NO. HNF-N-507-16.4	ACTUAL SAMPLE DEPTH 0-12 inches	COA 30222ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	
SHIPPED TO Eberline Services		OFFSITE PROPERTY NO. 02431		BILL OF LADING/AIR BILL NO. 7964 8176 8863		
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)		PRESERVATION None	SEE PTR 20/11/23/10		
			HOLDING TIME 6 Months			
			TYPE OF CONTAINER G/P			
			NO. OF CONTAINER(S) 1			
			VOLUME 250mL			
	SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B29B29	SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS		
53	SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B29B59		SOIL	NOV 18 2010	12/4	X	
59						

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME NOV 18 2010 1600	RECEIVED BY/STORED IN SSU-1	DATE/TIME NOV 18 2010 1600	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.	
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME NOV 23 2010 1120	RECEIVED BY/STORED IN L.D. Wall CHPRC	DATE/TIME NOV 23 2010 1120	* The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.	
RELINQUISHED BY/REMOVED FROM L.D. Wall CHPRC	DATE/TIME NOV 23 2010 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME NOV 24 2010 0915	(1) Nickel-63 {Nickel-63}; Tritium - H3 {Tritium};	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN M. MATROSKA	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

ORIGINAL

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-013-039	PAGE 1 OF 1
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL H4441	TELEPHONE NO. 376-2858 7752	PROJECT COORDINATOR WIDRIG, DL		PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-286 V-8 Dup	PROJECT DESIGNATION ARRA 600-286-PL - Soil		SAF NO. F11-013	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO. GWS-234	FIELD LOGBOOK NO. HNF-N-507-164	ACTUAL SAMPLE DEPTH 0-12 inches	COA 302222ES10	METHOD OF SHIPMENT FEDERAL EXPRESS		
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. 02431		BILL OF LADING/AIR BILL NO. 7964 8176 8863			
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)		PRESERVATION None		SEE PTR 30.11/23/10	
			HOLDING TIME 6 Months			
			TYPE OF CONTAINER G/P			
			NO. OF CONTAINER(S) 1			
			VOLUME 250mL			
	SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B29B30		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B29B30	SOIL	NOV 18 2010	1214	X		

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME NOV 18 2010 1600	RECEIVED BY/STORED IN SSU#1	DATE/TIME NOV 18 2010 1600	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.	
RELINQUISHED BY/REMOVED FROM L.D. Wall	DATE/TIME NOV 23 2010 1120	RECEIVED BY/STORED IN L.D. Wall	DATE/TIME NOV 23 2010 1120	* The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.	
RELINQUISHED BY/REMOVED FROM L.D. Wall	DATE/TIME NOV 23 2010 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME	(1) Nickel-63 {Nickel-63}; Tritium - H3 {Tritium};	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN N. NASTAN	DATE/TIME 11/24/10 0915		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-013-040	PAGE 1 OF 1
COLLECTOR KC Patterson CHPRC		COMPANY CONTACT WIDRIG, DL H-4441	TELEPHONE NO. 376-2858 7752	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-286 In-Process Sample 1		PROJECT DESIGNATION ARRA 600-286-PL - Soil		SAF NO. F11-013	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. GWS-234		FIELD LOGBOOK NO. HNF-N-807-16.4	ACTUAL SAMPLE DEPTH 0-12 inches	COA 302222ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	
SHIPPED TO Eberline Services		OFFSITE PROPERTY NO. 02431		BILL OF LADING/AIR BILL NO. 7964 8176 8863		
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993) SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B29B31	PRESERVATION <i>SEE PTR 10/11/23/10</i>	None	BILL OF LADING/AIR BILL NO. <i>SEE PTR 10/11/23/10</i> 7964 8176 8863		
HOLDING TIME		6 Months				
TYPE OF CONTAINER		G/P				
NO. OF CONTAINER(S)		1				
VOLUME		250mL				
		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS			
59	59	59	59	59	59	59
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B29B61	SOIL	NOV 18 2010	1113	X		

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM KC Patterson	DATE/TIME NOV 18 2010 1600	RECEIVED BY/STORED IN SSU- 1	DATE/TIME NOV 18 2010 1600	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. * The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported. (1) Nickel-63 {Nickel-63}; Tritium - H3 {Tritium};
RELINQUISHED BY/REMOVED FROM SSU- 1	DATE/TIME NOV 23 2010 1120	RECEIVED BY/STORED IN L.D. Wall	DATE/TIME NOV 23 2010 1120	
RELINQUISHED BY/REMOVED FROM L.D. Wall	DATE/TIME NOV 23 2010 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN IF. NATHANAPARAN	DATE/TIME 11/24/10 0815	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

 ORIGINAL

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-013-041	PAGE 1 OF 1
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-286 In-Process Sample 2	PROJECT DESIGNATION ARRA 600-286-PL - Soil	SAF NO. F11-013	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO. GWS-234	FIELD LOGBOOK NO. HNF-N-507-16-4	ACTUAL SAMPLE DEPTH 0.12 inches	COA 302222ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. 02431	BILL OF LADING/AIR BILL NO. 7964 8176 8863			

MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION None
		HOLDING TIME 6 Months
		TYPE OF CONTAINER G/P
		NO. OF CONTAINER(S) 1
		VOLUME 250mL
SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B29B32		SAMPLE ANALYSIS SEE ITEM (1) IN SPECIAL INSTRUCTIONS

CG	SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B29B62		SOIL	NOV 18 2010	1122	X

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM KC Patterson	DATE/TIME NOV 18 2010	RECEIVED BY/STORED IN SSU#1
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME NOV 23 2010	RECEIVED BY/STORED IN L.D. Wall
RELINQUISHED BY/REMOVED FROM L.D. Wall	DATE/TIME NOV 23 2010	RECEIVED BY/STORED IN FED EX
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN M. KATH...
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN

SPECIAL INSTRUCTIONS
** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
* The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Nickel-63 {Nickel-63}; Tritium - H3 {Tritium};

ORIGINAL

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-013-042	PAGE 1 OF 1
COLLECTOR KC Patterson CHPRC		COMPANY CONTACT WIDRIG, DL <i>4441</i>	TELEPHONE NO. 376-2858 <i>1752</i>	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-286 In-Process Sample 3		PROJECT DESIGNATION ARRA 600-286-PL - Soil			SAF NO. F11-013	AIR QUALITY <input type="checkbox"/>
ICE CHEST NO. <i>GWS-234</i>		FIELD LOGBOOK NO. HNF-N-507-16.4	ACTUAL SAMPLE DEPTH <i>0-12 inches</i>	COA 302222ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	
SHIPPED TO Eberline Services		OFFSITE PROPERTY NO. SEE PTR <i>10/11/23/10</i> <i>02431</i>		BILL OF LADING/AIR BILL NO. SEE PTR <i>10/11/23/10</i> <i>7964 8176 8863</i>		
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)		PRESERVATION None			
			HOLDING TIME 6 Months			
			TYPE OF CONTAINER G/P			
			NO. OF CONTAINER(S) 1			
			VOLUME 250mL			
	SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B29B33		SAMPLE ANALYSIS SEE ITEM (1) IN SPECIAL INSTRUCTIONS			
57	SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B29B33		SOIL	NOV 18 2010	1130	X	
59						

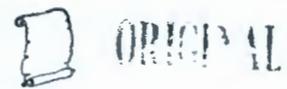
CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME <i>1600</i> NOV 18 2010	RECEIVED BY/STORED IN SSU-1	DATE/TIME NOV 18 2010 1600	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. * The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported. (1) Nickel-63 {Nickel-63}; Tritium - H3 {Tritium};	
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME NOV 23 2010	RECEIVED BY/STORED IN L.D. Wall CHPRC	DATE/TIME NOV 23 2010 1120		
RELINQUISHED BY/REMOVED FROM L.D. Wall CHPRC	DATE/TIME NOV 23 2010 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME NOV 24 2010 0515		
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		

ORIGINAL

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2MHill Plateau Remediation Company		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-013-043	PAGE 1 OF 1
COLLECTOR KC Patterson CHPRC		COMPANY CONTACT WIDRIG, DL <i>H441</i>	TELEPHONE NO. 376-2858 <i>7752</i>	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-286 In-Process Sample 4		PROJECT DESIGNATION ARRA 600-286-PL - Soil		SAF NO. F11-013	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO. <i>GWS-234</i>		FIELD LOGBOOK NO. <i>HNF-N-507-16.4</i>	ACTUAL SAMPLE DEPTH <i>0-12 inches</i>	COA 302222ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	
SHIPPED TO Eberline Services		OFFSITE PROPERTY NO. <i>02431</i>		BILL OF LADING/AIR BILL NO. <i>7964 8176 8863</i>		
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION None	HOLDING TIME 6 Months	SEE ITEM (1) IN SPECIAL INSTRUCTIONS		
	SPECIAL HANDLING AND/OR STORAGE RADIOACTIVE TIE TO: B29B34	TYPE OF CONTAINER G/P	NO. OF CONTAINER(S) 1			
		VOLUME 250mL				
		SAMPLE ANALYSIS				
CT 00 150	SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
	B29B64	SOIL	NOV 18 2010	1155	X	

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME NOV 18 2010 1600	RECEIVED BY/STORED IN <i>SETH</i>	DATE/TIME NOV 18 2010 1600	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.	
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME NOV 23 2010 1120	RECEIVED BY/STORED IN L.D. Wall <i>R.D. Wall</i>	DATE/TIME NOV 23 2010 1120	* The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.	
RELINQUISHED BY/REMOVED FROM CHPRC <i>L.D. Wall</i>	DATE/TIME NOV 23 2010 1400	RECEIVED BY/STORED IN FED EX <i>FRAN</i>	DATE/TIME	(1) Nickel-63 {Nickel-63}; Tritium - H3 {Tritium};	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN <i>FRAN</i>	DATE/TIME 11/24/10 09N		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		



LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME



RICHMOND, CA LABORATORY

SAMPLE RECEIPT CHECKLIST

Client: CHPRC City MCHLAND State WA
 Date/Time received 11/24/10 CoC No. FI-013-031,032,033,034,035,036,037,038,039,040,041,042,043
 Container I.D. No. 655-234 Requested TAT (Days) 15 P.O. Received Yes [] No []

INSPECTION

1. Custody seals on shipping container intact? Yes No [] N/A []
2. Custody seals on shipping container dated & signed? Yes No [] N/A []
3. Custody seals on sample containers intact? Yes No [] N/A []
4. Custody seals on sample containers dated & signed? Yes No [] N/A []
5. Packing material is: Wet [] Dry
6. Number of samples in shipping container: 13 Sample Matrix S
7. Number of containers per sample: 1 (Or see CoC)
8. Samples are in correct container Yes No []
9. Paperwork agrees with samples? Yes No []
10. Samples have: Tape [] Hazard labels [] Rad labels [] Appropriate sample labels
11. Samples are: In good condition Leaking [] Broken Container [] Missing []
12. Samples are: Preserved [] Not preserved [] pH N/A Preservative
13. Describe any anomalies:
14. Was P.M. notified of any anomalies? Yes [] No [] Date
15. Inspected by Date: 11/24/10 Time: 1020

Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	Wipe	Customer Sample No.	Beta/Gamma cpm	Ion Chamber mR/hr	wipe
<u>Ac Strip 453</u>	<u>460</u>						

Ion Chamber Ser. No. Calibration date
 Alpha Meter Ser. No. Calibration date
 Beta/Gamma Meter Ser. No. 100482 Calibration date 24 SEP 10