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Analytical Data Report for Sediment Samples Collected From 200 BP 5 OU, C7514 (299-E28-30) L-Well

Michael Lindberg

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Pacific Northwest
NATIONAL LABORATORY

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To: Dale Dyekman

From: M ichael J. Lindberg

Environmental Sciences Laboratory
Energy and Environment Directorate, Pacific Northwest National Laboratory

Subject: Analytical Data Report for Sediment Samples Collected From 200 BP 5 OU, C7514 (299-E28-30) L-Well, Sample Delivery Group ESL090008, SAF Number F10-024

This letter contains the following information for sample delivery group ESL090008

- Cover Sheet
- Narrative
- Analytical Results
- Quality Control
- Geologic Logs
- Geologic Photos
- Chain of Custodies

Introduction

Between November 12, 2009 and November 30, 2009 sediment samples were received from 200 BP 5 OU, C7514 (299-E28-30) L-Well for geochemical studies.

Analytical Results/Methodology

The analyses for this project were performed at the 325 building located in the 300 Area of the Hanford Site. The analyses were performed according to Pacific Northwest National Laboratory (PNNL) approved procedures and/or nationally recognized test procedures. The data sets include the sample identification numbers, analytical results, estimated quantification limits (EQL), and quality control data.

Quality Control

The preparatory and analytical quality control requirements, calibration requirements, acceptance criteria, and failure actions are defined in the on-line QA plan "Conducting Analytical Work in Support of Regulatory Programs" (CAW). This QA plan implements the Hanford Analytical Services Quality Assurance Requirements Documents (HASQARD) for PNNL.

Definitions

Dup	Duplicate
RPD	Relative Percent Difference
NR	No Recovery (percent recovery less than zero)
ND	Non-Detectable
%REC	Percent Recovery

Sample Receipt

Samples were received with a chain of custody (COC) and were analyzed according to the sample identification numbers supplied by the client. All Samples were refrigerated upon receipt until prepared for analysis.

All samples were received with custody seals intact unless noted in the Case Narrative.

Holding Times

Holding time is defined as the time from sample preparation to the time of analyses. The prescribed holding times were met for all analytes unless noted in the Case Narrative.

Analytical Results

All reported analytical results meet the requirements of the CAW or client specified SOW unless noted in the case narrative.

Case Narrative Report

Hold Time:

Due to the requirements of the statement of work and sampling events in the field, the 28 day and the 48 hr requirements can not be met. The statement of work requires samples to be selected at the completion of the borehole. It is not always possible to complete a borehole and have the samples shipped to the laboratory within the hold time requirements.

Preparation Blank (PB):

No discrepancies noted.

Duplicate (DUP):

No discrepancies noted.

Laboratory Control Samples (LCS):

No discrepancies noted.

Post Spike (PS):

Post-Spike Recovery for Calcium (135%) was outside acceptance limits (75-125) in 0B15003-PS1 for ICP-OES Vadose-WE
The native sample concentration was greater than 5 times the spike concentration. There should be no impact to data as reported.

Post-Spike Recovery for Aluminum (211%) was outside acceptance limits (75-125) in 0B16001-PS1 for ICP-OES Vadose-AE
The native sample concentration was greater than 5 times the spike concentration. There should be no impact to data as reported.

Post-Spike Recovery for Calcium (329%) was outside acceptance limits (75-125) in 0B16001-PS1 for ICP-OES Vadose-AE
The native sample concentration was greater than 5 times the spike concentration. There should be no impact to data as reported.

Post-Spike Recovery for Iron (553%) was outside acceptance limits (75-125) in 0B16001-PS1 for ICP-OES Vadose-AE
The native sample concentration was greater than 5 times the spike concentration. There should be no impact to data as reported.

Post-Spike Recovery for Magnesium (279%) was outside acceptance limits (75-125) in 0B16001-PS1 for ICP-OES Vadose-AE
The native sample concentration was greater than 5 times the spike concentration. There should be no impact to data as reported.

Post-Spike Recovery for Silver (71.9%) was outside acceptance limits (75-125) in 0B16001-PS1 for ICP-OES Vadose-AE
Low spike recovery may be due to a sample matrix effect. Results for the samples associated with this batch were below the EQL. There should be no impact to data as reported.

Matrix Spike (MS):

Matrix Spike Recovery for Chromium, Hexavalent (38.4%) was outside acceptance limits (75-125) in 0D08006-MS1 for Hexavalent Chromium/Soil
Potential Matrix interference. Sample results associated with this batch are below the EQL. There should be no impact to the data as reported.

Other QC Criteria:

No discrepancies noted.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager as verified by this signature.

Michael Lindberg

DISCLAIMER

SAMPLES INCLUDED IN THIS REPORT

200 BP 5 OU, C7514 (299-E24-25) L-Well

HEIS No.	Laboratory ID	Matrix	Date Collected	Date Received
B22TK8	0911013-11	SOIL	11/9/09 14:36	11/12/09 12:42
B22TL9	0911013-23	SOIL	11/10/09 12:48	11/12/09 12:42
B22TN1	0911013-37	SOIL	11/11/09 12:09	11/12/09 12:42
B22TN6	0911013-45	SOIL	11/12/09 08:56	11/16/09 13:30
B22TP7	0911013-59	SOIL	11/12/09 13:35	11/16/09 13:30
B22TR8	0911013-72	SOIL	11/13/09 12:54	11/16/09 13:30
B22TV3	0911013-90	SOIL	11/16/09 12:40	11/18/09 11:30
B22TV8	0911013-96	SOIL	11/18/09 07:14	11/18/09 11:30
B22TW5	0911013-AE	SOIL	11/18/09 09:50	11/18/09 11:30
B22TX5	0911013-AT	SOIL	11/20/09 14:36	11/23/09 11:40
B22TY7	0911013-CK	SOIL	11/24/09 10:06	11/30/09 11:15
B22TY8	0911013-CL	SOIL	11/24/09 12:35	11/30/09 11:15
B22V02	0911013-CT	SOIL	11/30/09 08:00	11/30/09 11:15

The following analyses were performed on the following samples included in this report:

Metals 1:1 DI Water Extract by ICPMS
Metals Acid Extract by ICPMS
AGG-TOC-001
Alkalinity, Titrimetic (pH 4.5)
Anions By Ion Chromatography
Carbon, Total, Combustion or Oxidation
Cyanide by Mircodistillation/Colorimetric
GEA No Preparation
Hexavalent Chromium by Colorimetric
Inorganic Carbon, Total, Combustion or Oxidation
Iodine-129 1:1 DI Water Extract by ICPMS
Mercury 1:1 DI Water Extract by ICPMS
Mercury Acid Extract by ICPMS
Metals 1:1 Water Extract by ICPOES
Metals Acid Extract by ICPOES
Moisture Content
pH of Waters By Electrode
Specific Conductance
Tc_U Acid Extract by ICPMS
Tc_U 1:1 DI Water Extract by ICPMS
Total Alpha Total Beta 1:1 DI Water Extract By LSC
Total Alpha Total Beta Acid Extract By LSC

SAMPLES ANALYZED IN THIS REPORT

HEIS No.	Laboratory ID	Matrix	Date Collected	Date Received
B22TK8	0911013-11	SOIL	11/9/09 14:36	11/12/09 12:42
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B22TN6	0911013-45	SOIL	11/12/09 08:56	11/16/09 13:30
B22TP7	0911013-59	SOIL	11/12/09 13:35	11/16/09 13:30
B22TR8	0911013-72	SOIL	11/13/09 12:54	11/16/09 13:30
B22TV3	0911013-90	SOIL	11/16/09 12:40	11/18/09 11:30
B22TV8	0911013-96	SOIL	11/18/09 07:14	11/18/09 11:30
B22TW5	0911013-AE	SOIL	11/18/09 09:50	11/18/09 11:30
B22TX5	0911013-AT	SOIL	11/20/09 14:36	11/23/09 11:40
B22TY7	0911013-CK	SOIL	11/24/09 10:06	11/30/09 11:15
B22TY8	0911013-CL	SOIL	11/24/09 12:35	11/30/09 11:15
B22V02	0911013-CT	SOIL	11/30/09 08:00	11/30/09 11:15

Wet Chemistry

Alkalinity as CaCO3 (ug/g dry) by Standard Methods 2320B

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
0911013-11	B22TK8	5.10E1	2.35E1	2/11/10	0B09003
0911013-23	B22TL9	6.25E1	2.34E1	2/11/10	0B09003
0911013-37	B22TN1	4.60E1	2.34E1	2/11/10	0B09003
0911013-45	B22TN6	3.79E1	2.35E1	2/11/10	0B09003
0911013-59	B22TP7	5.02E1	2.34E1	2/11/10	0B09003
0911013-72	B22TR8	5.11E1	2.35E1	2/11/10	0B09003
0911013-90	B22TV3	4.45E1	2.35E1	2/11/10	0B09003
0911013-96	B22TV8	5.52E1	2.35E1	2/11/10	0B09003
0911013-AE	B22TW5	4.18E1	2.34E1	2/11/10	0B09003
0911013-AT	B22TX5	5.25E1	2.38E1	2/11/10	0B09003
0911013-CK	B22TY7	4.45E1	2.35E1	2/11/10	0B09003
0911013-CL	B22TY8	4.61E1	2.35E1	2/11/10	0B09003
0911013-CT	B22V02	4.03E1	2.34E1	2/11/10	0B09003

Wet Chemistry

Specific Conductance (EC) (mS/cm) by EPA 120.1

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
0911013-11	B22TK8	4.03E-1	1.00E-2	2/09/10	0B09002
0911013-23	B22TL9	1.57E-1	1.00E-2	2/09/10	0B09002
0911013-37	B22TN1	2.31E-1	1.00E-2	2/09/10	0B09002
0911013-45	B22TN6	3.36E-1	1.00E-2	2/09/10	0B09002
0911013-59	B22TP7	1.39E-1	1.00E-2	2/09/10	0B09002
0911013-72	B22TR8	1.46E-1	1.00E-2	2/09/10	0B09002
0911013-90	B22TV3	1.20E-1	1.00E-2	2/09/10	0B09002
0911013-96	B22TV8	1.53E-1	1.00E-2	2/09/10	0B09002
0911013-AE	B22TW5	1.31E-1	1.00E-2	2/09/10	0B09002
0911013-AT	B22TX5	1.65E-1	1.00E-2	2/09/10	0B09002
0911013-CK	B22TY7	1.19E-1	1.00E-2	2/09/10	0B09002
0911013-CL	B22TY8	1.36E-1	1.00E-2	2/09/10	0B09002
0911013-CT	B22V02	1.36E-1	1.00E-2	2/09/10	0B09002

Wet Chemistry

Moisture Content (% by Weight) by AGG-WC-001

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
0911013-11	B22TK8	5.56E0	N/A	12/23/09	9L09005
0911013-23	B22TL9	3.46E0	N/A	12/23/09	9L09005
0911013-37	B22TN1	3.97E0	N/A	12/23/09	9L09005
0911013-45	B22TN6	5.00E0	N/A	12/23/09	9L09005
0911013-59	B22TP7	4.56E0	N/A	12/23/09	9L09005
0911013-72	B22TR8	3.19E0	N/A	12/23/09	9L09005
0911013-90	B22TV3	3.41E0	N/A	12/23/09	9L09005
0911013-96	B22TV8	4.51E0	N/A	12/23/09	9L09005
0911013-AE	B22TW5	3.51E0	N/A	12/23/09	9L09005
0911013-AT	B22TX5	3.86E0	N/A	12/23/09	9L09005
0911013-CK	B22TY7	3.39E0	N/A	12/23/09	9L09005
0911013-CL	B22TY8	4.39E0	N/A	12/23/09	9L09005
0911013-CT	B22V02	3.32E0	N/A	12/23/09	9L09005

Wet Chemistry

pH (pH Units) by AGG-pH-001

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
0911013-11	B22TK8	7.32E0	N/A	2/09/10	0B09001
0911013-23	B22TL9	7.91E0	N/A	2/09/10	0B09001
0911013-37	B22TN1	7.63E0	N/A	2/09/10	0B09001
0911013-45	B22TN6	7.45E0	N/A	2/09/10	0B09001
0911013-59	B22TP7	7.88E0	N/A	2/09/10	0B09001
0911013-72	B22TR8	7.93E0	N/A	2/09/10	0B09001
0911013-90	B22TV3	7.96E0	N/A	2/09/10	0B09001
0911013-96	B22TV8	7.94E0	N/A	2/09/10	0B09001
0911013-AE	B22TW5	7.92E0	N/A	2/09/10	0B09001
0911013-AT	B22TX5	7.95E0	N/A	2/09/10	0B09001
0911013-CK	B22TY7	7.91E0	N/A	2/09/10	0B09001
0911013-CL	B22TY8	7.96E0	N/A	2/09/10	0B09001
0911013-CT	B22V02	7.88E0	N/A	2/09/10	0B09001

Anions by Ion Chromatography

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TK8**		**Lab ID:**	**0911013-11**			
16984-48-8	Fluoride	1.40E0	ug/g dry	2.00E-1	2/10/10	0B10015	AGG-IC-001
16887-00-6	Chloride	2.57E1	ug/g dry	4.99E-1	2/10/10	0B10015	AGG-IC-001
14797-65-0	Nitrite	<9.98E-1	ug/g dry	9.98E-1	2/10/10	0B10015	AGG-IC-001
24959-67-9	Bromide	<9.98E-1	ug/g dry	9.98E-1	2/10/10	0B10015	AGG-IC-001
14797-55-8	Nitrate	2.37E1	ug/g dry	9.98E-1	2/10/10	0B10015	AGG-IC-001
14808-79-8	Sulfate	9.69E1	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
14265-44-2	Phosphate	<1.50E0	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
HEIS No.	**B22TL9**		**Lab ID:**	**0911013-23**			
16984-48-8	Fluoride	5.76E-1	ug/g dry	2.00E-1	2/10/10	0B10015	AGG-IC-001
16887-00-6	Chloride	1.09E0	ug/g dry	4.99E-1	2/10/10	0B10015	AGG-IC-001
14797-65-0	Nitrite	<9.98E-1	ug/g dry	9.98E-1	2/10/10	0B10015	AGG-IC-001
24959-67-9	Bromide	<9.98E-1	ug/g dry	9.98E-1	2/10/10	0B10015	AGG-IC-001
14797-55-8	Nitrate	1.24E0	ug/g dry	9.98E-1	2/10/10	0B10015	AGG-IC-001
14808-79-8	Sulfate	1.19E1	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
14265-44-2	Phosphate	<1.50E0	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
HEIS No.	**B22TN1**		**Lab ID:**	**0911013-37**			
16984-48-8	Fluoride	9.63E-1	ug/g dry	2.00E-1	2/10/10	0B10015	AGG-IC-001
16887-00-6	Chloride	1.63E0	ug/g dry	4.99E-1	2/10/10	0B10015	AGG-IC-001
14797-65-0	Nitrite	<9.98E-1	ug/g dry	9.98E-1	2/10/10	0B10015	AGG-IC-001
24959-67-9	Bromide	<9.98E-1	ug/g dry	9.98E-1	2/10/10	0B10015	AGG-IC-001
14797-55-8	Nitrate	6.26E1	ug/g dry	9.98E-1	2/10/10	0B10015	AGG-IC-001
14808-79-8	Sulfate	1.16E1	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
14265-44-2	Phosphate	<1.50E0	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
HEIS No.	**B22TN6**		**Lab ID:**	**0911013-45**			
16984-48-8	Fluoride	1.04E0	ug/g dry	2.00E-1	2/10/10	0B10015	AGG-IC-001
16887-00-6	Chloride	1.65E0	ug/g dry	5.00E-1	2/10/10	0B10015	AGG-IC-001
14797-65-0	Nitrite	<1.00E0	ug/g dry	1.00E0	2/10/10	0B10015	AGG-IC-001
24959-67-9	Bromide	<1.00E0	ug/g dry	1.00E0	2/10/10	0B10015	AGG-IC-001
14797-55-8	Nitrate	1.19E2	ug/g dry	1.00E1	2/10/10	0B10015	AGG-IC-001
14808-79-8	Sulfate	1.10E1	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
14265-44-2	Phosphate	<1.50E0	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
HEIS No.	**B22TP7**		**Lab ID:**	**0911013-59**			
16984-48-8	Fluoride	4.70E-1	ug/g dry	2.00E-1	2/10/10	0B10015	AGG-IC-001
16887-00-6	Chloride	6.74E-1	ug/g dry	4.99E-1	2/10/10	0B10015	AGG-IC-001
14797-65-0	Nitrite	<9.98E-1	ug/g dry	9.98E-1	2/10/10	0B10015	AGG-IC-001
24959-67-9	Bromide	<9.98E-1	ug/g dry	9.98E-1	2/10/10	0B10015	AGG-IC-001
14797-55-8	Nitrate	1.70E1	ug/g dry	9.98E-1	2/10/10	0B10015	AGG-IC-001
14808-79-8	Sulfate	1.01E1	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
14265-44-2	Phosphate	<1.50E0	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
HEIS No.	**B22TR8**		**Lab ID:**	**0911013-72**			
16984-48-8	Fluoride	5.50E-1	ug/g dry	2.00E-1	2/10/10	0B10015	AGG-IC-001
16887-00-6	Chloride	1.16E0	ug/g dry	5.00E-1	2/10/10	0B10015	AGG-IC-001
14797-65-0	Nitrite	<9.99E-1	ug/g dry	9.99E-1	2/10/10	0B10015	AGG-IC-001
24959-67-9	Bromide	<9.99E-1	ug/g dry	9.99E-1	2/10/10	0B10015	AGG-IC-001
14797-55-8	Nitrate	4.38E0	ug/g dry	9.99E-1	2/10/10	0B10015	AGG-IC-001
14808-79-8	Sulfate	1.46E1	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
14265-44-2	Phosphate	<1.50E0	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
HEIS No.	**B22TV3**		**Lab ID:**	**0911013-90**			

Anions by Ion Chromatography

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TV3**		**Lab ID:**	**0911013-90**			
16984-48-8	Fluoride	4.10E-1	ug/g dry	2.00E-1	2/10/10	0B10015	AGG-IC-001
16887-00-6	Chloride	1.05E0	ug/g dry	5.00E-1	2/10/10	0B10015	AGG-IC-001
14797-65-0	Nitrite	<1.00E0	ug/g dry	1.00E0	2/10/10	0B10015	AGG-IC-001
24959-67-9	Bromide	<1.00E0	ug/g dry	1.00E0	2/10/10	0B10015	AGG-IC-001
14797-55-8	Nitrate	5.43E0	ug/g dry	1.00E0	2/10/10	0B10015	AGG-IC-001
14808-79-8	Sulfate	8.55E0	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
14265-44-2	Phosphate	<1.50E0	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
HEIS No.	**B22TV8**		**Lab ID:**	**0911013-96**			
16984-48-8	Fluoride	5.00E-1	ug/g dry	2.00E-1	2/10/10	0B10015	AGG-IC-001
16887-00-6	Chloride	1.17E0	ug/g dry	5.00E-1	2/10/10	0B10015	AGG-IC-001
14797-65-0	Nitrite	<9.99E-1	ug/g dry	9.99E-1	2/10/10	0B10015	AGG-IC-001
24959-67-9	Bromide	<9.99E-1	ug/g dry	9.99E-1	2/10/10	0B10015	AGG-IC-001
14797-55-8	Nitrate	4.13E0	ug/g dry	9.99E-1	2/10/10	0B10015	AGG-IC-001
14808-79-8	Sulfate	1.45E1	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
14265-44-2	Phosphate	<1.50E0	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
HEIS No.	**B22TW5**		**Lab ID:**	**0911013-AE**			
16984-48-8	Fluoride	4.03E-1	ug/g dry	1.99E-1	2/10/10	0B10015	AGG-IC-001
16887-00-6	Chloride	<4.98E-1	ug/g dry	4.98E-1	2/10/10	0B10015	AGG-IC-001
14797-65-0	Nitrite	<9.96E-1	ug/g dry	9.96E-1	2/10/10	0B10015	AGG-IC-001
24959-67-9	Bromide	<9.96E-1	ug/g dry	9.96E-1	2/10/10	0B10015	AGG-IC-001
14797-55-8	Nitrate	1.14E1	ug/g dry	9.96E-1	2/10/10	0B10015	AGG-IC-001
14808-79-8	Sulfate	1.18E1	ug/g dry	1.49E0	2/10/10	0B10015	AGG-IC-001
14265-44-2	Phosphate	<1.49E0	ug/g dry	1.49E0	2/10/10	0B10015	AGG-IC-001
HEIS No.	**B22TX5**		**Lab ID:**	**0911013-AT**			
16984-48-8	Fluoride	5.59E-1	ug/g dry	2.02E-1	2/10/10	0B10015	AGG-IC-001
16887-00-6	Chloride	7.10E-1	ug/g dry	5.05E-1	2/10/10	0B10015	AGG-IC-001
14797-65-0	Nitrite	<1.01E0	ug/g dry	1.01E0	2/10/10	0B10015	AGG-IC-001
24959-67-9	Bromide	<1.01E0	ug/g dry	1.01E0	2/10/10	0B10015	AGG-IC-001
14797-55-8	Nitrate	1.26E1	ug/g dry	1.01E0	2/10/10	0B10015	AGG-IC-001
14808-79-8	Sulfate	1.70E1	ug/g dry	1.52E0	2/10/10	0B10015	AGG-IC-001
14265-44-2	Phosphate	<1.52E0	ug/g dry	1.52E0	2/10/10	0B10015	AGG-IC-001
HEIS No.	**B22TY7**		**Lab ID:**	**0911013-CK**			
16984-48-8	Fluoride	5.33E-1	ug/g dry	2.00E-1	2/10/10	0B10015	AGG-IC-001
16887-00-6	Chloride	<5.00E-1	ug/g dry	5.00E-1	2/10/10	0B10015	AGG-IC-001
14797-65-0	Nitrite	<1.00E0	ug/g dry	1.00E0	2/10/10	0B10015	AGG-IC-001
24959-67-9	Bromide	<1.00E0	ug/g dry	1.00E0	2/10/10	0B10015	AGG-IC-001
14797-55-8	Nitrate	9.06E0	ug/g dry	1.00E0	2/10/10	0B10015	AGG-IC-001
14808-79-8	Sulfate	8.05E0	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
14265-44-2	Phosphate	<1.50E0	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
HEIS No.	**B22TY8**		**Lab ID:**	**0911013-CL**			
16984-48-8	Fluoride	5.07E-1	ug/g dry	2.00E-1	2/10/10	0B10015	AGG-IC-001
16887-00-6	Chloride	5.15E-1	ug/g dry	5.00E-1	2/10/10	0B10015	AGG-IC-001
14797-65-0	Nitrite	<9.99E-1	ug/g dry	9.99E-1	2/10/10	0B10015	AGG-IC-001
24959-67-9	Bromide	<9.99E-1	ug/g dry	9.99E-1	2/10/10	0B10015	AGG-IC-001
14797-55-8	Nitrate	1.19E1	ug/g dry	9.99E-1	2/10/10	0B10015	AGG-IC-001
14808-79-8	Sulfate	1.32E1	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
14265-44-2	Phosphate	<1.50E0	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
HEIS No.	**B22V02**		**Lab ID:**	**0911013-CT**			

Anions by Ion Chromatography

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22V02**		**Lab ID:**	**0911013-CT**			
16984-48-8	Fluoride	5.43E-1	ug/g dry	1.99E-1	2/10/10	0B10015	AGG-IC-001
16887-00-6	Chloride	9.39E-1	ug/g dry	4.99E-1	2/10/10	0B10015	AGG-IC-001
14797-65-0	Nitrite	<9.97E-1	ug/g dry	9.97E-1	2/10/10	0B10015	AGG-IC-001
24959-67-9	Bromide	<9.97E-1	ug/g dry	9.97E-1	2/10/10	0B10015	AGG-IC-001
14797-55-8	Nitrate	7.12E0	ug/g dry	9.97E-1	2/10/10	0B10015	AGG-IC-001
14808-79-8	Sulfate	1.61E1	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001
14265-44-2	Phosphate	<1.50E0	ug/g dry	1.50E0	2/10/10	0B10015	AGG-IC-001

Cyanide by Mircodistillation/Colorimetric

Cyanide (ug/g dry) by MICRODIST Cyanide Method

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
0911013-11	B22TK8	<1.07E-1	1.07E-1	4/07/10	0D07001
0911013-23	B22TL9	<1.01E-1	1.01E-1	4/07/10	0D07001
0911013-37	B22TN1	<1.02E-1	1.02E-1	4/07/10	0D07001
0911013-45	B22TN6	<1.06E-1	1.06E-1	4/07/10	0D07001
0911013-59	B22TP7	<1.05E-1	1.05E-1	4/07/10	0D07001
0911013-72	B22TR8	<1.02E-1	1.02E-1	4/07/10	0D07001
0911013-90	B22TV3	<1.02E-1	1.02E-1	4/07/10	0D07001
0911013-96	B22TV8	<1.06E-1	1.06E-1	4/07/10	0D07001
0911013-AE	B22TW5	<1.01E-1	1.01E-1	4/07/10	0D07001
0911013-AT	B22TX5	<1.02E-1	1.02E-1	4/07/10	0D07001
0911013-CK	B22TY7	<1.03E-1	1.03E-1	4/07/10	0D07001
0911013-CL	B22TY8	<1.05E-1	1.05E-1	4/07/10	0D07001
0911013-CT	B22V02	<1.05E-1	1.05E-1	4/07/10	0D07001

Hexavalent Chromium/Soil

Chromium, Hexavalent (ug/g dry) by Colorimetric Determination

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
0911013-11	B22TK8	<5.31E-1	5.31E-1	3/09/10	0D08006
0911013-23	B22TL9	<5.09E-1	5.09E-1	3/09/10	0D08006
0911013-37	B22TN1	<5.09E-1	5.09E-1	3/09/10	0D08006
0911013-45	B22TN6	<5.12E-1	5.12E-1	3/09/10	0D08006
0911013-59	B22TP7	<4.90E-1	4.90E-1	3/09/10	0D08006
0911013-72	B22TR8	<5.17E-1	5.17E-1	3/09/10	0D08006
0911013-90	B22TV3	<4.95E-1	4.95E-1	3/09/10	0D08006
0911013-96	B22TV8	<5.03E-1	5.03E-1	3/09/10	0D08006
0911013-AE	B22TW5	<5.01E-1	5.01E-1	3/09/10	0D08006
0911013-AT	B22TX5	<4.88E-1	4.88E-1	3/09/10	0D08006
0911013-CK	B22TY7	<5.00E-1	5.00E-1	3/09/10	0D08006
0911013-CL	B22TY8	<4.98E-1	4.98E-1	3/09/10	0D08006
0911013-CT	B22V02	<4.80E-1	4.80E-1	3/09/10	0D08006

Total Metals by PNNL-AGG-ICP-AES/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TK8**		**Lab ID:**	**0911013-11**			
7429-90-5	Aluminum	<9.36E-2	ug/g dry	9.36E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.11E-1	ug/g dry	3.11E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-70-2	Calcium	2.72E1	ug/g dry	4.52E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.83E-2	ug/g dry	2.83E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.77E-2	ug/g dry	8.77E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-09-7	Potassium	6.85E0	ug/g dry	1.29E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	7.42E0	ug/g dry	4.88E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.24E-2	ug/g dry	6.24E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.66E-2	ug/g dry	9.66E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.86E-1	ug/g dry	9.86E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-23-5	Sodium	3.91E1	ug/g dry	7.96E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.67E-2	ug/g dry	5.67E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
HEIS No.	**B22TL9**		**Lab ID:**	**0911013-23**			
7429-90-5	Aluminum	<9.35E-2	ug/g dry	9.35E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.11E-1	ug/g dry	3.11E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-70-2	Calcium	1.30E1	ug/g dry	4.51E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.03E-1	ug/g dry	1.03E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-47-3	Chromium	3.52E-2	ug/g dry	2.83E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.76E-2	ug/g dry	8.76E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-09-7	Potassium	5.71E0	ug/g dry	1.29E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	4.06E0	ug/g dry	4.88E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.23E-2	ug/g dry	6.23E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.65E-2	ug/g dry	9.65E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.86E-1	ug/g dry	9.86E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.05E1	ug/g dry	7.95E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.67E-2	ug/g dry	5.67E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
HEIS No.	**B22TN1**		**Lab ID:**	**0911013-37**			
7429-90-5	Aluminum	<9.35E-2	ug/g dry	9.35E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.11E-1	ug/g dry	3.11E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-70-2	Calcium	2.33E1	ug/g dry	4.51E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.83E-2	ug/g dry	2.83E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.76E-2	ug/g dry	8.76E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-09-7	Potassium	5.01E0	ug/g dry	1.29E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.19E0	ug/g dry	4.88E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.23E-2	ug/g dry	6.23E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-02-0	Nickel	1.15E-1	ug/g dry	9.65E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.86E-1	ug/g dry	9.86E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES

Total Metals by PNNL-AGG-ICP-AES/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TN1**		**Lab ID:**	**0911013-37**			
7440-23-5	Sodium	1.00E1	ug/g dry	7.95E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.67E-2	ug/g dry	5.67E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
HEIS No.	**B22TN6**		**Lab ID:**	**0911013-45**			
7429-90-5	Aluminum	<9.37E-2	ug/g dry	9.37E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.12E-1	ug/g dry	3.12E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-70-2	Calcium	3.58E1	ug/g dry	4.52E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.84E-2	ug/g dry	2.84E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.78E-2	ug/g dry	8.78E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-09-7	Potassium	6.04E0	ug/g dry	1.29E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	5.13E0	ug/g dry	4.89E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.25E-2	ug/g dry	6.25E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-02-0	Nickel	2.66E-1	ug/g dry	9.67E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.88E-1	ug/g dry	9.88E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-23-5	Sodium	9.89E0	ug/g dry	7.97E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.68E-2	ug/g dry	5.68E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
HEIS No.	**B22TP7**		**Lab ID:**	**0911013-59**			
7429-90-5	Aluminum	<9.35E-2	ug/g dry	9.35E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.11E-1	ug/g dry	3.11E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-70-2	Calcium	1.01E1	ug/g dry	4.51E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.83E-2	ug/g dry	2.83E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.77E-2	ug/g dry	8.77E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-09-7	Potassium	4.68E0	ug/g dry	1.29E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.27E0	ug/g dry	4.88E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.23E-2	ug/g dry	6.23E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.65E-2	ug/g dry	9.65E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.86E-1	ug/g dry	9.86E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.16E1	ug/g dry	7.95E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.67E-2	ug/g dry	5.67E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
HEIS No.	**B22TR8**		**Lab ID:**	**0911013-72**			
7429-90-5	Aluminum	<9.37E-2	ug/g dry	9.37E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.11E-1	ug/g dry	3.11E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-70-2	Calcium	8.28E0	ug/g dry	4.52E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.84E-2	ug/g dry	2.84E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.78E-2	ug/g dry	8.78E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-09-7	Potassium	5.63E0	ug/g dry	1.29E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.07E0	ug/g dry	4.88E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.24E-2	ug/g dry	6.24E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.67E-2	ug/g dry	9.67E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES

Total Metals by PNNL-AGG-ICP-AES/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TR8**		**Lab ID:**	**0911013-72**			
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.87E-1	ug/g dry	9.87E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.46E1	ug/g dry	7.97E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.68E-2	ug/g dry	5.68E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
HEIS No.	**B22TV3**		**Lab ID:**	**0911013-90**			
7429-90-5	Aluminum	<9.37E-2	ug/g dry	9.37E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.12E-1	ug/g dry	3.12E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-70-2	Calcium	8.04E0	ug/g dry	4.52E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.84E-2	ug/g dry	2.84E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.79E-2	ug/g dry	8.79E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-09-7	Potassium	4.42E0	ug/g dry	1.29E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	2.86E0	ug/g dry	4.89E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.25E-2	ug/g dry	6.25E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.67E-2	ug/g dry	9.67E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.88E-1	ug/g dry	9.88E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.02E1	ug/g dry	7.97E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.68E-2	ug/g dry	5.68E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
HEIS No.	**B22TV8**		**Lab ID:**	**0911013-96**			
7429-90-5	Aluminum	1.13E-1	ug/g dry	9.36E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.11E-1	ug/g dry	3.11E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-70-2	Calcium	9.02E0	ug/g dry	4.52E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.84E-2	ug/g dry	2.84E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.78E-2	ug/g dry	8.78E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-09-7	Potassium	5.51E0	ug/g dry	1.29E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.27E0	ug/g dry	4.88E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.24E-2	ug/g dry	6.24E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.66E-2	ug/g dry	9.66E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.87E-1	ug/g dry	9.87E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.42E1	ug/g dry	7.96E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.67E-2	ug/g dry	5.67E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
HEIS No.	**B22TW5**		**Lab ID:**	**0911013-AE**			
7429-90-5	Aluminum	9.35E-2	ug/g dry	9.33E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.10E-1	ug/g dry	3.10E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-70-2	Calcium	8.41E0	ug/g dry	4.50E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.03E-1	ug/g dry	1.03E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.83E-2	ug/g dry	2.83E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.75E-2	ug/g dry	8.75E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.04E-1	ug/g dry	1.04E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-09-7	Potassium	4.58E0	ug/g dry	1.29E0	2/15/10	0B15003	PNNL-AGG-ICP-AES

Total Metals by PNNL-AGG-ICP-AES/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TW5**		**Lab ID:**	**0911013-AE**			
7439-95-4	Magnesium	2.97E0	ug/g dry	4.87E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.22E-2	ug/g dry	6.22E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.63E-2	ug/g dry	9.63E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.60E-1	ug/g dry	1.60E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.84E-1	ug/g dry	9.84E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.01E1	ug/g dry	7.94E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.66E-2	ug/g dry	5.66E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
HEIS No.	**B22TX5**		**Lab ID:**	**0911013-AT**			
7429-90-5	Aluminum	1.24E-1	ug/g dry	9.47E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.15E-1	ug/g dry	3.15E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-70-2	Calcium	9.89E0	ug/g dry	4.57E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.05E-1	ug/g dry	1.05E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.87E-2	ug/g dry	2.87E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.88E-2	ug/g dry	8.88E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.10E-1	ug/g dry	1.06E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-09-7	Potassium	5.53E0	ug/g dry	1.31E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.26E0	ug/g dry	4.94E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.31E-2	ug/g dry	6.31E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.78E-2	ug/g dry	9.78E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.63E-1	ug/g dry	1.63E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.21E0	ug/g dry	1.21E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.99E-1	ug/g dry	9.99E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.64E1	ug/g dry	8.06E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.74E-2	ug/g dry	5.74E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
HEIS No.	**B22TY7**		**Lab ID:**	**0911013-CK**			
7429-90-5	Aluminum	<9.38E-2	ug/g dry	9.38E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.12E-1	ug/g dry	3.12E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-70-2	Calcium	8.47E0	ug/g dry	4.53E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.84E-2	ug/g dry	2.84E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.79E-2	ug/g dry	8.79E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-09-7	Potassium	3.86E0	ug/g dry	1.29E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	2.63E0	ug/g dry	4.89E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.25E-2	ug/g dry	6.25E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.68E-2	ug/g dry	9.68E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.89E-1	ug/g dry	9.89E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.12E1	ug/g dry	7.98E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.68E-2	ug/g dry	5.68E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
HEIS No.	**B22TY8**		**Lab ID:**	**0911013-CL**			
7429-90-5	Aluminum	1.04E-1	ug/g dry	9.37E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.11E-1	ug/g dry	3.11E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-70-2	Calcium	8.61E0	ug/g dry	4.52E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.84E-2	ug/g dry	2.84E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES

Total Metals by PNNL-AGG-ICP-AES/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TY8**		**Lab ID:**	**0911013-CL**			
7440-50-8	Copper	<8.78E-2	ug/g dry	8.78E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-09-7	Potassium	3.88E0	ug/g dry	1.29E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	2.58E0	ug/g dry	4.88E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.24E-2	ug/g dry	6.24E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.67E-2	ug/g dry	9.67E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.87E-1	ug/g dry	9.87E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.31E1	ug/g dry	7.97E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.67E-2	ug/g dry	5.67E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
HEIS No.	**B22V02**		**Lab ID:**	**0911013-CT**			
7429-90-5	Aluminum	1.54E-1	ug/g dry	9.34E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.11E-1	ug/g dry	3.11E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-70-2	Calcium	8.87E0	ug/g dry	4.51E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.03E-1	ug/g dry	1.03E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.83E-2	ug/g dry	2.83E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.76E-2	ug/g dry	8.76E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.17E-1	ug/g dry	1.05E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-09-7	Potassium	4.71E0	ug/g dry	1.29E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	2.58E0	ug/g dry	4.87E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.23E-2	ug/g dry	6.23E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.64E-2	ug/g dry	9.64E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.60E-1	ug/g dry	1.60E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.85E-1	ug/g dry	9.85E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.17E1	ug/g dry	7.95E-1	2/15/10	0B15003	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.66E-2	ug/g dry	5.66E-2	2/15/10	0B15003	PNNL-AGG-ICP-AES

Total Metals by PNNL-AGG-ICP-AES/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TK8**		**Lab ID:**	**0911013-11**			
7429-90-5	Aluminum	4.96E3	ug/g dry	2.38E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	6.12E3	ug/g dry	2.47E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.30E0	ug/g dry	1.30E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	7.51E0	ug/g dry	2.08E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.82E0	ug/g dry	6.82E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.18E4	ug/g dry	6.41E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	1.06E3	ug/g dry	9.12E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	4.05E3	ug/g dry	6.79E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	2.30E2	ug/g dry	2.13E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	8.31E0	ug/g dry	4.94E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.07E1	ug/g dry	1.07E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<6.05E1	ug/g dry	6.05E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.42E1	ug/g dry	3.42E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.64E2	ug/g dry	6.71E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<3.23E0	ug/g dry	3.23E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
HEIS No.	**B22TL9**		**Lab ID:**	**0911013-23**			
7429-90-5	Aluminum	4.97E3	ug/g dry	2.32E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	7.41E3	ug/g dry	2.41E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.27E0	ug/g dry	1.27E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	7.47E0	ug/g dry	2.03E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.65E0	ug/g dry	6.65E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.17E4	ug/g dry	6.25E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	8.67E2	ug/g dry	8.90E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.91E3	ug/g dry	6.62E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	2.13E2	ug/g dry	2.08E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	8.02E0	ug/g dry	4.82E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.04E1	ug/g dry	1.04E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<5.90E1	ug/g dry	5.90E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.34E1	ug/g dry	3.34E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.07E2	ug/g dry	6.55E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<3.15E0	ug/g dry	3.15E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
HEIS No.	**B22TN1**		**Lab ID:**	**0911013-37**			
7429-90-5	Aluminum	4.99E3	ug/g dry	2.32E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	7.57E3	ug/g dry	2.41E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.27E0	ug/g dry	1.27E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	6.71E0	ug/g dry	2.03E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.65E0	ug/g dry	6.65E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.23E4	ug/g dry	6.25E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	8.68E2	ug/g dry	8.90E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.82E3	ug/g dry	6.62E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	2.12E2	ug/g dry	2.08E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	7.69E0	ug/g dry	4.82E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.04E1	ug/g dry	1.04E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<5.90E1	ug/g dry	5.90E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.34E1	ug/g dry	3.34E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.08E2	ug/g dry	6.55E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<3.15E0	ug/g dry	3.15E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
HEIS No.	**B22TN6**		**Lab ID:**	**0911013-45**			

Total Metals by PNNL-AGG-ICP-AES/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TN6**		**Lab ID:**	**0911013-45**			
7429-90-5	Aluminum	5.54E3	ug/g dry	2.28E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	6.75E3	ug/g dry	2.36E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.24E0	ug/g dry	1.24E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	9.03E0	ug/g dry	1.98E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.51E0	ug/g dry	6.51E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.14E4	ug/g dry	6.12E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	1.26E3	ug/g dry	8.71E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.92E3	ug/g dry	6.48E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	2.30E2	ug/g dry	2.03E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	9.82E0	ug/g dry	4.72E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.02E1	ug/g dry	1.02E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<5.77E1	ug/g dry	5.77E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.26E1	ug/g dry	3.26E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	9.97E1	ug/g dry	6.41E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<3.08E0	ug/g dry	3.08E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
HEIS No.	**B22TP7**		**Lab ID:**	**0911013-59**			
7429-90-5	Aluminum	5.64E3	ug/g dry	2.37E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	7.19E3	ug/g dry	2.46E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.29E0	ug/g dry	1.29E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	8.34E0	ug/g dry	2.07E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.77E0	ug/g dry	6.77E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.19E4	ug/g dry	6.37E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	1.07E3	ug/g dry	9.06E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	4.18E3	ug/g dry	6.74E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	2.32E2	ug/g dry	2.12E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	9.95E0	ug/g dry	4.91E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.06E1	ug/g dry	1.06E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<6.01E1	ug/g dry	6.01E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.40E1	ug/g dry	3.40E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.20E2	ug/g dry	6.67E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<3.21E0	ug/g dry	3.21E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
HEIS No.	**B22TR8**		**Lab ID:**	**0911013-72**			
7429-90-5	Aluminum	5.43E3	ug/g dry	2.33E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	6.34E3	ug/g dry	2.42E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.27E0	ug/g dry	1.27E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	7.56E0	ug/g dry	2.04E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.68E0	ug/g dry	6.68E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.21E4	ug/g dry	6.28E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	9.88E2	ug/g dry	8.94E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.68E3	ug/g dry	6.65E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	2.05E2	ug/g dry	2.09E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	7.32E0	ug/g dry	4.84E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.04E1	ug/g dry	1.04E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<5.92E1	ug/g dry	5.92E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.35E1	ug/g dry	3.35E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.66E2	ug/g dry	6.58E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<3.16E0	ug/g dry	3.16E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
HEIS No.	**B22TV3**		**Lab ID:**	**0911013-90**			

Total Metals by PNNL-AGG-ICP-AES/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TV3**		**Lab ID:**	**0911013-90**			
7429-90-5	Aluminum	5.03E3	ug/g dry	2.24E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	5.76E3	ug/g dry	2.33E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.22E0	ug/g dry	1.22E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	7.43E0	ug/g dry	1.96E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.42E0	ug/g dry	6.42E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.21E4	ug/g dry	6.04E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	8.02E2	ug/g dry	8.59E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.66E3	ug/g dry	6.39E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	1.92E2	ug/g dry	2.01E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	8.75E0	ug/g dry	4.66E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.00E1	ug/g dry	1.00E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<5.70E1	ug/g dry	5.70E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.22E1	ug/g dry	3.22E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.60E2	ug/g dry	6.33E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<3.04E0	ug/g dry	3.04E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
HEIS No.	**B22TV8**		**Lab ID:**	**0911013-96**			
7429-90-5	Aluminum	5.29E3	ug/g dry	2.34E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	5.34E3	ug/g dry	2.43E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.27E0	ug/g dry	1.27E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	9.68E0	ug/g dry	2.04E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.68E0	ug/g dry	6.68E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.26E4	ug/g dry	6.28E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	8.51E2	ug/g dry	8.95E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.96E3	ug/g dry	6.66E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	2.05E2	ug/g dry	2.09E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	1.12E1	ug/g dry	4.85E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.05E1	ug/g dry	1.05E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<5.93E1	ug/g dry	5.93E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.35E1	ug/g dry	3.35E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.74E2	ug/g dry	6.58E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<3.17E0	ug/g dry	3.17E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
HEIS No.	**B22TW5**		**Lab ID:**	**0911013-AE**			
7429-90-5	Aluminum	5.16E3	ug/g dry	2.31E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	5.57E3	ug/g dry	2.40E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.26E0	ug/g dry	1.26E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	9.01E0	ug/g dry	2.02E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.62E0	ug/g dry	6.62E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.07E4	ug/g dry	6.22E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	9.09E2	ug/g dry	8.86E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.92E3	ug/g dry	6.59E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	1.92E2	ug/g dry	2.07E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	1.07E1	ug/g dry	4.80E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.04E1	ug/g dry	1.04E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<5.87E1	ug/g dry	5.87E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.32E1	ug/g dry	3.32E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.24E2	ug/g dry	6.52E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<3.14E0	ug/g dry	3.14E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
HEIS No.	**B22TX5**		**Lab ID:**	**0911013-AT**			

Total Metals by PNNL-AGG-ICP-AES/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TX5**		**Lab ID:**	**0911013-AT**			
7429-90-5	Aluminum	5.17E3	ug/g dry	2.28E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	5.23E3	ug/g dry	2.37E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.24E0	ug/g dry	1.24E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	9.15E0	ug/g dry	1.99E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.51E0	ug/g dry	6.51E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.26E4	ug/g dry	6.13E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	8.58E2	ug/g dry	8.72E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.89E3	ug/g dry	6.49E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	2.04E2	ug/g dry	2.04E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	1.12E1	ug/g dry	4.72E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.02E1	ug/g dry	1.02E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<5.78E1	ug/g dry	5.78E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.27E1	ug/g dry	3.27E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.60E2	ug/g dry	6.42E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<3.09E0	ug/g dry	3.09E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
HEIS No.	**B22TY7**		**Lab ID:**	**0911013-CK**			
7429-90-5	Aluminum	5.30E3	ug/g dry	2.31E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	5.81E3	ug/g dry	2.40E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.26E0	ug/g dry	1.26E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	7.75E0	ug/g dry	2.02E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.62E0	ug/g dry	6.62E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.29E4	ug/g dry	6.22E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	8.93E2	ug/g dry	8.86E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.66E3	ug/g dry	6.59E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	2.16E2	ug/g dry	2.07E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	7.84E0	ug/g dry	4.80E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.04E1	ug/g dry	1.04E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<5.87E1	ug/g dry	5.87E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.32E1	ug/g dry	3.32E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.39E2	ug/g dry	6.52E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<3.14E0	ug/g dry	3.14E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
HEIS No.	**B22TY8**		**Lab ID:**	**0911013-CL**			
7429-90-5	Aluminum	5.41E3	ug/g dry	2.34E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	5.15E3	ug/g dry	2.43E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.27E0	ug/g dry	1.27E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	6.91E0	ug/g dry	2.04E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-50-8	Copper	7.73E0	ug/g dry	6.69E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.63E4	ug/g dry	6.29E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	7.50E2	ug/g dry	8.96E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.41E3	ug/g dry	6.67E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	2.19E2	ug/g dry	2.09E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	6.31E0	ug/g dry	4.85E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.05E1	ug/g dry	1.05E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<5.94E1	ug/g dry	5.94E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.36E1	ug/g dry	3.36E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	2.46E2	ug/g dry	6.59E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<3.17E0	ug/g dry	3.17E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
HEIS No.	**B22V02**		**Lab ID:**	**0911013-CT**			

Total Metals by PNNL-AGG-ICP-AES/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22V02**		**Lab ID:**	**0911013-CT**			
7429-90-5	Aluminum	4.79E3	ug/g dry	2.34E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	3.40E3	ug/g dry	2.42E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.27E0	ug/g dry	1.27E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	6.86E0	ug/g dry	2.04E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-50-8	Copper	7.72E0	ug/g dry	6.68E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.29E4	ug/g dry	6.28E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	6.03E2	ug/g dry	8.94E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	2.81E3	ug/g dry	6.65E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	1.87E2	ug/g dry	2.09E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	6.67E0	ug/g dry	4.84E0	2/16/10	0B16001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.04E1	ug/g dry	1.04E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<5.93E1	ug/g dry	5.93E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.35E1	ug/g dry	3.35E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	2.83E2	ug/g dry	6.58E1	2/16/10	0B16001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<3.16E0	ug/g dry	3.16E0	2/16/10	0B16001	PNNL-AGG-ICP-AES

Radionuclides by ICP-MS/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TK8**		**Lab ID:**	**0911013-11**			
14133-76-7	Technetium-99	<5.18E-3	ug/g dry	5.18E-3	2/02/10	0B02001	PNNL-AGG-415
	Uranium 238	4.52E-1	ug/g dry	3.53E-2	2/02/10	0B02001	PNNL-AGG-415
HEIS No.	**B22TL9**		**Lab ID:**	**0911013-23**			
14133-76-7	Technetium-99	<5.06E-3	ug/g dry	5.06E-3	2/02/10	0B02001	PNNL-AGG-415
	Uranium 238	1.03E0	ug/g dry	3.44E-2	2/02/10	0B02001	PNNL-AGG-415
HEIS No.	**B22TN1**		**Lab ID:**	**0911013-37**			
14133-76-7	Technetium-99	<5.06E-3	ug/g dry	5.06E-3	2/02/10	0B02001	PNNL-AGG-415
	Uranium 238	2.61E0	ug/g dry	3.44E-2	2/02/10	0B02001	PNNL-AGG-415
HEIS No.	**B22TN6**		**Lab ID:**	**0911013-45**			
14133-76-7	Technetium-99	<4.95E-3	ug/g dry	4.95E-3	2/02/10	0B02001	PNNL-AGG-415
	Uranium 238	3.71E0	ug/g dry	3.37E-2	2/02/10	0B02001	PNNL-AGG-415
HEIS No.	**B22TP7**		**Lab ID:**	**0911013-59**			
14133-76-7	Technetium-99	<5.15E-3	ug/g dry	5.15E-3	2/02/10	0B02001	PNNL-AGG-415
	Uranium 238	3.28E-1	ug/g dry	3.51E-2	2/02/10	0B02001	PNNL-AGG-415
HEIS No.	**B22TR8**		**Lab ID:**	**0911013-72**			
14133-76-7	Technetium-99	<5.08E-3	ug/g dry	5.08E-3	2/02/10	0B02001	PNNL-AGG-415
	Uranium 238	3.14E-1	ug/g dry	3.46E-2	2/02/10	0B02001	PNNL-AGG-415
HEIS No.	**B22TV3**		**Lab ID:**	**0911013-90**			
14133-76-7	Technetium-99	<4.88E-3	ug/g dry	4.88E-3	2/02/10	0B02001	PNNL-AGG-415
	Uranium 238	2.80E-1	ug/g dry	3.32E-2	2/02/10	0B02001	PNNL-AGG-415
HEIS No.	**B22TV8**		**Lab ID:**	**0911013-96**			
14133-76-7	Technetium-99	<5.08E-3	ug/g dry	5.08E-3	2/02/10	0B02001	PNNL-AGG-415
	Uranium 238	2.99E-1	ug/g dry	3.46E-2	2/02/10	0B02001	PNNL-AGG-415
HEIS No.	**B22TW5**		**Lab ID:**	**0911013-AE**			
14133-76-7	Technetium-99	<5.03E-3	ug/g dry	5.03E-3	2/02/10	0B02001	PNNL-AGG-415
	Uranium 238	3.26E-1	ug/g dry	3.43E-2	2/02/10	0B02001	PNNL-AGG-415
HEIS No.	**B22TX5**		**Lab ID:**	**0911013-AT**			
14133-76-7	Technetium-99	<4.95E-3	ug/g dry	4.95E-3	2/02/10	0B02001	PNNL-AGG-415
	Uranium 238	4.72E-1	ug/g dry	3.37E-2	2/02/10	0B02001	PNNL-AGG-415
HEIS No.	**B22TY7**		**Lab ID:**	**0911013-CK**			
14133-76-7	Technetium-99	<5.03E-3	ug/g dry	5.03E-3	2/02/10	0B02001	PNNL-AGG-415
	Uranium 238	3.72E-1	ug/g dry	3.43E-2	2/02/10	0B02001	PNNL-AGG-415
HEIS No.	**B22TY8**		**Lab ID:**	**0911013-CL**			
14133-76-7	Technetium-99	<5.09E-3	ug/g dry	5.09E-3	2/02/10	0B02001	PNNL-AGG-415
	Uranium 238	3.05E-1	ug/g dry	3.47E-2	2/02/10	0B02001	PNNL-AGG-415
HEIS No.	**B22V02**		**Lab ID:**	**0911013-CT**			
14133-76-7	Technetium-99	<5.08E-3	ug/g dry	5.08E-3	2/02/10	0B02001	PNNL-AGG-415
	Uranium 238	3.38E-1	ug/g dry	3.46E-2	2/02/10	0B02001	PNNL-AGG-415

Radionuclides by ICP-MS/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TK8**		**Lab ID:**	**0911013-11**			
15046-84-1	Iodine-129	<9.98E-5	ug/g dry	9.98E-5	5/03/10	0C05004	PNNL-AGG-415
HEIS No.	**B22TL9**		**Lab ID:**	**0911013-23**			
15046-84-1	Iodine-129	<9.98E-5	ug/g dry	9.98E-5	5/03/10	0C05004	PNNL-AGG-415
HEIS No.	**B22TN1**		**Lab ID:**	**0911013-37**			
15046-84-1	Iodine-129	<4.99E-5	ug/g dry	4.99E-5	5/03/10	0C05004	PNNL-AGG-415
HEIS No.	**B22TN6**		**Lab ID:**	**0911013-45**			
15046-84-1	Iodine-129	<5.00E-5	ug/g dry	5.00E-5	5/03/10	0C05004	PNNL-AGG-415
HEIS No.	**B22TP7**		**Lab ID:**	**0911013-59**			
15046-84-1	Iodine-129	<4.99E-5	ug/g dry	4.99E-5	5/03/10	0C05004	PNNL-AGG-415
HEIS No.	**B22TR8**		**Lab ID:**	**0911013-72**			
15046-84-1	Iodine-129	<5.00E-5	ug/g dry	5.00E-5	5/03/10	0C05004	PNNL-AGG-415
HEIS No.	**B22TV3**		**Lab ID:**	**0911013-90**			
15046-84-1	Iodine-129	<5.00E-5	ug/g dry	5.00E-5	5/03/10	0C05004	PNNL-AGG-415
HEIS No.	**B22TV8**		**Lab ID:**	**0911013-96**			
15046-84-1	Iodine-129	<5.00E-5	ug/g dry	5.00E-5	5/03/10	0C05004	PNNL-AGG-415
HEIS No.	**B22TW5**		**Lab ID:**	**0911013-AE**			
15046-84-1	Iodine-129	<4.98E-5	ug/g dry	4.98E-5	5/03/10	0C05004	PNNL-AGG-415
HEIS No.	**B22TX5**		**Lab ID:**	**0911013-AT**			
15046-84-1	Iodine-129	<5.05E-5	ug/g dry	5.05E-5	5/03/10	0C05004	PNNL-AGG-415
HEIS No.	**B22TY7**		**Lab ID:**	**0911013-CK**			
15046-84-1	Iodine-129	<5.00E-5	ug/g dry	5.00E-5	5/03/10	0C05004	PNNL-AGG-415
HEIS No.	**B22TY8**		**Lab ID:**	**0911013-CL**			
15046-84-1	Iodine-129	<5.00E-5	ug/g dry	5.00E-5	5/03/10	0C05004	PNNL-AGG-415
HEIS No.	**B22V02**		**Lab ID:**	**0911013-CT**			
15046-84-1	Iodine-129	<4.99E-5	ug/g dry	4.99E-5	5/03/10	0C05004	PNNL-AGG-415

Radionuclides by ICP-MS/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TK8**		**Lab ID:**	**0911013-11**			
14133-76-7	Technetium-99	<3.89E-5	ug/g dry	3.89E-5	2/10/10	0B10001	PNNL-AGG-415
	Uranium 238	2.91E-3	ug/g dry	7.99E-5	2/10/10	0B10001	PNNL-AGG-415
HEIS No.	**B22TL9**		**Lab ID:**	**0911013-23**			
14133-76-7	Technetium-99	<3.89E-5	ug/g dry	3.89E-5	2/10/10	0B10001	PNNL-AGG-415
	Uranium 238	1.34E-2	ug/g dry	7.98E-5	2/10/10	0B10001	PNNL-AGG-415
HEIS No.	**B22TN1**		**Lab ID:**	**0911013-37**			
14133-76-7	Technetium-99	<3.89E-5	ug/g dry	3.89E-5	2/10/10	0B10001	PNNL-AGG-415
	Uranium 238	1.90E-1	ug/g dry	7.98E-5	2/10/10	0B10001	PNNL-AGG-415
HEIS No.	**B22TN6**		**Lab ID:**	**0911013-45**			
14133-76-7	Technetium-99	<3.90E-5	ug/g dry	3.90E-5	2/10/10	0B10001	PNNL-AGG-415
	Uranium 238	2.64E-1	ug/g dry	8.00E-5	2/10/10	0B10001	PNNL-AGG-415
HEIS No.	**B22TP7**		**Lab ID:**	**0911013-59**			
14133-76-7	Technetium-99	<3.89E-5	ug/g dry	3.89E-5	2/10/10	0B10001	PNNL-AGG-415
	Uranium 238	6.58E-4	ug/g dry	7.98E-5	2/10/10	0B10001	PNNL-AGG-415
HEIS No.	**B22TR8**		**Lab ID:**	**0911013-72**			
14133-76-7	Technetium-99	<3.90E-5	ug/g dry	3.90E-5	2/10/10	0B10001	PNNL-AGG-415
	Uranium 238	6.25E-4	ug/g dry	8.00E-5	2/10/10	0B10001	PNNL-AGG-415
HEIS No.	**B22TV3**		**Lab ID:**	**0911013-90**			
14133-76-7	Technetium-99	<3.90E-5	ug/g dry	3.90E-5	2/10/10	0B10001	PNNL-AGG-415
	Uranium 238	7.99E-4	ug/g dry	8.00E-5	2/10/10	0B10001	PNNL-AGG-415
HEIS No.	**B22TV8**		**Lab ID:**	**0911013-96**			
14133-76-7	Technetium-99	<3.90E-5	ug/g dry	3.90E-5	2/10/10	0B10001	PNNL-AGG-415
	Uranium 238	8.64E-4	ug/g dry	7.99E-5	2/10/10	0B10001	PNNL-AGG-415
HEIS No.	**B22TW5**		**Lab ID:**	**0911013-AE**			
14133-76-7	Technetium-99	<3.88E-5	ug/g dry	3.88E-5	2/10/10	0B10001	PNNL-AGG-415
	Uranium 238	7.33E-4	ug/g dry	7.97E-5	2/10/10	0B10001	PNNL-AGG-415
HEIS No.	**B22TX5**		**Lab ID:**	**0911013-AT**			
14133-76-7	Technetium-99	<3.94E-5	ug/g dry	3.94E-5	2/10/10	0B10001	PNNL-AGG-415
	Uranium 238	6.54E-4	ug/g dry	8.09E-5	2/10/10	0B10001	PNNL-AGG-415
HEIS No.	**B22TY7**		**Lab ID:**	**0911013-CK**			
14133-76-7	Technetium-99	<3.90E-5	ug/g dry	3.90E-5	2/10/10	0B10001	PNNL-AGG-415
	Uranium 238	7.01E-4	ug/g dry	8.01E-5	2/10/10	0B10001	PNNL-AGG-415
HEIS No.	**B22TY8**		**Lab ID:**	**0911013-CL**			
14133-76-7	Technetium-99	<3.90E-5	ug/g dry	3.90E-5	2/10/10	0B10001	PNNL-AGG-415
	Uranium 238	5.99E-4	ug/g dry	7.99E-5	2/10/10	0B10001	PNNL-AGG-415
HEIS No.	**B22V02**		**Lab ID:**	**0911013-CT**			
14133-76-7	Technetium-99	<3.89E-5	ug/g dry	3.89E-5	2/10/10	0B10001	PNNL-AGG-415
	Uranium 238	3.74E-4	ug/g dry	7.98E-5	2/10/10	0B10001	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TK8**		**Lab ID:**	**0911013-11**			
15756-10-2	Mercury	<6.53E-3	ug/g dry	6.53E-3	2/11/10	0B11002	PNNL-AGG-415
HEIS No.	**B22TL9**		**Lab ID:**	**0911013-23**			
15756-10-2	Mercury	<6.52E-3	ug/g dry	6.52E-3	2/11/10	0B11002	PNNL-AGG-415
HEIS No.	**B22TN1**		**Lab ID:**	**0911013-37**			
15756-10-2	Mercury	<6.53E-3	ug/g dry	6.53E-3	2/11/10	0B11002	PNNL-AGG-415
HEIS No.	**B22TN6**		**Lab ID:**	**0911013-45**			
15756-10-2	Mercury	<6.54E-3	ug/g dry	6.54E-3	2/11/10	0B11002	PNNL-AGG-415
HEIS No.	**B22TP7**		**Lab ID:**	**0911013-59**			
15756-10-2	Mercury	<6.53E-3	ug/g dry	6.53E-3	2/11/10	0B11002	PNNL-AGG-415
HEIS No.	**B22TR8**		**Lab ID:**	**0911013-72**			
15756-10-2	Mercury	<6.54E-3	ug/g dry	6.54E-3	2/11/10	0B11002	PNNL-AGG-415
HEIS No.	**B22TV3**		**Lab ID:**	**0911013-90**			
15756-10-2	Mercury	<6.54E-3	ug/g dry	6.54E-3	2/11/10	0B11002	PNNL-AGG-415
HEIS No.	**B22TV8**		**Lab ID:**	**0911013-96**			
15756-10-2	Mercury	<6.53E-3	ug/g dry	6.53E-3	2/11/10	0B11002	PNNL-AGG-415
HEIS No.	**B22TW5**		**Lab ID:**	**0911013-AE**			
15756-10-2	Mercury	<6.51E-3	ug/g dry	6.51E-3	2/11/10	0B11002	PNNL-AGG-415
HEIS No.	**B22TX5**		**Lab ID:**	**0911013-AT**			
15756-10-2	Mercury	<6.61E-3	ug/g dry	6.61E-3	2/11/10	0B11002	PNNL-AGG-415
HEIS No.	**B22TY7**		**Lab ID:**	**0911013-CK**			
15756-10-2	Mercury	<6.55E-3	ug/g dry	6.55E-3	2/11/10	0B11002	PNNL-AGG-415
HEIS No.	**B22TY8**		**Lab ID:**	**0911013-CL**			
15756-10-2	Mercury	<6.54E-3	ug/g dry	6.54E-3	2/11/10	0B11002	PNNL-AGG-415
HEIS No.	**B22V02**		**Lab ID:**	**0911013-CT**			
15756-10-2	Mercury	<6.52E-3	ug/g dry	6.52E-3	2/11/10	0B11002	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TK8**		**Lab ID:**	**0911013-11**			
14265-72-6	Antimony	<6.57E-4	ug/g dry	6.57E-4	2/17/10	0B17008	PNNL-AGG-415
HEIS No.	**B22TL9**		**Lab ID:**	**0911013-23**			
14265-72-6	Antimony	9.65E-4	ug/g dry	6.57E-4	2/17/10	0B17008	PNNL-AGG-415
HEIS No.	**B22TN1**		**Lab ID:**	**0911013-37**			
14265-72-6	Antimony	<6.57E-4	ug/g dry	6.57E-4	2/17/10	0B17008	PNNL-AGG-415
HEIS No.	**B22TN6**		**Lab ID:**	**0911013-45**			
14265-72-6	Antimony	<6.59E-4	ug/g dry	6.59E-4	2/17/10	0B17008	PNNL-AGG-415
HEIS No.	**B22TP7**		**Lab ID:**	**0911013-59**			
14265-72-6	Antimony	7.75E-4	ug/g dry	6.57E-4	2/17/10	0B17008	PNNL-AGG-415
HEIS No.	**B22TR8**		**Lab ID:**	**0911013-72**			
14265-72-6	Antimony	7.96E-4	ug/g dry	6.58E-4	2/17/10	0B17008	PNNL-AGG-415
HEIS No.	**B22TV3**		**Lab ID:**	**0911013-90**			
14265-72-6	Antimony	<6.59E-4	ug/g dry	6.59E-4	2/17/10	0B17008	PNNL-AGG-415
HEIS No.	**B22TV8**		**Lab ID:**	**0911013-96**			
14265-72-6	Antimony	7.22E-4	ug/g dry	6.58E-4	2/17/10	0B17008	PNNL-AGG-415
HEIS No.	**B22TW5**		**Lab ID:**	**0911013-AE**			
14265-72-6	Antimony	<6.56E-4	ug/g dry	6.56E-4	2/17/10	0B17008	PNNL-AGG-415
HEIS No.	**B22TX5**		**Lab ID:**	**0911013-AT**			
14265-72-6	Antimony	7.28E-4	ug/g dry	6.66E-4	2/17/10	0B17008	PNNL-AGG-415
HEIS No.	**B22TY7**		**Lab ID:**	**0911013-CK**			
14265-72-6	Antimony	<6.59E-4	ug/g dry	6.59E-4	2/17/10	0B17008	PNNL-AGG-415
HEIS No.	**B22TY8**		**Lab ID:**	**0911013-CL**			
14265-72-6	Antimony	<6.58E-4	ug/g dry	6.58E-4	2/17/10	0B17008	PNNL-AGG-415
HEIS No.	**B22V02**		**Lab ID:**	**0911013-CT**			
14265-72-6	Antimony	1.15E-3	ug/g dry	6.57E-4	2/17/10	0B17008	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TK8**		**Lab ID:**	**0911013-11**			
15756-10-2	Mercury	<1.61E-1	ug/g dry	1.61E-1	2/12/10	0B12006	PNNL-AGG-415
HEIS No.	**B22TL9**		**Lab ID:**	**0911013-23**			
15756-10-2	Mercury	<1.57E-1	ug/g dry	1.57E-1	2/12/10	0B12006	PNNL-AGG-415
HEIS No.	**B22TN1**		**Lab ID:**	**0911013-37**			
15756-10-2	Mercury	<1.57E-1	ug/g dry	1.57E-1	2/12/10	0B12006	PNNL-AGG-415
HEIS No.	**B22TN6**		**Lab ID:**	**0911013-45**			
15756-10-2	Mercury	<1.54E-1	ug/g dry	1.54E-1	2/12/10	0B12006	PNNL-AGG-415
HEIS No.	**B22TP7**		**Lab ID:**	**0911013-59**			
15756-10-2	Mercury	<1.60E-1	ug/g dry	1.60E-1	2/12/10	0B12006	PNNL-AGG-415
HEIS No.	**B22TR8**		**Lab ID:**	**0911013-72**			
15756-10-2	Mercury	<1.58E-1	ug/g dry	1.58E-1	2/12/10	0B12006	PNNL-AGG-415
HEIS No.	**B22TV3**		**Lab ID:**	**0911013-90**			
15756-10-2	Mercury	<1.52E-1	ug/g dry	1.52E-1	2/12/10	0B12006	PNNL-AGG-415
HEIS No.	**B22TV8**		**Lab ID:**	**0911013-96**			
15756-10-2	Mercury	<1.58E-1	ug/g dry	1.58E-1	2/12/10	0B12006	PNNL-AGG-415
HEIS No.	**B22TW5**		**Lab ID:**	**0911013-AE**			
15756-10-2	Mercury	<1.57E-1	ug/g dry	1.57E-1	2/12/10	0B12006	PNNL-AGG-415
HEIS No.	**B22TX5**		**Lab ID:**	**0911013-AT**			
15756-10-2	Mercury	<1.54E-1	ug/g dry	1.54E-1	2/12/10	0B12006	PNNL-AGG-415
HEIS No.	**B22TY7**		**Lab ID:**	**0911013-CK**			
15756-10-2	Mercury	<1.57E-1	ug/g dry	1.57E-1	2/12/10	0B12006	PNNL-AGG-415
HEIS No.	**B22TY8**		**Lab ID:**	**0911013-CL**			
15756-10-2	Mercury	<1.59E-1	ug/g dry	1.59E-1	2/12/10	0B12006	PNNL-AGG-415
HEIS No.	**B22V02**		**Lab ID:**	**0911013-CT**			
15756-10-2	Mercury	<1.58E-1	ug/g dry	1.58E-1	2/12/10	0B12006	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B22TK8**		**Lab ID:**	**0911013-11**			
7440-38-2	Arsenic	2.40E0	ug/g dry	2.89E-1	2/04/10	0B02002	PNNL-AGG-415
14265-72-6	Antimony	<1.86E-1	ug/g dry	1.86E-1	2/04/10	0B02002	PNNL-AGG-415
HEIS No.	**B22TL9**		**Lab ID:**	**0911013-23**			
7440-38-2	Arsenic	2.25E0	ug/g dry	2.82E-1	2/04/10	0B02002	PNNL-AGG-415
14265-72-6	Antimony	<1.81E-1	ug/g dry	1.81E-1	2/04/10	0B02002	PNNL-AGG-415
HEIS No.	**B22TN1**		**Lab ID:**	**0911013-37**			
7440-38-2	Arsenic	2.96E0	ug/g dry	2.82E-1	2/04/10	0B02002	PNNL-AGG-415
14265-72-6	Antimony	<1.81E-1	ug/g dry	1.81E-1	2/04/10	0B02002	PNNL-AGG-415
HEIS No.	**B22TN6**		**Lab ID:**	**0911013-45**			
7440-38-2	Arsenic	3.34E0	ug/g dry	2.76E-1	2/04/10	0B02002	PNNL-AGG-415
14265-72-6	Antimony	<1.77E-1	ug/g dry	1.77E-1	2/04/10	0B02002	PNNL-AGG-415
HEIS No.	**B22TP7**		**Lab ID:**	**0911013-59**			
7440-38-2	Arsenic	2.78E0	ug/g dry	2.87E-1	2/04/10	0B02002	PNNL-AGG-415
14265-72-6	Antimony	<1.84E-1	ug/g dry	1.84E-1	2/04/10	0B02002	PNNL-AGG-415
HEIS No.	**B22TR8**		**Lab ID:**	**0911013-72**			
7440-38-2	Arsenic	1.87E0	ug/g dry	2.83E-1	2/04/10	0B02002	PNNL-AGG-415
14265-72-6	Antimony	<1.82E-1	ug/g dry	1.82E-1	2/04/10	0B02002	PNNL-AGG-415
HEIS No.	**B22TV3**		**Lab ID:**	**0911013-90**			
7440-38-2	Arsenic	1.61E0	ug/g dry	2.72E-1	2/04/10	0B02002	PNNL-AGG-415
14265-72-6	Antimony	<1.75E-1	ug/g dry	1.75E-1	2/04/10	0B02002	PNNL-AGG-415
HEIS No.	**B22TV8**		**Lab ID:**	**0911013-96**			
7440-38-2	Arsenic	1.75E0	ug/g dry	2.84E-1	2/04/10	0B02002	PNNL-AGG-415
14265-72-6	Antimony	<1.82E-1	ug/g dry	1.82E-1	2/04/10	0B02002	PNNL-AGG-415
HEIS No.	**B22TW5**		**Lab ID:**	**0911013-AE**			
7440-38-2	Arsenic	2.06E0	ug/g dry	2.81E-1	2/04/10	0B02002	PNNL-AGG-415
14265-72-6	Antimony	<1.80E-1	ug/g dry	1.80E-1	2/04/10	0B02002	PNNL-AGG-415
HEIS No.	**B22TX5**		**Lab ID:**	**0911013-AT**			
7440-38-2	Arsenic	1.57E0	ug/g dry	2.76E-1	2/04/10	0B02002	PNNL-AGG-415
14265-72-6	Antimony	<1.77E-1	ug/g dry	1.77E-1	2/04/10	0B02002	PNNL-AGG-415
HEIS No.	**B22TY7**		**Lab ID:**	**0911013-CK**			
7440-38-2	Arsenic	1.75E0	ug/g dry	2.81E-1	2/04/10	0B02002	PNNL-AGG-415
14265-72-6	Antimony	<1.80E-1	ug/g dry	1.80E-1	2/04/10	0B02002	PNNL-AGG-415
HEIS No.	**B22TY8**		**Lab ID:**	**0911013-CL**			
7440-38-2	Arsenic	9.04E-1	ug/g dry	2.84E-1	2/04/10	0B02002	PNNL-AGG-415
14265-72-6	Antimony	<1.82E-1	ug/g dry	1.82E-1	2/04/10	0B02002	PNNL-AGG-415
HEIS No.	**B22V02**		**Lab ID:**	**0911013-CT**			
7440-38-2	Arsenic	9.17E-1	ug/g dry	2.83E-1	2/04/10	0B02002	PNNL-AGG-415
14265-72-6	Antimony	<1.82E-1	ug/g dry	1.82E-1	2/04/10	0B02002	PNNL-AGG-415

Carbon Analysis/Soil

Total Organic Carbon (ug/g) by AGG-TOC-001

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
0911013-11	B22TK8	<2.00E2	2.00E2	2/17/10	[CALC]
0911013-23	B22TL9	<2.00E2	2.00E2	2/17/10	[CALC]
0911013-37	B22TN1	<2.00E2	2.00E2	2/17/10	[CALC]
0911013-45	B22TN6	<2.00E2	2.00E2	2/17/10	[CALC]
0911013-59	B22TP7	<2.00E2	2.00E2	2/17/10	[CALC]
0911013-72	B22TR8	<2.00E2	2.00E2	2/17/10	[CALC]
0911013-90	B22TV3	<2.00E2	2.00E2	2/17/10	[CALC]
0911013-96	B22TV8	<2.00E2	2.00E2	2/17/10	[CALC]
0911013-AE	B22TW5	<2.00E2	2.00E2	2/17/10	[CALC]
0911013-AT	B22TX5	<2.00E2	2.00E2	2/17/10	[CALC]
0911013-CK	B22TY7	2.53E2	2.00E2	2/17/10	[CALC]
0911013-CL	B22TY8	<2.00E2	2.00E2	2/17/10	[CALC]
0911013-CT	B22V02	2.72E2	2.00E2	2/17/10	[CALC]

Carbon Analysis/Soil

Total Carbon (ug/g) by AGG-TOC-001

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
0911013-11	B22TK8	1.76E3	2.00E2	2/17/10	0B15004
0911013-23	B22TL9	2.63E3	2.00E2	2/17/10	0B15004
0911013-37	B22TN1	2.33E3	2.00E2	2/17/10	0B15004
0911013-45	B22TN6	2.32E3	2.00E2	2/17/10	0B15004
0911013-59	B22TP7	2.03E3	2.00E2	2/17/10	0B15004
0911013-72	B22TR8	1.87E3	2.00E2	2/17/10	0B15004
0911013-90	B22TV3	2.46E3	2.00E2	2/17/10	0B15004
0911013-96	B22TV8	1.34E3	2.00E2	2/17/10	0B15004
0911013-AE	B22TW5	1.56E3	2.00E2	2/17/10	0B15004
0911013-AT	B22TX5	1.25E3	2.00E2	2/17/10	0B15004
0911013-CK	B22TY7	1.36E3	2.00E2	2/17/10	0B15004
0911013-CL	B22TY8	1.32E3	2.00E2	2/17/10	0B15004
0911013-CT	B22V02	5.81E2	2.00E2	2/17/10	0B15004

Carbon Analysis/Soil

Total Inorganic Carbon (ug/g) by AGG-TOC-001

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
0911013-11	B22TK8	1.72E3	2.00E2	2/17/10	0B16002
0911013-23	B22TL9	2.47E3	2.00E2	2/17/10	0B16002
0911013-37	B22TN1	2.47E3	2.00E2	2/17/10	0B16002
0911013-45	B22TN6	2.19E3	2.00E2	2/17/10	0B16002
0911013-59	B22TP7	2.01E3	2.00E2	2/17/10	0B16002
0911013-72	B22TR8	1.72E3	2.00E2	2/17/10	0B16002
0911013-90	B22TV3	2.32E3	2.00E2	2/17/10	0B16002
0911013-96	B22TV8	1.14E3	2.00E2	2/17/10	0B16002
0911013-AE	B22TW5	1.47E3	2.00E2	2/17/10	0B16002
0911013-AT	B22TX5	1.16E3	2.00E2	2/17/10	0B16002
0911013-CK	B22TY7	1.10E3	2.00E2	2/17/10	0B16002
0911013-CL	B22TY8	1.16E3	2.00E2	2/17/10	0B16002
0911013-CT	B22V02	3.09E2	2.00E2	2/17/10	0B16002

GEA/Soil

CAS #	Analyte	Results	Units	MDA	UNC	Analyzed	Batch	Method
HEIS No.	**B22TK8**		**Lab ID:**	**0911013-11**				
10198-40-0	Cobalt-60	<2.33E-1	pCi/g dry	2.33E-1		2/17/10	0B18001	AGG-RRL-001
10045-97-3	Cesium-137	<2.61E-1	pCi/g dry	2.61E-1		2/17/10	0B18001	AGG-RRL-001
14683-23-9	Europium-152	<1.04E0	pCi/g dry	1.04E0		2/17/10	0B18001	AGG-RRL-001
15585-10-1	Europium-154	<6.19E-1	pCi/g dry	6.19E-1		2/17/10	0B18001	AGG-RRL-001
14391-16-3	Europium-155	<9.51E-1	pCi/g dry	9.51E-1		2/17/10	0B18001	AGG-RRL-001
HEIS No.	**B22TL9**		**Lab ID:**	**0911013-23**				
10198-40-0	Cobalt-60	<2.33E-1	pCi/g dry	2.33E-1		2/18/10	0B18001	AGG-RRL-001
10045-97-3	Cesium-137	<2.53E-1	pCi/g dry	2.53E-1		2/18/10	0B18001	AGG-RRL-001
14683-23-9	Europium-152	<1.11E0	pCi/g dry	1.11E0		2/18/10	0B18001	AGG-RRL-001
15585-10-1	Europium-154	<6.49E-1	pCi/g dry	6.49E-1		2/18/10	0B18001	AGG-RRL-001
14391-16-3	Europium-155	<1.04E0	pCi/g dry	1.04E0		2/18/10	0B18001	AGG-RRL-001
HEIS No.	**B22TN1**		**Lab ID:**	**0911013-37**				
10198-40-0	Cobalt-60	<2.26E-1	pCi/g dry	2.26E-1		2/18/10	0B18001	AGG-RRL-001
10045-97-3	Cesium-137	<2.66E-1	pCi/g dry	2.66E-1		2/18/10	0B18001	AGG-RRL-001
14683-23-9	Europium-152	<1.08E0	pCi/g dry	1.08E0		2/18/10	0B18001	AGG-RRL-001
15585-10-1	Europium-154	<6.33E-1	pCi/g dry	6.33E-1		2/18/10	0B18001	AGG-RRL-001
14391-16-3	Europium-155	<1.03E0	pCi/g dry	1.03E0		2/18/10	0B18001	AGG-RRL-001
HEIS No.	**B22TN6**		**Lab ID:**	**0911013-45**				
10198-40-0	Cobalt-60	<2.33E-1	pCi/g dry	2.33E-1		2/18/10	0B18001	AGG-RRL-001
10045-97-3	Cesium-137	<2.72E-1	pCi/g dry	2.72E-1		2/18/10	0B18001	AGG-RRL-001
14683-23-9	Europium-152	<1.12E0	pCi/g dry	1.12E0		2/18/10	0B18001	AGG-RRL-001
15585-10-1	Europium-154	<6.57E-1	pCi/g dry	6.57E-1		2/18/10	0B18001	AGG-RRL-001
14391-16-3	Europium-155	<1.04E0	pCi/g dry	1.04E0		2/18/10	0B18001	AGG-RRL-001
HEIS No.	**B22TP7**		**Lab ID:**	**0911013-59**				
10198-40-0	Cobalt-60	<2.23E-1	pCi/g dry	2.23E-1		2/18/10	0B18001	AGG-RRL-001
10045-97-3	Cesium-137	<2.68E-1	pCi/g dry	2.68E-1		2/18/10	0B18001	AGG-RRL-001
14683-23-9	Europium-152	<1.04E0	pCi/g dry	1.04E0		2/18/10	0B18001	AGG-RRL-001
15585-10-1	Europium-154	<6.25E-1	pCi/g dry	6.25E-1		2/18/10	0B18001	AGG-RRL-001
14391-16-3	Europium-155	<9.61E-1	pCi/g dry	9.61E-1		2/18/10	0B18001	AGG-RRL-001
HEIS No.	**B22TR8**		**Lab ID:**	**0911013-72**				
10198-40-0	Cobalt-60	<1.90E-1	pCi/g dry	1.90E-1		2/18/10	0B18001	AGG-RRL-001
10045-97-3	Cesium-137	<2.30E-1	pCi/g dry	2.30E-1		2/18/10	0B18001	AGG-RRL-001
14683-23-9	Europium-152	<8.87E-1	pCi/g dry	8.87E-1		2/18/10	0B18001	AGG-RRL-001
15585-10-1	Europium-154	<5.28E-1	pCi/g dry	5.28E-1		2/18/10	0B18001	AGG-RRL-001
14391-16-3	Europium-155	<8.08E-1	pCi/g dry	8.08E-1		2/18/10	0B18001	AGG-RRL-001
HEIS No.	**B22TV3**		**Lab ID:**	**0911013-90**				
10198-40-0	Cobalt-60	<1.88E-1	pCi/g dry	1.88E-1		2/19/10	0B18001	AGG-RRL-001
10045-97-3	Cesium-137	<2.25E-1	pCi/g dry	2.25E-1		2/19/10	0B18001	AGG-RRL-001
14683-23-9	Europium-152	<9.16E-1	pCi/g dry	9.16E-1		2/19/10	0B18001	AGG-RRL-001
15585-10-1	Europium-154	<5.36E-1	pCi/g dry	5.36E-1		2/19/10	0B18001	AGG-RRL-001
14391-16-3	Europium-155	<8.11E-1	pCi/g dry	8.11E-1		2/19/10	0B18001	AGG-RRL-001
HEIS No.	**B22TV8**		**Lab ID:**	**0911013-96**				
10198-40-0	Cobalt-60	<2.11E-1	pCi/g dry	2.11E-1		2/19/10	0B18001	AGG-RRL-001
10045-97-3	Cesium-137	<2.27E-1	pCi/g dry	2.27E-1		2/19/10	0B18001	AGG-RRL-001
14683-23-9	Europium-152	<9.25E-1	pCi/g dry	9.25E-1		2/19/10	0B18001	AGG-RRL-001
15585-10-1	Europium-154	<5.47E-1	pCi/g dry	5.47E-1		2/19/10	0B18001	AGG-RRL-001
14391-16-3	Europium-155	<8.41E-1	pCi/g dry	8.41E-1		2/19/10	0B18001	AGG-RRL-001

GEA/Soil

CAS #	Analyte	Results	Units	MDA	UNC	Analyzed	Batch	Method
HEIS No.	**B22TW5**		**Lab ID:**	**0911013-AE**				
10198-40-0	Cobalt-60	<2.28E-1	pCi/g dry	2.28E-1		2/19/10	0B18001	AGG-RRL-001
10045-97-3	Cesium-137	<2.64E-1	pCi/g dry	2.64E-1		2/19/10	0B18001	AGG-RRL-001
14683-23-9	Europium-152	<1.05E0	pCi/g dry	1.05E0		2/19/10	0B18001	AGG-RRL-001
15585-10-1	Europium-154	<5.91E-1	pCi/g dry	5.91E-1		2/19/10	0B18001	AGG-RRL-001
14391-16-3	Europium-155	<9.23E-1	pCi/g dry	9.23E-1		2/19/10	0B18001	AGG-RRL-001
HEIS No.	**B22TX5**		**Lab ID:**	**0911013-AT**				
10198-40-0	Cobalt-60	<1.80E-1	pCi/g dry	1.80E-1		2/19/10	0B18001	AGG-RRL-001
10045-97-3	Cesium-137	<2.24E-1	pCi/g dry	2.24E-1		2/19/10	0B18001	AGG-RRL-001
14683-23-9	Europium-152	<9.18E-1	pCi/g dry	9.18E-1		2/19/10	0B18001	AGG-RRL-001
15585-10-1	Europium-154	<5.34E-1	pCi/g dry	5.34E-1		2/19/10	0B18001	AGG-RRL-001
14391-16-3	Europium-155	<8.10E-1	pCi/g dry	8.10E-1		2/19/10	0B18001	AGG-RRL-001
HEIS No.	**B22TY7**		**Lab ID:**	**0911013-CK**				
10198-40-0	Cobalt-60	<2.01E-1	pCi/g dry	2.01E-1		2/22/10	0B18001	AGG-RRL-001
10045-97-3	Cesium-137	<2.46E-1	pCi/g dry	2.46E-1		2/22/10	0B18001	AGG-RRL-001
14683-23-9	Europium-152	<9.42E-1	pCi/g dry	9.42E-1		2/22/10	0B18001	AGG-RRL-001
15585-10-1	Europium-154	<5.52E-1	pCi/g dry	5.52E-1		2/22/10	0B18001	AGG-RRL-001
14391-16-3	Europium-155	<8.42E-1	pCi/g dry	8.42E-1		2/22/10	0B18001	AGG-RRL-001
HEIS No.	**B22TY8**		**Lab ID:**	**0911013-CL**				
10198-40-0	Cobalt-60	<1.77E-1	pCi/g dry	1.77E-1		2/22/10	0B18001	AGG-RRL-001
10045-97-3	Cesium-137	<1.90E-1	pCi/g dry	1.90E-1		2/22/10	0B18001	AGG-RRL-001
14683-23-9	Europium-152	<8.19E-1	pCi/g dry	8.19E-1		2/22/10	0B18001	AGG-RRL-001
15585-10-1	Europium-154	<4.74E-1	pCi/g dry	4.74E-1		2/22/10	0B18001	AGG-RRL-001
14391-16-3	Europium-155	<7.12E-1	pCi/g dry	7.12E-1		2/22/10	0B18001	AGG-RRL-001
HEIS No.	**B22V02**		**Lab ID:**	**0911013-CT**				
10198-40-0	Cobalt-60	<1.60E-1	pCi/g dry	1.60E-1		2/22/10	0B18001	AGG-RRL-001
10045-97-3	Cesium-137	<2.09E-1	pCi/g dry	2.09E-1		2/22/10	0B18001	AGG-RRL-001
14683-23-9	Europium-152	<8.05E-1	pCi/g dry	8.05E-1		2/22/10	0B18001	AGG-RRL-001
15585-10-1	Europium-154	<4.78E-1	pCi/g dry	4.78E-1		2/22/10	0B18001	AGG-RRL-001
14391-16-3	Europium-155	<7.23E-1	pCi/g dry	7.23E-1		2/22/10	0B18001	AGG-RRL-001

Total Alpha Total Beta/Acid Extract

CAS #	Analyte	Results	Units	MDA	UNC	Analyzed	Batch	Method
HEIS No.	**B22TK8**		**Lab ID:**	**0911013-11**				
12587-47-2	Gross Beta	<4.63E1	pCi/g dry	4.63E1		2/12/10	0C16001	AGG-RRL-002
12587-46-1	Gross Alpha	<1.98E1	pCi/g dry	1.98E1		2/12/10	0C16001	AGG-RRL-002
HEIS No.	**B22TL9**		**Lab ID:**	**0911013-23**				
12587-47-2	Gross Beta	<4.51E1	pCi/g dry	4.51E1		2/12/10	0C16001	AGG-RRL-002
12587-46-1	Gross Alpha	<1.93E1	pCi/g dry	1.93E1		2/12/10	0C16001	AGG-RRL-002
HEIS No.	**B22TN1**		**Lab ID:**	**0911013-37**				
12587-47-2	Gross Beta	<4.51E1	pCi/g dry	4.51E1		2/12/10	0C16001	AGG-RRL-002
12587-46-1	Gross Alpha	<1.93E1	pCi/g dry	1.93E1		2/12/10	0C16001	AGG-RRL-002
HEIS No.	**B22TN6**		**Lab ID:**	**0911013-45**				
12587-47-2	Gross Beta	<4.42E1	pCi/g dry	4.42E1		2/12/10	0C16001	AGG-RRL-002
12587-46-1	Gross Alpha	<1.89E1	pCi/g dry	1.89E1		2/12/10	0C16001	AGG-RRL-002
HEIS No.	**B22TP7**		**Lab ID:**	**0911013-59**				
12587-47-2	Gross Beta	<4.60E1	pCi/g dry	4.60E1		2/12/10	0C16001	AGG-RRL-002
12587-46-1	Gross Alpha	<1.97E1	pCi/g dry	1.97E1		2/12/10	0C16001	AGG-RRL-002
HEIS No.	**B22TR8**		**Lab ID:**	**0911013-72**				
12587-47-2	Gross Beta	<4.53E1	pCi/g dry	4.53E1		2/12/10	0C16001	AGG-RRL-002
12587-46-1	Gross Alpha	<1.94E1	pCi/g dry	1.94E1		2/12/10	0C16001	AGG-RRL-002
HEIS No.	**B22TV3**		**Lab ID:**	**0911013-90**				
12587-47-2	Gross Beta	<4.36E1	pCi/g dry	4.36E1		2/12/10	0C16001	AGG-RRL-002
12587-46-1	Gross Alpha	<1.86E1	pCi/g dry	1.86E1		2/12/10	0C16001	AGG-RRL-002
HEIS No.	**B22TV8**		**Lab ID:**	**0911013-96**				
12587-47-2	Gross Beta	<4.54E1	pCi/g dry	4.54E1		2/12/10	0C16001	AGG-RRL-002
12587-46-1	Gross Alpha	<1.94E1	pCi/g dry	1.94E1		2/12/10	0C16001	AGG-RRL-002
HEIS No.	**B22TW5**		**Lab ID:**	**0911013-AE**				
12587-47-2	Gross Beta	<4.49E1	pCi/g dry	4.49E1		2/12/10	0C16001	AGG-RRL-002
12587-46-1	Gross Alpha	<1.92E1	pCi/g dry	1.92E1		2/12/10	0C16001	AGG-RRL-002
HEIS No.	**B22TX5**		**Lab ID:**	**0911013-AT**				
12587-47-2	Gross Beta	<4.42E1	pCi/g dry	4.42E1		2/12/10	0C16001	AGG-RRL-002
12587-46-1	Gross Alpha	<1.89E1	pCi/g dry	1.89E1		2/12/10	0C16001	AGG-RRL-002
HEIS No.	**B22TY7**		**Lab ID:**	**0911013-CK**				
12587-47-2	Gross Beta	<4.49E1	pCi/g dry	4.49E1		2/12/10	0C16001	AGG-RRL-002
12587-46-1	Gross Alpha	<1.92E1	pCi/g dry	1.92E1		2/12/10	0C16001	AGG-RRL-002
HEIS No.	**B22TY8**		**Lab ID:**	**0911013-CL**				
12587-47-2	Gross Beta	<4.55E1	pCi/g dry	4.55E1		2/12/10	0C16001	AGG-RRL-002
12587-46-1	Gross Alpha	<1.94E1	pCi/g dry	1.94E1		2/12/10	0C16001	AGG-RRL-002
HEIS No.	**B22V02**		**Lab ID:**	**0911013-CT**				
12587-47-2	Gross Beta	<4.53E1	pCi/g dry	4.53E1		2/12/10	0C16001	AGG-RRL-002
12587-46-1	Gross Alpha	<1.94E1	pCi/g dry	1.94E1		2/12/10	0C16001	AGG-RRL-002

Total Alpha Total Beta/Water Extract

CAS #	Analyte	Results	Units	MDA	UNC	Analyzed	Batch	Method
HEIS No.	**B22TK8**		**Lab ID:**	**0911013-11**				
12587-47-2	Gross Beta	<1.27E1	pCi/g dry	1.27E1		2/15/10	0B15005	AGG-RRL-002
12587-46-1	Gross Alpha	<5.94E0	pCi/g dry	5.94E0		2/15/10	0B15005	AGG-RRL-002
HEIS No.	**B22TL9**		**Lab ID:**	**0911013-23**				
12587-47-2	Gross Beta	<1.27E1	pCi/g dry	1.27E1		2/15/10	0B15005	AGG-RRL-002
12587-46-1	Gross Alpha	<5.94E0	pCi/g dry	5.94E0		2/15/10	0B15005	AGG-RRL-002
HEIS No.	**B22TN1**		**Lab ID:**	**0911013-37**				
12587-47-2	Gross Beta	<1.27E1	pCi/g dry	1.27E1		2/15/10	0B15005	AGG-RRL-002
12587-46-1	Gross Alpha	<5.94E0	pCi/g dry	5.94E0		2/15/10	0B15005	AGG-RRL-002
HEIS No.	**B22TN6**		**Lab ID:**	**0911013-45**				
12587-47-2	Gross Beta	<1.27E1	pCi/g dry	1.27E1		2/15/10	0B15005	AGG-RRL-002
12587-46-1	Gross Alpha	<5.95E0	pCi/g dry	5.95E0		2/15/10	0B15005	AGG-RRL-002
HEIS No.	**B22TP7**		**Lab ID:**	**0911013-59**				
12587-47-2	Gross Beta	<1.27E1	pCi/g dry	1.27E1		2/15/10	0B15005	AGG-RRL-002
12587-46-1	Gross Alpha	<5.94E0	pCi/g dry	5.94E0		2/15/10	0B15005	AGG-RRL-002
HEIS No.	**B22TR8**		**Lab ID:**	**0911013-72**				
12587-47-2	Gross Beta	<1.27E1	pCi/g dry	1.27E1		2/15/10	0B15005	AGG-RRL-002
12587-46-1	Gross Alpha	<5.95E0	pCi/g dry	5.95E0		2/15/10	0B15005	AGG-RRL-002
HEIS No.	**B22TV3**		**Lab ID:**	**0911013-90**				
12587-47-2	Gross Beta	<1.27E1	pCi/g dry	1.27E1		2/15/10	0B15005	AGG-RRL-002
12587-46-1	Gross Alpha	<5.95E0	pCi/g dry	5.95E0		2/15/10	0B15005	AGG-RRL-002
HEIS No.	**B22TV8**		**Lab ID:**	**0911013-96**				
12587-47-2	Gross Beta	<1.27E1	pCi/g dry	1.27E1		2/15/10	0B15005	AGG-RRL-002
12587-46-1	Gross Alpha	<5.95E0	pCi/g dry	5.95E0		2/15/10	0B15005	AGG-RRL-002
HEIS No.	**B22TW5**		**Lab ID:**	**0911013-AE**				
12587-47-2	Gross Beta	<1.27E1	pCi/g dry	1.27E1		2/15/10	0B15005	AGG-RRL-002
12587-46-1	Gross Alpha	<5.93E0	pCi/g dry	5.93E0		2/15/10	0B15005	AGG-RRL-002
HEIS No.	**B22TX5**		**Lab ID:**	**0911013-AT**				
12587-47-2	Gross Beta	<1.29E1	pCi/g dry	1.29E1		2/15/10	0B15005	AGG-RRL-002
12587-46-1	Gross Alpha	<6.02E0	pCi/g dry	6.02E0		2/15/10	0B15005	AGG-RRL-002
HEIS No.	**B22TY7**		**Lab ID:**	**0911013-CK**				
12587-47-2	Gross Beta	<1.27E1	pCi/g dry	1.27E1		2/15/10	0B15005	AGG-RRL-002
12587-46-1	Gross Alpha	<5.96E0	pCi/g dry	5.96E0		2/15/10	0B15005	AGG-RRL-002
HEIS No.	**B22TY8**		**Lab ID:**	**0911013-CL**				
12587-47-2	Gross Beta	<1.27E1	pCi/g dry	1.27E1		2/15/10	0B15005	AGG-RRL-002
12587-46-1	Gross Alpha	<5.95E0	pCi/g dry	5.95E0		2/15/10	0B15005	AGG-RRL-002
HEIS No.	**B22V02**		**Lab ID:**	**0911013-CT**				
12587-47-2	Gross Beta	<1.27E1	pCi/g dry	1.27E1		2/15/10	0B15005	AGG-RRL-002
12587-46-1	Gross Alpha	<5.93E0	pCi/g dry	5.93E0		2/15/10	0B15005	AGG-RRL-002

Wet Chemistry - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0B09001 - 1:1 Water Extract (pH_EC_Alk)										
LCS (0B09001-BS1)				Prepared: 02/09/10		Analyzed: 03/17/10				
pH	7.01E0	N/A	pH Units	7.00E0		100	80-120			
Duplicate (0B09001-DUP1)		**Source: 0911013-11**		Prepared & Analyzed: 02/09/10						
pH	7.76E0	N/A	pH Units		7.32E0			5.84	35	
Duplicate (0B09001-DUP2)		**Source: 0911013-AE**		Prepared & Analyzed: 02/09/10						
pH	7.73E0	N/A	pH Units		7.92E0			2.43	35	
Batch 0B09002 - 1:1 Water Extract (pH_EC_Alk)										
Blank (0B09002-BLK1)				Prepared & Analyzed: 02/09/10						
Specific Conductance (EC)	<1.00E-2	1.00E-2	mS/cm							
LCS (0B09002-BS1)				Prepared: 02/09/10		Analyzed: 03/17/10				
Specific Conductance (EC)	9.65E-2	1.00E-2	mS/cm	1.00E-1		96.5	80-120			
Duplicate (0B09002-DUP1)		**Source: 0911013-11**		Prepared & Analyzed: 02/09/10						
Specific Conductance (EC)	4.21E-1	1.00E-2	mS/cm		4.03E-1			4.30	35	
Batch 0B09003 - 1:1 Water Extract (pH_EC_Alk)										
Blank (0B09003-BLK1)				Prepared: 02/09/10		Analyzed: 02/11/10				
Alkalinity as CaCO3	<2.35E1	2.35E1	ug/g wet							
Duplicate (0B09003-DUP1)		**Source: 0911013-11**		Prepared: 02/09/10		Analyzed: 02/11/10				
Alkalinity as CaCO3	4.68E1	2.34E1	ug/g dry		5.10E1			8.62	35	

Anions by Ion Chromatography - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0B10015 - 1:1 Water Extract (IC)										
Blank (0B10015-BLK1)				Prepared: 02/09/10		Analyzed: 02/10/10				
Fluoride	<2.00E-1	2.00E-1	ug/g wet							
Chloride	<5.00E-1	5.00E-1	"							
Nitrite	<1.00E0	1.00E0	"							
Bromide	<1.00E0	1.00E0	"							
Nitrate	<1.00E0	1.00E0	"							
Sulfate	<1.50E0	1.50E0	"							
Phosphate	<1.50E0	1.50E0	"							
LCS (0B10015-BS1)				Prepared: 02/09/10		Analyzed: 02/10/10				
Fluoride	2.02E0	2.00E-1	ug/g wet	2.00E0		101	80-120			
Chloride	4.99E0	5.00E-1	"	5.00E0		99.9	80-120			
Nitrite	1.05E1	1.00E0	"	9.99E0		105	80-120			
Bromide	9.93E0	1.00E0	"	9.99E0		99.4	80-120			
Nitrate	1.04E1	1.00E0	"	9.99E0		104	80-120			
Sulfate	1.51E1	1.50E0	"	1.50E1		101	80-120			
Phosphate	1.50E1	1.50E0	"	1.50E1		100	80-120			
Duplicate (0B10015-DUP1)	**Source: 0911013-11**			Prepared: 02/09/10		Analyzed: 02/10/10				
Fluoride	1.43E0	1.99E-1	ug/g dry		1.40E0			2.04	35	D
Chloride	2.47E1	4.98E-1	"		2.57E1			4.21	35	D
Nitrite	<9.96E-1	9.96E-1	"		ND				35	
Bromide	<9.96E-1	9.96E-1	"		ND				35	
Nitrate	2.24E1	9.96E-1	"		2.37E1			5.92	35	D
Sulfate	9.28E1	1.49E0	"		9.69E1			4.36	35	D
Phosphate	<1.49E0	1.49E0	"		ND				35	
Post Spike (0B10015-PS1)	**Source: 0911013-23**			Prepared: 02/09/10		Analyzed: 02/10/10				
Fluoride	1.31E0	N/A	ug/mL	7.69E-1	5.77E-1	95.2	75-125			D
Chloride	2.99E0	N/A	"	1.92E0	1.09E0	98.8	75-125			D
Nitrite	3.91E0	N/A	"	3.85E0	2.68E-1	94.6	75-125			D
Bromide	3.77E0	N/A	"	3.85E0	ND	98	75-125			D
Nitrate	5.18E0	N/A	"	3.85E0	1.24E0	102	75-125			D
Sulfate	1.74E1	N/A	"	5.77E0	1.20E1	93.6	75-125			D
Phosphate	5.91E0	N/A	"	5.77E0	6.06E-2	101	75-125			D

Cyanide by Mircodistillation/Colorimetric - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0D07001 - NO PREP										
Blank (0D07001-BLK1)				Prepared & Analyzed: 04/07/10						
Cyanide	<1.00E-1	1.00E-1	ug/g wet							
LCS (0D07001-BS1)				Prepared & Analyzed: 04/07/10						
Cyanide	9.81E-1	5.00E-1	ug/g wet	1.01E0		97.4	80-120			
Duplicate (0D07001-DUP1)		**Source: 0911013-CT**		Prepared & Analyzed: 04/07/10						
Cyanide	<1.03E-1	1.03E-1	ug/g dry		ND				20	

Hexavalent Chromium/Soil - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0D08006 - Hexavalent Chromium Digest										
Blank (0D08006-BLK1)				Prepared: 03/03/10		Analyzed: 03/09/10				
Chromium, Hexavalent	<2.50E0	2.50E0	ug/g wet							
LCS (0D08006-BS1)				Prepared: 03/03/10		Analyzed: 03/09/10				
Chromium, Hexavalent	2.09E1	2.50E0	ug/g wet	2.50E1		83.4	70-130			
Duplicate (0D08006-DUP1)		**Source: 0911013-11**		Prepared: 03/03/10		Analyzed: 03/09/10				
Chromium, Hexavalent	<5.28E-1	5.28E-1	ug/g dry		ND				20	
Matrix Spike (0D08006-MS1)		**Source: 0911013-23**		Prepared: 03/03/10		Analyzed: 03/09/10				
Chromium, Hexavalent	1.95E-1	N/A	ug/mL	5.00E-1	3.00E-3	38.4	75-125			

Total Metals by PNNL-AGG-ICP-AES/Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0B15003 - 1:1 Water Extract (ICP/ICPMS)										
Blank (0B15003-BLK1)				Prepared: 02/04/10		Analyzed: 02/15/10				
Aluminum	<1.56E-1	1.56E-1	ug/g wet							
Arsenic	<5.19E-1	5.19E-1	"							
Calcium	<7.54E-1	7.54E-1	"							
Iron	<1.75E-1	1.75E-1	"							
Potassium	<2.15E0	2.15E0	"							
Magnesium	<8.14E-2	8.14E-2	"							
Thallium	<1.65E0	1.65E0	"							
Sodium	<1.33E0	1.33E0	"							
Blank (0B15003-BLK2)				Prepared: 02/09/10		Analyzed: 02/15/10				
Aluminum	<9.37E-2	9.37E-2	ug/g wet							
Arsenic	<3.12E-1	3.12E-1	"							
Calcium	<4.52E-1	4.52E-1	"							
Iron	<1.05E-1	1.05E-1	"							
Potassium	<1.29E0	1.29E0	"							
Magnesium	<4.89E-2	4.89E-2	"							
Thallium	<9.88E-1	9.88E-1	"							
Sodium	<7.97E-1	7.97E-1	"							
LCS (0B15003-BS1)				Prepared: 02/09/10		Analyzed: 02/15/10				
Aluminum	4.85E0	9.37E-2	ug/g wet	5.00E0		97.1	80-120			
Arsenic	5.00E0	3.12E-1	"	5.00E0		100	80-120			
Calcium	5.01E0	4.52E-1	"	5.00E0		100	80-120			
Iron	4.90E0	1.05E-1	"	5.00E0		98.0	80-120			
Potassium	4.99E1	1.29E0	"	5.00E1		99.9	80-120			
Magnesium	4.91E0	4.89E-2	"	5.00E0		98.3	80-120			
Thallium	5.15E0	9.88E-1	"	5.00E0		103	80-120			
Sodium	5.43E0	7.97E-1	"	5.00E0		109	80-120			

Total Metals by PNNL-AGG-ICP-AES/Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0B15003 - 1:1 Water Extract (ICP/ICPMS)										
Duplicate (0B15003-DUP1)		**Source: 0911013-11**		Prepared & Analyzed: 02/15/10						
Aluminum	<9.34E-2	9.34E-2	ug/g dry		ND				35	
Arsenic	<3.10E-1	3.10E-1	"		ND				35	
Calcium	2.69E1	4.51E-1	"		2.72E1			1.18	35	
Iron	<1.04E-1	1.04E-1	"		ND				35	
Potassium	6.80E0	1.29E0	"		6.85E0			0.816	35	
Magnesium	7.07E0	4.87E-2	"		7.42E0			4.85	35	
Thallium	<9.84E-1	9.84E-1	"		ND				35	
Sodium	3.98E1	7.94E-1	"		3.91E1			1.79	35	
Post Spike (0B15003-PS1)		**Source: 0911013-23**		Prepared & Analyzed: 02/15/10						
Aluminum	5.07E2	N/A	ug/L	5.00E2	2.45E1	96.5	75-125			
Arsenic	5.24E2	N/A	"	5.00E2	2.26E0	104	75-125			
Calcium	5.02E3	N/A	"	5.00E2	4.34E3	135	75-125			
Iron	5.38E2	N/A	"	5.00E2	2.54E1	102	75-125			
Potassium	3.18E3	N/A	"	1.25E3	1.91E3	102	75-125			
Magnesium	1.89E3	N/A	"	5.00E2	1.36E3	108	75-125			
Thallium	4.99E2	N/A	"	5.00E2	ND	104	75-125			
Sodium	4.12E3	N/A	"	5.00E2	3.50E3	125	75-125			
Silver	5.19E2	N/A	"	5.00E2	ND	104	75-125			

Total Metals by PNNL-AGG-ICP-AES/Acid Extract - Quality Control

Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0B16001 - ASTM D 5198 (ICP/ICPMS)										
Blank (0B16001-BLK1)				Prepared: 01/28/10		Analyzed: 02/16/10				
Aluminum	<6.76E0	6.76E0	ug/g wet							
Calcium	<7.02E0	7.02E0	"							
Cadmium	<3.68E-1	3.68E-1	"							
Chromium	<5.90E-1	5.90E-1	"							
Copper	<1.93E0	1.93E0	"							
Iron	<1.82E0	1.82E0	"							
Potassium	<2.59E1	2.59E1	"							
Magnesium	<1.92E0	1.92E0	"							
Manganese	<6.04E-1	6.04E-1	"							
Nickel	<1.40E0	1.40E0	"							
Lead	<3.02E0	3.02E0	"							
Selenium	<1.72E1	1.72E1	"							
Thallium	<9.70E0	9.70E0	"							
Sodium	<1.90E1	1.90E1	"							
Silver	<9.16E-1	9.16E-1	"							
LCS (0B16001-BS1)				Prepared: 01/28/10		Analyzed: 02/16/10				
Aluminum	5.52E0	6.76E-1	ug/g wet	6.01E0		91.8	80-120			
Calcium	5.89E0	7.02E-1	"	6.01E0		98.0	80-120			
Cadmium	5.67E0	3.68E-2	"	6.01E0		94.3	80-120			
Chromium	5.99E0	5.90E-2	"	6.01E0		99.7	80-120			
Copper	5.93E0	1.93E-1	"	6.01E0		98.7	80-120			
Iron	5.75E0	1.82E-1	"	6.01E0		95.7	80-120			
Potassium	5.76E1	2.59E0	"	6.01E1		95.8	80-120			
Magnesium	5.58E0	1.92E-1	"	6.01E0		92.8	80-120			
Manganese	5.82E0	6.04E-2	"	6.01E0		96.8	80-120			
Nickel	5.71E0	1.40E-1	"	6.01E0		94.9	80-120			
Lead	5.75E0	3.02E-1	"	6.01E0		95.6	80-120			
Selenium	5.27E0	1.72E0	"	6.01E0		87.7	80-120			
Thallium	5.72E0	9.70E-1	"	6.01E0		95.2	80-120			
Sodium	6.23E0	1.90E0	"	6.01E0		104	80-120			
Silver	5.65E0	9.16E-2	"	6.01E0		93.9	80-120			

Total Metals by PNNL-AGG-ICP-AES/Acid Extract - Quality Control

Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0B16001 - ASTM D 5198 (ICP/ICPMS)										
Duplicate (0B16001-DUP1)	**Source: 0911013-11**			Prepared: 01/28/10	Analyzed: 02/16/10					
Aluminum	5.61E3	2.33E1	ug/g dry		4.96E3			12.3	35	
Calcium	6.41E3	2.42E1	"		6.12E3			4.59	35	
Cadmium	<1.27E0	1.27E0	"		ND				35	
Chromium	7.09E0	2.03E0	"		7.51E0			5.83	35	
Copper	<6.66E0	6.66E0	"		ND				35	
Iron	1.23E4	6.26E0	"		1.18E4			3.67	35	
Potassium	1.07E3	8.92E1	"		1.06E3			0.666	35	
Magnesium	3.96E3	6.63E0	"		4.05E3			2.11	35	
Manganese	2.08E2	2.08E0	"		2.30E2			10.0	35	
Nickel	7.86E0	4.83E0	"		8.31E0			5.52	35	
Lead	<1.04E1	1.04E1	"		ND				35	
Selenium	<5.91E1	5.91E1	"		ND				35	
Thallium	<3.34E1	3.34E1	"		ND				35	
Sodium	1.57E2	6.56E1	"		1.64E2			4.31	35	
Silver	<3.16E0	3.16E0	"		ND				35	
Post Spike (0B16001-PS1)	**Source: 0911013-11**			Prepared & Analyzed: 02/16/10						
Aluminum	2.92E4	N/A	ug/L	5.00E2	2.81E4	211	75-125			
Calcium	3.64E4	N/A	"	5.00E2	3.47E4	329	75-125			
Cadmium	2.44E2	N/A	"	2.50E2	ND	99	75-125			
Chromium	1.69E2	N/A	"	1.25E2	4.26E1	101	75-125			
Copper	5.33E2	N/A	"	5.00E2	3.60E1	99.4	75-125			
Iron	7.00E4	N/A	"	5.00E2	6.72E4	553	75-125			
Potassium	7.43E3	N/A	"	1.25E3	6.04E3	111	75-125			
Magnesium	2.44E4	N/A	"	5.00E2	2.30E4	279	75-125			
Manganese	1.59E3	N/A	"	2.50E2	1.31E3	113	75-125			
Nickel	5.28E2	N/A	"	5.00E2	4.71E1	96.2	75-125			
Lead	4.92E2	N/A	"	5.00E2	ND	99.1	75-125			
Selenium	4.57E2	N/A	"	5.00E2	ND	95.7	75-125			
Thallium	3.84E2	N/A	"	5.00E2	ND	102	75-125			
Sodium	1.45E3	N/A	"	5.00E2	9.28E2	105	75-125			
Silver	3.59E2	N/A	"	5.00E2	ND	74.9	75-125			

Radionuclides by ICP-MS/Acid Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0B02001 - ASTM D 5198 (ICP/ICPMS)										
Blank (0B02001-BLK1)				Prepared & Analyzed: 02/02/10						
Technetium-99	<1.47E-3	1.47E-3	ug/g wet							
Uranium 238	<1.00E-2	1.00E-2	"							
Duplicate (0B02001-DUP1)		**Source: 0911013-11**		Prepared & Analyzed: 02/02/10						
Technetium-99	<5.07E-3	5.07E-3	ug/g dry		ND				35	
Uranium 238	3.62E-1	3.45E-2	"		4.52E-1			21.9	35	
Post Spike (0B02001-PS1)		**Source: 0911013-11**		Prepared & Analyzed: 02/02/10						
Technetium-99	4.99E-1	N/A	ug/L	5.00E-1	5.61E-4	99.8	75-125			
Uranium 238	1.74E0	N/A	"	5.00E-1	1.28E0	92	75-125			

Radionuclides by ICP-MS/Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0B10001 - 1:1 Water Extract (ICP/ICPMS)										
Blank (0B10001-BLK1)				Prepared & Analyzed: 02/10/10						
Technetium-99	<3.90E-5	3.90E-5	ug/g wet							
Uranium 238	<8.00E-5	8.00E-5	"							
Duplicate (0B10001-DUP1)		**Source: 0911013-11**		Prepared & Analyzed: 02/10/10						
Technetium-99	<3.89E-5	3.89E-5	ug/g dry		ND				35	
Uranium 238	2.91E-3	7.97E-5	"		2.91E-3			0.0609	35	
Post Spike (0B10001-PS1)		**Source: 0911013-11**		Prepared & Analyzed: 02/10/10						
Technetium-99	4.95E-1	N/A	ug/L	5.00E-1	ND	103	75-125			
Uranium 238	1.10E0	N/A	"	5.00E-1	5.83E-1	104	75-125			
Batch 0C05004 - 1:1 Water Extract (ICP/ICPMS)										
Blank (0C05004-BLK1)				Prepared & Analyzed: 05/03/10						
Iodine-129	<5.00E-5	5.00E-5	ug/g wet							
Duplicate (0C05004-DUP1)		**Source: 0911013-11**		Prepared & Analyzed: 05/03/10						
Iodine-129	<9.96E-5	9.96E-5	ug/g dry		ND				35	
Post Spike (0C05004-PS1)		**Source: 0911013-11**		Prepared & Analyzed: 05/03/10						
Iodine-129	9.43E-2	N/A	ug/L	1.00E-1	ND	96.8	75-125			

RCRA Metals By PNNL-AGG-415/Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0B11002 - 1:1 Water Extract (ICP/ICPMS)										
Blank (0B11002-BLK1)				Prepared & Analyzed: 02/11/10						
Mercury	<6.54E-3	6.54E-3	ug/g wet							U
Duplicate (0B11002-DUP1)		**Source: 0911013-11**		Prepared & Analyzed: 02/11/10						
Mercury	<6.52E-3	6.52E-3	ug/g dry		ND				35	U
Post Spike (0B11002-PS1)		**Source: 0911013-11**		Prepared & Analyzed: 02/11/10						
Mercury	1.15E0	N/A	ug/L	1.00E0	1.31E-1	102	75-125			
Batch 0B17008 - 1:1 Water Extract (ICP/ICPMS)										
Blank (0B17008-BLK1)				Prepared & Analyzed: 02/17/10						
Antimony	<6.58E-4	6.58E-4	ug/g wet							
Duplicate (0B17008-DUP1)		**Source: 0911013-11**		Prepared & Analyzed: 02/17/10						
Antimony	<6.56E-4	6.56E-4	ug/g dry		ND				35	
Post Spike (0B17008-PS1)		**Source: 0911013-11**		Prepared & Analyzed: 02/17/10						
Antimony	5.09E0	N/A	ug/L	5.00E0	1.30E-1	99.2	75-125			

RCRA Metals By PNNL-AGG-415/Acid Extract - Quality Control

Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0B02002 - ASTM D 5198 (ICP/ICPMS)										
Blank (0B02002-BLK1)				Prepared: 02/02/10		Analyzed: 02/04/10				
Arsenic	<8.20E-2	8.20E-2	ug/g wet							
Antimony	<5.26E-2	5.26E-2	"							
LCS (0B02002-BS1)				Prepared: 02/02/10		Analyzed: 02/04/10				
Arsenic	6.22E0	4.10E-1	ug/g wet	6.01E0		104	80-120			
Antimony	6.00E0	2.63E-1	"	6.01E0		99.8	80-120			
Duplicate (0B02002-DUP1)	**Source: 0911013-11**			Prepared: 02/02/10		Analyzed: 02/04/10				
Arsenic	2.46E0	2.83E-1	ug/g dry		2.40E0			2.37	35	
Antimony	<1.81E-1	1.81E-1	"		ND				35	
Post Spike (0B02002-PS1)	**Source: 0911013-11**			Prepared: 02/02/10		Analyzed: 02/04/10				
Arsenic	1.22E1	N/A	ug/L	5.00E0	6.80E0	108	75-125			
Antimony	4.77E0	N/A	"	5.00E0	1.13E-1	93.1	75-125			
Batch 0B12006 - ASTM D 5198 (ICP/ICPMS)										
Blank (0B12006-BLK1)				Prepared & Analyzed: 02/12/10						
Mercury	<4.58E-2	4.58E-2	ug/g wet							U
Duplicate (0B12006-DUP1)				Prepared & Analyzed: 02/12/10						
Mercury	<1.49E-1	1.49E-1	ug/g wet						35	U
Post Spike (0B12006-PS1)	**Source: 0911013-11**			Prepared & Analyzed: 02/12/10						
Mercury	8.41E-1	N/A	ug/L	1.00E0	9.04E-3	83.2	75-125			

Total Alpha Total Beta/Acid Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0C16001 - ASTM D 5198 (RadChem)										
Blank (0C16001-BLK1)				Prepared: 02/11/10	Analyzed: 02/12/10					
Gross Beta	<1.31E1	1.31E1	pCi/g wet							
Gross Alpha	<5.61E0	5.61E0	"							
Duplicate (0C16001-DUP1)	**Source: 0911013-11**			Prepared: 02/11/10	Analyzed: 02/12/10					
Gross Beta	<4.52E1	4.52E1	pCi/g dry		ND				35	
Gross Alpha	<1.93E1	1.93E1	"		ND				35	

Total Alpha Total Beta/Water Extract - Quality Control
Environmental Science Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0B15005 - 1:1 Water Extract (RadChem)										
Blank (0B15005-BLK1)				Prepared: 02/14/10	Analyzed: 02/15/10					
Gross Beta	<1.27E1	1.27E1	pCi/g wet							
Gross Alpha	<5.95E0	5.95E0	"							
Duplicate (0B15005-DUP1)	**Source: 0911013-11**			Prepared: 02/14/10	Analyzed: 02/15/10					
Gross Beta	<1.27E1	1.27E1	pCi/g dry		ND				35	
Gross Alpha	<5.93E0	5.93E0	"		ND				35	

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7514 / 299-E84-25	Depth 0-17.5'	Date 12/17/09	Sheet 1 of 14
		Location	Project BP-5 "L" well		

Logged by Michelle Valenta (Print) Michelle Valenta (Sign) | (Print) (Sign)

Reviewed by (Print) (Sign) Date

Lithologic Class. Scheme Folk-Wentworth Procedure Rev

Drilling Contractor

Driller

Drill Method

DEPTH (ft)	SAMPLES TYPE	SAMPLES ID NUMBER	MOISTURE	GRAPHIC LOG C	Z	S	G	LITHOLOGIC DESCRIPTION (sediment class, range in particle size, maximum particle size, mafic %, sorting, roundness, color, consolidation, reaction to 10% HCl, structure, fabric, and any other characteristics)	COMMENTS
									Samples from 1L poly bottles, poured into weigh boats for photos and geology
		B22TJ8	M					S- sand. 80% fine sand, 20% silt + v. fine sand, trace G, mod-sorted loose w/ some fine sand weakly consolidated. 2.5Y 5/3 (light olive brown). max part. = 6mm. 10% mafic, 90% felsic. no rxn HCl.	
2.5	G								
5	G	B22TJ9	M					(g)S - Slightly gravelly sand. fine to v. coarse sand - 95%, 5% G. max part. size = 13mm (med. pebbles). loose, w/ weakly consol. fine sand. G - primarily basalt, sub to well rounded. S - 30% mafic, 70% felsic. 2.5Y 4/2 (dark grayish brown). poorly sorted mod. rxn to HCl.	
	G	B22TK0	SM						
7.5									
	G	B22TK1	D					gS - gravelly sand. 20% G, 80% v. fine to fine sand. max size = 25mm (coarse pebbles). G - 80% basalt, sub to well rounded, some broken. S - 10% mafic, 90% felsic. loose. poorly sorted. 2.5Y 5/2 (grayish brown). mod rxn to HCl.	
10									
	G	B22TK2	D						
12.5									
	G	B22TK3	M					(g)S - Slightly gravelly sand. 10% G, 90% fine to v. coarse sand. max size = 14mm (med. pebbles). G - sub-angular to sub-round, 90% basalt. sand - 50% mafic, 50% felsic. loose, poorly sorted. 2.5Y 5/1 (gray). no rxn to HCl.	
15									
	G	B22TK4	SM						
17.5									
								gS - gravelly sand. 20% G, 80% fine to v. coarse sand. max size = 23mm remainder - same as above.	
								S - sand. med. sand. max. size - v. coarse sand well-sorted. loose. 2.5Y 5/3 (lt. olive brown). 10% mafic, 90% felsic sub-round to angular. weak to no rxn to HCl.	
								(g)S - Slightly gravelly sand. 5% G, 95% fine to v. coarse sand, max size = 5mm (fine pebbles) - mod. sorted, loose. S - 10% mafic, 90% felsic. 2.5Y 6/3 (lt. yellowish brown) weak rxn to HCl	

KEY
S = sand
G = gravel
V = very
mod. = moderate
max = maximum
part. = particle
rxn = reaction
med = medium
Z = fines (clay + silt)

W = Wet, M = Moist, SM = Slightly Moist, D = Dry

Pacific Northwest National Laboratory	GEOLOGIC LOG	Boring/Well No C7514 / 299-E24-25 Location	Depth 17.5 - 33.5 Date 12/17/09 Project BP-5 L well	Sheet 2 of 14

Logged by Michelle Valenta / Michelle Valenta (Print / Sign)
Reviewed by ______ (Print / Sign) Date ______
Lithologic Class. Scheme Folk-Wentworth Procedure ______ Rev ______
Drilling Contractor ______
Driller ______
Drill Method ______

DEPTH (ft)	SAMPLES TYPE	SAMPLES ID NUMBER	MOISTURE	GRAPHIC LOG (C Z S G)	LITHOLOGIC DESCRIPTION (sediment class, range in particle size, maximum particle size, mafic %, sorting, roundness, color, consolidation, reaction to 10% HCl, structure, fabric, and any other characteristics)	COMMENTS
	G	B22TK5	SM		S - Sand. fine to v. coarse sand, trace gravel. max part. = 3mm. loose, mod. sorted. 20% mafic, 80% felsic, sub-round to angular. 2.5Y 6/3 (lt. yellowish brown). weak rxn to HCl.	
20						
	G	B22TK6	SM		(g)S - Slightly gravelly sand. 5% G, 95% v. fine to v. coarse sand. max size = 7mm. G- primarily broken, 50% basalt. S - 20% mafic, 80% felsic. mod. sorted, loose w/ some mod. cemented. 2.5Y 6/3 (lt. yellowish brown). S - weak to no rxn to HCl, cemented sand - strong rxn to HCl.	
22.5						
	G	B22TK7	SM			
25						
	G	B22TK8	SM		sand - trace gravel. fine to v. coarse sand. max size = 5mm. 20% mafic, 80% felsic. loose, mod sorted. 2.5Y 5/3 (lt. olive brown). weak rxn to HCl.	
27.5						
	G	B22TK9	SM			
30						
					(m)S - Slightly muddy sand. 10% Z, 90% v. fine to coarse sand. max part = v. coarse sand. loose w/ some consol. of fines. mod. sorted. 10% mafic, 90% felsic. 2.5Y 5/3 (lt. olive brown). weak to no rxn to HCl.	
33.5	G	B22TL0	SM			
					(g)S - Slightly gravelly sand 5% G, 95% fine to v. coarse sand - primarily coarse to v. coarse sand. max. part. = 3mm. S - 40% mafic, 60% felsic. loose, mod. sorted. S - sub-angular to angular. 2.5Y 4/2 (dark grayish brown). no rxn to HCl.	
					(m)S - Slightly muddy sand. 5% Z, 95% v. fine to coarse sand trace G. max. part. = 6mm (fine pebbles) mod. sorted, loose w/ some mod. consol. of fines. 2.5Y 6/3 (lt. yellowish brown).	TL0 - depth 33.5 (no range)

W = Wet, M = Moist, SM = Slightly Moist, D = Dry

2008/DCL/FORMS/GeoLog/001 (03/18)

Pacific Northwest National Laboratory

GEOLOGIC LOG

Boring/Well No C7514/299-E24-25 Depth 33.5-57.5 Date 12/17/09 Sheet 3 of 14

Location _____ Project BP-5 L well

Logged by Michelle Valenta / Michelle Valenta Print Sign Print Sign

Reviewed by _____ Print Sign Date _____

Lithologic Class. Scheme Folk-Wentworth Procedure _____ Rev _____

Drilling Contractor _____

Driller _____

Drill Method _____

DEPTH (ft)	SAMPLES TYPE	SAMPLES ID NUMBER	MOISTURE	GRAPHIC LOG C Z S G	LITHOLOGIC DESCRIPTION (sediment class, range in particle size, maximum particle size, mafic %, sorting, roundness, color, consolidation, reaction to 10% HCl, structure, fabric, and any other characteristics)	COMMENTS
33	G	B22TL1	SM		(g)S- Slightly gravelly sand. 5% G, 95% med. to v. coarse sand. max. size = 4mm. (fine pebbles). S- 30% mafic, 70% felsic. loose, mod sorted. 2.5Y 5/2 (grayish brown) weak rxn to HCl.	
	G	B22TL2	SM		same as above weak rxn to HCl	
38.5						
40	G	B22TL3	SM		same as above	
	G	B22TL4	SM		same as above. higher percentage of fine sand - less v. coarse sand. 10% G, 90% S. weak rxn to HCl. 2.5Y 6/2 (lt. brownish gray).	
42.5						
45	G	B22TL5	SM		same as above - max = 7mm. 5% G, 95% Med. to V. coarse sand.	TLS depth only given at 45'
		B22TL6	SM		(g)S- Slightly gravelly sand. 10% G, 90% Sand - primarily med. sand, some coarse and fine sand. max size = 9mm. loose, mod-sorted. 2.5Y 5/2 (grayish brown). S- 30% mafic, 70% felsic. weak rxn to HCl.	
47.5	G					
	G	B22TL7	SM			
50					same as above.	
	G	B22TL9	SM			
52.5					S- sand. fine to coarse sand. trace G + Z. max. size = 6mm. (fine pebbles). mod-sorted loose, some mod cementation - contain fine lenses. S- 20% mafic, 80% felsic. 2.5Y 6/3 (lt. yellowish brown). S- mod. rxn to HCl.	
	G	B22TL8	SM			
55					cemented sand - strong rxn to HCl.	
	G	B22TM10	SM			
57.5					S- sand - fine to v. coarse, trace G. max. size = 8mm, loose. mod-sorted. S- sub-angular to angular, 30% mafic, 70% felsic. 2.5Y 5/2 (grayish brown). weak rxn to HCl.	
					same as above - no trace G. more med to coarse sand - less v. coarse sand. well-sorted.	

W = Wet, M = Moist, SM = Slightly Moist, D = Dry

Pacific Northwest National Laboratory

GEOLOGIC LOG

Boring/Well No C7514/299-E24-25 Depth 57.5'-82.6' Date 12/17/09 Sheet 4 of 14

Location _____ Project BP-5 L well

Logged by Michelle Valenta (Print) | Michelle Valenta (Sign) | _____ (Print) _____ (Sign)

Reviewed by _____ (Print) _____ (Sign) Date _____

Lithologic Class. Scheme Folk-Wentworth Procedure _____ Rev ____

Drilling Contractor _____

Driller _____

Drill Method _____

DEPTH (ft)	SAMPLES TYPE	SAMPLES ID NUMBER	MOISTURE	GRAPHIC LOG C	Z	S	G	LITHOLOGIC DESCRIPTION (sediment class, range in particle size, maximum particle size, mafic %, sorting, roundness, color, consolidation, reaction to 10% HCl, structure, fabric, and any other characteristics)	COMMENTS
								Same as above - sand - med to coarse well sorted. weak rxn to HCl.	
	G	B22TM1	SM						
60								S-sand. fine to coarse sand. max size = v. coarse sand. loose w/ some mod consol. (< 10%). S- 20% mafic, 80% felsic. mod-sorted. 2.5Y 6/3 (lt. yellowish brown). weak to no rxn to HCl.	
	G	B22TM2	SM						
62.5									
								S-sand - med-to v. coarse. v. coarse max size. S- 30% mafic, 70% felsic. loose, mod-sorted. 2.5Y 5/2 (grayish brown). weak rxn to HCl.	
66	G	B22TM3	SM						
67	G	B22TM4	SM					S-sand. fine to v. coarse sand. same as above, mod rxn to HCl.	
70.5	G	B22TM5	SM					S-sand. fine to v. coarse sand, trace G. max size = 5mm. S- 30% mafic 70% felsic. loose, mod-sorted. 2.5Y 5/2 (grayish brown). weak rxn HCl	
72.5	G	B22TM6	SM					S-v. fine to med sand - 80% - 20% coarse to v. coarse sand. max size = v. coarse sand. 40% mafic, 60% felsic. mod-sorted. loose - small amount of mod. consol. (< 5%). 2.5Y 6/2 (lt. brownish gray). mod rxn to HCl.	
75	G	B22TM7	SM						
77.5	G	B22TM8	SM					S-sand. v. fine to v. coarse. max size = v. coarse sand. 20% mafic, 80% felsic. mod-sorted, loose. 2.5Y 4/2 (dark grayish brown).	
80	G	B22TM9	SM					Same as above.	
82.6	G	B22TN0	SM					Same as above. trace G. max size = 4mm.	
								(g)S- Slightly gravelly sand. 5% G, 95% v. fine to v. coarse sand max size = 6mm. S- 30% mafic, 70% felsic. loose; mod-sorted. 2.5Y 5/2 (grayish brown). weak rxn to HCl.	

W = Wet, M = Moist, SM = Slightly Moist, D = Dry

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7514/299-E24-25	Depth 85-102.5'	Date 12/17/09	Sheet 5 of 14
		Location	Project BP-5 L well		

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Reviewed by (Print) (Sign) Date | Driller

Lithologic Class. Scheme Folk-Wentworth | Procedure | Rev | Drill Method

DEPTH (ft)	SAMPLES TYPE	SAMPLES ID NUMBER	MOISTURE	GRAPHIC LOG C Z S G	LITHOLOGIC DESCRIPTION (sediment class, range in particle size, maximum particle size, mafic %, sorting, roundness, color, consolidation, reaction to 10% HCl, structure, fabric, and any other characteristics)	COMMENTS
85	G	B22TN1	SM		S sand fine to V. coarse sand, trace G. max size = 3mm. S 20% mafic 80% felsic. mod-sorted, loose w/ some weak consol. (N10%). 2.5Y 4/2 (dark grayish brown).	
88	G	B22TN2	SM		same as above. sand - weak rxn to HCl, consol. - strong rxn to HCl.	
90.4	G	B22TN3	SM		S sand. V. fine to coarse sand. max size = V. coarse sand. S - 40% mafic, 60% felsic. loose, mod-sorted. 2.5Y 5/2 (grayish brown). weak rxn to HCl	
92.5	G	B22TN4	SM			
94.5	G	B22TN5	SM		S - V. fine to medium sand. max size = V. coarse sand. S - 30% mafic, 70% felsic, mod-sorted. loose w/ some mod. cementation. 2.5Y 6/2 (lt. brownish gray). S - weak rxn to HCl, cemented sand - mod rxn HCl	
97.5	G	B22TN6	M		S - med. sand 80%, 10% coarse, 10% fine sand. max size = V. coarse sand. S - 10% mafic, 90% felsic, loose, weak consol. due to moisture, mod-sorted, 2.5Y 5/2 (grayish brown).	
100.6	G	B22TN7	M			
102.5	G	B22TN8	SM		S fine to med. sand. max size = coarse sand. well-sorted. S 10% mafic, 90% felsic. loose. 2.5Y 5/2 (grayish brown).	
					S - sand. fine to coarse sand. max size = V. coarse sand. mod-sorted. S - 30% mafic, 70% felsic. 2.5Y 4/2 (dark grayish brown). loose. weak rxn to HCl.	
					S - Sand. med to coarse sand. max size = V. coarse sand. well-sorted, loose, small amount of weak consol. S - 40% mafic, 60% felsic, angular to sub-angular. 2.5Y 4/2 (dark grayish brown). no rxn to HCl.	

W = Wet, M = Moist, SM = Slightly Moist, D = Dry

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7514 / 299-E24-25	Depth 105-127'	Date 12/17/09	Sheet 6 of 14
		Location	Project BP-5 L well		

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Reviewed by (Print) (Sign) Date Driller

Lithologic Class. Scheme Folk - Wentworth Procedure Rev Drill Method

DEPTH (ft)	SAMPLES TYPE	SAMPLES ID NUMBER	MOISTURE	GRAPHIC LOG C	Z	S	G	LITHOLOGIC DESCRIPTION (sediment class, range in particle size, maximum particle size, mafic %, sorting, roundness, color, consolidation, reaction to 10% HCl, structure, fabric, and any other characteristics)	COMMENTS
105	G	B22TN9	SM					S- sand. fine to V. coarse sand. trace G. max size = 3mm. loose, mod-sorted S-20% mafic, 80% felsic. 2.5Y 5/2 (grayish brown). no rxn to HCl.	
107.5	G	B22TP0	SM					same as above - higher % of fine and medium sand - less V. coarse sand. max. size = 5mm. weak rxn to HCl.	
110	G	B22TP1	SM					S-sand. 80% fine + medium sand, 20% coarse sand. max size = V. coarse sand. 30% mafic, 70% felsic. mod-sorted. loose - lithic consol. due to moisture. 2.5Y 5/2 (grayish brown). weak rxn to HCl.	
112.5	G	B22TP2	SM						
115	G	B22TP3	SM					S- fine to coarse sand. trace G. max size = 6mm. S-30% mafic, 70% felsic. loose, mod. sorted. 2.5Y 5/2 (grayish brown). weak rxn HCl	
117.5	G	B22TP4	SM					same as above. max size = 3mm.	
120	G	B22TP5	SM					(g)S - Slightly gravelly sand - 10% G, 90% fine to V. coarse sand. max size = 3mm. S - 40% mafic, 60% felsic, G - primarily basalt. mod-sorted. loose, small amount of mod. cementing. 2.5Y 5/2 (grayish brown). mod. rxn to HCl.	
122.5	G	B22TP6	SM						
125	G	B22TP7	M					S- fine to coarse sand. trace G, max size = 4mm. 30% mafic, 70% felsic. loose. mod-sorted. 2.5Y 5/2 (grayish brown). weak rxn HCl.	
127	G	B22TP8	M					S- fine to med. sand. max size = V coarse sand. well-sorted. loose w/ some weak consol. 2.5Y 5/2 (grayish brown). S- mod. rxn to HCl. Consol - strong rxn to HCl.	
								same as above - more consolidation (~30%)	
								same as above - loose (no consolidation).	

W = Wet, M = Moist, SM = Slightly Moist, D = Dry

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7514/299-E24-25	Depth 130-147.5	Date 12/18/09	Sheet 7 of 14
		Location	Project BP-5 L well		

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Reviewed by (Print) (Sign) Date | Driller

Lithologic Class. Scheme Folk-Wentworth | Procedure | Rev | Drill Method

DEPTH (ft)	SAMPLES TYPE	SAMPLES ID NUMBER	MOISTURE	GRAPHIC LOG C	Z	S	G	LITHOLOGIC DESCRIPTION (sediment class, range in particle size, maximum particle size, mafic %, sorting, roundness, color, consolidation, reaction to 10% HCl, structure, fabric, and any other characteristics)	COMMENTS
130'+	G	B22TP9	SM					S-sand- fine to medium sand, trace G. max size = 4mm. S- 10% mafic 90% felsic, loose, mod-sorted. 2.5Y 5/2 (grayish brown). no rxn to HCl.	
132.5+	G	B22TR0	SM					same as above, with some mod. consolidation (N10%). S- weak rxn to HCl. consol- mod. rxn to HCl	
136+	G	B22TR1	SM					same as above 5% gravel, 95% sand. 2.5Y 6/3 (lt. yellowish brown). no rxn to HCl.	
137.5+	G	B22TR2	SM					same as above - sand, fine to medium (90%) some coarse sand (10%) trace G, loose (no consol.). 2.5Y 5/2 (grayish brown). 20% mafic, 80% felsic. weak rxn to HCl.	
140.4+	G	B22TR3	SM						
142.5+	G	B22TR4	SM					(g)S- Slightly gravelly sand. 5%G, 95% fine to V. coarse sand. max size = 4mm. S- 30% mafic, 70% felsic. loose, mod-sorted. 2.5Y 5/2 (grayish brown). weak rxn to HCl.	
144+	G	B22TR5	SM						
147.5+	G	B22TR6	SM					S-sand. fine (70% fine + med.) to V. coarse sand (30% coarse + V. coarse), trace G. max size = 4mm. mod-sorted. loose w/some mod. consolidation. 20% mafic, 80% felsic, sub-round to angular. 2.5Y 6/2 (lt. brownish gray). no rxn to HCl.	
								S-sand. fine (40% fine + med sand) to V. coarse sand (60% coarse + V. coarse sand). trace G. max size = 3mm. S- 40% mafic, 60% felsic. loose, mod-sorted. 2.5Y 5/3 (lt. olive brown). weak rxn to HCl.	
								S-sand. fine to medium sand, (some coarse + V. coarse) trace G. max size = 3mm. S- 20% mafic, 80% felsic. mod-sorted. loose w/ some weak to mod. consol. 2.5Y 6/2 (lt. brownish gray). mod. rxn to HCl.	

W = Wet, M = Moist, SM = Slightly Moist, D = Dry

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C-7514/299-E24-25	Depth 149.9-167.5'	Date 12/18/09	Sheet 8 of 14
		Location	Project BP-5 L well		

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Reviewed by (Print) (Sign) Date | Driller

Lithologic Class. Scheme Folk - Wentworth | Procedure | Rev | Drill Method

DEPTH (ft)	SAMPLES TYPE	SAMPLES ID NUMBER	MOISTURE	GRAPHIC LOG C	Z	S	G	LITHOLOGIC DESCRIPTION (sediment class, range in particle size, maximum particle size, mafic %, sorting, roundness, color, consolidation, reaction to 10% HCl, structure, fabric, and any other characteristics)	COMMENTS
149.9	G	B22TR7	SM					(g)S- Slightly gravelly sand. 95% fine to v. coarse sand, 5% G. max size = 4mm. S- 30% mafic, 70% felsic. loose, mod-sorted. 2.5Y 5/2 (grayish brown). weak rxn to HCl.	
152.5	G	B22TR8	D					S- v. fine to med. sand, trace G. max size = 3mm. mod-sorted loose w/ mod cementation. 2.5Y 6/2 (lt. brownish gray). strong rxn to HCl.	
155	G	B22TR9	SM					S- sand. fine to v. coarse, trace G. max size = 3mm. S- 30% mafic, 70% felsic. loose, mod-sorted. 2.5Y 5/2 (grayish brown). no rxn HCl.	
157.5	G	B22TT0	SM					(g)S- Slightly gravelly sand. 5% G, 95% fine to v. coarse sand max size = 3mm. S- 50% mafic, 50% felsic. loose, mod-sorted. 2.5Y 5/2 (grayish brown). weak rxn to HCl.	
160.3	G	B22TT1	SM					same as above w/ some cementation. 2.5Y 6/2 (lt. brownish gray). some consol- contains iron staining. weak rxn to HCl.	
162.5	G	B22TT2	D					(g)S - Slightly gravelly sand. v. fine to fine sand 95%, 5% G. max size = 14mm (broken gravel). loose w/ some mod cementation. poorly sorted. 2.5Y 7/3 (pale yellow). mod rxn to HCl (sand), consol sand - mod rxn to HCl.	
165	G	B22TT3	SM					S- fine to v. coarse sand, trace G. max size = 3mm. loose, mod-sorted. S- 20% mafic, 80% felsic. 2.5Y 5/2 (grayish brown). weak rxn to HCl.	
167.5	G	B22TT4	SM					(g)S- Sl. gravelly sand. fine to coarse sand - 95%, 5% G. max size = 11mm (med. pebbles). loose, poorly sorted. G- basalt, well-rounded. S- 30% mafic, 70% felsic. 2.5Y 5/2 (grayish brown) mod. rxn to HCl.	

W = Wet, M = Moist, SM = Slightly Moist, D = Dry

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7514 / 299-E24-25	Depth 170-190'	Date 12/18/09	Sheet 9 of 14
		Location	Project BP-5 L well		

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Lithologic Class. Scheme Folk-Wentworth | Procedure | Rev | Drill Method

DEPTH (ft)	SAMPLES TYPE	SAMPLES ID NUMBER	MOISTURE	GRAPHIC LOG C	Z	S	G	LITHOLOGIC DESCRIPTION (sediment class, range in particle size, maximum particle size, mafic %, sorting, roundness, color, consolidation, reaction to 10% HCl, structure, fabric, and any other characteristics)	COMMENTS
170	G	B22TT5	SM					S- fine to coarse sand, trace G. max size = 3mm. loose, mod-sorted. 30% mafic, 70% felsic. 2.5Y 5/2 (grayish brown). weak rxn HCl	
172.5	G	B22TT6	D					S sand fine to med. sand. max size = V. coarse sand loose w/ some cementation (<10%). well-sorted. 20% mafic, 80% felsic. 2.5Y 7/3 (pale yellow).	
175	G	B22TT7	SM						
177.5	G	B22TT8	SM					same as above, trace G. max size = 3mm. loose w/ some weak consol. more moisture - 2.5Y 5/3 (lt. olive brown). mod rxn to HCl.	
180	G	B22TT9	SM					S sand fine to v. coarse, trace G. max size = 4mm. loose, mod-sorted. 40% mafic, 60% felsic. 2.5Y 4/2 (dark grayish brown). weak rxn to HCl.	
182.5	G	B22TV0	SM					(g)S- slightly gravelly sand. 5% G, 95% fine to v. coarse sand. max size = 4mm. loose, mod-sorted. 40% mafic, 60% felsic. 2.5Y 5/2 (grayish brown). weak rxn to HCl.	
185	G	B22TV1	SM						
187.5	G	B22TV2	SM					(g)S- 95% fine to med. sand, 5% G. max size = 10mm. loose, mod-sorted. S- 20% mafic, 80% felsic. 2.5Y 6/2 (lt. brownish gray). weak rxn to HCl.	
190	G	B22TV3	SM					same as above. G- max size = 15mm (broken basalt).	
								S sand. fine to coarse sand, trace G. max size = 4mm. loose, mod-sorted. S- 20% mafic, 80% felsic. 2.5Y 5/2 (grayish brown). weak rxn HCl	
								same as above, 5% G. max size = 4mm.	

W = Wet, M = Moist, SM = Slightly Moist, D = Dry

Pacific Northwest National Laboratory	GEOLOGIC LOG	Boring/Well No C7514/299-E24-25 Depth 192.5-217.5 Date 12/18/09	Sheet 10 of 14
		Location	Project BP-5 L Well

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Lithologic Class. Scheme Folk-Wentworth Procedure Rev

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Drill Method

DEPTH (ft)	SAMPLES TYPE	SAMPLES ID NUMBER	MOISTURE	GRAPHIC LOG C Z S G	LITHOLOGIC DESCRIPTION sediment class, range in particle size, maximum particle size, mafic %, sorting, roundness, color, consolidation, reaction to 10% HCl, structure, fabric, and any other characteristics	COMMENTS
192.5	G	B22TV4	D		S- sand. v. fine to med sand - 95%, 5% G. max size = 5mm. loose w/ some cementation. Mod-sorted. 2.5Y 6/2 (lt. brownish gray). S-Mod rxn to HCl. cemented sand - strong rxn HCl.	
195	G	B22TV5	SM		S- sand. fine to coarse sand, trace G. max size = 5mm. S- 40% mafic, 60% felsic. loose. Mod-sorted. 2.5Y 5/2 (grayish brown). weak to mod. rxn to HCl.	
197.5	G	B22TV6	SM			
200	G	B22TV7	SM		same as above	
202.5	G	B22TV8	SM		same as above.	
205	G	B22TV9	SM		same as above. w/ some mod. consolidation.	
207.5	G	B22TW0	SM		S- sand. fine to v. coarse sand (higher % of coarse and v. coarse), trace G. max size = 5mm. loose, mod-sorted. 30% mafic, 70% felsic. 2.5Y 4/2 (dark grayish brown). weak rxn to HCl.	
210	G	B22TW1	SM		same as above. (g) Slightly gravelly sand. 95% fine to v. coarse sand, 5% G. max size = 5mm	
212.5	G	B22TW2	SM		same as above.	
215	G	B22TW3	SM		same as above w/ slightly higher gravel content - 10% G, 90% sand. S- 60% mafic, 40% felsic. G- 90% basalt. max size = 6mm.	
217.5	G	B22TW4	SM		same as above	
					(g) S- Slightly gravelly sand. 10% G, 90% fine to v. coarse sand. loose. max size = 11mm. S- 40% mafic, 60% felsic. G- 90% basalt. 2.5Y 4/2 (dark grayish brown). Mod-sorted. weak to no rxn to HCl.	

W = Wet, M = Moist, SM = Slightly Moist, D = Dry

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7514/299-E24-25	Depth 220-240'	Date 12/18/09	Sheet 11 of 14
		Location	Project BP-5 L WC1		

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Lithologic Class. Scheme Fak-Wentworth Procedure Rev
Drilling Contractor
Driller
Drill Method

DEPTH (ft)	SAMPLES TYPE	SAMPLES ID NUMBER	MOISTURE	GRAPHIC LOG C	Z	S	G	LITHOLOGIC DESCRIPTION (sediment class, range in particle size, maximum particle size, mafic %, sorting, roundness, color, consolidation, reaction to 10% HCl, structure, fabric, and any other characteristics)	COMMENTS
220	G	B22TW5	SM					S- fine and medium sand. max size = V. coarse sand. well sorted. loose. 20% mafic. 80% felsic. 2.5Y 5/3 (lt. Olive brown). Weak rxn to HCl.	
222.5	G	B22TW6	SM						
225	G	B22TW7	SM					Gr-S- Slightly gravelly sand. 95% V. fine to med sand, 5% gravel. max size = 3mm. 1/1- 90% basalt. S- 10% mafic, 90% felsic. loose w/ some mod. consolidation. mod-sorted. 2.5Y 6/3 (lt. yellowish brown). S- mod rxn to HCl. consol. S- strong rxn.	
227	G	B22TW8	SM						
230	G	B22TW9	SM					S- sand- fine to coarse sand, trace G. max size = 3mm. 30% mafic, 70% felsic. 2.5Y 5/2 (grayish brown). mod-sorted. loose w/ some weak consol. (<10%). weak to mod rxn to HCl.	
232.5	G	B22TX0	D					S- fine to med. sand. max size = V. coarse sand loose. well sorted. 20% mafic, 80% felsic 2.5Y 5/3 (lt. olive brown). weak to mod rxn to HCl.	
2355	G	B22TX1	SM					S- fine to V. coarse sand. max size = V. coarse sand mod-sorted. loose. 20% mafic, 80% felsic. 2.5Y 5/3. weak rxn to HCl.	
2315	G	B22TX2	SM					S- V. fine to med sand max size = coarse sand. 20% mafic, 80% felsic. loose w/ some weak to mod consol (<10%). 2.5Y 6/2 (lt. brownish gray). weak to mod. rxn to HCl.	
240	G	B22TX3	SM					S- fine to V. coarse sand, trace G. max size = 3mm. 30% mafic, 70% felsic loose w/ some weak consol. 2.5Y 5/3 (lt. olive brown). mod-sorted. no rxn to HCl.	
								same as above. less V. coarse and coarse sand, more fine med-sand	
								same as above	

W = Wet, M = Moist, SM = Slightly Moist, D = Dry

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7514 / 299-E24-25	Depth 242.5-262.4	Date 12/18/09	Sheet 12 of 14
		Location	Project BP-5 L Well		

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Reviewed by (Print) (Sign) Date

Lithologic Class. Scheme Folk-Wentworth Procedure Rev

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Driller

Drill Method

DEPTH (ft)	SAMPLES TYPE	SAMPLES ID NUMBER	MOISTURE	GRAPHIC LOG C Z S G	LITHOLOGIC DESCRIPTION (sediment class, range in particle size, maximum particle size, mafic %, sorting, roundness, color, consolidation, reaction to 10% HCl, structure, fabric, and any other characteristics)	COMMENTS
242.5	G	B22TX4	SM		S-sand v. fine to med sand, trace G. max size = 3mm. 20% mafic 80% felsic. loose w. some mod consol. (<10%). mod-sorted. 2.5Y 6/3 (lt. yellowish brown). sand-mod rxn to HCl. consol. sand-strong rxn to HCl.	
245	G	B22TX5	SM			
	G	B22TX6	SM		same as above - more consol. (~20%).	
247.5						
	G	B22TX7	SM		sand. fine to med sand (80%), coarse to v. coarse sand (20%). trace G. max size = 3mm. 20% mafic, 80% felsic. loose, mod-sorted. mod rxn to HCl. 2.5Y 6/3 (lt. yellowish brown).	
249.9						
252.5	G	B22TX8	SM		(g)S. Slightly gravelly sand. 10% G, 90% fine to v. coarse sand. max size = 7mm. S- 60% mafic, 40% felsic. G- 80% basalt, subround to subangular. loose, poorly sorted 2.5Y 5/2 (grayish brown). no rxn to HCl.	
255	G	B22TX9	SM			
257.5	G	B22TY0	SM		(g)S- sl. gravelly sand 5% G, 95% fine to v. coarse sand. max size = 7mm. S- 40% mafic. 60% felsic. G- 70% basalt, sub-angular to ang. loose, mod-sorted. 2.5Y 5/3 (lt. olive brown). weak to no rxn to HCl.	
	G	B22TY1	SM			
260					same as above. max size = 10mm.	
262.4	G	B22TY2	SM		(g)S- 10% G, 90% fine to v. coarse sand. max size = 8mm. S- 40% mafic, 60% felsic. G- 80% basalt, ang. to sub-round. loose, poorly-sorted. 2.5Y 5/2 (grayish brown). weak to mod. rxn to HCl.	
					same as above max size = 10mm. poorly sorted.	
					same as above.	

W = Wet, M = Moist, SM = Slightly Moist, D = Dry

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7514/299-E24-25	Depth 265-285.5	Date 12/18/09	Sheet 13 of 14
		Location	Project BP-5 L well		

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Reviewed by (Print / Sign) Date
Lithologic Class. Scheme Folk-Wentworth Procedure Rev
Drilling Contractor
Driller
Drill Method

DEPTH (ft)	SAMPLES TYPE	SAMPLES ID NUMBER	MOISTURE	GRAPHIC LOG C Z S G	LITHOLOGIC DESCRIPTION (sediment class, range in particle size, maximum particle size, mafic %, sorting, roundness, color, consolidation, reaction to 10% HCl, structure, fabric, and any other characteristics)	COMMENTS
265	G	B22TY3	SM		gS- gravelly sand. 20% G. 80% med (20%) to v. coarse sand. max size = 10mm G- 80% basalt, sub-rounded to angular. S- 70% mafic, 30% felsic. loose. poorly-sorted. 2.5Y 4/2 (dark grayish brown). no rxn to HCl.	
267.5	G	B22TY4	SM		same as 262.4 ft. max size = 44mm.	
270	G	B22TY5	SM		same as above	
273.5	G	B22TY6	SM		gS - gravelly sand. 10% G, 90% fine (80% sand fine-med) to v. coarse (20% coarse + v. coarse). max size = 8mm. loose, poorly sorted. (G- 80% basalt, rounded to sub-ang. S- 40% mafic, 60% felsic. 2.5Y 5/3 (lt. olive brown). no to weak rxn to HCl.	
275	G	B22TY7	SM			
277.5	G	B22TY8	SM		S sand, fine to v. coarse sand, trace G. max part. = 3mm. S- 40% mafic 60% felsic. loose. mod-sorted. 2.5Y 5/2 (grayish brown) no rxn HCl.	
280	G	B22TY9	SM		gS- gravelly sand. 30% G, 70% fine to v. coarse sand max size = 17 mm. G- 70% basalt, sub-ang. to well rounded. S- 40% mafic, 60% felsic, loose, poorly sorted. 2.5Y 4/2 (dark grayish brown). no rxn to HCl.	
284	G	B22V00	SM		same as above. max size = 16mm. broken gravel.	
285.5	G	B22V01	D		(gm)gS- Slightly muddy gravelly sand. 20% G, 70% v. fine - fine sand, 10% Z. max size = 11mm. loose. poorly sorted. 2.5Y 6/2 (lt. brownish gray). G- well-rounded to sub-ang. no rxn to HCl.	
					same as above. broken gravel. 2.5Y 7/2 (light gray). - drier G- 30%, sand-70% no rxn to HCl	

W = Wet, M = Moist, SM = Slightly Moist, D = Dry

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7514/299-E24-25	Depth 287.5-295.1'	Date 12/18/09	Sheet 14 of 14
		Location	Project BP-5 L well		

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Reviewed by | Date

Lithologic Class. Scheme Folk-Wentworth (Print) (Sign) | Procedure | Rev

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Driller

Drill Method

DEPTH (ft)	SAMPLES TYPE	SAMPLES ID NUMBER	MOISTURE	GRAPHIC LOG C Z S G	LITHOLOGIC DESCRIPTION — sediment class, range in particle size, maximum particle size, mafic %, sorting, roundness, color, consolidation, reaction to 10% HCl, structure, fabric, and any other characteristics	COMMENTS
287.5	G	B22V02	D		same as above- more gravel. sG-sandy gravel. 10% G, 50% V. fine to fine sand, 10% Z. max size = 14mm. G- 60% basalt- broken. 2.5Y 6/2 (lt. brownish gray).	
290.5	G	B22V03	M		msG- muddy sandy gravel. 80% G, 10% sand, 10% Z. max size = 20mm (coarse pebbles). G- sub-ang to well-rounded. muddy coating on gravel- can't tell type. V poorly sorted. 2.5Y 4/1 (dark gray).	292.5 → 295.1 in 100ml glass jars saturated zone?
292.5	G	B23Z49	W			
295.1	G	B23300	W		same as above- less sand + Z - 90% G, 5% S, 5% Z. max size = 13mm. G- 80% mafic, well-rounded to sub-ang. 2.5Y 3/1 (very dark gray).	
					same as above - smaller gravel (max = 9mm). more Z + S- 80% G, 10% S, 10% Z.	

W = Wet, M = Moist, SM = Slightly Moist, D = Dry

C7514 B22TJ8 0-2.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TJ9 2.5-5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TK0 5-7.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TK1 7.5-10 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TK2 9.9-12.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TK3 12.5-15 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TK4 15-17.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TK5 17.5-20 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TK6 20-22.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TK7 22.5-25 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TK8 25-27.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TK9 27.5-30 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TL0 33.5-33.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TL1 33.5-36 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TL2 36-38.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TL3 38.5-40 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TL4 39.8-42.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TL5 45-45 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TL6 45-47.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TL7 47.5-50 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TL8 52.5-55 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TL9 50-52.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TM0 55-57.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TM1 57.5-60 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TM2 60-62.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TM3 66-66 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TM4 66-67 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TM5 70.5-70.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TM6 72.5-72.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TM7 75-75 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TM8 77.5-77.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TM9 80-80 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TN0 82.6-82.6 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TN1 85-85 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TN2 88-88 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TN3 90.4-90.4 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TN4 90-92.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TN5 94.5-94.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TN6 97.5-97.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TN7 100.6-100.6 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TN8 102.5-102.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TN9 105-105 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TP0 107.5-107 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TP1 110-110 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TP2 112.5-112.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TP3 115-115 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TP4 117.5-117.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TP5 120-120 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TP6 122.5-122.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TP7 125-125 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TP8 127-127 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TP9 130-130 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TR0 132.5-132.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TR1 136-136 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TR2 137.5-137.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TR3 140.4-140.4 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TR4 142.5-142.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TR5 144-144 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TR6 147.5-147.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TR7 149.9-149.9 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TR8 152.5-152.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TR9 155-155 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TT0 157.5-157.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TT1 160.3-160.3 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TT2 162.5-162.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TT3 165-165 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TT4 167.5-167.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TT5 170-170 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TT6 172.5-172.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TT7 175-175 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TT8 177.5-177.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TT9 180-180 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TV0 182.5-182.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TV1 185-185 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TV2 187.5-187.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TV3 190-190 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TV4 192.5-192.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TV5 195-195 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TV6 197.5-197.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TV7 200-200 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TV8 202.5-202.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TV9 205-205 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TW0 207.5-207.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TW1 210-210 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TW2 212.5-212.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TW3 215-215 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TW4 217.5-217.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TW5 220-220 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TW6 222.5-222.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TW7 225-225 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TW8 227-227 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TW9 230-230 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TX0 232.6-232.6 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TX1 235.5-235.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TX2 237.5-237.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TX3 240-240 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TX4 242.5-242.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TX5 245-245 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TX6 245-247.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TX7 247.4-249.9 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TX8 252.5-252.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TX9 255-255 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TY0 257.5-257.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TY1 257.5-260 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TY2 262.4-262.4 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TY3 265-265 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TY4 267.5-267.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TY5 270-270 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TY6 273.5-273.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TY7 275-275 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TY8 277.5-277.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22TY9 280-280 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22V00 284-284 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22V01 285.5-285.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22V02 287.5-287.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B22V03 290.5-290.5 ft Grab Sample

Depth from Chain-of-Custody

C7514 B232Y9 292.6-292.6 ft Grab Sample

Depth from Chain-of-Custody

C7514 B23300 295.1-295.1 ft Grab Sample

Depth from Chain-of-Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-003 PAGE 1 OF 2

COLLECTOR
Kuhn, Ross

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7514 (299-E24-25); I-002

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

AIR QUALITY ☐

ICE CHEST NO.
GWS-094

FIELD LOGBOOK NO.
HNF-N-491-5 PS15

ACTUAL SAMPLE DEPTH
0 - 2 1/2

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22V95

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22TJ8	SOIL	11-9-09	0839	✓	✓								

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ei Kuhn/E Kuhn	11-9-09 1515	NW413 SSU-R2	11/9/09 1515
SSU-R2	11-12-09 0850	Calvin Yamin	11-12-09 0850
Calvin Yamin	11-12-09 1242	[signature]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

SDG = FSL 09-0000

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-003	PAGE 2 OF 2
COLLECTOR	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-002	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-451-5	**ACTUAL SAMPLE DEPTH** 0-2.5'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

☐ ORIGINAL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-004 PAGE 1 OF 2

COLLECTOR
ROMO, KRUGER

COMPANY CONTACT DYEKMAN, DL
TELEPHONE NO. 373-2530
PROJECT COORDINATOR DYEKMAN, DL
PRICE CODE 8N
DATA TURNAROUND 45 Days / 45 Days
AIR QUALITY ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-003

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param
SAF NO. F10-024
COA 302117ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE

ICE CHEST NO.
GW3 - 094

FIELD LOGBOOK NO. HNF-N- 5791-S
ACTUAL SAMPLE DEPTH 2.5 - to 5

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22V95

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22TJ9	SOIL	11-9-09	0854	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kruger & Dan Romo	11-9-09 1915	W043 SSU-R2	11/9/9-1415
SSU-R2	11-12-09 0850	Calvin Tapia	11-12-09 0850
Calvin Tapia	11-12-09 1242	[signature]	11/12/09 1242

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION RECEIVED BY — TITLE — DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD — DISPOSED BY — DATE/TIME

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-004	PAGE 2 OF 2
COLLECTOR Kiker, Reino	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-003	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-451-5 **ACTUAL SAMPLE DEPTH** Ps 15' 25' to 5'		**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | F10-024-006 | PAGE 1 OF 2

COLLECTOR Romo Kiwer	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N · **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-004	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. SWS-094	**FIELD LOGBOOK NO.** HNF-N-491.5 PS15	**ACTUAL SAMPLE DEPTH** 5. 7.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22V95

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TK0	SOIL	11-9-05	0955	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kiwer/Ed Kiwer	1415	MO413 SSU-R2	11/9/9-1415
SSU-R2	11-12-09 0900	Calvin Farr	11-12-09 0900
Calvin Farr	11-12-09 1242	[signature]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-006	PAGE 2 OF 2
COLLECTOR Reno, Kinser	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-004	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 451.5 pg 15	**ACTUAL SAMPLE DEPTH** 5.-75.5'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-007** | **PAGE 1 OF 2**

COLLECTOR
Romo, Kacsh

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND

AIR QUALITY ☐

45 Days / 45 Days

SAMPLING LOCATION
C7514 (299-E24-25); I-005

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
GWS-094

FIELD LOGBOOK NO.
HNF-N-491.5 pg 15

ACTUAL SAMPLE DEPTH
7.5 to 10'

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22V96

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TK1	SOIL	11-5-09	1020	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Elkins Schuster	11-9-09 1515	M0412 SSU-R2 NOV	1415
SSU-R2	11-12-09 0500	Calvin Yazzie	11-12-09 0900
Calvin Yazzie	11-12-09 1242	[signature]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION **RECEIVED BY** **TITLE** **DATE/TIME**

FINAL SAMPLE DISPOSITION **DISPOSAL METHOD** **DISPOSED BY** **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-007	PAGE 2 OF 2
COLLECTOR Kulick, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-005	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 451-5 PS15	**ACTUAL SAMPLE DEPTH** 7.5 to 10'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
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ORIGINAL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-009 PAGE 1 OF 2

COLLECTOR
K. Kuhn Reino

COMPANY CONTACT DYEKMAN, DL
TELEPHONE NO. 373-2530
PROJECT COORDINATOR DYEKMAN, DL
PRICE CODE 8N
DATA TURNAROUND 45 Days / 45 Days

SAMPLING LOCATION
C7514 (299-E24-25); I-007

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param
SAF NO. F10-024
AIR QUALITY ☐

ICE CHEST NO.
GWS 094

FIELD LOGBOOK NO. HNF-N-491-5 pg 15
ACTUAL SAMPLE DEPTH 7.9 to 12.5
COA 302117ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A
BILL OF LADING/AIR BILL NO.
N/A

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: B22V96

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22TK2	SOIL	11-9-09	1125	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
K. Kuhn / [illegible]	11-9-09 1515	MO 43 SSU-R2	NOV - 9 2009 1515
SSU-R2	11-12-09 0900	Calvin Tarpley	11-12-09 0900
Calvin Tarpley	11-12-09 1242	[signature]	11/12/09 1242

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION RECEIVED BY — TITLE — DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD — DISPOSED BY — DATE/TIME

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-009	PAGE 2 OF 2
COLLECTOR Knox, Rome	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-007	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 PSIC	**ACTUAL SAMPLE DEPTH** 98.4 12.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
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ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-010** | **PAGE 1 OF 2**

COLLECTOR Kevin Rome	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-008	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. 605-094	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 15	**ACTUAL SAMPLE DEPTH** 12.5 to 15'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22V97

PRESERVATION	Cool~4C	None		
TYPE OF CONTAINER	G/P	Moisture Resistant Cont		
NO. OF CONTAINER(S)	1	1		
VOLUME	1L	200g		
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;		

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TK3	SOIL	11-9-09	1236	✓	✓							

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaver / Ed Kaver	11-9-09 1515	MOHR SSU-R2	2009/1515
SSU-R2	11-12-09 0900	Calvin Farmer	11-12-09 0900
Calvin Farmer	11-12-09 1242	[signature]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD | DISPOSED BY | DATE/TIME

SDG # ESL090008

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-010	PAGE 2 OF 2
COLLECTOR Kriz, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-008	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 pg 15	**ACTUAL SAMPLE DEPTH** 12.5 to 15'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
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ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-012** | **PAGE 1 OF 2**

COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8N / **DATA TURNAROUND**
Kaiser, Romo	DYEKMAN, DL	373-2530	DYEKMAN, DL	**AIR QUALITY** ☐ / 45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	
C7514 (299-E24-25); I-009	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024	
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**
GWS-094	HNF-N-491-5	15.0' - 17.5'	302117ES10	GOVERNMENT VEHICLE
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**	
Environmental Sciences Laboratory	N/A		N/A	

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
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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: B22V97

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**								
B22TK4	SOIL	11-5-09	1258	✓	—						

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
Ed Kaiser	11-5-09 1515	M0413 SSU-N2V	1515
SSU-R2	11-12-09 0851	Calvin Yarn	11-12-09 0851
Calvin Yarn	11-12-09 1242		11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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		F10-024-012	PAGE 2 OF 2
COLLECTOR Kahn, Rome	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-009	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 pg 15	**ACTUAL SAMPLE DEPTH**	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

☐ ORIGINAL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-013

COLLECTOR Kaun, Roome	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-010	PROJECT DESIGNATION 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		SAF NO. F10-024
ICE CHEST NO. GWS-094	FIELD LOGBOOK NO. HNF-N-491-5 PS 15	ACTUAL SAMPLE DEPTH 17.5 to 20'	COA 302117ES10
SHIPPED TO Environmental Sciences Laboratory	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A

PRICE CODE 8N

AIR QUALITY ☐

DATA TURNAROUND 45 Days / 45 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22V98

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TK5	SOIL	11-9-09	1320	✓	✓

CHAIN OF POSSESSION — SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Elknr / [signature]	11-9-09 1515	MO413 SSU-R2	NOV 09 2009 / 1515
SSU-R2	11-12-09 0900	Calvin Yazzie	11-12-09 0900
Calvin Yazzie	11-12-09 1242	[signature]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-013	PAGE 2 OF 2
COLLECTOR Kaiser Rome	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-010	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 PS	**ACTUAL SAMPLE DEPTH** 17.5 to 20'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
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ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-016** | **PAGE 1 OF 2**

COLLECTOR
Kruger Romo

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

AIR QUALITY ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-012

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
GWS-054

FIELD LOGBOOK NO.
HNF-N-491-5 pg 15

ACTUAL SAMPLE DEPTH
20 to 22.5

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22V99

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TK6	SOIL	11-9-09	1353	✓	—							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kruger	11-9-09 1515	M0413 SSU-R2	11/9/2009 1515
SSU-R2	11-12-09 0900	Calvin Yarin	11-12-09 0900
Calvin Yarin	11-12-09 1242	[signature]	11/12/09 1242

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION — **RECEIVED BY** — **TITLE** — **DATE/TIME**

FINAL SAMPLE DISPOSITION — **DISPOSAL METHOD** — **DISPOSED BY** — **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F10-024-016	PAGE 2 OF 2

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Kautz, Romo	DYEKMAN, DL	373-2530	DYEKMAN, DL		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	45 Days / 45 Days
C7514 (299-E24-25); I-012	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
	HNF-N-491-5 89	20 to 22.5	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-018** | **PAGE 1 OF 2**

COLLECTOR Kauer, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-013	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. 6WS-0911	**FIELD LOGBOOK NO.** HNF-N-491-5 PG 15	**ACTUAL SAMPLE DEPTH** 22.5 to 23'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22V99

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TK7	SOIL	11-9-09	1408	✓	✓							

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kauer, Romo	11-9-09 1515	MO413 SSU-R2	NOV 9 2009 1515
SSU-R2	11-12-09 0900	Calvin Yount	11-12-09 0900
Calvin Yount	11-12-09 1242		11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-018	PAGE 2 OF 2
COLLECTOR Kaiser, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-013	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 1515	**ACTUAL SAMPLE DEPTH** 22.5 to 25'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
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ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-019** | **PAGE 1 OF 2**

COLLECTOR: Kover, Romo

COMPANY CONTACT: DYEKMAN, DL | **TELEPHONE NO.**: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL | **PRICE CODE**: 8N | **DATA TURNAROUND**: 45 Days / 45 Days

SAMPLING LOCATION: C7514 (299-E24-25); I-014

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024 | **AIR QUALITY**: ☐

ICE CHEST NO.: GWS-094

FIELD LOGBOOK NO.: HNF-N-491-5 pg 15 | **ACTUAL SAMPLE DEPTH**: 25 to 27.5

COA: 302117ES10 | **METHOD OF SHIPMENT**: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VB0

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TK8	SOIL	11-5-09	1436	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kover	11-5-09 1515	MW 413 SSU-R2	NOV 2009 1515
SSU-R2	11-12-09 0900	Calvin Yarin	11-12-09 0900
Calvin Yarin	11-12-09 1242		11/12/09 1242

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☒ ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

SOC # ESL 090008

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-019	PAGE 2 OF 2
COLLECTOR Kuhn, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-014	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 p. 15	**ACTUAL SAMPLE DEPTH** 25 to 27.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-021 PAGE 1 OF 2

COLLECTOR
KAUER, RONA

COMPANY CONTACT DYEKMAN, DL
TELEPHONE NO. 373-2530
PROJECT COORDINATOR DYEKMAN, DL
PRICE CODE 8N
DATA TURNAROUND 45 Days / 45 Days
AIR QUALITY ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-015

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param
SAF NO. F10-024

ICE CHEST NO.
GWS-094

FIELD LOGBOOK NO. HNF-N-491-5 Pg 15
ACTUAL SAMPLE DEPTH 27.5 to 30
COA 302117ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A
BILL OF LADING/AIR BILL NO.
N/A

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: B22VB0

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22TK9	SOIL	11-9-09	1448	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer	11-9-09 1515	M0443 SSU-R2	1515
SSU-R2	11-12-09 0700	Calvin Yarn	11-12-09 0700
Calvin Yarn	11-12-09 1242		11/12/09 1242

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-021	PAGE 2 OF 2
COLLECTOR Kaiser, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-015	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 pg 75	**ACTUAL SAMPLE DEPTH** 27.5-to 30'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

COLLECTOR Kaver, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-011	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-094	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 15	**ACTUAL SAMPLE DEPTH** 20, 22.5'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

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: B22V98

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22V60	SOIL	11-9-09	1338	✓									

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaver [signature]	11-9-09 1515	[signature] SSU-R2	NOV 09 2009 1515
SSU-R2	11-12-09 0900	Calvin Faris [signature]	11-12-09 0900
Calvin Faris [signature]	11-12-09 1242	[signature]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

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

LIMS R.D. ... 13

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-015** | **PAGE 2 OF 2**

COLLECTOR Kaur, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐
SAMPLING LOCATION C7514 (299-E24-25); I-011	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**DATA TURNAROUND** 45 Days / 45 Days
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 15	**ACTUAL SAMPLE DEPTH** 205 to 20'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

☐ ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-022** | **PAGE 1 OF 2**

COLLECTOR
KAUK, ROMO

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

AIR QUALITY ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-017

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
SML-313

FIELD LOGBOOK NO.
HNF-N-491-5 Pg 16

ACTUAL SAMPLE DEPTH
33.5

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22V53

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B22TL0	SOIL	11-10-09	0808

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaukl Edward Kaukl	11-10-09 1440	M043 SSU R-2	11/10/9 1440
SSU-R2	11-12-09 0900	Calvin Yarn	11-12-09 0900
Calvin Yarn	11-12-09 1242		11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-022	PAGE 2 OF 2
COLLECTOR Kaur, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-017	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 Rq16	**ACTUAL SAMPLE DEPTH** 33.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
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ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-023** | **PAGE 1 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
KAUR, RONU	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.
C7514 (299-E24-25); I-018	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-024

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
SML-313	HNF-N-491-5 pg 16	33.5 to 36	302117ES10	GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VB1

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TL1	SOIL	11-10-09	0819	✓	✓							

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaur/[illegible]	11-16-09 1440	BLO N104/3 SSUR2	11/10/9-1440
SSU-R2	11-12-09 0500	Calvin Farris	11-12-09 0920
Calvin Farris	11-12-09 1242	[illegible]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ ORIGINAL

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

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-023	PAGE 2 OF 2
COLLECTOR KAUR, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-018	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 Pg 16	**ACTUAL SAMPLE DEPTH** 33.5 to 36	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

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CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-025** | **PAGE 1 OF 2**

COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8N / **DATA TURNAROUND**
KAUCK, ROMO	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐ / 45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	
C7514 (299-E24-25); I-019	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024	
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**
SMC-313	HNF-N-491-5 Pg 16	36-38.5	302117ES10	GOVERNMENT VEHICLE
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**	
Environmental Sciences Laboratory	N/A		N/A	

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: B22VB1

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TL2	SOIL	11-10-09	0904	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed KAUCK	11-10-09 1440	NO431 SSUR 2	11/10/9-1440
SSU-R2	11-12-09 0900	Calvin Yarnell	11-12-09 0900
Calvin Yarnell	11-12-09 1242		11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ ORIGINAL

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

SDG # FSL090008

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-025	PAGE 2 OF 2
COLLECTOR KANE, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-019	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 14	**ACTUAL SAMPLE DEPTH** 36 to 38.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-026** | **PAGE 1 OF 2**

COLLECTOR Kauer, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-020	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. SMC-313	**FIELD LOGBOOK NO.** HNF-N-491-5 PSLL	**ACTUAL SAMPLE DEPTH** 38.5 to 40'	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VB2

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TL3	SOIL	11-10-09	0911	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer, Edmund Kauer	11-10-09 1440	N043 SSU R-2	11/10/9 1440
SSU-R2	11-12-09 0900	Calvin Tayon	11-12-09 0900
Calvin Tayon	11-12-09 1242		11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ ORIGINAL

LABORATORY SECTION RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD | DISPOSED BY | DATE/TIME

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-026	PAGE 2 OF 2
COLLECTOR Rawn, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-020	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 B16	**ACTUAL SAMPLE DEPTH** 38.5' to 40'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-030** | **PAGE 1 OF 2**

COLLECTOR
Kaser, Rono

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7514 (299-E24-25); I-022

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

AIR QUALITY ☐

ICE CHEST NO.
SMA-313

FIELD LOGBOOK NO.
HNF-N-491-5 8916

ACTUAL SAMPLE DEPTH
39.8 to 42.5

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VB3

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TL4	SOIL	11-10-09	0836	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E. Kaser / [illegible]	11-10-09 1440	NO43 SSU R2	11/10/09 1440
SSU-R2	11-12-09 0900	Calvin Farris	11-12-09 0900
Calvin Farris	11-12-09 1242	[signature]	11/12/09 1242

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-030	PAGE 2 OF 2
COLLECTOR Kaur, Roma	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-022	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 85 16	**ACTUAL SAMPLE DEPTH** 39.8 to 42.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-031** | **PAGE 1 OF 2**

COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8N / **DATA TURNAROUND**
KRAUSE	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐ / 45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	
C7514 (299-E24-25); I-023	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024	
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**
SMC-313	HNF-N-491-5 RS/C	45 [illegible]	302117ES10	GOVERNMENT VEHICLE
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**	
Environmental Sciences Laboratory	N/A		N/A	

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: B22VB3

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TL5	SOIL	11-10-09	0950	✓	✓							

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Krause / [signature]	11-10-09 1440	MO 413 SSU R2	11/10/9-1440
SSU-R2	11-12-09 0900	Calvin Farris	11-12-09 0900
Calvin Farris	11-12-09 1242	[signature]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ 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			F10-024-031	PAGE 2 OF 2
COLLECTOR Kaven Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-023	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 PG/6	**ACTUAL SAMPLE DEPTH** 45-60 KC 1-10-24	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

☐ ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-032** | **PAGE 1 OF 2**

COLLECTOR KAUK, ROMO	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **AIR QUALITY** ☐ / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-024	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	
ICE CHEST NO. SMC-313	**FIELD LOGBOOK NO.** HNF-N-491-5 PG16	**ACTUAL SAMPLE DEPTH** 45. to 47.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VB4

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TL6	SOIL	11-10-09	1030	✓	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauk / [illegible]	11-10-09 1440	MO 413 SSU R2	11/10/9-1440
SSU-R2	11-12-09 0900	Calvin Yarn	11-12-09 0900
Calvin Yarn	11-12-09 1242	[illegible]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD | DISPOSED BY | DATE/TIME

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-032	PAGE 2 OF 2
COLLECTOR Knuth, Rono	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-024	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 RG16	**ACTUAL SAMPLE DEPTH** 45 to 47.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

☐ ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-028** | **PAGE 1 OF 2**

COLLECTOR
Kauer, Romo

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7514 (299-E24-25); I-021

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

AIR QUALITY ☐

ICE CHEST NO.
SNL-313

FIELD LOGBOOK NO.
HNF-N-491-5 pg 16

ACTUAL SAMPLE DEPTH
39.8-42.3

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VB2

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22V61	SOIL	11-10-09	0928	✓								

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer, Ed Kauer	11-10-09 1440	NO413 SSUR	11/10/09 1440
SSU-R2 SSU-R2	11-12-09 0900	Calvin Hayes	11-12-09 0900
Calvin Hayes	11-12-09 1242	[signature]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

SDG# ESL090008

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-028	PAGE 2 OF 2
COLLECTOR KAUAR, RAMO	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-021	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 PG 16	**ACTUAL SAMPLE DEPTH** 39.8 to 42.3	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-035** | **PAGE 1 OF 2**

COLLECTOR KAUER, ROMO	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-026	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. SML-313	**FIELD LOGBOOK NO.** HNF-N-491-5 9516	**ACTUAL SAMPLE DEPTH** 49.7 to 52.2	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: ~~B22VB5~~ 11/10/9
B22VB6

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B22V62	SOIL	11-10-09	1052	✓

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer/Edwin Dykman	11-10-09 1325	NW 43 SSU R1	11/10/9 1325
SSU - R1	11-12-09 0900	Calvin Yarn	11-12-09 0920
Calvin Yarn	11-12-09 1242		11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ 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			F10-024-035	PAGE 2 OF 2
COLLECTOR Kalsi, Rami	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-026	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 16	**ACTUAL SAMPLE DEPTH** 49.7 to 52.2	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

CH2MHill Plateau Remediation Company — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST — F10-024-045 —

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Kaven, Rono	DYEKMAN, DL	373-2530	DYEKMAN, DL		45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	
C7514 (299-E24-25); I-032	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
GWS-066	HNF-N-461-5 PG 17	60' to 62.5'	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

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: B22VB8

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TM2	SOIL	11-11-09	0808	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaven / Edward Kaven 11-11-09	1345	MO 413 SSUR-2	11/11/09-1345
SSU-R2 11-12-09	0900	Calvin Torres	11-12-09 0900
Calvin Torres 11-12-09	1242	[signature]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-045	PAGE 2 OF 2
COLLECTOR Kaufa, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-032	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** Pg 17 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** GC to 62.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-046** | **PAGE 1 OF 2**

COLLECTOR
Kauk, Romo

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7514 (299-E24-25); I-033

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

AIR QUALITY ☐

ICE CHEST NO.
GWS-066

FIELD LOGBOOK NO. PSJ7
HNF-N-491-5

ACTUAL SAMPLE DEPTH
66'

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VB8

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TM3	SOIL	11-11-09	0834	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauk / [illegible]	11-11-09 1345	N043 SSUR 2	11/11/09-1345
SSU-R2	11-12-09 0900	[illegible]	11-12-09 0900
[illegible]	11-12-09 1242	[illegible]	11/12/09 1242

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ 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			F10-024-046	PAGE 2 OF 2
COLLECTOR Knox, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-033	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 66'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate Ion, Bicarbonate, Alkalinity, Calcium Carbonate}

☐ ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-047** | **PAGE 1 OF 2**

COLLECTOR
Kauer, Rama

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

AIR QUALITY ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-034

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
GWS-066

FIELD LOGBOOK NO. PG 7
HNF-N-491-5

ACTUAL SAMPLE DEPTH
66-67'

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VB9

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TM4	SOIL	11-11-09	0900	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer	11-11-09 1345	MO413 SSUR 2	11/11/9-1345
SSU-R2	11-12-09 0900	Calvin Farris	11-12-09 0900
Calvin Farris	11-12-09 1242		11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-047	PAGE 2 OF 2
COLLECTOR Kaiser, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-034	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** B17 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 66 to 67'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-034** | **PAGE 1 OF 2**

COLLECTOR
Kruse, Romo

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7514 (299-E24-25); I-025

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

AIR QUALITY ☐

ICE CHEST NO.
SML-33

FIELD LOGBOOK NO.
HNF-N-491-5 84/16

ACTUAL SAMPLE DEPTH
47.5 to 50

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VB4

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TL7	SOIL	11-10-09	1038	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E Kruse/E Romo	11-10-09 1440	MO 413 SSU R2	11/10/9-1440
SSU-R2	11-12-09 0900	Calvin Yarn	11-12-09 0900
Calvin Yarn	11-12-09 1242		11/12/09 1242

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

SDG# ESL 090008

A-6003-618(01/06)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-034** | **PAGE 2 OF 2**

COLLECTOR Kruse, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-025	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 16	**ACTUAL SAMPLE DEPTH** 47.5 to 50'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-037** | **PAGE 1 OF 2**

COLLECTOR
Kauer, Rena

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

AIR QUALITY ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-027

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
SML-313

FIELD LOGBOOK NO.
HNF-N-491-5 pg 16

ACTUAL SAMPLE DEPTH
52.5 to 55

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VB5

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B22TL8	SOIL	11-10-09	1304	✓	✓						

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E. Kauer / [illegible]	11-10-09 1440	MC 443 SSUR2	11/10/09 1440
SSU-R2	11-12-09 0900	Calvin Yarwood	11-12-09 0900
Calvin Yarwood	11-12-09 1242	[signature]	11/12/09 1242

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ 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			F10-024-037	PAGE 2 OF 2
COLLECTOR Kautz, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-027	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5	**ACTUAL SAMPLE DEPTH** 52.5 to 55	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

COLLECTOR Kaiser, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-028	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. SML-313	**FIELD LOGBOOK NO.** HNF-N- 491-5 Pg 16	**ACTUAL SAMPLE DEPTH** 50 to 52.5	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N

AIR QUALITY ☐

DATA TURNAROUND 45 Days / 45 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VB6

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TL9	SOIL	11-10-09	~~1258~~ 1248 (BW 11-10-09)	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaiser / [signature]	11-10-09 1440	MO413 SSUR-2	11/10/09-1440
SSU-R2	11-12-09 0900	Calvin Yarris	11-12-09 0900
Calvin Yarris	11-12-09 1242	[signature]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-038	PAGE 2 OF 2
COLLECTOR Kaser, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-028	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 PG16	**ACTUAL SAMPLE DEPTH** 50 to 52.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

☐ ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-040** | **PAGE 1 OF 2**

COLLECTOR: KANER, ROMO

COMPANY CONTACT: DYEKMAN, DL

TELEPHONE NO.: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL

PRICE CODE: 8N

DATA TURNAROUND: 45 Days / 45 Days

SAMPLING LOCATION: C7514 (299-E24-25); I-029

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

AIR QUALITY: ☐

ICE CHEST NO.: SML-313

FIELD LOGBOOK NO.: HNF-N-491-5 PG 14

ACTUAL SAMPLE DEPTH: 55 TO 57.5

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VB6

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TM0	SOIL	11-10-09	1325	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaner/Edward Romo	11-10-09 1440	MO 413 SSU R2	11/10/09 1440
SSU-R2	11-12-09 0900	Calvin Yarn	11-12-09 0900
Calvin Yarn	11-12-09 1242	[signature]	11/12/09 1242

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION — RECEIVED BY — TITLE — DATE/TIME

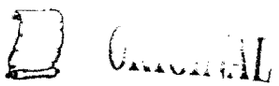
FINAL SAMPLE DISPOSITION — DISPOSAL METHOD — DISPOSED BY — DATE/TIME

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-040	PAGE 2 OF 2
COLLECTOR Kaur, Rome	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-029	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 CS/C	**ACTUAL SAMPLE DEPTH** 55 to 57.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}



CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-041** | **PAGE 1 OF 2**

COLLECTOR
Kauer Romo

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND

AIR QUALITY ☐

45 Days / 45 Days

SAMPLING LOCATION
C7514 (299-E24-25); I-030

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
SML-313

FIELD LOGBOOK NO. pg 16
HNF-N-491-5

ACTUAL SAMPLE DEPTH
57.5 - 60.0

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VB7

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22TM1	SOIL	11-10-09	1350	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer/Ed Dyekman	11-10-09 1440	NO 413 SSUR 2	11/10/9-1440
SSU-R2	11-12-09 0500	Carlos Tapia	11-12-09 0500
Carlos Tapia	11-12-09 1242		11/12/09 1242

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ 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			F10-024-041	PAGE 2 OF 2
COLLECTOR KAUSS, Rome	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-030	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 8916	**ACTUAL SAMPLE DEPTH** 57.5 to 60	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

☐ ORIGINAL

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F10-024-049** — **PAGE 1 OF 2**

COLLECTOR Kause, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-035	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. 6WS-066	**FIELD LOGBOOK NO.** HNF-N-491-5 PS17	**ACTUAL SAMPLE DEPTH** 70.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

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: B22VB9

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TM5	SOIL	11-11-09	0915	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E Kause [signature]	11-11-09 1345	MO443 SSUR 2	11/11/9-1345
SSU-R2	11-12-09 0900	Calvin Yarvin	11-12-09 0900
Calvin Yarvin	11-12-09 1242	[signature]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

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

SDG# ESL090008

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-049** | **PAGE 2 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Kaus, Rome	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7514 (299-E24-25); I-035	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
	HNF-N-491-5 (AS17)	70,5	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-050** | **PAGE 1 OF 2**

COLLECTOR KAUER, ROMO	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-036	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. GWS-086	**FIELD LOGBOOK NO.** HNF-N-491-5 PS 17	**ACTUAL SAMPLE DEPTH** 72.5	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VC0

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TM6	SOIL	11-11-09	0950	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed KAUER Ed Kauer	11-11-09 1345	MO413 SSUR2	11/11/9-1345
	11-12-09 0900	Calvin Farris	11-12-09 0900
Calvin Farris	11-12-09 1242		11/14/09 1242

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION RECEIVED BY | TITLE | DATE/TIME

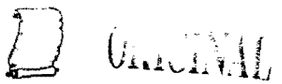
FINAL SAMPLE DISPOSITION DISPOSAL METHOD | DISPOSED BY | DATE/TIME

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-050	PAGE 2 OF 2
COLLECTOR Kaiser, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-036	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** PS-7 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 72.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}



CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-052** | **PAGE 1 OF 2**

COLLECTOR: Kaver, Romo

COMPANY CONTACT: DYEKMAN, DL

TELEPHONE NO.: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL

PRICE CODE: 8N

DATA TURNAROUND: 45 Days / 45 Days

SAMPLING LOCATION: C7514 (299-E24-25); I-037

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

AIR QUALITY: ☐

ICE CHEST NO.: GWS-066

FIELD LOGBOOK NO.: HNF-N-491-5 PS17

ACTUAL SAMPLE DEPTH: 75

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VC1

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TM7	SOIL	11-11-09	1000	✓	✓							

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaver Ed Kaver	11-11-09 1315	N0413 SSUR2	11/11/09-1345
SSU-R2	11-12-09 0900	Calvin Tarin	11-12-09 0900
Calvin Tarin	11-12-09 1242		11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-052	PAGE 2 OF 2
COLLECTOR KRUG, ROMC	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-037	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO.	**FIELD LOGBOOK NO.** PS HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 75	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-054** | **PAGE 1 OF 2**

COLLECTOR Kauer, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-038	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. GWS-066	**FIELD LOGBOOK NO.** HNF-N-491-5 PG 12	**ACTUAL SAMPLE DEPTH** 77.5'	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VC2

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22TM8	SOIL	11-11-09	1016	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer	11-11-09 1345	MO 43 SSUR 2	11/11/09-1345
SSU-R2	11-12-09 0900	Calvin Taylor	11-12-09 0900
Calvin Taylor	11-12-09 1242		11/12/09 1242

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-054	PAGE 2 OF 2
COLLECTOR Kauer, Rand	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-038	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** ps 17 HNF-W-491-5	**ACTUAL SAMPLE DEPTH** 77.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
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☐ ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-055** | **PAGE 1 OF 2**

COLLECTOR Kavic Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-039	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐ / 45 Days / 45 Days
ICE CHEST NO. GWS-026	**FIELD LOGBOOK NO.** HNF-N-491-5 (PS 17)	**ACTUAL SAMPLE DEPTH** 80'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VC2

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TM9	SOIL	11-11-09	1034	✓	✓							

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kavic Ed Kavic	11-11-09 1345	No 413 SSU R2	11/11/9-1345
SSU-R2	11-12-09 0900	Calvin Farris	11-12-09 0900
Calvin Farris	(1-12-09 1242	[illegible]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ 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 | F10-024-055 | PAGE 2 OF 2

COLLECTOR Kaczor, Rome	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-039	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 PS 17	**ACTUAL SAMPLE DEPTH** 80'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
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CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-059** | **PAGE 1 OF 2**

COLLECTOR
Kauer, mckler

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

AIR QUALITY ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-041

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
GWS-066

FIELD LOGBOOK NO. PS 17
HNF-N-491-5

ACTUAL SAMPLE DEPTH
82.6

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VC3

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TN0	SOIL	11-11-09	1200	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer	11-11-09 1345	N0443 SSUR2	11/11/09 1345
SSU-R2	11-12-09 0900	Calvin Yarn	11-12-09 0900
Calvin Yarn	11-12-09 1242		11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

SDG# ESL090008

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-059	PAGE 2 OF 2
COLLECTOR Kaus, mckee	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-041	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** PS17 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 82.6	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
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ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-060** | **PAGE 1 OF 2**

COLLECTOR Krause, Mckee	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
PRICE CODE 8N	**DATA TURNAROUND** 45 Days / 45 Days		
SAMPLING LOCATION C7514 (299-E24-25); I-042	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. GWS-066	**FIELD LOGBOOK NO.** HNF-N-491-5 PG 17	**ACTUAL SAMPLE DEPTH** 85'	**COA** 302117ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

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: B22VC4

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**		
B22TN1	SOIL	11-11-09	1209	✓	✓

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
Ed Krause, Ed Mckee	11-11-09 1345	MO 413 SSUR 2	11/11/09-1345
SSU-R2	11-12-09 0800	Carlos Yanez	11-12-09 0800
Carlos Yanez	11-12-09 1242		11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION **RECEIVED BY** **TITLE** **DATE/TIME**

FINAL SAMPLE DISPOSITION **DISPOSAL METHOD** **DISPOSED BY** **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-060	PAGE 2 OF 2
COLLECTOR Knuth, Mokler	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-042	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** PS17 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 85	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

☐ ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-061** |

COLLECTOR Kaus, Mokler	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-043	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-066	**FIELD LOGBOOK NO.** HNF-N-491-5 PS 17	**ACTUAL SAMPLE DEPTH** 88.0	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

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: B22VC4

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TN2	SOIL	11-11-09	1240	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaus [signature]	11-11-09 1345	NO 43 SSUR 2	11/11/09-1345
SSU-R2	11-12-09 0900	Calvin Yarin [signature]	11-12-09 0900
Calvin Yarin [signature]	11-12-09 1242	[signature]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-061	PAGE 2 OF 2
COLLECTOR KAUER, MOKLER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-043	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** PS17 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 88.0	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST — F10-024-063 —

COLLECTOR: Kaun, Mohler	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL	PRICE CODE: 8N	DATA TURNAROUND: 45 Days / 45 Days
SAMPLING LOCATION: C7514 (299-E24-25); I-044	PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		SAF NO.: F10-024	AIR QUALITY: ☐	
ICE CHEST NO.: 6WS-066	FIELD LOGBOOK NO.: HNF-N-491-5 P5	ACTUAL SAMPLE DEPTH: 90.4	COA: 302117ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: Environmental Sciences Laboratory	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

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: B22VC4

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TN3	SOIL	11-11-09	1252	✓	✓

CHAIN OF POSSESSION — SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaun/[signature]	11-11-09 1345	NO413 SSUR2	11/11/09-1345
SSU-R2	11-12-09 0900	Calvin Farris [signature]	11-12-09 0900
Calvin Farris [signature]	11-12-09 1242	[signature]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-063	PAGE 2 OF 2
COLLECTOR Kruer, Mokler	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-044	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 90 PS 1/4	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-043** | **PAGE 1 OF 2**

COLLECTOR Kaun-Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-031	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. GWS-026	**FIELD LOGBOOK NO.** PS17 1/NFN-491-5	**ACTUAL SAMPLE DEPTH** 60.2 to 62.7	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N — **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VB7

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME											
B22V63	SOIL	11-11-09	0757	✓										—

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaun/	11-11-09 1345	M0443 SSUR2	11/11/09 1345
SSU-R2	11-12-09 0900	Calvin Farris	11-12-09 0900
Calvin Farris	11-12-09 1242		11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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** | **F10-024-043** | **PAGE 2 OF 2**

COLLECTOR KAUER, ROMO	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐
SAMPLING LOCATION C7514 (299-E24-25); I-031	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**DATA TURNAROUND** 45 Days / 45 Days
ICE CHEST NO.	**FIELD LOGBOOK NO.** B517 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 60.2 to 62.7	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-230** | **PAGE 1 OF 2**

COLLECTOR
Kaur, Romo

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND

AIR QUALITY ☐

45 Days / 45 Days

SAMPLING LOCATION
C7514 (299-E24-25); I-035A

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
GWS-066

FIELD LOGBOOK NO. PS17
HNF-N-491-5

ACTUAL SAMPLE DEPTH
70.1 to 72.6

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22V94

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22V91	SOIL	11-11-09	0930	✓									

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaur	11-11-09 1345	MR43 SSLR 2	11/11/9-1345
SSU-R2	11-12-09 0900	Calvin Tarr	11-12-09 0900
Calvin Tarr	11-12-09 1242		11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

AL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	DATA TURNAROUND
KAVER, ROMO	DYEKMAN, DL	373-2530	DYEKMAN, DL	8N	
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY**	45 Days / 45 Days
C7514 (299-E24-25); I-035A	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024	☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** PS17	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
	HNF-N-491-5	70.1 to 70.6	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-057** | **PAGE 1 OF 2**

COLLECTOR Kauer, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-040	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. GWS-066	**FIELD LOGBOOK NO.** HNF-N-491-5 8517	**ACTUAL SAMPLE DEPTH** EC. 1 to 82.6	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VC3

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B22V64	SOIL	11-11-09	1046	✓

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer, Ed Kauer	11-11-09 1345	NJ43 SSU R2	11/11/9-1345
SSU-R2	11-12-09 0900	Calvin Farris	11-12-09 0900
Calvin Farris	11-12-09 1242	[illegible]	11/12/09 1242

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-057	PAGE 2 OF 2
COLLECTOR Kauck, Rona	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-040	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** PS 17 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 80.1 to 82.6	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

☐ ORIGINAL

CH2MHill Plateau Remediation Company — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST — F10-024-064 —

COLLECTOR: Kevin Holmes
COMPANY CONTACT: DYEKMAN, DL
TELEPHONE NO.: 373-2530
PROJECT COORDINATOR: DYEKMAN, DL
PRICE CODE: 8N
DATA TURNAROUND: 45 Days / 45 Days
AIR QUALITY: ☐

SAMPLING LOCATION: C7514 (299-E24-25); I-046
PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param
SAF NO.: F10-024

ICE CHEST NO.: GWS - 081
FIELD LOGBOOK NO.: HNF-N-491-5 / 18
ACTUAL SAMPLE DEPTH: 90 to 92.5
COA: 302117ES10
METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory
OFFSITE PROPERTY NO.: N/A
BILL OF LADING/AIR BILL NO.: N/A

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: B22V54

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TN4	SOIL	11-12-09	0830	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kevin Ed [illegible] 11-12-09	1125	MO 413 SSU-R2	11/12/09 1125
SSU-R2	NOV 16 2009 8:00	DW Brotherton	NOV 16 2009 8:00
DW Brotherton	NOV 16 2009 13:30	[illegible] 13:30	NOV 16 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION — RECEIVED BY — TITLE — DATE/TIME

FINAL SAMPLE DISPOSITION — DISPOSAL METHOD: SDG# ESL090008 — DISPOSED BY: WO#0911013 — DATE/TIME

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-064	PAGE 2 OF 2
COLLECTOR Kiver, Rene	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-046	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-021	**FIELD LOGBOOK NO.** 3919 HNF-N-441.5	**ACTUAL SAMPLE DEPTH** 90 to 92.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

☐ ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-065** | **PAGE 1 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	DATA TURNAROUND
Kluck, Norma	DYEKMAN, DL	373-2530	DYEKMAN, DL	8N	45 Days / 45 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.	AIR QUALITY
C7514 (299-E24-25); I-047	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-024	☐

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
GWS-021	HNF-N-491-5 PG 19	74.5	302117ES10	GOVERNMENT VEHICLE

SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
Environmental Sciences Laboratory	N/A	N/A

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: B22VC5

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TN5	SOIL	11-12-09	08:45	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Environ Sci Lab	11-12-09 1125	MO 413 SSU-R2	11/12/09 1125
SSU-R2	NOV 16 2009 0810	DW Brotherton	NOV 16 2009 0810
DW Brotherton	NOV 16 2009 13:30		NOV 16 2009 13:30

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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** | **F10-024-065** | **PAGE 2 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Kinnie, Ronald	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7514 (299-E24-25); I-047	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
GWS-021	HNF-N-491-5 P118	94.5	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-067** | **PAGE 1 OF 2**

COLLECTOR Kaiser Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-048	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. GWS-021	**FIELD LOGBOOK NO.** HNF-N-481-5 PG 18	**ACTUAL SAMPLE DEPTH** 97.5'	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VC5

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B22TN6	SOIL	11-12-09	0956	✓	✓						

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaiser Romo 11-12-09	1125	MO 413 SSU-R2 11/12/09	1125
SSU-R2	NOV 16 2009 0800	DW Brotherton	NOV 16 2009 08:00
DW Brotherton 13:30	NOV 16 2009	13:30	NOV 16 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-067	PAGE 2 OF 2
COLLECTOR Kuhn, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-048	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-091	**FIELD LOGBOOK NO.** Pg 18 1-INF-N-491-5	**ACTUAL SAMPLE DEPTH** 93.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shali meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST — F10-024-068 —

COLLECTOR: Kaun, Romo	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL	PRICE CODE: 8N	DATA TURNAROUND: 45 Days / 45 Days
SAMPLING LOCATION: C7514 (299-E24-25); I-049	PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		SAF NO.: F10-024	AIR QUALITY: ☐	
ICE CHEST NO.: GWS-021	FIELD LOGBOOK NO.: HNF-N-491-5 Pg 18	ACTUAL SAMPLE DEPTH: 100.6	COA: 302117ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: Environmental Sciences Laboratory	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

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: B22VC6

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TN7	SOIL	11-12-09	0937	✓	✓

CHAIN OF POSSESSION — SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaun / Edward Kaun 11-12-09	1125	MO 413 SSU-R2	11/12/09 1125
SSU-R2	NOV 16 2009 0800	DW Brotherton	NOV 16 2009 0800
DW Brotherton	NOV 16 2009 13:30	[signature]	NOV 16 2009 13:30

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-068	PAGE 2 OF 2
COLLECTOR K.W. Remig	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-049	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-021	**FIELD LOGBOOK NO.** Pg 18 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 100.6	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-070** | **PAGE 1 OF 2**

COLLECTOR Kruse Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-050	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. GWS-021	**FIELD LOGBOOK NO.** HNF-N-441-5 PS 18	**ACTUAL SAMPLE DEPTH** 100.6 to 103.1	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VC6

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22V65	SOIL	11-12-09	0953	✓									

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kruse	11-12-09 1125	MO 413 SSU-R2	11/12/09 1125
SSU-R2	NOV 16 2009 0800	DW Brotherton	NOV 16 2009 0800
DW Brotherton	NOV 16 2009 13:30	Igor Kufnyakov	13:30 NOV 16 2009

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-070	PAGE 2 OF 2
COLLECTOR Kruse, Rome	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-050	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-021	**FIELD LOGBOOK NO.** Pg 18 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 100.6 TO 103.1	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-071** | **PAGE 1 OF 2**

COLLECTOR: Karen Romo

COMPANY CONTACT: DYEKMAN, DL | **TELEPHONE NO.**: 373-2530 | **PROJECT COORDINATOR**: DYEKMAN, DL | **PRICE CODE**: 8N | **DATA TURNAROUND**: 45 Days / 45 Days | **AIR QUALITY**: ☐

SAMPLING LOCATION: C7514 (299-E24-25); I-051

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param | **SAF NO.**: F10-024

ICE CHEST NO.: GWS-021 | **FIELD LOGBOOK NO.**: HNF-N-491-5 Ps18 | **ACTUAL SAMPLE DEPTH**: 102.5' | **COA**: 302117ES10 | **METHOD OF SHIPMENT**: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory | **OFFSITE PROPERTY NO.**: N/A | **BILL OF LADING/AIR BILL NO.**: N/A

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: B22VC7

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TN8	SOIL	11-12-09	1000	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaag Ed Kaag 11-12-09	1125	MO 413 SSU-R2 11/12/09	1125
SSU-R2	NOV 16 2009 0830	DW Brotherton	NOV 16 2009 0830
DW Brotherton	NOV 16 2009 1330	[illegible]	NOV 16 2009 13:30

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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** | **F10-024-071** | **PAGE 2 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Kevin Romo	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7514 (299-E24-25); I-051	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
GWS-021	HNF-N-491-5	102.5'	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-073** | **PAGE 1 OF 2**

COLLECTOR: Kinsel Sample

COMPANY CONTACT: DYEKMAN, DL | **TELEPHONE NO.**: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL

PRICE CODE: 8N | **DATA TURNAROUND**: 45 Days / 45 Days

AIR QUALITY: ☐

SAMPLING LOCATION: C7514 (299-E24-25); I-052

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

ICE CHEST NO.: GWS - 021

FIELD LOGBOOK NO.: 15918 HNF-N-491-5 | **ACTUAL SAMPLE DEPTH**: 105

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VC7

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TN9	SOIL	11-12-09	1008	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
El Kinsel Sample	11-12-09 1125	HNF 413 SSU-R2	11/12/09 1125
SSU-R2	NOV 16 2009 0810	DW Brotherton	NOV 16 2009 0810
DW Brotherton	NOV 16 2009 1330	Igor Kurbatov	NOV 16 2009 1330

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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** | **F10-024-073** | **PAGE 2 OF 2**

COLLECTOR Kaiser, Rena	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-052	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO. GWS-021	**FIELD LOGBOOK NO.** PF 18 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 105	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

☐ ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-074** | **PAGE 1 OF 2**

COLLECTOR Krug, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-053	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. GWS - 021	**FIELD LOGBOOK NO.** HNF-N-451-5 PS 18	**ACTUAL SAMPLE DEPTH** 107.5	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VC8

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TP0	SOIL	11-12-09	1016	✓	✓							

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E. Krug / [signature]	11-12-09 1123	MO 413 SSU-R2	11/12/09 1125
SSU-R2	NOV 16 2009	DW Brotherton [signature]	NOV 16 2009 0800
DW Brotherton [signature]	13:30 NOV 16 2009	[signature]	13:30 NOV 16 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ ORIGINAL

LABORATORY SECTION RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD | DISPOSED BY | DATE/TIME

SDG# FSL 090008

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-074	PAGE 2 OF 2
COLLECTOR Kurtz, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-053	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. 6WS-021	**FIELD LOGBOOK NO.** HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 107.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-076** | **PAGE 1 OF 2**

COLLECTOR
Klaus, Romo

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

AIR QUALITY ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-054

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
6W25-0211

FIELD LOGBOOK NO. HNF-N-491-5 Pg 18

ACTUAL SAMPLE DEPTH
110

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VC8

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TP1	SOIL	11-12-09	1050	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Klaus Ed Dykman	11-12-09 11:25	SSU-R2	11/12/09 11:25
SSU-R2	NOV 16 2009 0820	DW Brotherton	NOV 16 2009 0820
DW Brotherton	NOV 16 2009 1330		NOV 16 2009 1330

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-076	PAGE 2 OF 2
COLLECTOR Kinsey, Rome	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-054	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-021	**FIELD LOGBOOK NO.** 15918 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 110	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-077** | **PAGE 1 OF 2**

COLLECTOR Kunze, Rome	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
PRICE CODE 8N	**DATA TURNAROUND** 45 Days / 45 Days		
SAMPLING LOCATION C7514 (299-E24-25); I-055	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. GWS-094	**FIELD LOGBOOK NO.** HNF-N-491-5 p518	**ACTUAL SAMPLE DEPTH** 110.6 to 113.1	**COA** 302117ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VC9

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B22V66	SOIL	11-12-09	1205	✓

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kunze / Rome 11-12-09	1525	HO413 SSU-R2	11/12/09 1525
SSU-R2	NOV 16 2009 0800	DW Brotherton	NOV 16 2009 08:00
DW Brotherton	NOV 16 2009 1330	Igor Kutnyakov	13:30 NOV 16 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-077	PAGE 2 OF 2
COLLECTOR Kevin Ramo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-055	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-094	**FIELD LOGBOOK NO.** PS18 HNF-N-451-5	**ACTUAL SAMPLE DEPTH** 110.6 to 113.1	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F10-024-079**

COLLECTOR Kaun, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
PRICE CODE 8N	**DATA TURNAROUND** 45 Days / 45 Days	**AIR QUALITY** ☐	
SAMPLING LOCATION C7514 (299-E24-25); I-056	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. GWS-094	**FIELD LOGBOOK NO.** HNF-N-451-5 PS 18	**ACTUAL SAMPLE DEPTH** 112.5	**COA** 302117ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

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: B22VC9

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TP2	SOIL	11-12-09	1213	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaun Elvin Olson	11-12-09 1525	MO 413 SSU-R2	11/12/09 1525
SSU-R2	NOV 16 2009 0800	DW Brotherton	NOV 16 2009 0800
DW Brotherton	NOV 16 2009	Igor Kutnyakov	13:30 NOV 16 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-079	PAGE 2 OF 2
COLLECTOR Kaca, Rino	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-056	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-094	**FIELD LOGBOOK NO.** Pg 18 HNF-N-481-5	**ACTUAL SAMPLE DEPTH** 112.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}


ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-080** | **PAGE 1 OF 2**

COLLECTOR Kruez, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-057	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-094	**FIELD LOGBOOK NO.** HNF-N-491-5 PS 18	**ACTUAL SAMPLE DEPTH** 115	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

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: B22VD0

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**		
B22TP3	SOIL	11-12-09	1220	✓	✓

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kruez Schaller 11-12-09	1525	HO 413 SSU-R2	11/12/09 1525
SSU-R2	NOV 16 2009 0830	DW Brotherton	NOV 16 2009 0830
DW Brotherton	NOV 16 2009 13:30	Igor Lutyaglio 13130	NOV 16 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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	F10-024-080	PAGE 2 OF 2

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Kaza - Romo	DYEKMAN, DL	373-2530	DYEKMAN, DL		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	45 Days / 45 Days
C7514 (299-E24-25); I-057	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.** Pg 18	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
6WS-0941	HNF-N-451-5	115	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-082** | **PAGE 1 OF 2**

COLLECTOR Kinser, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-058	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. GWS-094	**FIELD LOGBOOK NO.** HNFN-491-5 518	**ACTUAL SAMPLE DEPTH** 117.5	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VD0

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B22TP4	SOIL	11-12-09	1230	✓	✓						

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kinser, Romo	11-12-09 1525	MO 413 SSU-R2	11/12/09 1525
SSU-R2	NOV 16 2009 08:00	DW Brotherton	NOV 16 2009 08:00
DW Brotherton	NOV 16 2009 13:30	Igor Lubyako	NOV 16 2009 13:30

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-082	PAGE 2 OF 2
COLLECTOR Kinn, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-058	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-094	**FIELD LOGBOOK NO.** PS 18 HNF-N-481-5	**ACTUAL SAMPLE DEPTH** 117.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-083** | **PAGE 1 OF 2**

COLLECTOR: Kaley Rome

COMPANY CONTACT: DYEKMAN, DL | **TELEPHONE NO.**: 373-2530 | **PROJECT COORDINATOR**: DYEKMAN, DL | **PRICE CODE**: 8N | **DATA TURNAROUND**: 45 Days / 45 Days | **AIR QUALITY**: ☐

SAMPLING LOCATION: C7514 (299-E24-25); I-059

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param | **SAF NO.**: F10-024

ICE CHEST NO.: 6WS-094 | **FIELD LOGBOOK NO.**: HNFN-491-5 | **ACTUAL SAMPLE DEPTH**: 120 | **COA**: 302117ES10 | **METHOD OF SHIPMENT**: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory | **OFFSITE PROPERTY NO.**: N/A | **BILL OF LADING/AIR BILL NO.**: N/A

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: B22VD1

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TP5	SOIL	11-12-09	1306	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kwiecinski	11-12-09 1525	MO 413 SSU-R2	11/12/09 1525
SSU-R2	08:00	DW Brotherton	NOV 16 2009 08:00
DW Brotherton	NOV 16 2009		
	NOV 16 2009	Igor Lutsyalov	13:30 NOV 16 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-083	PAGE 2 OF 2
COLLECTOR Kaver Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-059	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO. GWS-094	**FIELD LOGBOOK NO.** PS HNF-N-451-5	**ACTUAL SAMPLE DEPTH** 120	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-085** | **PAGE 1 OF 2**

COLLECTOR Kuhl ER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-060	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. GWS-094	**FIELD LOGBOOK NO.** HNF-N-451-5 PG18	**ACTUAL SAMPLE DEPTH** 120 - 123'	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VD1

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B22V67	SOIL	11-12-09	1320	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Elkuhl ER	11-12-09 1525	110 413 SSU-R2	11/12/09 1525
SSU-R2	NOV 16 2009 0800	DW Brotherton	NOV 16 2009 0800
DW Brotherton	NOV 16 2009 1330	Lynn Kuczynski	13:30 NOV 16 2009
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION RECEIVED BY — TITLE — DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD — DISPOSED BY — DATE/TIME

SDG# ESL 090008

A-6003-618(01/06)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-085** | **PAGE 2 OF 2**

COLLECTOR Kulsz	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-060	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. 6WS-094	**FIELD LOGBOOK NO.** HNF-N-491-5 PS	**ACTUAL SAMPLE DEPTH** 120-123	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-086** |

COLLECTOR Kuker	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-061	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-094	**FIELD LOGBOOK NO.** HNF-N-491-5 PS18	**ACTUAL SAMPLE DEPTH** 122.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

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: B22VD2

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TP6	SOIL	11-12-09	1322	✓	✓

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kuker 11-12-09	1525	MO 413 SSU-R2	11/12/09 1525
SSU-R2	NOV 16 2009 0810	DW Brotherton	NOV 16 2009 8:30
DW Brotherton 1330	NOV 16 2009	Igor Lukyanchuk 13:30	NOV 16 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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** | **F10-024-086** | **PAGE 2 OF 2**

COLLECTOR	**COMPANY CONTACT** / **TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8N / **DATA TURNAROUND**
KUTZ	DYEKMAN, DL / 373-2530	DYEKMAN, DL	
SAMPLING LOCATION	**PROJECT DESIGNATION**	**SAF NO.**	**AIR QUALITY** ☐ / 45 Days / 45 Days
C7514 (299-E24-25); I-061	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-024	
ICE CHEST NO.	**FIELD LOGBOOK NO.** / **ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**
6WS-094	HNF-N-491-5 / 122.5	302117ES10	GOVERNMENT VEHICLE
SHIPPED TO	**OFFSITE PROPERTY NO.**	**BILL OF LADING/AIR BILL NO.**	
Environmental Sciences Laboratory	N/A	N/A	

SPECIAL INSTRUCTIONS

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(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-088** | **PAGE 1 OF 2**

COLLECTOR: Kevin

COMPANY CONTACT: DYEKMAN, DL | **TELEPHONE NO.**: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL

PRICE CODE: 8N | **DATA TURNAROUND**: 45 Days / 45 Days

AIR QUALITY: ☐

SAMPLING LOCATION: C7514 (299-E24-25); I-062

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

ICE CHEST NO.: GWS-094

FIELD LOGBOOK NO.: HNF-N-481-5 PS/8 | **ACTUAL SAMPLE DEPTH**: 125'

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VD2

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TP7	SOIL	11-12-09	1335	✓	✓							

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Eric Kivel Christian	11-12-09 1525	MO 413 SSU-R2	11/12/09 1525
SSU-R2	NOV 16 2009	DW Brotherton	NOV 16 2009 08:00
DW Brotherton	NOV 16 2009 13:30	Igor Kutyalov	NOV 16 2009 13:30

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-088	PAGE 2 OF 2
COLLECTOR Kruse	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-062	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-094	**FIELD LOGBOOK NO.** HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 125	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
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ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-089** | **PAGE 1 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
K. Lee	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.
C7514 (299-E24-25); I-063	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-024

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
GWS-094	HNF-N-481-5 PS18	127	302117ES10	GOVERNMENT VEHICLE

SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
Environmental Sciences Laboratory	N/A	N/A

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: B22VD3

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TP8	SOIL	11-12-09	1342	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E. Lee	11-12-09 1525	MO 413 SSU-R2	11/12/09 1525
SSU-R2	NOV 16 2009 0820	DW Brotherton	NOV 16 2009 0820
DW Brotherton	NOV 16 2009 13:30		NOV 16 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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** | **F10-024-089** | **PAGE 2 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Krug	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7514 (299-E24-25); I-063	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.** PS 18	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
GWS-094	HNF-N-451-5	127	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | F10-024-091 | PAGE 1 OF 2

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Kruse	DYEKMAN, DL	373-2530	DYEKMAN, DL		45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	
C7514 (299-E24-25); I-064	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
6WS-094	HNF-N-491-5 PS18	130'	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

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: B22VD3

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TP9	SOIL	11-12-09	1438	✓	✓

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kruse [signature] 11-12-09	1525	MO 413 SSU-R2	11/12/09 1525
SSU-R2	NOV 16 2009 08:30	DW Brotherton [signature]	NOV 16 2009 08:30
DW Brotherton [signature]	13:30 NOV 16 2009	Igor Kutnyakov 13:30	NOV 16 2009

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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		F10-024-091	PAGE 2 OF 2
COLLECTOR Kauer	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐
SAMPLING LOCATION C7514 (299-E24-25); I-064	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**DATA TURNAROUND** 45 Days / 45 Days
ICE CHEST NO. GWS-094	**FIELD LOGBOOK NO.** HNF-N-491-5 82/8	**ACTUAL SAMPLE DEPTH** 130'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.

(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-092 PAGE 1 OF 2

COLLECTOR RACEC	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
PRICE CODE 8N	**DATA TURNAROUND** 45 Days / 45 Days		
SAMPLING LOCATION C7514 (299-E24-25); I-065	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. 6WS-094	**FIELD LOGBOOK NO.** HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 129.4 ft 131.9	**COA** 302117ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**SHIPPED TO** Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A

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: B22VD4

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22V68	SOIL	11-12-09	1452	✓								

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[illegible] 11-12-09	1525	MO 413 SSU-R2	11/12/09 1525
SSU-R2	NOV 16 2009 0815	DW Brotherton	NOV 16 2009 8:20
DW Brotherton	NOV 16 2009 13:30	Igor Lutsyalios	13:30 NOV 16 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-092	PAGE 2 OF 2
COLLECTOR Kinzer	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-065	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO. GWS-094	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 9	**ACTUAL SAMPLE DEPTH** 129.4 to 131.9	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | F10-024-094 | PAGE 1 OF 2

COLLECTOR Kiser	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N
SAMPLING LOCATION C7514 (299-E24-25); I-066	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 P51	**ACTUAL SAMPLE DEPTH** ~~HNF-N~~ 132.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

DATA TURNAROUND 45 Days / 45 Days

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: B22VD4

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TR0	SOIL	11-13-09	0747	✓	✓

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kiser [signature]	11-13-09 1122	MO-413 SSU-R2	11-13-09 1122
SSU-R2	08:00	DW Brotherton [signature]	08:00
DW Brotherton [signature]	13:30	[signature]	13:30

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-094	PAGE 2 OF 2
COLLECTOR Kevin	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-066	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 132.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-095** | **PAGE 1 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Kinder	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.	
C7514 (299-E24-25); I-067	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-024	

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
GW S-021	HNF-N-491-5	136	302117ES10	GOVERNMENT VEHICLE

SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
Environmental Sciences Laboratory	N/A	N/A

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: B22VD5

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TR1	SOIL	11-13-09	0824	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kinder Ed Kinder 11-13-09	1122 0800	MO-413-R2	11-13-09 1122
SSU-R2		DW Brotherton	0810
DW Brotherton	13:30		13:30

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

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

SDG # ESL090008

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-095	PAGE 2 OF 2
COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8N	**DATA TURNAROUND**
Kruse	DYEKMAN, DL	373-2530	DYEKMAN, DL	**AIR QUALITY** ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7514 (299-E24-25); I-067	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 PG 19	**ACTUAL SAMPLE DEPTH** 136	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-097** | **PAGE 1 OF 2**

COLLECTOR: Kalch

COMPANY CONTACT: DYEKMAN, DL | **TELEPHONE NO.**: 373-2530 | **PROJECT COORDINATOR**: DYEKMAN, DL | **PRICE CODE**: 8N | **DATA TURNAROUND**: 45 Days / 45 Days

SAMPLING LOCATION: C7514 (299-E24-25); I-068

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param | **SAF NO.**: F10-024 | **AIR QUALITY**: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: HNF-N-491-5 | **ACTUAL SAMPLE DEPTH**: 137.5 | **COA**: 302117ES10 | **METHOD OF SHIPMENT**: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory | **OFFSITE PROPERTY NO.**: N/A | **BILL OF LADING/AIR BILL NO.**: N/A

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: B22VD5

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TR2	SOIL	11-13-09	0911	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kalch	11-13-09 1122	MO-413-R2	11-13-09 1122
SSU-R2	0850	DW Brotherton	0850
DW Brotherton	13:30	[illegible]	13:30

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-097	PAGE 2 OF 2
COLLECTOR Kaiser	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-068	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 B1G	**ACTUAL SAMPLE DEPTH** 137'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-098** | **PAGE 1 OF 2**

COLLECTOR KAUCR	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-069	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-451-5 19519	**ACTUAL SAMPLE DEPTH** 130.4	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VD6

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TR3	SOIL	11-13-09	0930	✓	✓							

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E Kaucr E Kaucr	11-13-09 1122	MO-413-R2	11-13-09 1122
SSU-R2	DATE/TIME 0809	DW Brotherton	DATE/TIME 0810
DW Brotherton	13:30		

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-098	PAGE 2 OF 2
COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8N	**DATA TURNAROUND**
Kalsc	DYEKMAN, DL	373-2530	DYEKMAN, DL	**AIR QUALITY** ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7514 (299-E24-25); I-069	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.** 15315 HNF-N-569-5	**ACTUAL SAMPLE DEPTH**	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-100** | **PAGE 1 OF 2**

COLLECTOR Kuhn	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
PRICE CODE 8N	**DATA TURNAROUND** 45 Days / 45 Days		
SAMPLING LOCATION C7514 (299-E24-25); I-071	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. GWS -021	**FIELD LOGBOOK NO.** HNF-N-391-5 PG 19	**ACTUAL SAMPLE DEPTH** 142.5	**COA** 302117ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**SHIPPED TO** Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A

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: B22VD6

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TR4	SOIL	11-13-05	1011	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J.J. Kuhn Edwin Kuhn	11-13-05 1122	MO-413-R2	11-13-05 1122
SSU-R2	0810	DW Brotherton	0810
DW Brotherton	13:30		

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-100	PAGE 2 OF 2
COLLECTOR Kluce	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-071	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 PS	**ACTUAL SAMPLE DEPTH** 142.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-102** | **PAGE 1 OF 2**

COLLECTOR
Kaus.

COMPANY CONTACT DYEKMAN, DL | **TELEPHONE NO.** 373-2530 | **PROJECT COORDINATOR** DYEKMAN, DL | **PRICE CODE** 8N | **DATA TURNAROUND** 45 Days / 45 Days | **AIR QUALITY** ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-072

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
GWS-021

FIELD LOGBOOK NO. HNF-N-591-5 Pg 19 | **ACTUAL SAMPLE DEPTH** 144

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VD7

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B22TR5	SOIL	11-13-09	1021	V	✓						

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaus	11-13-09 1122	MO-413-R2	11-13-09 1122
SSU-R2	0800	DW Brotherton	0800
DW Brotherton	13:30	Igor Kutyakov	13:30

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-102	PAGE 2 OF 2
COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-072	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 581.5 PG 19	**ACTUAL SAMPLE DEPTH** 144	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

COLLECTOR KAUEL	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-073	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. SLICK - 1	**FIELD LOGBOOK NO.** HNF-N-491.5 Pg 19	**ACTUAL SAMPLE DEPTH** 147.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VD7

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TR6	SOIL	11-13-09	1202	✓	✓

CHAIN OF POSSESSION ~~E.L. Kauel~~

SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E.L. Kauel 11-13-09	1445	MO413 SSU R2	11-13-09 1445
SSU-R2	NOV 16 2009 0800	DW Brotherton	NOV 16 2009 0800
DW Brotherton	NOV 16 2009 13:30	Igor Kutnyakov 13:30	NOV 16 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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** | **F10-024-103** | **PAGE 2 OF 2**

COLLECTOR KRUSE	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐
SAMPLING LOCATION C7514 (299-E24-25); I-073	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**DATA TURNAROUND** 45 Days / 45 Days
ICE CHEST NO. SLICK - 1	**FIELD LOGBOOK NO.** HNF-N-351,5 pg 19	**ACTUAL SAMPLE DEPTH** 147.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-104** | **PAGE 1 OF 2**

COLLECTOR: KAISER

COMPANY CONTACT: DYEKMAN, DL

TELEPHONE NO.: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL

PRICE CODE: 8N

DATA TURNAROUND: 45 Days / 45 Days

AIR QUALITY: ☐

SAMPLING LOCATION: C7514 (299-E24-25); I-074

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

ICE CHEST NO.: SLICK - 1

FIELD LOGBOOK NO.: HNF-N-391-5 PG 15

ACTUAL SAMPLE DEPTH: 149.9

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VD7

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B22TR7	SOIL	11-13-09	1228	✓	✓						

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaiser	11-13-09 1445	MO 413 SSU R2	11-13-09 1445
SSU-R2	NOV 16 2009	DW Brotherton	NOV 16 2009
DW Brotherton	NOV 16 2009		NOV 16 2009

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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** | **F10-024-104** | **PAGE 2 OF 2**

COLLECTOR KAUK	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-074	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. SLICK - 1	**FIELD LOGBOOK NO.** HNF-N-391-5 75,19	**ACTUAL SAMPLE DEPTH** 149,9	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-105** | **PAGE 1 OF 2**

COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-075	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. SLICK - 1	**FIELD LOGBOOK NO.** HNF-N-581-5 PS 19	**ACTUAL SAMPLE DEPTH** 149.9 to 152.4	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: ~~B22V69~~ B22VD8 KS 11/12/09

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B22V69	SOIL	11-13-09	1244	✓

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer	11-13-09 1445	M0413 SSU R2	11-13-09 1445
SSU-R2	NOV 16 2009 0800	DW Brotherton	NOV 16 2009 0800
DW Brotherton	NOV 16 2009 1330	Igor Kutnyakov	NOV 16 2009 1330

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

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

SDG # ESL090008

A-6003-618(01/06)

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
KAISER	DYEKMAN, DL	373-2530	DYEKMAN, DL		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	**45 Days / 45 Days**
C7514 (299-E24-25); I-075	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
SLICK-1	HNF-N-381-5 PS 19	149.9 to 152.4	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-107** | **PAGE 1 OF 2**

COLLECTOR
Kaiser

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

AIR QUALITY ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-076

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
SLICK - 1

FIELD LOGBOOK NO.
HNF-N- 491-5 PSK

ACTUAL SAMPLE DEPTH
132.5

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VD8

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TR8	SOIL	11-13-09	1254	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaiser	11-13-09 1445	MO 413 SSU R2	11-13-09 1445
SSU-R2	NOV 16 2009	DW Brotherton	NOV 16 2009
DW Brotherton	NOV 16 2009 13:30		NOV 16 2009 13:30

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-107	PAGE 2 OF 2
COLLECTOR Kaus	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-076	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. Stick - 1	**FIELD LOGBOOK NO.** HNF-N- 491-5	**ACTUAL SAMPLE DEPTH** 152.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-108** | **PAGE 1 OF 2**

COLLECTOR
KALER

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

AIR QUALITY ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-077

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
SLICK - 1

FIELD LOGBOOK NO.
HNF-N-591-5 15

ACTUAL SAMPLE DEPTH
155

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VD8

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TR9	SOIL	11-13-09	1307	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaler Ed Kaler	11-13-09 1445	MO413 SSU R2	11-13-09 1445
SSU-R2	NOV 16 2009	DW Brotherton	NOV 16 2009
DW Brotherton	NOV 16 2009		NOV 16 2009

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F10-024-108	PAGE 2 OF 2
COLLECTOR KALSZ	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐
SAMPLING LOCATION C7514 (299-E24-25); I-077	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**DATA TURNAROUND** 45 Days / 45 Days
ICE CHEST NO. SLICK-1	**FIELD LOGBOOK NO.** HNF-N-551-5 PS,9	**ACTUAL SAMPLE DEPTH** 155	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | F10-024-109 | PAGE 1 OF 2

COLLECTOR: KRAUER

COMPANY CONTACT: DYEKMAN, DL

TELEPHONE NO.: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL

PRICE CODE: 8N

DATA TURNAROUND: 45 Days / 45 Days

AIR QUALITY: ☐

SAMPLING LOCATION: C7514 (299-E24-25); I-078

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

ICE CHEST NO.: SCICK - 1

FIELD LOGBOOK NO.: HNF-N-581-5 19

ACTUAL SAMPLE DEPTH: 157.5'

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VD9

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B22TT0	SOIL	11-13-09	1344

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Edkraer	11-13-09 1445	M0413 SSUR2	11-13-09 1445
SSU-R2	NOV 16 2009 08:00	DW Brotherton	NOV 16 2009 08:00
DW Brotherton	NOV 16 2009 13:30		NOV 16 2009 13:30

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD | DISPOSED BY | DATE/TIME

A-6003-618(01/06)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-109** | **PAGE 2 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	8N	DATA TURNAROUND
KAUSE	DYEKMAN, DL	373-2530	DYEKMAN, DL			
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY**	☐	45 Days / 45 Days
C7514 (299-E24-25); I-078	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024			
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**		
SLICK - 1	HNF-N- 391-5	157.5	302117ES10	GOVERNMENT VEHICLE		
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**			
Environmental Sciences Laboratory	N/A		N/A			

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Antimony, Aluminum, Iron, Potassium, Calcium, Nickel, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-111** | **PAGE 1 OF 2**

COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-079	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. SLICK - 1	**FIELD LOGBOOK NO.** HNF-N-581-5 PG 19	**ACTUAL SAMPLE DEPTH** 160.3	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VD9

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B22TT1	SOIL	11-13-09	1403	✓	✓						

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer & Eric Dyekman	11-13-09 1445	M0413 55U R2	11-13-09 1445
SSU-R2	NOV 16 2009	DW Brotherton	NOV 16 2009
DW Brotherton	NOV 16 2009 13:30	Igor Kutyaliov	NOV 16 2009 13:30

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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** | **F10-024-111** | **PAGE 2 OF 2**

COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-079	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO. SLICK - 1	**FIELD LOGBOOK NO.** HNF-N-591-5 PG 15	**ACTUAL SAMPLE DEPTH** 160.3	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-112** | **PAGE 1 OF 2**

COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-080	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. SCICK - 1	**FIELD LOGBOOK NO.** HNF-N-595-5 PS 19	**ACTUAL SAMPLE DEPTH** 160.3 to 162.8	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VD9

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B22V70	SOIL	11-13-09	1420	✓

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed KAUER	11-13-09 1445	M0413 SSU R2	11-13-09 1445
SSU-R2	NOV 16 2009 0800	DW Brotherton	NOV 16 2009 0800
DW Brotherton	NOV 16 2009		NOV 16 2009

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ 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			F10-024-112	PAGE 2 OF 2
COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-080	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. SICK-1	**FIELD LOGBOOK NO.** HNF-N-581-5 CF 19	**ACTUAL SAMPLE DEPTH** 160.3 to 162.8	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

COLLECTOR Kaver	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-081	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. SCICK - 1	**FIELD LOGBOOK NO.** HNF-N- 581-5-18 PS	**ACTUAL SAMPLE DEPTH** 162.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

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: ~~B22VF0~~ B22VD9 GAF per KKS 11/12/09

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TT2	SOIL	11-13-09	1430	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaver [signature]	11-13-09 1445	MO 413 SSU R2	11-13-09 1445
SSU-R2	NOV 16 2009 0800	DW Brotherton [signature]	NOV 16 2009 0800
DW Brotherton [signature] 1330	NOV 16 2009	Igor Kutnyakov 13:30	NOV 16 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-113	PAGE 2 OF 2
COLLECTOR Kaiser	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-081	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. Chick-1	**FIELD LOGBOOK NO.** HNF-N-391-5	**ACTUAL SAMPLE DEPTH** 162.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

CH2MHill Plateau Remediation Company — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST — F10-024-115

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
KAUSE	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days

SAMPLING LOCATION	PROJECT DESIGNATION		SAF NO.
C7514 (299-E24-25); I-082	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
	HNF-N-491-5 PG 20	165'	302117ES10	GOVERNMENT VEHICLE

SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
Environmental Sciences Laboratory	N/A	N/A

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: B22VF1

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TT3	SOIL	11-16-09	0734	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kause [signature]	11-16-09 1112	MO413 SSU-R2	11-16-09 1112
MO413 SSU-R2	11-16-09 1115	Ed Kause [signature]	11-16-09 1115
Ed Kause [signature]	11-16-09 13:30	Igor Kutnyakov [signature]	13:30 11-16-09

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

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

SDG # ESL090008

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-115	PAGE 2 OF 2
COLLECTOR KAUCH	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-082	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 20	**ACTUAL SAMPLE DEPTH** 165'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-117** | **PAGE 1 OF 2**

COLLECTOR KAISER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-083	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 B520	**ACTUAL SAMPLE DEPTH** 167.5'	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N — **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VF1

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TT4	SOIL	11-16-09	CE20	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaiser	11-16-09 1112	MO 413 SSU-R2	11-16-09 1112
MO 413 - SSU-R2	11-16-09 1115	Ed Kaiser	11-16-09 1115
Ed Kaiser	11-16-09 13:30	Igor Kutyakov	13:30 11-16-09

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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** | **F10-024-117** | **PAGE 2 OF 2**

COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-083	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-481-5 PG 20	**ACTUAL SAMPLE DEPTH** 167.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Antimony, Aluminum, Iron, Potassium, Calcium, Nickel, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-118

COLLECTOR Kaiser	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N
SAMPLING LOCATION C7514 (299-E24-25); I-084	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 P.520	**ACTUAL SAMPLE DEPTH** 170'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

DATA TURNAROUND 45 Days / 45 Days

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: ~~B22VF2~~ B22VF1 KS 11/12/09

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TT5	SOIL	11-16-09	0835	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaiser/Ed Kaiser	11-16-09 1112	MC 413 SSU-R2	11-16-09 1112
MC 413 SSU-R2	11-16-09 1115	Ed Kaiser Ed Kaiser	11-16-09 1115
Ed Kaiser/Ed Kaiser	11-16-09 13:30	Igor Kutnyakov	13:30 11-16-09

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-118	PAGE 2 OF 2
COLLECTOR KALCK	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-084	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5-520	**ACTUAL SAMPLE DEPTH** 170'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-120** | **PAGE 1 OF 2**

COLLECTOR KAUER,	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-085	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 PS20	**ACTUAL SAMPLE DEPTH** 170.5 TO 173	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VF3

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B22V71	SOIL	11-16-09	0855 ✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer, Ed Kauer	11-16-09 1112	MO 413 SSU-R2	11-16-09 1112
MO 413 SSU-R2	11-16-09 1115	Ed Kauer Ed Kauer	11-16-09 1115
Ed Kauer Ed Kauer	11-16-09 13:30	[illegible]	13:30 11-16-09

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

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

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F10-024-120	PAGE 2 OF 2
COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-085	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-481-5 r120	**ACTUAL SAMPLE DEPTH** 170,576 / 173	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-122** | **PAGE 1 OF 2**

COLLECTOR
KRAUER

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7514 (299-E24-25); I-086

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

AIR QUALITY ☐

ICE CHEST NO.

FIELD LOGBOOK NO.
HNF-N-491-5 PSD

ACTUAL SAMPLE DEPTH
172.5'

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VF3

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TT6	SOIL	11-16-09	0917	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Krauer	11-16-09 1112	MO 413 SSU-R2	11-16-09 1112
MO-413 SSU-R2	11-16-09 1115	Ed Krauer	11-16-09 1115
Ed Krauer	11-16-09 13:30	Lynn Ludwig	11-16-09 13:30

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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		F10-024-122	PAGE 2 OF 2
COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-086	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 1328 172.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-123** | **PAGE 1 OF 2**

COLLECTOR: Kaiser

COMPANY CONTACT: DYEKMAN, DL

TELEPHONE NO.: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL

PRICE CODE: 8N

DATA TURNAROUND: 45 Days / 45 Days

AIR QUALITY: ☐

SAMPLING LOCATION: C7514 (299-E24-25); I-087

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

ICE CHEST NO.:

FIELD LOGBOOK NO.: HNF-N-491-5 PS

ACTUAL SAMPLE DEPTH: 175'

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VF3

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B22TT7	SOIL	11-16-09	0437 DWS 11/16/09

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaiser	11-16-09 1112	MO 413 SSU-R2	11-16-09 1112
MO 413 SSU-R2	11-16-09 1115	Ed Kaiser	11-16-09 1115
Ed Kaiser	11-16-09 13:30	[illegible]	11-16-09 1330

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ 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			F10-024-123	PAGE 2 OF 2
COLLECTOR KALSE	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-087	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-581-5 13	**ACTUAL SAMPLE DEPTH** 175'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-124** | **PAGE 1 OF 2**

COLLECTOR
KAUER

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND

AIR QUALITY ☐

45 Days / 45 Days

SAMPLING LOCATION
C7514 (299-E24-25); I-088

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.

FIELD LOGBOOK NO.
HNF-N- 491-5 PS 20

ACTUAL SAMPLE DEPTH
177.5

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VF4

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22TT8	SOIL	11-16-09	1005	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer	11-16-09 1112	MC-413 SSU-R2	11-16-09 1112
MC-413-SSU-R2	11-16-09 1115	Ed Kauer	11-16-09 1115
Ed Kauer	11-16-09 13:30	[illegible]	13:30 11-16-09

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION **RECEIVED BY** **TITLE** **DATE/TIME**

FINAL SAMPLE DISPOSITION **DISPOSAL METHOD** **DISPOSED BY** **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-124	PAGE 2 OF 2
COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-088	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** PS 20 EFE-N- 491	**ACTUAL SAMPLE DEPTH** 177,5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-126 PAGE 1 OF 2

COLLECTOR
KAUER

COMPANY CONTACT DYEKMAN, DL
TELEPHONE NO. 373-2530
PROJECT COORDINATOR DYEKMAN, DL
PRICE CODE 8N
DATA TURNAROUND 45 Days / 45 Days
AIR QUALITY ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-089

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param
SAF NO. F10-024

ICE CHEST NO.

FIELD LOGBOOK NO. HNF-N-491 PG20
ACTUAL SAMPLE DEPTH 180'
COA 302117ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A
BILL OF LADING/AIR BILL NO.
N/A

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: B22VF4

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TT9	SOIL	11-16-09	1022	✓	✓							

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer/	11-16-09 1112	MO 413 SSV-RZ	11-16-09 1112
MO-413 SSV-RZ	11-16-09 1115	Ed Kauer	11-16-09 1115
Ed Kauer	11-16-09 13:30	Igor Kutyakov	13:30 11-16-09

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ 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			F10-024-126	PAGE 2 OF 2
COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-089	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-481-5 PS 20	**ACTUAL SAMPLE DEPTH** 180	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-127** | **PAGE 1 OF 2**

COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-090	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5-20	**ACTUAL SAMPLE DEPTH** 180.3 to 182.8	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VF5

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22V72	SOIL	11-16-09	1034	✓								

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer	11-16-09 1112	mo 413 SSO-R2	11-16-09 1112
mo 413 - SSO-R2	11-16-09 1115	Ed Kauer	11-16-09 1115
Ed Kauer	11-16-09 15:30	Igor Kutyakov	11-16-09

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-127	PAGE 2 OF 2
COLLECTOR KALER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-090	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 PG 20	**ACTUAL SAMPLE DEPTH** 180.3 to 182.8	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-129** | **PAGE 1 OF 2**

COLLECTOR
KAUER

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND

AIR QUALITY ☐

45 Days / 45 Days

SAMPLING LOCATION
C7514 (299-E24-25); I-091

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.

FIELD LOGBOOK NO.
HNF-N-491-5 PS 20

ACTUAL SAMPLE DEPTH
182.5

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VF5

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TV0	SOIL	11-16-09	1045	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer/	11-16-09 1112	MO-413 550-R2	11-16-09 1112
MO-413 550-R2	-11-16-09 1115	Ed Kauer	11-16-09 1115
Ed Kauer/	11-16-09 13:30	[illegible]	13:30 11-16-09

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION — **RECEIVED BY** — **TITLE** — **DATE/TIME**

FINAL SAMPLE DISPOSITION — **DISPOSAL METHOD** — **DISPOSED BY** — **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-129	PAGE 2 OF 2
COLLECTOR KALER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-091	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-481-5 PS 20	**ACTUAL SAMPLE DEPTH** 182.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

☐ ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-130** | **PAGE 1 OF 2**

COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-092	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5-20 PS	**ACTUAL SAMPLE DEPTH** 185	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

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: B22VF6

PRESERVATION	Cool~4C	None								
TYPE OF CONTAINER	G/P	Moisture Resistant Cont								
NO. OF CONTAINER(S)	1	1								
VOLUME	1L	200g								
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;								

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**										
B22TV1	SOIL	11-16-09	1055	✓	✓								

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
Ed Kauer / [signature]	11-16-09 1112	MO-413 SSU-R2	11-16-09 1112
MO-413 SSU-R2	11-16-09 1115	Ed Kauer [signature]	11-16-09 1115
Ed Kauer [signature]	11-16-09 13:30	[signature]	13:30 11-16-09

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

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

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-130	PAGE 2 OF 2
COLLECTOR Kaye	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-092	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 20	**ACTUAL SAMPLE DEPTH** 185	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-132** | **PAGE 1 OF 2**

COLLECTOR: KAUER

COMPANY CONTACT: DYEKMAN, DL

TELEPHONE NO.: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL

PRICE CODE: 8N

DATA TURNAROUND: 45 Days / 45 Days

AIR QUALITY: ☐

SAMPLING LOCATION: C7514 (299-E24-25); I-093

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

ICE CHEST NO.: 6WS-091

FIELD LOGBOOK NO.: HNF-N-481-5 PS 20

ACTUAL SAMPLE DEPTH: 187.5

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VF6

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TV2	SOIL	11-16-09	1220	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E. Kauer	11-16-09 1500	MO-413-550-R2	11-16-09 1500
SSU-R2	NOV 18 2009 0830	DW Brotherton	NOV 18 2009 0830
DW Brotherton	NOV 18 2009 11:30	Igor Lutsyakov	NOV 18 2009 11:30

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

SDG# FSL090008

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-132	PAGE 2 OF 2
COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-093	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** PS HNF-N-451-5-20	**ACTUAL SAMPLE DEPTH**	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
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☐ ORIGINAL

CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | F10-024-133 | PAGE 1 OF 2

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Kaun	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.
C7514 (299-E24-25); I-094	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-024

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
GWS-091	HNF-N- 491-5 PS 20	190	302117ES10	GOVERNMENT VEHICLE

SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
Environmental Sciences Laboratory	N/A	N/A

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: B22VF7

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TV3	SOIL	11-16-09	1240	✓	✓

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Eil Kaun [signature]	11-16-09/1500	4TC-413 SSU-R2	11-16-09/1500
SSU-R2	NOV 1 8 2009 0845	DW Brotherton [signature]	NOV 1 8 2009 08:00
DW Brotherton [signature]	11:30 NOV 1 8 2009	Igor Kutnyakov	11:30 NOV 1 8 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-133	PAGE 2 OF 2
COLLECTOR KALLE	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-094	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 PG 20	**ACTUAL SAMPLE DEPTH** 190	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST — F10-024-137

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
KAUSZ	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.
C7514 (299-E24-25); I-096	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-024

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
GWS-091	HNF-N-491-3 PS 20	192.5	302117ES10	GOVERNMENT VEHICLE

SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
Environmental Sciences Laboratory	N/A	N/A

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: ~~B22VK5~~ B22VF7 KS 11/12/09

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TV4	SOIL	11-16-09	1322	✓	✓

CHAIN OF POSSESSION — SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kausz [signature]	11-16-09/1500	MO-417 - SSU-R2	11-16-09/1500
SSU-R2	NOV 18 2009 08:00	DW Brotherton [signature]	NOV 18 2009 08:00
DW Brotherton [signature]	NOV 18 2009 11:30	Igor Kutnyakov [signature] 11:30	NOV 18 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-137	PAGE 2 OF 2
COLLECTOR Kaiser	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-096	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** A20 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 192.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-138 PAGE 1 OF 2

COLLECTOR Kauer	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-097	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐ / 45 Days / 45 Days
ICE CHEST NO. GWS - 091	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 20	**ACTUAL SAMPLE DEPTH** 195.0'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: ~~B22VK5~~ B22VF7 KS 11/12/09

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TV5	SOIL	11-16-09	1330	✓	✓							

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E KAUER	11-16-09 1500	SSU 413 SSU-R2	11-16-09 1500
SSU-R2	NOV 18 2009 0800	DW Brother	NOV 18 2009 0800
DW Brother	11:30 NOV 18 2009		11:30 NOV 18 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-138	PAGE 2 OF 2
COLLECTOR Kauer	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-097	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-W-491-5 pg 20	**ACTUAL SAMPLE DEPTH** 195.0	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
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ORIGINAL

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F10-024-139**

COLLECTOR Kauer	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-098	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐ / 45 Days / 45 Days
ICE CHEST NO. GWS-091	**FIELD LOGBOOK NO.** HNF-N-491-5 P820	**ACTUAL SAMPLE DEPTH** 197.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VF8

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TV6	SOIL	11-16-09	~~1408~~ 1402	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
EdKaner / Ed Kaner	11-16-09 / 1500	MO-413 SSU-R2	11-16-09 / 1500
SSU-R2	NOV 18 2009 0800	DW Brotherton / B...	NOV 18 2009 08:00
DW Brotherton / B...	NOV 18 2009	Igor Kutnyakov	NOV 18 2009 11:30

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-139	PAGE 2 OF 2
COLLECTOR Kaltz	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-098	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 PG 20	**ACTUAL SAMPLE DEPTH** 197.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | F10-024-141 | PAGE 1 OF 2

COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-099	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. GWS-091	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 20	**ACTUAL SAMPLE DEPTH** 200	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
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T=Tissue
V=Vegetation
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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: B22VF8

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TV7	SOIL	11-16-09	1418	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer / [signature]	11-16-09 / 1500	MO-413 SSU-R2	11-16-09 / 1500
SSU-R2	NOV 18 2009 0800	DW Brotherton [signature]	NOV 18 2009 0800
DW Brotherton [signature]	NOV 18 2009 1130	Igor Kutnyakov	11:30 NOV 18 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-141	PAGE 2 OF 2
COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-099	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO.	**FIELD LOGBOOK NO.** Pg 20 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 200	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-142** | **PAGE 1 OF 2**

COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
PRICE CODE 8N	**DATA TURNAROUND** 45 Days / 45 Days	**AIR QUALITY** ☐	
SAMPLING LOCATION C7514 (299-E24-25); I-100	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	**SAF NO.** F10-024	
ICE CHEST NO. GWS-091	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 20	**ACTUAL SAMPLE DEPTH** 200.6 to 203.1	**COA** 302117ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VF9

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B22V74	SOIL	11-16-09	1432	✓

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer / [illegible]	11-16-09/1500	Mo-413 SSU-R2	11-16-09/1500
SSU-R2	NOV 18 2009 0800	DW Brotherton	NOV 18 2009 0800
DW Brotherton	NOV 18 2009 11:30	[illegible]	NOV 18 2009 11:30

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-142	PAGE 2 OF 2
COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-100	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** Pg 20 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 200.6 to 203.1	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-144** | **PAGE 1 OF 2**

COLLECTOR
KAUER

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7514 (299-E24-25); I-101

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

AIR QUALITY ☐

ICE CHEST NO.
SMC-315

FIELD LOGBOOK NO.
HNF-N-491-5 A-21

ACTUAL SAMPLE DEPTH
202.5'

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VF9

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B22TV8	SOIL	11-18-09	0714	✓	✓						

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer / [signature]	11-18-09 11:30	Igor Kutyakov 11:30	NOV 18 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-144	PAGE 2 OF 2
COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-101	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 B 21	**ACTUAL SAMPLE DEPTH** 202.5'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-145** | **PAGE 1 OF 2**

COLLECTOR: KAUCH

COMPANY CONTACT: DYEKMAN, DL | **TELEPHONE NO.**: 373-2530 | **PROJECT COORDINATOR**: DYEKMAN, DL | **PRICE CODE**: 8N | **DATA TURNAROUND**: 45 Days / 45 Days

SAMPLING LOCATION: C7514 (299-E24-25); I-102 | **PROJECT DESIGNATION**: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param | **SAF NO.**: F10-024 | **AIR QUALITY**: ☐

ICE CHEST NO.: SMC 315 | **FIELD LOGBOOK NO.**: HNF-N-491-5 PS 21 | **ACTUAL SAMPLE DEPTH**: 205' | **COA**: 302117ES10 | **METHOD OF SHIPMENT**: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory | **OFFSITE PROPERTY NO.**: N/A | **BILL OF LADING/AIR BILL NO.**: N/A

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: B22VH0

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TV9	SOIL	11-18-09	07:27	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[signature]	11-18-09 11:30	[signature] 11:30	NOV 18 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-145	PAGE 2 OF 2
COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-102	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5-21 PS	**ACTUAL SAMPLE DEPTH** 205	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
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ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-147** | **PAGE 1 OF 2**

COLLECTOR: KAUER

COMPANY CONTACT: DYEKMAN, DL | **TELEPHONE NO.**: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL

PRICE CODE: 8N | **DATA TURNAROUND**: 45 Days / 45 Days

AIR QUALITY: ☐

SAMPLING LOCATION: C7514 (299-E24-25); I-103

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

ICE CHEST NO.: SmL 315

FIELD LOGBOOK NO.: HNF-N-491-5 B | **ACTUAL SAMPLE DEPTH**: 207.5

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VH0

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B22TW0	SOIL	11-18-09	0800	✓	✓						

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer/	11-18-09 11:30		NOV 18 2009
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
	11-18-09 11:30		
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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-147	PAGE 2 OF 2
COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8N	**DATA TURNAROUND**
KRAUER	DYEKMAN, DL	373-2530	DYEKMAN, DL	**AIR QUALITY** ☐	**45 Days / 45 Days**
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7514 (299-E24-25); I-103	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
	HNF-N-491-5 13 21	207.5	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST — F10-024-148 — PAGE 1 OF 2

COLLECTOR Kauer	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-104	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. SML-315	**FIELD LOGBOOK NO.** HNF-N- 491-5 PS 21	**ACTUAL SAMPLE DEPTH** 210'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: ~~B22VH1~~ B22VH0 KS 11/12/09

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TW1	SOIL	11-18-09	0820	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer / [signature]	11-18-09 11:30	Igor Kutnyakov	11:30 NOV 18 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

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

SDG# ESL090008

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-148	PAGE 2 OF 2
COLLECTOR KAUSS	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-104	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5- 21 PS	**ACTUAL SAMPLE DEPTH** 210'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

☐ ORIGINAL

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F10-024-150** —

COLLECTOR Kause	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N
SAMPLING LOCATION C7514 (299-E24-25); I-105	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. SML 315	**FIELD LOGBOOK NO.** HNF-N- 491-5 PS 21	**ACTUAL SAMPLE DEPTH** 210.2 to 212.7	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	**DATA TURNAROUND** 45 Days / 45 Days

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: B22VH2

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B22V75	SOIL	11-18-09	0832	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kause / [signature]	11-18-09 11:30	Igor [signature] 11:30	NOV 18 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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** | **F10-024-150** | **PAGE 2 OF 2**

COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
PRICE CODE 8N	**DATA TURNAROUND** 45 Days / 45 Days		
SAMPLING LOCATION C7514 (299-E24-25); I-105	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 25	**ACTUAL SAMPLE DEPTH,** 210,2 to 212,7	**COA** 302117ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F10-024-152** —

COLLECTOR Kauer	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N; **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-106	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. SML-315	**FIELD LOGBOOK NO.** HNF-N- 491-5 PS 21	**ACTUAL SAMPLE DEPTH** 212.5 -	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VH2

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TW2	SOIL	11-18-09	0850	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer [signature] 11:30	NOV 1 8 2009	Igor Yuchyzhin [signature] 11:30	NOV 1 8 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-152	PAGE 2 OF 2
COLLECTOR KALER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-106	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 21	**ACTUAL SAMPLE DEPTH**	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}


ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-153** | **PAGE 1 OF 2**

COLLECTOR Kaiser	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-107	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐ / 45 Days / 45 Days
ICE CHEST NO. SML-315	**FIELD LOGBOOK NO.** HNF-N-491-5 PS 21	**ACTUAL SAMPLE DEPTH** 215	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VH2

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TW3	SOIL	11-18-09	0900	✓	✓							

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Eric Kaiser / [signature]	11:30 11-18-09	Igor Kutyakov 11:30	NOV 18 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD | DISPOSED BY | DATE/TIME

A-6003-618(01/06)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-153** | **PAGE 2 OF 2**

COLLECTOR KAUSE	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-107	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 PS 21	**ACTUAL SAMPLE DEPTH** 215	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-154** | **PAGE 1 OF 2**

COLLECTOR KRUGER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-108	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. SML 315	**FIELD LOGBOOK NO.** HNF-N-491-5 B21	**ACTUAL SAMPLE DEPTH** 217.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VH3

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B22TW4	SOIL	11-18-09	0934	✓	✓						

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kruger/Ed Kruger	11:30 11-18-09	Igor Kutugalos	11:30 NOV 19 2009

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD | DISPOSED BY | DATE/TIME

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F10-024-154	PAGE 2 OF 2
COLLECTOR KAUCH	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-108	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐ **45 Days / 45 Days**
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-521 PS	**ACTUAL SAMPLE DEPTH** 217.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-156** |

COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-109	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO. SML 315	**FIELD LOGBOOK NO.** HNF-N- 491-5 PS 21	**ACTUAL SAMPLE DEPTH** 220	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

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: B22VH3

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TW5	SOIL	11-18-09	0950	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM Ed Kauer/[signature]	DATE/TIME 11-18-09 11:30	RECEIVED BY/STORED IN [signature]	DATE/TIME NOV 18 2009 11:30
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
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

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-156	PAGE 2 OF 2
COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8N	**DATA TURNAROUND**
KACER	DYEKMAN, DL	373-2530	DYEKMAN, DL		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	45 Days / 45 Days
C7514 (299-E24-25); I-109	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
	HNF-N- 4/91-5 PG 21	220	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-110	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. SML 315	**FIELD LOGBOOK NO.** HNF-N- 491-5 B21	**ACTUAL SAMPLE DEPTH** 220 to 222.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VH4

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B22V76	SOIL	11-18-09	1007	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed KAUER [signature]	11-18-09 11:30	Igor Kutnyakov [signature]	NOV 18 2009 11:30

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-157	PAGE 2 OF 2
COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-110	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 19 21	**ACTUAL SAMPLE DEPTH** 220 to 222.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-159 PAGE 1 OF 2

COLLECTOR: KAUER	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL	PRICE CODE: 8N	DATA TURNAROUND: 45 Days / 45 Days
SAMPLING LOCATION: C7514 (299-E24-25); I-111	PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		SAF NO.: F10-024	AIR QUALITY ☐	
ICE CHEST NO.: SML 315	FIELD LOGBOOK NO.: HNF-N- 491-5 PS 21	ACTUAL SAMPLE DEPTH: 222.5	COA: 302117ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: Environmental Sciences Laboratory	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

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: B22VH4

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TW6	SOIL	11-18-09	1018	✓	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed KAUER/[signature]	11:30 11-18-09	Igor Kutnyakov [signature] 11:30	NOV 1 8 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

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

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-159	PAGE 2 OF 2
COLLECTOR KALSZ	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-111	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-521	**ACTUAL SAMPLE DEPTH** 222.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
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ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-160** | **PAGE 1 OF 2**

COLLECTOR
KAUER

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

AIR QUALITY ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-112

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
SML 315

FIELD LOGBOOK NO.
HNF-N- 491-5 PS 21

ACTUAL SAMPLE DEPTH
225'

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VH5

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B22TW7	SOIL	11-18-09	1034	✓	✓						

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer Edmund Dyekman	11-18-09 1130	Igor Kutyalov 11:30	NOV 18 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | **F10-024-160** | **PAGE 2 OF 2**

	COMPANY CONTACT DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐
..24-25); I-112	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**DATA TURNAROUND** 45 Days / 45 Days
..CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 21	**ACTUAL SAMPLE DEPTH** 225'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

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☐ ORIGINAL

COLLECTOR Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-113	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. GWS-115	**FIELD LOGBOOK NO.** HNF-N-491-5 PS	**ACTUAL SAMPLE DEPTH** 227	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N

AIR QUALITY ☐

DATA TURNAROUND 45 Days / 45 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VH5

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22TW8	SOIL	11/20/09	0812	✓	✓								

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J Helms / [signature]	11/20/09 1500	MO-413 SSU-R2	11-20-09 1500
SSU-R2	NOV 23 2009 0830	DW Brothers [signature]	NOV 23 2009 0830
DW Brothers [signature]	NOV 23 2009	[signature] 11:40	NOV 23 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

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

SDG # ESL 090008

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-162	PAGE 2 OF 2
COLLECTOR Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-113	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO. GWS - 115	**FIELD LOGBOOK NO.** HNF-N- 491-5 PS	**ACTUAL SAMPLE DEPTH** 227	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-163** | **PAGE 1 OF 2**

COLLECTOR Bates

COMPANY CONTACT DYEKMAN, DL | **TELEPHONE NO.** 373-2530 | **PROJECT COORDINATOR** DYEKMAN, DL | **PRICE CODE** 8N | **DATA TURNAROUND** 45 Days / 45 Days

SAMPLING LOCATION C7514 (299-E24-25); I-114

PROJECT DESIGNATION 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param | **SAF NO.** F10-024 | **AIR QUALITY** ☐

ICE CHEST NO. 6WS - 115

FIELD LOGBOOK NO. HNF-N-491-5 | **ACTUAL SAMPLE DEPTH** 230 | **COA** 302117ES10 | **METHOD OF SHIPMENT** GOVERNMENT VEHICLE

SHIPPED TO Environmental Sciences Laboratory

OFFSITE PROPERTY NO. N/A | **BILL OF LADING/AIR BILL NO.** N/A

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: B22VH6

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TW9	SOIL	11/20/09	0841	V	V							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J Helms / Jabal Helms	11/20/09 1500	Mo 413 SSU-R2	11-20-09 1500
SSU-R2	NOV 2 3 2009 0830	DW Brotherton	NOV 2 3 2009 0830
DW Brotherton	NOV 2 3 2009 11:40	Igor Kutyavin	NOV 2 3 2009 11:40

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-163** | **PAGE 2 OF 2**

COLLECTOR Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-114	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. 60WS - 115	**FIELD LOGBOOK NO.** HNF-N-491-5 P3	**ACTUAL SAMPLE DEPTH** 230	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-16S PAGE 1 OF 2

COLLECTOR Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-115	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. GWS-115	**FIELD LOGBOOK NO.** HNF-N-491-5 PS	**ACTUAL SAMPLE DEPTH** 230.1 - 232.6	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VH7

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B22V77	SOIL	11/20/09	0905	✓							

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J Helms/J Helms SSU-R2	11/20/09 1500	MO 413 554-R2	11-20-09 1500
SSU-R2	NOV 23 2009	DW Brotherton	NOV 23 2009 08:30
DW Brotherton	NOV 23 2009 11:40	Igor Kutnyakov	NOV 23 2009 11:40

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION RECEIVED BY — TITLE — DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD — DISPOSED BY — DATE/TIME

SDG# ESL 090008

A-6003-618(01/06)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-165** | **PAGE 2 OF 2**

COLLECTOR Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **AIR QUALITY** ☐ / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-115	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	
ICE CHEST NO. 6WS-115	**FIELD LOGBOOK NO.** HNF-N-491-5 PS	**ACTUAL SAMPLE DEPTH**	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

COLLECTOR Bakes	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N; **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-116	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. GWS-115	**FIELD LOGBOOK NO.** HNF-N-491-5 PS	**ACTUAL SAMPLE DEPTH** 232.6	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VH7

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TX0	SOIL	11/20/09	0920	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J Helms / Julia Helms	11/20/09 1500	MO413 SSU-R2	11-20-09 1500
SSU-R2	NOV 23 2009 08:30	DW Brotherton	NOV 23 2009 08:30
DW Brotherton	NOV 23 2009 11:40	Igor Kutnyakov	NOV 23 2009 11:40

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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	F10-024-167	PAGE 2 OF 2

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	8N	DATA TURNAROUND
Bates	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY	☐	45 Days / 45 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.
C7514 (299-E24-25); I-116	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-024

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
GWS-115	HNF-N-491-5 PS	232.6	302117ES10	GOVERNMENT VEHICLE

SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
Environmental Sciences Laboratory	N/A	N/A

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}


ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-168** | **PAGE 1 OF 2**

COLLECTOR: Bates

COMPANY CONTACT: DYEKMAN, DL

TELEPHONE NO.: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL

PRICE CODE: 8N

DATA TURNAROUND: 45 Days / 45 Days

AIR QUALITY: ☐

SAMPLING LOCATION: C7514 (299-E24-25); I-117

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

ICE CHEST NO.: GWS-115

FIELD LOGBOOK NO.: HNF-N-491-5 pg

ACTUAL SAMPLE DEPTH: 235.5

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VH7

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TX1	SOIL	11/20/09	0950	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J Helms / Jubal Helms	11/20/09 1500	410-413 554-R2	11-20-09 1500
SSO-R2	NOV 23 2009 0830	DW Brotherton	NOV 23 2009 0830
DW Brotherton	NOV 23 2009 1140	[illegible]	NOV 23 2009 11:40

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-168** | **PAGE 2 OF 2**

COLLECTOR Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-117	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-115	**FIELD LOGBOOK NO.** HNF-N-491-5 PS	**ACTUAL SAMPLE DEPTH** 235.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-169** | **PAGE 1 OF 2**

COLLECTOR Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-118	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. 6WS-0911	**FIELD LOGBOOK NO.** HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 237.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VH8

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22TX2	SOIL	11/20/09	1030	✓	✓								

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J Holms/ Lubal Holms	11/20/09 1500	MO413 554-R2	11-20-09 1500
SSU-R2	NOV 23 2009 08:30	DW Brotherton	NOV 23 2009 08:30
DW Brotherton	NOV 23 2009 11:40	[illegible]	NOV 23 2009 11:40

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

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

A-6003-618(01/06)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-169** | **PAGE 2 OF 2**

COLLECTOR Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-118	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO. GWS - 091	**FIELD LOGBOOK NO.** HNF-N- 491-5	**ACTUAL SAMPLE DEPTH** 237.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-171** | **PAGE 1 OF 2**

COLLECTOR Bates

COMPANY CONTACT DYEKMAN, DL | **TELEPHONE NO.** 373-2530 | **PROJECT COORDINATOR** DYEKMAN, DL | **PRICE CODE** 8N | **DATA TURNAROUND** 45 Days / 45 Days

SAMPLING LOCATION C7514 (299-E24-25); I-119

PROJECT DESIGNATION 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param | **SAF NO.** F10-024 | **AIR QUALITY** ☐

ICE CHEST NO. GWS - 091

FIELD LOGBOOK NO. HNF-N- 481-5 | **ACTUAL SAMPLE DEPTH** 240 | **COA** 302117ES10 | **METHOD OF SHIPMENT** GOVERNMENT VEHICLE

SHIPPED TO Environmental Sciences Laboratory

OFFSITE PROPERTY NO. N/A | **BILL OF LADING/AIR BILL NO.** N/A

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: B22VH8

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TX3	SOIL	11/20/09	1040	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
JHelms/Jubal Helms	11/20/09 1500	MO 413 554-R2	11-20-09 1500
SSU-R2	NOV 23 2009 0850	DW Brotherton	NOV 23 2009 0830
DW Brotherton	NOV 23 2009		NOV 23 2009
			NOV 23 2009

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

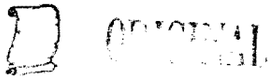
FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-171	PAGE 2 OF 2
COLLECTOR Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-119	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO. GWS-091	**FIELD LOGBOOK NO.** UNF-N-491-5 PS	**ACTUAL SAMPLE DEPTH** 240	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}



CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-172** | **PAGE 1 OF 2**

COLLECTOR Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **AIR QUALITY** ☐ / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-120	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	
ICE CHEST NO. GWS-091	**FIELD LOGBOOK NO.** HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 240-242.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VH9

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22V78	SOIL	11/20/09	1105	✓									

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J Helms / Isabel Helms	11/20/09 1500	MO-413 554-R2	11-20-09 1500
SSU-R2	NOV 23 2009	DW Brotherton	NOV 23 2009
DW Brotherton	11:40 NOV 23 2009	Igor Kuchinzhan	11:40 NOV 23 2009

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD | DISPOSED BY | DATE/TIME

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-172	PAGE 2 OF 2
COLLECTOR Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-120	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO. GWS-091	**FIELD LOGBOOK NO.** HNF-N- 491-5 PS	**ACTUAL SAMPLE DEPTH** 240-242.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

☐ ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-174** | **PAGE 1 OF 2**

COLLECTOR Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
PRICE CODE 8N	**DATA TURNAROUND** 45 Days / 45 Days		
SAMPLING LOCATION C7514 (299-E24-25); I-121	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. 6WS-091	**FIELD LOGBOOK NO.** HNF-N-591-5	**ACTUAL SAMPLE DEPTH** 242.5	**COA** 302117ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VH9

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22TX4	SOIL	11/20/09	1323	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J Helms / Jubal Helms	11/20/09 1500	MO-413 554-R2	11-20-09 1500
BSU-4R	NOV 23 2009 08:30	DW Brother	NOV 23 2009 08:30
DW Brother	NOV 23 2009 11:40		

SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

SDG# ESL 090008

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F10-024-174	PAGE 2 OF 2
COLLECTOR Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **AIR QUALITY** ☐	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-121	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	
ICE CHEST NO. GWS - 091	**FIELD LOGBOOK NO.** HNF-N. 491 - 5 PS	**ACTUAL SAMPLE DEPTH** 242.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-175

COLLECTOR Bates	COMPANY CONTACT DYEKMAN, DL	TELEPHONE NO. 373-2530	PROJECT COORDINATOR DYEKMAN, DL	PRICE CODE 8N / DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-123	PROJECT DESIGNATION 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		SAF NO. F10-024	AIR QUALITY ☐
ICE CHEST NO. GWS-091	FIELD LOGBOOK NO. HNF-N- 491-5 Pg	ACTUAL SAMPLE DEPTH 245	COA 302117ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A	

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: B22V56

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TX5	SOIL	11/20/09	1436	✓	✓

CHAIN OF POSSESSION — SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J Helms / [signature]	11/20/09 1500	MO-413 SSU-R2	11-20-09 1500
SSU-R2	NOV 23 2009 08:30	DW Brotherton [signature]	NOV 23 2009 08:30
DW Brotherton [signature]	NOV 23 2009	Igor Lutsnyalus [signature] 11:40	NOV 23 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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** | **F10-024-175** | **PAGE 2 OF 2**

COLLECTOR Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N; **DATA TURNAROUND** 45 Days / 45 Days; **AIR QUALITY** ☐
SAMPLING LOCATION C7514 (299-E24-25); I-123	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	
ICE CHEST NO. GWS-091	**FIELD LOGBOOK NO.** HNF-N- 491-5 Pg	**ACTUAL SAMPLE DEPTH** 245	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST — F10-024-176 —

COLLECTOR: Kaus	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL	PRICE CODE: 8N; DATA TURNAROUND: 45 Days / 45 Days
SAMPLING LOCATION: C7514 (299-E24-25); I-124	PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		SAF NO.: F10-024	AIR QUALITY ☐
ICE CHEST NO.: SML-313	FIELD LOGBOOK NO.: HNF-N-491-5 pg 23	ACTUAL SAMPLE DEPTH: 245 to 247	COA: 302117ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE
SHIPPED TO: Environmental Sciences Laboratory	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A	

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: B22VJ0

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B22V79	SOIL	11-23-09	0751	✓

CHAIN OF POSSESSION — SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kausz / [signature]	11-23-09 11:40	[signature] McAngalow	11.23.09 11:40

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

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

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-176	PAGE 2 OF 2
COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-124	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 Pg 23	**ACTUAL SAMPLE DEPTH** 245 ft 247.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

☐ ORIGINAL

COLLECTOR Kaus	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-125	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO. SML-313	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 22	**ACTUAL SAMPLE DEPTH** 245 to 247.5	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **AIR QUALITY** ☐ **DATA TURNAROUND** 45 Days / 45 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: B22VJ0

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TX6	SOIL	11-23-09	0751	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaus / [signature] 11-23-09	11:40	[signature] 11.23.09	11:40

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-178	PAGE 2 OF 2
COLLECTOR KRAUSE	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-125	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 Pg 23	**ACTUAL SAMPLE DEPTH** 245 to 247.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-179

COLLECTOR KALER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-126	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO. SML-313	**FIELD LOGBOOK NO.** HNF-N- 491-5 PS 23	**ACTUAL SAMPLE DEPTH** 247.4 to 249.9	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

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: B22VJ1

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22V80	SOIL	11-23-09	1001	✓									

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaler / Ed Kaler	11-23-09 11:40	Igor Lutsyakov	11.23.09 11:40

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-179	PAGE 2 OF 2
COLLECTOR Kevin	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-126	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 Pg 27	**ACTUAL SAMPLE DEPTH** 247.4 to 249.9	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-181** | **PAGE 1 OF 2**

COLLECTOR KACH	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N
SAMPLING LOCATION C7514 (299-E24-25); I-127	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. SML 313	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 23	**ACTUAL SAMPLE DEPTH** 247.4 to 248.9	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	**DATA TURNAROUND** 45 Days / 45 Days

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: B22VJ1

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TX7	SOIL	11-23-05	1001	✓	✓							

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Knox Ed Knox	11-23-05 11:40	Igor Kutnyakov	11.23.05 11:40

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-181	PAGE 2 OF 2
COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8N	**DATA TURNAROUND**
KAUR	DYEKMAN, DL	373-2530	DYEKMAN, DL	**AIR QUALITY** ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7514 (299-E24-25); I-127	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
	HNF-N- 491-5 Pg 23	247.4 to 249.9	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-182

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	DATA TURNAROUND
Kaui	DYEKMAN, DL	373-2530	DYEKMAN, DL	8N	45 Days / 45 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.	AIR QUALITY
C7514 (299-E24-25); I-128	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-024	☐

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
SML-313	HNF-N-491-5 Pg 23	250 to 252.5	302117ES10	GOVERNMENT VEHICLE

SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
Environmental Sciences Laboratory	N/A	N/A

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: B22VJ2

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B22V81	SOIL	11-23-09	1031	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kuvy / [signature] 11-23-09	11:40	[signature]	11.23.09 11:40

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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		F10-024-182	PAGE 2 OF 2
COLLECTOR Kacer	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐
SAMPLING LOCATION C7514 (299-E24-25); I-128	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**DATA TURNAROUND** 45 Days / 45 Days
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 23	**ACTUAL SAMPLE DEPTH** 250 to 252.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-184** | **PAGE 1 OF 2**

COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**
[illegible]	DYEKMAN, DL	373-2530	DYEKMAN, DL

PRICE CODE 8N | **DATA TURNAROUND** 45 Days / 45 Days | **AIR QUALITY** ☐

SAMPLING LOCATION	**PROJECT DESIGNATION**	**SAF NO.**	**COA**
C7514 (299-E24-25); I-129	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-024	302117ES10

ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**METHOD OF SHIPMENT**
SML-313	HNF-N-491-5 Pg 23	252.5'	GOVERNMENT VEHICLE

SHIPPED TO	**OFFSITE PROPERTY NO.**	**BILL OF LADING/AIR BILL NO.**
Environmental Sciences Laboratory	N/A	N/A

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: B22VJ2

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TX8	SOIL	11-23-09	1031	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[signature] 11-23-09	11:40	[signature] 11.23.09.	11:40

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

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

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-184	PAGE 2 OF 2
COLLECTOR Kiker	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-129	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 pg 23	**ACTUAL SAMPLE DEPTH** 252.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-185 PAGE 1 OF 2

COLLECTOR Kraus	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
PRICE CODE 8N	**DATA TURNAROUND** 45 Days / 45 Days		
SAMPLING LOCATION C7514 (299-E24-25); I-131	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
AIR QUALITY ☐			
ICE CHEST NO. GW5-115	**FIELD LOGBOOK NO.** HNF-N-591-5 23	**ACTUAL SAMPLE DEPTH** 253.0	**COA** 302117ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

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: B22V57

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TX9	SOIL	11-23-09	1222	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E Kraus	11-23-09 1512	MO-413-R2	11-23-09 1512
MO-413-R2	NOV 30 2009 0900	CHPRC	NOV 30 2009 0900
DE Parchen CHPRC	NOV 30 2009 11:15	Lyn Kuntzelman	NOV 30 2009 11:15
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION RECEIVED BY — TITLE — DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD — DISPOSED BY — DATE/TIME

SDG # ESL090008

A-6003-618(01/06)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-185** | **PAGE 2 OF 2**

COLLECTOR Kaun	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-131	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 27 B	**ACTUAL SAMPLE DEPTH** 255.0	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND** 45 Days / 45 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate Ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-186** | **PAGE 1 OF 2**

COLLECTOR: KAUSE

COMPANY CONTACT: DYEKMAN, DL

TELEPHONE NO.: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL

PRICE CODE: 8N

DATA TURNAROUND: 45 Days / 45 Days

SAMPLING LOCATION: C7514 (299-E24-25); I-132

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

AIR QUALITY: ☐

ICE CHEST NO.: GWS 115

FIELD LOGBOOK NO.: HNF-N-491-5 Pg 27

ACTUAL SAMPLE DEPTH: 255.4 to 257.5

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VJ3

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22V82	SOIL	11-23-05	1244	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kause / [illegible]	11-23-05 1512	MO-413-R2	11-23-05 1512
MO-413-R2	0900 NOV 30 2009	DE Fancher CHPRC	NOV 30 2009
DE Fancher CHPRC	11:15 NOV 30 2009	[illegible]	11:15 NOV 30 2009

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ 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** | **F10-024-186** | **PAGE 2 OF 2**

COLLECTOR Krause	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-132	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 27	**ACTUAL SAMPLE DEPTH** 255.4 to 255.75	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND**

AIR QUALITY ☐ **45 Days / 45 Days**

METHOD OF SHIPMENT GOVERNMENT VEHICLE

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

COLLECTOR Kaven	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-133	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. GWS-115	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 27	**ACTUAL SAMPLE DEPTH** 257.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VJ3

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TY0	SOIL	11-23-09	1244	✓	✓

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaven / Ed Kaven	11-23-09 1512	MO-413-R2	11-23-09 1512
MO-413-R2	NOV 30 2009 0800	DE Parchen CHPRC	NOV 30 2009 0800
DE Parchen CHPRC	NOV 30 2009 11:15	[signature]	NOV 30 2009 11:15

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-188	PAGE 2 OF 2
COLLECTOR KRAUSE	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-133	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 PG 27	**ACTUAL SAMPLE DEPTH** 257,5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-189 PAGE 1 OF 2

COLLECTOR: Kauer

COMPANY CONTACT: DYEKMAN, DL

TELEPHONE NO.: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL

PRICE CODE: 8N

DATA TURNAROUND: 45 Days / 45 Days

AIR QUALITY: ☐

SAMPLING LOCATION: C7514 (299-E24-25); I-134

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

ICE CHEST NO.: GWS 115

FIELD LOGBOOK NO.: HNF-N-491-5 Pg 23

ACTUAL SAMPLE DEPTH: 257.5 to 260

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VJ4

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B22V83	SOIL	11-23-05	1343								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer, Ed Dyekman	11-23-05 1512	MO-413-R2	11-23-05 1512
MO-413-R2	NOV 30 2009 0900	DE Parchen CHPRC	NOV 30 2009 0900
DE Parchen CHPRC	NOV 30 2009 11:15		

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ 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			F10-024-189	PAGE 2 OF 2
COLLECTOR KRAUSE	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-134	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 P3 23	**ACTUAL SAMPLE DEPTH** 237.5 TO 260	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

CH2MHill Plateau Remediation Company — CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST — F10-024-191 —

COLLECTOR: Kauf	COMPANY CONTACT: DYEKMAN, DL	TELEPHONE NO.: 373-2530	PROJECT COORDINATOR: DYEKMAN, DL	PRICE CODE: 8N; DATA TURNAROUND: 45 Days / 45 Days
SAMPLING LOCATION: C7514 (299-E24-25); I-135	PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		SAF NO.: F10-024	AIR QUALITY: ☐
ICE CHEST NO.:	FIELD LOGBOOK NO.: HNF-N-491-5 Pg 23	ACTUAL SAMPLE DEPTH: 257.5 to 260	COA: 302117ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE
SHIPPED TO: Environmental Sciences Laboratory	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A	

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: B22VJ4

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22TY1	SOIL	11-23-08	1343	✓	✓

CHAIN OF POSSESSION — SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaufer, Ed Kaufer	11-23-09 1512	MO-413-R2	11-23-09 1512
MO-413-R2	NOV 3 0 2009 0900	DE Parcher CHPRC [signature]	NOV 3 0 2009 0900
DE Parcher CHPRC [signature]	NOV 3 0 2009 11:15	[signature]	11:15 NOV 3 0 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-191	PAGE 2 OF 2
COLLECTOR Kauer	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-135	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 Pg 23	**ACTUAL SAMPLE DEPTH** 257.5 to 260	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}


ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-192** | **PAGE 1 OF 2**

COLLECTOR
Kruer

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

AIR QUALITY ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-136

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
GWS-115

FIELD LOGBOOK NO.
HNF-N-491-5 Pg 23

ACTUAL SAMPLE DEPTH
258.9 to 262.4

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VJ5

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B22V84	SOIL	11-23-09	1413

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kruer, Ed Kruer	11-23-09 1512	SSU-R2	11-23-09 1512
MO-413-R2	NOV 30 2009 0930	CHPRC	NOV 30 2009 0930
CHPRC	NOV 30 2009 1115		NOV 30 2009 1115

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ 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			F10-024-192	PAGE 2 OF 2
COLLECTOR Krause	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-136	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 P123	**ACTUAL SAMPLE DEPTH** 25-5.5 & 262.4	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;


ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-194** | **PAGE 1 OF 2**

COLLECTOR: Kwan

COMPANY CONTACT: DYEKMAN, DL

TELEPHONE NO.: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL

PRICE CODE: 8N

DATA TURNAROUND: 45 Days / 45 Days

AIR QUALITY: ☐

SAMPLING LOCATION: C7514 (299-E24-25); I-137

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

ICE CHEST NO.: GWS - 115

FIELD LOGBOOK NO.: HNF-N-491-5 Pg

ACTUAL SAMPLE DEPTH: 26.2, 4

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VJ5

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TY2	SOIL	11-23-09	1413	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kwan	11-23-09 1512	MO-413-R2	11-23-09 1512
MO-413-R2	NOV 30 2009 0500	DE Patchen CHPRC	NOV 30 2009 0540
DE Patchen CHPRC	NOV 30 2009 11:15		NOV 30 2009 11:15

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-194	PAGE 2 OF 2
COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-137	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg23	**ACTUAL SAMPLE DEPTH** 262.4	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-195** | **PAGE 1 OF 2**

COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8N / **DATA TURNAROUND**
(illegible)	DYEKMAN, DL	373-2530	DYEKMAN, DL	**AIR QUALITY** ☐ / 45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	
C7514 (299-E24-25); I-138	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024	
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**
GWS-115	HNF-N-491-5 Pg23	26.5	302117ES10	GOVERNMENT VEHICLE
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**	
Environmental Sciences Laboratory	N/A		N/A	

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: B22VJ5

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B22TY3	SOIL	11-23-05	1450	✓	✓						

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E Kaser/[illegible]	11-23-05 1512	MO-413-R2	11-23-05 1512
MO-413-R2	NOV 30 2009	DE Parchen CHPRC	NOV 30 2009
DE Parchen CHPRC	NOV 30 2009 11:15	[illegible]	NOV 30 2009 11:15

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-195	PAGE 2 OF 2
COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-138	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 23	**ACTUAL SAMPLE DEPTH** 265'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-196 PAGE 1 OF 2

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
KRAUSE	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.
C7514 (299-E24-25); I-139	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-024

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
QWS-115	HNF-N-491-5 Pg 23	267.5'	302117ES10	GOVERNMENT VEHICLE

SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
Environmental Sciences Laboratory	N/A	N/A

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: B22VJ5

PRESERVATION	Cool~4C	None	
TYPE OF CONTAINER	G/P	Moisture Resistant Cont	
NO. OF CONTAINER(S)	1	1	
VOLUME	1L	200g	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TY4	SOIL	11-23-09	1457	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
ELKAUSE/	11-23-09 1512	MO-413-R2	11-23-09 1512
MO-413-R2	NOV 30 2009 0940	DE Parchen	NOV 30 2009 0940
CHPRC	NOV 30 2009 11:15	CHPRC	NOV 30 2009 11:15

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

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

A-6003-618(01/06)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-196** | **PAGE 2 OF 2**

COLLECTOR Kauer	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-139	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-496-5 pg 23	**ACTUAL SAMPLE DEPTH** 267.5'	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND**

AIR QUALITY ☐ **45 Days / 45 Days**

METHOD OF SHIPMENT GOVERNMENT VEHICLE

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-197** | **PAGE 1 OF 2**

COLLECTOR: B Crow

COMPANY CONTACT: DYEKMAN, DL

TELEPHONE NO.: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL

PRICE CODE: 8N

DATA TURNAROUND: 45 Days / 45 Days

AIR QUALITY: ☐

SAMPLING LOCATION: C7514 (299-E24-25); I-140

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

ICE CHEST NO.: GWS-125

FIELD LOGBOOK NO.: HNF-N-491-5 Pg 24

ACTUAL SAMPLE DEPTH: 270

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VJ5

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TY5	SOIL	11-24-09	0845	✓	✓							

CHAIN OF POSSESSION

SIGN/ PRINT NAMES			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Robert Romo Robert Romo RER	11-24-09		
Robert Romo Robert Romo	11-24-09 1100	MO-413 554-R2	11-24-09 1100
MO-413-R2	NOV 30 2009	DE Parcher CHPRC	NOV 30 2009
DE Parcher CHPRC	11:15 NOV 30 2009		11:15 NOV 30 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-197** | **PAGE 2 OF 2**

COLLECTOR B Crow	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-140	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 Pg 29	**ACTUAL SAMPLE DEPTH** 270	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N **DATA TURNAROUND**

AIR QUALITY ☐ **45 Days / 45 Days**

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-198** | **PAGE 1 OF 2**

COLLECTOR
B Crow

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

AIR QUALITY ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-141

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
GWS 125

FIELD LOGBOOK NO.
HNF-N-491-5 P924

ACTUAL SAMPLE DEPTH
271-273.5

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VJ6

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22V85	SOIL	11-24-09	0913	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
~~Robert Romo~~ ~~Robert Romo~~ RLR	11-24-09		
Robert Romo Robert Romo	11-24-09 1100	MO-413 334-R2	11-24-09 1100
MO-413-R2	0900	DE Parcher	0900
DE Parcher	NOV 30 2009	CHPRC	NOV 30 2009
CHPRC	11:15 0900	11:15	
	NOV 30 2009		NOV 30 2009

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-198	PAGE 2 OF 2
COLLECTOR B Crow	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-141	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 Pg 24	**ACTUAL SAMPLE DEPTH** 271-273.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | F10-024-200 | PAGE 1 OF 2

COLLECTOR Crow	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-142	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐
ICE CHEST NO. GWS -125	**FIELD LOGBOOK NO.** HNF-N 491-5 Pg 24	**ACTUAL SAMPLE DEPTH** 273.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

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: B22VJ6

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TY6	SOIL	11-24-09	0913	✓	✓							

CHAIN OF POSSESSION RLR 11-24-09

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
~~Robert Romo~~ ~~Robert Romo~~			
Robert C Romo Robert Romo	11-24-09 1100	MO-413 554-R2	11-24-09 1100
MO-413-R2	NOV 30 2009 0900	DE Parcher CHPRC	NOV 30 2009 0900
DE Parcher CHPRC	11/25 NOV 30 2009		11:15 NOV 30 2009

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

SDG # ESL090008

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-200	PAGE 2 OF 2
COLLECTOR CRow	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-142	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 Pg 24	**ACTUAL SAMPLE DEPTH** 273.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-201** | **PAGE 1 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Crow	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.
C7514 (299-E24-25); I-143	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-024

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
GWS-125	HNF-N-491-5 Pg 24	2.75	302117ES10	GOVERNMENT VEHICLE

SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
Environmental Sciences Laboratory	N/A	N/A

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: B22VJ6

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22TY7	SOIL	11-24-09	1006	✓	✓								

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo/Rob Romo	11-24-09 1100	MO-413 554-R2	11-24-09 1100
MO-413-R2	NOV 30 2009 0900	DE Parchen CHPRC	NOV 30 2009 0900
DE Parchen CHPRC	11.15 NOV 30 2009		11.15 NOV 30 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

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

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-201	PAGE 2 OF 2
COLLECTOR Crow	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-143	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 Pg 24	**ACTUAL SAMPLE DEPTH** 275	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | F10-024-202 | PAGE 1 OF 2

COLLECTOR: Crow

COMPANY CONTACT: DYEKMAN, DL

TELEPHONE NO.: 373-2530

PROJECT COORDINATOR: DYEKMAN, DL

PRICE CODE: 8N

DATA TURNAROUND: 45 Days / 45 Days

SAMPLING LOCATION: C7514 (299-E24-25); I-144

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

AIR QUALITY: ☐

ICE CHEST NO.: GWS 115

FIELD LOGBOOK NO.: HNF-N-491-5 Pg 24

ACTUAL SAMPLE DEPTH: 277.5

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VJ6

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22TY8	SOIL	11-24-09	1235	V	V								

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo	11-24-09 1615	MO-413 554-R2	11-24-09 1615
MO-413-R2	NOV 30 2009 0900	DE Parchen CHPRC	NOV 30 2009 0900
DE Parchen CHPRC	11:15 NOV 30 2009		11:15 NOV 30 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-202	PAGE 2 OF 2
COLLECTOR Crow	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-144	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N 491-5 Pg 24	**ACTUAL SAMPLE DEPTH** 277.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-203** | **PAGE 1 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Crow	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7514 (299-E24-25); I-145	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
GW3-115	HNF-N-491-5 P324	280	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

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: B22VJ6

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22TY9	SOIL	11-24-09	1317	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo	11-24-09 1615	MO-413 554-R2	11-24-09 1615
DE Parchen MO-413-R2	NOV 30 2009 0900	DE Parchen CHPRC	NOV 30 2009 0900
DE Parchen CHPRC	11:15 NOV 30 2009 0900	[illegible]	11:15 NOV 30 2009

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-203	PAGE 2 OF 2
COLLECTOR Crow	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-145	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N 491-5 Pg 24	**ACTUAL SAMPLE DEPTH** 280	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate Ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-204** | **PAGE 1 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
CROW	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7514 (299-E24-25); I-146	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
GWS-115	HNF-N-491-5 PG24	281.5 - 284	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

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: B22VJ7

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B22V86	SOIL	11-24-09	1345	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo	11-24-09 1615	MO-413 554-R2	11-24-09 1615
MO-413-R2	NOV 30 2009 0900	JE Parchen CHPRC	NOV 30 2009
JE Parchen CHPRC	NOV 30 2009 11:15		NOV 30 2009 11:15
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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-204	PAGE 2 OF 2
COLLECTOR CROW	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-146	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 24	**ACTUAL SAMPLE DEPTH** 281.5 - 284	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-206** | **PAGE 1 OF 2**

COLLECTOR
CROW

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

AIR QUALITY ☐

SAMPLING LOCATION
C7514 (299-E24-25); I-147

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
GWS-115

FIELD LOGBOOK NO.
HNF-N- 491-5 Pg 24

ACTUAL SAMPLE DEPTH
284

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22VJ7

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22V00	SOIL	11-24-09	1345	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo	11-24-09 1615	MO-413 554-R2	11-24-09 1615
MO-413-R2	NOV 30 2009 0900	CHPRC	NOV 30 2009 0900
CHPRC	11615 NOV 30 2009		11:15 NOV 30 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-206	PAGE 2 OF 2
COLLECTOR CROW	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-147	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 24	**ACTUAL SAMPLE DEPTH** 284	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-024-207 PAGE 1 OF 2

COLLECTOR
CROW

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7514 (299-E24-25); I-149

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

AIR QUALITY ☐

ICE CHEST NO.
GWS - 115

FIELD LOGBOOK NO.
HNF-N-481-5 24

ACTUAL SAMPLE DEPTH
285.5

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: B22V58

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B22V01	SOIL	11-24-09	1432								

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo	11-24-09 1615	MO-413 554-R2	11-24-09 1615
MO-413-R2	NOV 30 2009	CHPRC	NOV 30 2009
CHPRC	11.15 NOV 30 2009		11.15 NOV 30 2009

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION RECEIVED BY — TITLE — DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD — DISPOSED BY — DATE/TIME

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-207	PAGE 2 OF 2
COLLECTOR CROW	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-149	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 PS 24	**ACTUAL SAMPLE DEPTH** 285.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-208** | **PAGE 1 OF 2**

COLLECTOR
Kauer

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND

AIR QUALITY ☐

45 Days / 45 Days

SAMPLING LOCATION
C7514 (299-E24-25); I-150

PROJECT DESIGNATION
200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.
F10-024

ICE CHEST NO.
GWS-115

FIELD LOGBOOK NO.
HNF-N-391-5 25

ACTUAL SAMPLE DEPTH
285-287.5

COA
302117ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

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: ~~B22V87~~ B22VJ8 KS 11/17/09

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22V87	SOIL	11-30-09	0900	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Rano Robert Rano	11:15 11-30-09	Lyn Nakayama	11-30-09 11:15

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

ORIGINAL

LABORATORY SECTION | **RECEIVED BY** | **TITLE** | **DATE/TIME**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-024-208	PAGE 2 OF 2
COLLECTOR KAMER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-150	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 25	**ACTUAL SAMPLE DEPTH** 285- 287.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

ORIGINAL

COLLECTOR KAUER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7514 (299-E24-25); I-151	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 PS 25	**ACTUAL SAMPLE DEPTH** 287.5 FT	**COA** 302117ES10
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8N

AIR QUALITY ☐

DATA TURNAROUND 45 Days / 45 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

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: ~~B22V87~~ B22VJ8 KS 11/17/09

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B22V02	SOIL	11-30-09	0800	✓	✓

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES	DATE/TIME
RELINQUISHED BY/REMOVED FROM Robert Roe [signature]	11-30-09 11:15	RECEIVED BY/STORED IN [signature]	11-30-09 11:15
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-210	PAGE 2 OF 2
COLLECTOR KAGER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-151	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO.	**FIELD LOGBOOK NO.** PS HNF-N-491-525	**ACTUAL SAMPLE DEPTH** 287.5'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
CMOW	DYEKMAN, DL	373-2530	DYEKMAN, DL		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	45 Days / 45 Days
C7514 (299-E24-25); I-152	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-024		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
	HNF-N- 491-5 25 105	288- 240.5	302117ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Environmental Sciences Laboratory	N/A		N/A		

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: B22VJ9

PRESERVATION	None
TYPE OF CONTAINER	Split Spoon Liner
NO. OF CONTAINER(S)	2
VOLUME	1000g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B22V88	SOIL	11-30-09	0909	✓									

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Robirena Robirena	11-30-09 11:15	[signature]	11-30-09 11:15

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-211	PAGE 2 OF 2
COLLECTOR CHOW	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7514 (299-E24-25); I-152	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** 93 HNF-N- 491-5 25	**ACTUAL SAMPLE DEPTH** 288 - 290.5'	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.☐** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C7514/Well 299-E24-25" and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified in the SOW and this SAF. The laboratories must notify the SM Project Coordinator in writing if/when this requirement can not be met.
(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-024-213** | **PAGE 1 OF 2**

COLLECTOR: CHOW

COMPANY CONTACT: DYEKMAN, DL | **TELEPHONE NO.**: 373-2530 | **PROJECT COORDINATOR**: DYEKMAN, DL

PRICE CODE: 8N | **DATA TURNAROUND**: 45 Days / 45 Days

AIR QUALITY: ☐

SAMPLING LOCATION: C7514 (299-E24-25); I-153

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param

SAF NO.: F10-024

ICE CHEST NO.:

FIELD LOGBOOK NO.: HNF-N-491-5 25 pg | **ACTUAL SAMPLE DEPTH**: 290.5

COA: 302117ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

SHIPPED TO: Environmental Sciences Laboratory

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

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: B22VJ9

PRESERVATION	Cool~4C	None
TYPE OF CONTAINER	G/P	Moisture Resistant Cont
NO. OF CONTAINER(S)	1	1
VOLUME	1L	200g
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B22V03	SOIL	11-30-09	0909	✓	✓							

CHAIN OF POSSESSION | **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo 11-30-09	11:15	[illegible] 11-30-09	11:15

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F10-024-213	PAGE 2 OF 2
COLLECTOR	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7514 (299-E24-25); I-153	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-024	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-525	**ACTUAL SAMPLE DEPTH** 290.5	**COA** 302117ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	
SHIPPED TO Environmental Sciences Laboratory	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

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(1)6010M_ICP_ASTM_AE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_ICP_ASTM_AE (Add-On) {Lead, Thallium, Selenium} 6010M_METALS_ICP_WE (TAL) {Sodium, Aluminum, Iron, Potassium, Antimony, Nickel, Calcium, Magnesium, Silver} 6010M_METALS_ICP_WE (Add-On) {Lead, Thallium, Selenium} 6020M_ICPMS_ASTM_AE (TAL) {Chromium, Cadmium} 6020M_ICPMS_ASTM_AE (Add-On) {Arsenic} 6020M_METALS_ICPMS_WE (TAL) {Chromium, Cadmium} 6020M_METALS_ICPMS_WE (Add-On) {Arsenic} 6020M_HG_ICPMS_AE; 6020M_HG_ICPMS_WE; Chromium Hex - 7196; RADISO_ICPMS_ASTM_AE {Uranium-238, Technetium-99} RADISO_ICPMS_WE {Iodine-129, Uranium-238, Technetium-99} I-129 by ICPMS {Iodine-129} GAMMA_GS; URANIUM ISOTOPIC RATIOS; ALPHA_BETA_AE {Gross beta, Gross alpha} ALPHA_BETA_WE {Gross beta, Gross alpha} IC Anions - 9056_WE {Nitrate, Chloride, Phosphate, Fluoride, Nitrite, Sulfate} Cyanide (Total) - 335.2 {Cyanide} pH (Water) - 9045_WE; Conductivity - 9050_WE; TOC - ASTME1915A {Total organic carbon, Total Inorganic Carbon, Total carbon} 2320_ALKALINITY {Carbonate ion, Bicarbonate, Alkalinity, Calcium Carbonate}

ORIGINAL