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Analytical Data Report for Sediment Samples Collected From 200 BP 5 OU, C7515 (299-E24-25) M-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, C7515 (299-E24-25) M-Well, Sample Delivery Group ESL090014, SAF Number F10-045

This letter contains the following information for sample delivery group ESL090014

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

Introduction

Between January 14, 2010 and February 9, 2010 sediment samples were received from 200 BP 5 OU, C7515 (299-E24-25) M -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):

LCS Recovery for Silver (43.8%) was outside acceptance limits (80-120) in 0C11002-BS1 for ICP-OES Vadose-AE
Samples results associated with this batch were not reported.

Post Spike (PS):

Post-Spike Recovery for Calcium (562%) was outside acceptance limits (75-125) in 0C11001-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 Magnesium (207%) was outside acceptance limits (75-125) in 0C11001-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 Iron (24.8%) was outside acceptance limits (75-125) in 0C11002-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 Uranium (36.4%) was outside acceptance limits (75-125) in 0C17003-PS1 for ICP-ICPMS-Tc_U WE
The native sample concentration was greater than 5 times the spike concentration. There should be no impact to data as reported.

Matrix Spike (MS):

Matrix Spike Recovery for Chromium, Hexavalent (47.4%) was outside acceptance limits (75-125) in 0D09005-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, C7515 (299-E28-30) M-Well

HEIS No.	Laboratory ID	Matrix	Date Collected	Date Received
B235H1	1001004-04	SOIL	1/13/10 12:45	1/14/10 11:30
B235J0	1001004-22	SOIL	1/14/10 14:20	1/18/10 11:40
B235J6	1001004-34	SOIL	1/15/10 09:50	1/18/10 11:40
B235K1	1001004-42	SOIL	1/19/10 11:55	1/20/10 11:50
B235K5	1001004-46	SOIL	1/19/10 14:20	1/20/10 11:50
B235L9	1001004-98	SOIL	1/25/10 13:05	1/26/10 11:15
B235N9	1001004-BC	SOIL	1/28/10 10:48	2/1/10 12:00
B235R2	1001004-BV	SOIL	2/1/10 09:08	2/2/10 12:10
B235R9	1001004-CC	SOIL	2/3/10 10:35	2/4/10 09:30
B235T8	1001004-DA	SOIL	2/8/10 10:15	2/9/10 10:00

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
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
B235H1	1001004-04	SOIL	1/13/10 12:45	1/14/10 11:30
B235J0	1001004-22	SOIL	1/14/10 14:20	1/18/10 11:40
B235J6	1001004-34	SOIL	1/15/10 09:50	1/18/10 11:40
B235K1	1001004-42	SOIL	1/19/10 11:55	1/20/10 11:50
B235K5	1001004-46	SOIL	1/19/10 14:20	1/20/10 11:50
B235L9	1001004-98	SOIL	1/25/10 13:05	1/26/10 11:15
B235N9	1001004-BC	SOIL	1/28/10 10:48	2/1/10 12:00
B235R2	1001004-BV	SOIL	2/1/10 09:08	2/2/10 12:10
B235R9	1001004-CC	SOIL	2/3/10 10:35	2/4/10 09:30
B235T8	1001004-DA	SOIL	2/8/10 10:15	2/9/10 10:00

Wet Chemistry

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1001004-04	B235H1	2.65E1	2.34E1	4/08/10	0D01005
1001004-22	B235J0	2.53E1	2.37E1	4/08/10	0D01005
1001004-34	B235J6	3.67E1	2.35E1	4/08/10	0D01005
1001004-42	B235K1	<2.35E1	2.35E1	4/08/10	0D01005
1001004-46	B235K5	<2.35E1	2.35E1	4/08/10	0D01005
1001004-98	B235L9	<2.35E1	2.35E1	4/08/10	0D01005
1001004-BC	B235N9	3.17E1	2.34E1	4/08/10	0D01005
1001004-BV	B235R2	2.96E1	2.35E1	4/08/10	0D01005
1001004-CC	B235R9	3.79E1	2.35E1	4/08/10	0D01005
1001004-DA	B235T8	5.92E1	2.35E1	4/08/10	0D01005

Wet Chemistry

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1001004-04	B235H1	8.40E-1	1.00E-2	3/10/10	0C10003
1001004-22	B235J0	1.60E0	1.00E-2	3/10/10	0C10003
1001004-34	B235J6	2.81E0	1.00E-2	3/10/10	0C10003
1001004-42	B235K1	4.36E0	1.00E-2	3/10/10	0C10003
1001004-46	B235K5	1.85E0	1.00E-2	3/10/10	0C10003
1001004-98	B235L9	1.06E0	1.00E-2	3/10/10	0C10003
1001004-BC	B235N9	1.84E-1	1.00E-2	3/10/10	0C10003
1001004-BV	B235R2	2.34E-1	1.00E-2	3/10/10	0C10003
1001004-CC	B235R9	2.34E-1	1.00E-2	3/10/10	0C10003
1001004-DA	B235T8	2.41E-1	1.00E-2	3/10/10	0C10003

Wet Chemistry

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1001004-04	B235H1	6.98E0	N/A	2/24/10	0B12007
1001004-22	B235J0	4.18E0	N/A	2/24/10	0B12007
1001004-34	B235J6	4.52E0	N/A	2/24/10	0B12007
1001004-42	B235K1	6.57E0	N/A	2/24/10	0B12007
1001004-46	B235K5	5.22E0	N/A	2/24/10	0B12007
1001004-98	B235L9	5.10E0	N/A	2/24/10	0B12007
1001004-BC	B235N9	2.89E0	N/A	2/24/10	0B12007
1001004-BV	B235R2	3.29E0	N/A	2/24/10	0B12007
1001004-CC	B235R9	4.44E0	N/A	2/24/10	0B12007
1001004-DA	B235T8	4.97E0	N/A	2/24/10	0B12007

Wet Chemistry

pH (pH Units) by AGG-pH-001

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1001004-04	B235H1	7.01E0	N/A	3/10/10	0C10004
1001004-22	B235J0	6.96E0	N/A	3/10/10	0C10004
1001004-34	B235J6	7.69E0	N/A	3/10/10	0C10004
1001004-42	B235K1	6.98E0	N/A	3/10/10	0C10004
1001004-46	B235K5	7.08E0	N/A	3/10/10	0C10004
1001004-98	B235L9	7.11E0	N/A	3/10/10	0C10004
1001004-BC	B235N9	7.93E0	N/A	3/10/10	0C10004
1001004-BV	B235R2	8.90E0	N/A	3/10/10	0C10004
1001004-CC	B235R9	8.26E0	N/A	3/10/10	0C10004
1001004-DA	B235T8	8.01E0	N/A	3/10/10	0C10004

Anions by Ion Chromatography

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B235H1**		**Lab ID:**	**1001004-04**			
16984-48-8	Fluoride	<1.99E0	ug/g dry	1.99E0	3/11/10	0C11004	AGG-IC-001
16887-00-6	Chloride	7.57E0	ug/g dry	4.97E0	3/11/10	0C11004	AGG-IC-001
14797-65-0	Nitrite	<9.95E0	ug/g dry	9.95E0	3/11/10	0C11004	AGG-IC-001
24959-67-9	Bromide	<9.95E0	ug/g dry	9.95E0	3/11/10	0C11004	AGG-IC-001
14797-55-8	Nitrate	3.39E2	ug/g dry	9.95E0	3/11/10	0C11004	AGG-IC-001
14808-79-8	Sulfate	4.99E1	ug/g dry	1.49E1	3/11/10	0C11004	AGG-IC-001
14265-44-2	Phosphate	<1.49E1	ug/g dry	1.49E1	3/11/10	0C11004	AGG-IC-001
HEIS No.	**B235J0**		**Lab ID:**	**1001004-22**			
16984-48-8	Fluoride	<2.02E0	ug/g dry	2.02E0	3/11/10	0C11004	AGG-IC-001
16887-00-6	Chloride	<5.04E0	ug/g dry	5.04E0	3/11/10	0C11004	AGG-IC-001
14797-65-0	Nitrite	<1.01E1	ug/g dry	1.01E1	3/11/10	0C11004	AGG-IC-001
24959-67-9	Bromide	<1.01E1	ug/g dry	1.01E1	3/11/10	0C11004	AGG-IC-001
14797-55-8	Nitrate	7.92E2	ug/g dry	1.01E1	3/11/10	0C11004	AGG-IC-001
14808-79-8	Sulfate	1.51E1	ug/g dry	1.51E1	3/11/10	0C11004	AGG-IC-001
14265-44-2	Phosphate	<1.51E1	ug/g dry	1.51E1	3/11/10	0C11004	AGG-IC-001
HEIS No.	**B235J6**		**Lab ID:**	**1001004-34**			
16984-48-8	Fluoride	<2.00E1	ug/g dry	2.00E1	3/11/10	0C11004	AGG-IC-001
16887-00-6	Chloride	<5.00E1	ug/g dry	5.00E1	3/11/10	0C11004	AGG-IC-001
14797-65-0	Nitrite	<1.00E2	ug/g dry	1.00E2	3/11/10	0C11004	AGG-IC-001
24959-67-9	Bromide	<1.00E2	ug/g dry	1.00E2	3/11/10	0C11004	AGG-IC-001
14797-55-8	Nitrate	1.40E3	ug/g dry	1.00E2	3/11/10	0C11004	AGG-IC-001
14808-79-8	Sulfate	<1.50E2	ug/g dry	1.50E2	3/11/10	0C11004	AGG-IC-001
14265-44-2	Phosphate	<1.50E2	ug/g dry	1.50E2	3/11/10	0C11004	AGG-IC-001
HEIS No.	**B235K1**		**Lab ID:**	**1001004-42**			
16984-48-8	Fluoride	<2.00E1	ug/g dry	2.00E1	3/11/10	0C11004	AGG-IC-001
16887-00-6	Chloride	<5.01E1	ug/g dry	5.01E1	3/11/10	0C11004	AGG-IC-001
14797-65-0	Nitrite	<1.00E2	ug/g dry	1.00E2	3/11/10	0C11004	AGG-IC-001
24959-67-9	Bromide	<1.00E2	ug/g dry	1.00E2	3/11/10	0C11004	AGG-IC-001
14797-55-8	Nitrate	2.57E3	ug/g dry	1.00E2	3/11/10	0C11004	AGG-IC-001
14808-79-8	Sulfate	<1.50E2	ug/g dry	1.50E2	3/11/10	0C11004	AGG-IC-001
14265-44-2	Phosphate	<1.50E2	ug/g dry	1.50E2	3/11/10	0C11004	AGG-IC-001
HEIS No.	**B235K5**		**Lab ID:**	**1001004-46**			
16984-48-8	Fluoride	<2.00E0	ug/g dry	2.00E0	3/11/10	0C11004	AGG-IC-001
16887-00-6	Chloride	<5.01E0	ug/g dry	5.01E0	3/11/10	0C11004	AGG-IC-001
14797-65-0	Nitrite	<1.00E1	ug/g dry	1.00E1	3/11/10	0C11004	AGG-IC-001
24959-67-9	Bromide	<1.00E1	ug/g dry	1.00E1	3/11/10	0C11004	AGG-IC-001
14797-55-8	Nitrate	9.72E2	ug/g dry	1.00E1	3/11/10	0C11004	AGG-IC-001
14808-79-8	Sulfate	<1.50E1	ug/g dry	1.50E1	3/11/10	0C11004	AGG-IC-001
14265-44-2	Phosphate	<1.50E1	ug/g dry	1.50E1	3/11/10	0C11004	AGG-IC-001
HEIS No.	**B235L9**		**Lab ID:**	**1001004-98**			
16984-48-8	Fluoride	<2.00E0	ug/g dry	2.00E0	3/11/10	0C11004	AGG-IC-001
16887-00-6	Chloride	<5.00E0	ug/g dry	5.00E0	3/11/10	0C11004	AGG-IC-001
14797-65-0	Nitrite	<1.00E1	ug/g dry	1.00E1	3/11/10	0C11004	AGG-IC-001
24959-67-9	Bromide	<1.00E1	ug/g dry	1.00E1	3/11/10	0C11004	AGG-IC-001
14797-55-8	Nitrate	5.28E2	ug/g dry	1.00E1	3/11/10	0C11004	AGG-IC-001
14808-79-8	Sulfate	<1.50E1	ug/g dry	1.50E1	3/11/10	0C11004	AGG-IC-001
14265-44-2	Phosphate	<1.50E1	ug/g dry	1.50E1	3/11/10	0C11004	AGG-IC-001
HEIS No.	**B235N9**		**Lab ID:**	**1001004-BC**			

Anions by Ion Chromatography

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B235N9**		**Lab ID:**	**1001004-BC**			
16984-48-8	Fluoride	4.20E-1	ug/g dry	2.00E-1	3/11/10	0C11004	AGG-IC-001
16887-00-6	Chloride	9.07E-1	ug/g dry	4.99E-1	3/11/10	0C11004	AGG-IC-001
14797-65-0	Nitrite	<9.98E-1	ug/g dry	9.98E-1	3/11/10	0C11004	AGG-IC-001
24959-67-9	Bromide	<9.98E-1	ug/g dry	9.98E-1	3/11/10	0C11004	AGG-IC-001
14797-55-8	Nitrate	2.22E1	ug/g dry	9.98E-1	3/11/10	0C11004	AGG-IC-001
14808-79-8	Sulfate	2.79E1	ug/g dry	1.50E0	3/11/10	0C11004	AGG-IC-001
14265-44-2	Phosphate	<1.50E0	ug/g dry	1.50E0	3/11/10	0C11004	AGG-IC-001
HEIS No.	**B235R2**		**Lab ID:**	**1001004-BV**			
16984-48-8	Fluoride	7.03E-1	ug/g dry	2.00E-1	3/11/10	0C11004	AGG-IC-001
16887-00-6	Chloride	1.21E0	ug/g dry	5.00E-1	3/11/10	0C11004	AGG-IC-001
14797-65-0	Nitrite	3.87E0	ug/g dry	9.99E-1	3/11/10	0C11004	AGG-IC-001
24959-67-9	Bromide	<9.99E-1	ug/g dry	9.99E-1	3/11/10	0C11004	AGG-IC-001
14797-55-8	Nitrate	1.65E1	ug/g dry	9.99E-1	3/11/10	0C11004	AGG-IC-001
14808-79-8	Sulfate	5.25E1	ug/g dry	1.50E0	3/11/10	0C11004	AGG-IC-001
14265-44-2	Phosphate	<1.50E0	ug/g dry	1.50E0	3/11/10	0C11004	AGG-IC-001
HEIS No.	**B235R9**		**Lab ID:**	**1001004-CC**			
16984-48-8	Fluoride	5.71E-1	ug/g dry	2.00E-1	3/11/10	0C11004	AGG-IC-001
16887-00-6	Chloride	1.56E0	ug/g dry	5.00E-1	3/11/10	0C11004	AGG-IC-001
14797-65-0	Nitrite	<1.00E0	ug/g dry	1.00E0	3/11/10	0C11004	AGG-IC-001
24959-67-9	Bromide	<1.00E0	ug/g dry	1.00E0	3/11/10	0C11004	AGG-IC-001
14797-55-8	Nitrate	1.09E1	ug/g dry	1.00E0	3/11/10	0C11004	AGG-IC-001
14808-79-8	Sulfate	5.91E1	ug/g dry	1.50E0	3/11/10	0C11004	AGG-IC-001
14265-44-2	Phosphate	<1.50E0	ug/g dry	1.50E0	3/11/10	0C11004	AGG-IC-001
HEIS No.	**B235T8**		**Lab ID:**	**1001004-DA**			
16984-48-8	Fluoride	7.14E-1	ug/g dry	2.00E-1	3/11/10	0C11004	AGG-IC-001
16887-00-6	Chloride	2.20E0	ug/g dry	4.99E-1	3/11/10	0C11004	AGG-IC-001
14797-65-0	Nitrite	<9.98E-1	ug/g dry	9.98E-1	3/11/10	0C11004	AGG-IC-001
24959-67-9	Bromide	<9.98E-1	ug/g dry	9.98E-1	3/11/10	0C11004	AGG-IC-001
14797-55-8	Nitrate	1.54E0	ug/g dry	9.98E-1	3/11/10	0C11004	AGG-IC-001
14808-79-8	Sulfate	4.66E1	ug/g dry	1.50E0	3/11/10	0C11004	AGG-IC-001
14265-44-2	Phosphate	<1.50E0	ug/g dry	1.50E0	3/11/10	0C11004	AGG-IC-001

Cyanide by Mircodistillation/Colorimetric

Cyanide (ug/g dry) by MICRODIST Cyanide Method

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1001004-04	B235H1	<1.07E-1	1.07E-1	4/09/10	0D08003
1001004-22	B235J0	<1.03E-1	1.03E-1	4/09/10	0D08003
1001004-34	B235J6	<1.05E-1	1.05E-1	4/09/10	0D08003
1001004-42	B235K1	<1.06E-1	1.06E-1	4/09/10	0D08003
1001004-46	B235K5	<1.05E-1	1.05E-1	4/09/10	0D08003
1001004-98	B235L9	<1.06E-1	1.06E-1	4/09/10	0D08003
1001004-BC	B235N9	<1.01E-1	1.01E-1	4/09/10	0D08003
1001004-BV	B235R2	<6.43E-2	6.43E-2	4/09/10	0D08003
1001004-CC	B235R9	<1.06E-1	1.06E-1	4/09/10	0D08003
1001004-DA	B235T8	<1.06E-1	1.06E-1	4/09/10	0D08003

Hexavalent Chromium/Soil

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1001004-04	B235H1	<5.22E-1	5.22E-1	3/25/10	0D09005
1001004-22	B235J0	<5.17E-1	5.17E-1	3/25/10	0D09005
1001004-34	B235J6	<5.18E-1	5.18E-1	3/25/10	0D09005
1001004-42	B235K1	<5.20E-1	5.20E-1	3/25/10	0D09005
1001004-46	B235K5	<5.21E-1	5.21E-1	3/25/10	0D09005
1001004-98	B235L9	<5.25E-1	5.25E-1	3/25/10	0D09005
1001004-BC	B235N9	<5.04E-1	5.04E-1	3/25/10	0D09005
1001004-BV	B235R2	<5.08E-1	5.08E-1	3/25/10	0D09005
1001004-CC	B235R9	<5.06E-1	5.06E-1	3/25/10	0D09005
1001004-DA	B235T8	<5.25E-1	5.25E-1	3/25/10	0D09005

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B235H1**		**Lab ID:**	**1001004-04**			
7429-90-5	Aluminum	<9.32E-2	ug/g dry	9.32E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.10E-1	ug/g dry	3.10E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	7.45E1	ug/g dry	4.50E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.03E-1	ug/g dry	1.03E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.82E-2	ug/g dry	2.82E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.74E-2	ug/g dry	8.74E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.04E-1	ug/g dry	1.04E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	8.67E0	ug/g dry	1.28E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	2.64E1	ug/g dry	4.86E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.21E-2	ug/g dry	6.21E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.62E-2	ug/g dry	9.62E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.60E-1	ug/g dry	1.60E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.83E-1	ug/g dry	9.83E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.77E1	ug/g dry	7.93E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.65E-2	ug/g dry	5.65E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
HEIS No.	**B235J0**		**Lab ID:**	**1001004-22**			
7429-90-5	Aluminum	<9.45E-2	ug/g dry	9.45E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.14E-1	ug/g dry	3.14E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	2.03E2	ug/g dry	4.56E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.05E-1	ug/g dry	1.05E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.86E-2	ug/g dry	2.86E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.86E-2	ug/g dry	8.86E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.06E-1	ug/g dry	1.06E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	1.16E1	ug/g dry	1.30E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	2.84E1	ug/g dry	4.93E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	9.15E-2	ug/g dry	6.30E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.75E-2	ug/g dry	9.75E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.62E-1	ug/g dry	1.62E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.21E0	ug/g dry	1.21E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.96E-1	ug/g dry	9.96E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	5.81E0	ug/g dry	8.04E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.73E-2	ug/g dry	5.73E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
HEIS No.	**B235J6**		**Lab ID:**	**1001004-34**			
7429-90-5	Aluminum	<9.37E-2	ug/g dry	9.37E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.11E-1	ug/g dry	3.11E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	2.27E2	ug/g dry	4.52E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.84E-2	ug/g dry	2.84E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.78E-2	ug/g dry	8.78E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	3.58E1	ug/g dry	1.29E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.87E1	ug/g dry	4.88E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	3.63E-1	ug/g dry	6.24E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.67E-2	ug/g dry	9.67E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.88E-1	ug/g dry	9.88E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B235J6**		**Lab ID:**	**1001004-34**			
7440-23-5	Sodium	1.17E1	ug/g dry	7.97E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.68E-2	ug/g dry	5.68E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
HEIS No.	**B235K1**		**Lab ID:**	**1001004-42**			
7429-90-5	Aluminum	<9.38E-2	ug/g dry	9.38E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.12E-1	ug/g dry	3.12E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	6.93E2	ug/g dry	4.53E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.84E-2	ug/g dry	2.84E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.80E-2	ug/g dry	8.80E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	2.34E1	ug/g dry	1.29E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	6.82E1	ug/g dry	4.89E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	2.72E-1	ug/g dry	6.25E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.68E-2	ug/g dry	9.68E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.89E-1	ug/g dry	9.89E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.88E1	ug/g dry	7.98E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.69E-2	ug/g dry	5.69E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
HEIS No.	**B235K5**		**Lab ID:**	**1001004-46**			
7429-90-5	Aluminum	<9.38E-2	ug/g dry	9.38E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.12E-1	ug/g dry	3.12E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	2.35E2	ug/g dry	4.53E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.84E-2	ug/g dry	2.84E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.80E-2	ug/g dry	8.80E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	9.95E0	ug/g dry	1.29E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	4.31E1	ug/g dry	4.89E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.25E-2	ug/g dry	6.25E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.68E-2	ug/g dry	9.68E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.89E-1	ug/g dry	9.89E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	9.54E0	ug/g dry	7.98E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.69E-2	ug/g dry	5.69E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
HEIS No.	**B235L9**		**Lab ID:**	**1001004-98**			
7429-90-5	Aluminum	<9.38E-2	ug/g dry	9.38E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.12E-1	ug/g dry	3.12E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	1.12E2	ug/g dry	4.52E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.84E-2	ug/g dry	2.84E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.79E-2	ug/g dry	8.79E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	7.63E0	ug/g dry	1.29E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.24E1	ug/g dry	4.89E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.25E-2	ug/g dry	6.25E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.68E-2	ug/g dry	9.68E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B235L9**		**Lab ID:**	**1001004-98**			
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.88E-1	ug/g dry	9.88E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	9.04E0	ug/g dry	7.98E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.68E-2	ug/g dry	5.68E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
HEIS No.	**B235N9**		**Lab ID:**	**1001004-BC**			
7429-90-5	Aluminum	1.58E-1	ug/g dry	9.35E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.11E-1	ug/g dry	3.11E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	1.12E1	ug/g dry	4.51E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.83E-2	ug/g dry	2.83E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.76E-2	ug/g dry	8.76E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	5.16E0	ug/g dry	1.29E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.37E0	ug/g dry	4.88E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.23E-2	ug/g dry	6.23E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.65E-2	ug/g dry	9.65E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.86E-1	ug/g dry	9.86E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.32E1	ug/g dry	7.95E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.67E-2	ug/g dry	5.67E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
HEIS No.	**B235R2**		**Lab ID:**	**1001004-BV**			
7429-90-5	Aluminum	1.61E-1	ug/g dry	9.36E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.11E-1	ug/g dry	3.11E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	1.65E1	ug/g dry	4.52E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.84E-2	ug/g dry	2.84E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.78E-2	ug/g dry	8.78E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	5.30E0	ug/g dry	1.29E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.69E0	ug/g dry	4.88E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.24E-2	ug/g dry	6.24E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.66E-2	ug/g dry	9.66E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.87E-1	ug/g dry	9.87E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.50E1	ug/g dry	7.96E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.67E-2	ug/g dry	5.67E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
HEIS No.	**B235R9**		**Lab ID:**	**1001004-CC**			
7429-90-5	Aluminum	1.89E-1	ug/g dry	9.37E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.11E-1	ug/g dry	3.11E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	1.73E1	ug/g dry	4.52E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.84E-2	ug/g dry	2.84E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.78E-2	ug/g dry	8.78E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	5.01E0	ug/g dry	1.29E0	3/11/10	0C11001	PNNL-AGG-ICP-AES

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B235R9**		**Lab ID:**	**1001004-CC**			
7439-95-4	Magnesium	5.51E0	ug/g dry	4.89E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.24E-2	ug/g dry	6.24E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.67E-2	ug/g dry	9.67E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.88E-1	ug/g dry	9.88E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.27E1	ug/g dry	7.97E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.68E-2	ug/g dry	5.68E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
HEIS No.	**B235T8**		**Lab ID:**	**1001004-DA**			
7429-90-5	Aluminum	1.79E-1	ug/g dry	9.36E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-38-2	Arsenic	<3.11E-1	ug/g dry	3.11E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-70-2	Calcium	1.55E1	ug/g dry	4.52E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.04E-1	ug/g dry	1.04E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<2.83E-2	ug/g dry	2.83E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-50-8	Copper	<8.77E-2	ug/g dry	8.77E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-89-6	Iron	<1.05E-1	ug/g dry	1.05E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-09-7	Potassium	6.77E0	ug/g dry	1.29E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	4.70E0	ug/g dry	4.88E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<6.24E-2	ug/g dry	6.24E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-02-0	Nickel	<9.66E-2	ug/g dry	9.66E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.61E-1	ug/g dry	1.61E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<1.20E0	ug/g dry	1.20E0	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<9.86E-1	ug/g dry	9.86E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.92E1	ug/g dry	7.96E-1	3/11/10	0C11001	PNNL-AGG-ICP-AES
7440-22-4	Silver	<5.67E-2	ug/g dry	5.67E-2	3/11/10	0C11001	PNNL-AGG-ICP-AES

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B235H1**		**Lab ID:**	**1001004-04**			
7429-90-5	Aluminum	5.51E3	ug/g dry	2.43E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-70-2	Calcium	7.34E3	ug/g dry	2.52E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.32E0	ug/g dry	1.32E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-47-3	Chromium	8.21E0	ug/g dry	2.12E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.95E0	ug/g dry	6.95E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.07E4	ug/g dry	6.53E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-09-7	Potassium	1.36E3	ug/g dry	9.30E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.94E3	ug/g dry	6.92E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-96-5	Manganese	2.09E2	ug/g dry	2.17E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-02-0	Nickel	8.66E0	ug/g dry	5.04E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.09E1	ug/g dry	1.09E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<6.16E1	ug/g dry	6.16E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.48E1	ug/g dry	3.48E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.12E2	ug/g dry	6.84E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
HEIS No.	**B235J0**		**Lab ID:**	**1001004-22**			
7429-90-5	Aluminum	4.73E3	ug/g dry	2.38E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-70-2	Calcium	4.37E3	ug/g dry	2.47E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.30E0	ug/g dry	1.30E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-47-3	Chromium	7.89E0	ug/g dry	2.08E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.81E0	ug/g dry	6.81E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.05E4	ug/g dry	6.40E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-09-7	Potassium	9.00E2	ug/g dry	9.11E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.32E3	ug/g dry	6.78E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-96-5	Manganese	1.98E2	ug/g dry	2.13E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-02-0	Nickel	8.52E0	ug/g dry	4.94E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.06E1	ug/g dry	1.06E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<6.04E1	ug/g dry	6.04E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.42E1	ug/g dry	3.42E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-23-5	Sodium	9.78E1	ug/g dry	6.71E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
HEIS No.	**B235J6**		**Lab ID:**	**1001004-34**			
7429-90-5	Aluminum	4.58E3	ug/g dry	2.39E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-70-2	Calcium	3.88E3	ug/g dry	2.48E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.30E0	ug/g dry	1.30E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-47-3	Chromium	8.10E0	ug/g dry	2.08E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.84E0	ug/g dry	6.84E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-89-6	Iron	9.52E3	ug/g dry	6.43E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-09-7	Potassium	9.48E2	ug/g dry	9.15E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.18E3	ug/g dry	6.81E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-96-5	Manganese	1.88E2	ug/g dry	2.14E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-02-0	Nickel	8.40E0	ug/g dry	4.96E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.07E1	ug/g dry	1.07E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<6.07E1	ug/g dry	6.07E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.43E1	ug/g dry	3.43E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-23-5	Sodium	9.12E1	ug/g dry	6.73E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
HEIS No.	**B235K1**		**Lab ID:**	**1001004-42**			
7429-90-5	Aluminum	3.87E3	ug/g dry	2.48E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-70-2	Calcium	4.59E3	ug/g dry	2.58E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.35E0	ug/g dry	1.35E0	3/11/10	0C11002	PNNL-AGG-ICP-AES

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B235K1**		**Lab ID:**	**1001004-42**			
7440-47-3	Chromium	8.70E0	ug/g dry	2.16E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-50-8	Copper	<7.09E0	ug/g dry	7.09E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-89-6	Iron	9.15E3	ug/g dry	6.67E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-09-7	Potassium	9.35E2	ug/g dry	9.49E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.37E3	ug/g dry	7.06E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-96-5	Manganese	1.77E2	ug/g dry	2.22E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-02-0	Nickel	9.21E0	ug/g dry	5.14E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.11E1	ug/g dry	1.11E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<6.29E1	ug/g dry	6.29E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.56E1	ug/g dry	3.56E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-23-5	Sodium	9.80E1	ug/g dry	6.99E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
HEIS No.	**B235K5**		**Lab ID:**	**1001004-46**			
7429-90-5	Aluminum	5.29E3	ug/g dry	2.43E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-70-2	Calcium	7.00E3	ug/g dry	2.52E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.32E0	ug/g dry	1.32E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-47-3	Chromium	7.66E0	ug/g dry	2.12E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.94E0	ug/g dry	6.94E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.09E4	ug/g dry	6.53E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-09-7	Potassium	1.17E3	ug/g dry	9.29E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.54E3	ug/g dry	6.91E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-96-5	Manganese	2.10E2	ug/g dry	2.17E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-02-0	Nickel	7.54E0	ug/g dry	5.03E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.09E1	ug/g dry	1.09E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<6.16E1	ug/g dry	6.16E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.48E1	ug/g dry	3.48E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.08E2	ug/g dry	6.84E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
HEIS No.	**B235L9**		**Lab ID:**	**1001004-98**			
7429-90-5	Aluminum	4.43E3	ug/g dry	2.40E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-70-2	Calcium	7.13E3	ug/g dry	2.50E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.31E0	ug/g dry	1.31E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-47-3	Chromium	8.06E0	ug/g dry	2.10E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.87E0	ug/g dry	6.87E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-89-6	Iron	8.64E3	ug/g dry	6.46E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-09-7	Potassium	8.81E2	ug/g dry	9.20E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.32E3	ug/g dry	6.85E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-96-5	Manganese	1.83E2	ug/g dry	2.15E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-02-0	Nickel	9.19E0	ug/g dry	4.98E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.08E1	ug/g dry	1.08E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<6.10E1	ug/g dry	6.10E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.45E1	ug/g dry	3.45E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-23-5	Sodium	8.61E1	ug/g dry	6.77E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
HEIS No.	**B235N9**		**Lab ID:**	**1001004-BC**			
7429-90-5	Aluminum	4.14E3	ug/g dry	2.35E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-70-2	Calcium	5.38E3	ug/g dry	2.44E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.28E0	ug/g dry	1.28E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-47-3	Chromium	5.71E0	ug/g dry	2.05E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.73E0	ug/g dry	6.73E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.00E4	ug/g dry	6.33E0	3/11/10	0C11002	PNNL-AGG-ICP-AES

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B235N9**		**Lab ID:**	**1001004-BC**			
7440-09-7	Potassium	7.31E2	ug/g dry	9.01E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	2.82E3	ug/g dry	6.70E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-96-5	Manganese	1.73E2	ug/g dry	2.10E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-02-0	Nickel	6.78E0	ug/g dry	4.88E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.05E1	ug/g dry	1.05E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<5.97E1	ug/g dry	5.97E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.38E1	ug/g dry	3.38E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.43E2	ug/g dry	6.63E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
HEIS No.	**B235R2**		**Lab ID:**	**1001004-BV**			
7429-90-5	Aluminum	4.15E3	ug/g dry	2.34E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-70-2	Calcium	6.13E3	ug/g dry	2.43E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.27E0	ug/g dry	1.27E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-47-3	Chromium	6.22E0	ug/g dry	2.04E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.68E0	ug/g dry	6.68E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.15E4	ug/g dry	6.28E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-09-7	Potassium	6.68E2	ug/g dry	8.94E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	2.71E3	ug/g dry	6.65E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-96-5	Manganese	1.72E2	ug/g dry	2.09E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-02-0	Nickel	6.22E0	ug/g dry	4.84E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.04E1	ug/g dry	1.04E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<5.93E1	ug/g dry	5.93E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.35E1	ug/g dry	3.35E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-23-5	Sodium	2.35E2	ug/g dry	6.58E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
HEIS No.	**B235R9**		**Lab ID:**	**1001004-CC**			
7429-90-5	Aluminum	4.53E3	ug/g dry	2.39E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-70-2	Calcium	4.49E3	ug/g dry	2.48E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.30E0	ug/g dry	1.30E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-47-3	Chromium	1.54E1	ug/g dry	2.08E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-50-8	Copper	<6.83E0	ug/g dry	6.83E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.67E4	ug/g dry	6.43E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-09-7	Potassium	6.92E2	ug/g dry	9.15E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	2.91E3	ug/g dry	6.81E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-96-5	Manganese	2.53E2	ug/g dry	2.14E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-02-0	Nickel	6.75E0	ug/g dry	4.96E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.07E1	ug/g dry	1.07E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<6.06E1	ug/g dry	6.06E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.43E1	ug/g dry	3.43E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-23-5	Sodium	2.60E2	ug/g dry	6.73E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
HEIS No.	**B235T8**		**Lab ID:**	**1001004-DA**			
7429-90-5	Aluminum	4.37E3	ug/g dry	2.43E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-70-2	Calcium	3.58E3	ug/g dry	2.52E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-43-9	Cadmium	<1.32E0	ug/g dry	1.32E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-47-3	Chromium	9.80E0	ug/g dry	2.12E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-50-8	Copper	7.34E0	ug/g dry	6.95E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-89-6	Iron	1.06E4	ug/g dry	6.53E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-09-7	Potassium	7.28E2	ug/g dry	9.30E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	2.76E3	ug/g dry	6.92E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-96-5	Manganese	1.87E2	ug/g dry	2.17E0	3/11/10	0C11002	PNNL-AGG-ICP-AES

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

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B235T8**		**Lab ID:**	**1001004-DA**			
7440-02-0	Nickel	7.46E0	ug/g dry	5.04E0	3/11/10	0C11002	PNNL-AGG-ICP-AES
7439-92-1	Lead	<1.09E1	ug/g dry	1.09E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7782-49-2	Selenium	<6.17E1	ug/g dry	6.17E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-28-0	Thallium	<3.49E1	ug/g dry	3.49E1	3/11/10	0C11002	PNNL-AGG-ICP-AES
7440-23-5	Sodium	2.46E2	ug/g dry	6.84E1	3/11/10	0C11002	PNNL-AGG-ICP-AES

Radionuclides by ICP-MS/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B235H1**		**Lab ID:**	**1001004-04**			
14133-76-7	Technetium-99	<5.28E-3	ug/g dry	5.28E-3	4/04/10	0C17004	PNNL-AGG-415
	Uranium 238	3.28E0	ug/g dry	3.60E-2	3/22/10	0C17004	PNNL-AGG-415
HEIS No.	**B235J0**		**Lab ID:**	**1001004-22**			
14133-76-7	Technetium-99	<5.18E-3	ug/g dry	5.18E-3	4/04/10	0C17004	PNNL-AGG-415
	Uranium 238	5.20E0	ug/g dry	3.52E-2	3/22/10	0C17004	PNNL-AGG-415
HEIS No.	**B235J6**		**Lab ID:**	**1001004-34**			
14133-76-7	Technetium-99	<5.20E-3	ug/g dry	5.20E-3	4/04/10	0C17004	PNNL-AGG-415
	Uranium 238	8.84E0	ug/g dry	3.54E-2	3/22/10	0C17004	PNNL-AGG-415
HEIS No.	**B235K1**		**Lab ID:**	**1001004-42**			
14133-76-7	Technetium-99	<5.39E-3	ug/g dry	5.39E-3	4/04/10	0C17004	PNNL-AGG-415
	Uranium 238	1.55E1	ug/g dry	3.67E-2	3/22/10	0C17004	PNNL-AGG-415
HEIS No.	**B235K5**		**Lab ID:**	**1001004-46**			
14133-76-7	Technetium-99	<5.28E-3	ug/g dry	5.28E-3	4/04/10	0C17004	PNNL-AGG-415
	Uranium 238	5.07E0	ug/g dry	3.60E-2	3/22/10	0C17004	PNNL-AGG-415
HEIS No.	**B235L9**		**Lab ID:**	**1001004-98**			
14133-76-7	Technetium-99	<5.23E-3	ug/g dry	5.23E-3	4/04/10	0C17004	PNNL-AGG-415
	Uranium 238	2.43E-1	ug/g dry	3.56E-2	3/22/10	0C17004	PNNL-AGG-415
HEIS No.	**B235N9**		**Lab ID:**	**1001004-BC**			
14133-76-7	Technetium-99	<5.12E-3	ug/g dry	5.12E-3	4/04/10	0C17004	PNNL-AGG-415
	Uranium 238	2.03E-1	ug/g dry	3.49E-2	3/22/10	0C17004	PNNL-AGG-415
HEIS No.	**B235R2**		**Lab ID:**	**1001004-BV**			
14133-76-7	Technetium-99	<5.08E-3	ug/g dry	5.08E-3	4/04/10	0C17004	PNNL-AGG-415
	Uranium 238	2.43E-1	ug/g dry	3.46E-2	3/22/10	0C17004	PNNL-AGG-415
HEIS No.	**B235R9**		**Lab ID:**	**1001004-CC**			
14133-76-7	Technetium-99	<5.20E-3	ug/g dry	5.20E-3	4/04/10	0C17004	PNNL-AGG-415
	Uranium 238	2.68E-1	ug/g dry	3.54E-2	3/22/10	0C17004	PNNL-AGG-415
HEIS No.	**B235T8**		**Lab ID:**	**1001004-DA**			
14133-76-7	Technetium-99	<5.28E-3	ug/g dry	5.28E-3	4/04/10	0C17004	PNNL-AGG-415
	Uranium 238	2.11E-1	ug/g dry	3.60E-2	3/22/10	0C17004	PNNL-AGG-415

Radionuclides by ICP-MS/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B235H1**		**Lab ID:**	**1001004-04**			
15046-84-1	Iodine-129	<4.97E-5	ug/g dry	4.97E-5	5/03/10	0C31001	PNNL-AGG-415
HEIS No.	**B235J0**		**Lab ID:**	**1001004-22**			
15046-84-1	Iodine-129	<5.04E-5	ug/g dry	5.04E-5	5/03/10	0C31001	PNNL-AGG-415
HEIS No.	**B235J6**		**Lab ID:**	**1001004-34**			
15046-84-1	Iodine-129	<5.00E-5	ug/g dry	5.00E-5	5/03/10	0C31001	PNNL-AGG-415
HEIS No.	**B235K1**		**Lab ID:**	**1001004-42**			
15046-84-1	Iodine-129	8.39E-5	ug/g dry	5.01E-5	5/03/10	0C31001	PNNL-AGG-415
HEIS No.	**B235K5**		**Lab ID:**	**1001004-46**			
15046-84-1	Iodine-129	<5.01E-5	ug/g dry	5.01E-5	5/03/10	0C31001	PNNL-AGG-415
HEIS No.	**B235L9**		**Lab ID:**	**1001004-98**			
15046-84-1	Iodine-129	<5.00E-5	ug/g dry	5.00E-5	5/03/10	0C31001	PNNL-AGG-415
HEIS No.	**B235N9**		**Lab ID:**	**1001004-BC**			
15046-84-1	Iodine-129	<4.99E-5	ug/g dry	4.99E-5	5/03/10	0C31001	PNNL-AGG-415
HEIS No.	**B235R2**		**Lab ID:**	**1001004-BV**			
15046-84-1	Iodine-129	<5.00E-5	ug/g dry	5.00E-5	5/03/10	0C31001	PNNL-AGG-415
HEIS No.	**B235R9**		**Lab ID:**	**1001004-CC**			
15046-84-1	Iodine-129	<5.00E-5	ug/g dry	5.00E-5	5/03/10	0C31001	PNNL-AGG-415
HEIS No.	**B235T8**		**Lab ID:**	**1001004-DA**			
15046-84-1	Iodine-129	<4.99E-5	ug/g dry	4.99E-5	5/03/10	0C31001	PNNL-AGG-415

Radionuclides by ICP-MS/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B235H1**		**Lab ID:**	**1001004-04**			
14133-76-7	Technetium-99	<3.88E-5	ug/g dry	3.88E-5	3/22/10	0C17003	PNNL-AGG-415
	Uranium 238	1.42E-1	ug/g dry	7.96E-5	3/22/10	0C17003	PNNL-AGG-415
HEIS No.	**B235J0**		**Lab ID:**	**1001004-22**			
14133-76-7	Technetium-99	<3.93E-5	ug/g dry	3.93E-5	3/22/10	0C17003	PNNL-AGG-415
	Uranium 238	3.87E-1	ug/g dry	8.06E-5	3/22/10	0C17003	PNNL-AGG-415
HEIS No.	**B235J6**		**Lab ID:**	**1001004-34**			
14133-76-7	Technetium-99	<3.90E-5	ug/g dry	3.90E-5	3/22/10	0C17003	PNNL-AGG-415
	Uranium 238	2.19E-1	ug/g dry	8.00E-5	3/22/10	0C17003	PNNL-AGG-415
HEIS No.	**B235K1**		**Lab ID:**	**1001004-42**			
14133-76-7	Technetium-99	<3.91E-5	ug/g dry	3.91E-5	3/22/10	0C17003	PNNL-AGG-415
	Uranium 238	1.54E0	ug/g dry	1.60E-3	3/22/10	0C17003	PNNL-AGG-415
HEIS No.	**B235K5**		**Lab ID:**	**1001004-46**			
14133-76-7	Technetium-99	<3.91E-5	ug/g dry	3.91E-5	3/22/10	0C17003	PNNL-AGG-415
	Uranium 238	2.28E-1	ug/g dry	8.01E-5	3/22/10	0C17003	PNNL-AGG-415
HEIS No.	**B235L9**		**Lab ID:**	**1001004-98**			
14133-76-7	Technetium-99	<3.90E-5	ug/g dry	3.90E-5	3/22/10	0C17003	PNNL-AGG-415
	Uranium 238	2.18E-3	ug/g dry	8.00E-5	3/22/10	0C17003	PNNL-AGG-415
HEIS No.	**B235N9**		**Lab ID:**	**1001004-BC**			
14133-76-7	Technetium-99	<3.89E-5	ug/g dry	3.89E-5	3/22/10	0C17003	PNNL-AGG-415
	Uranium 238	1.63E-4	ug/g dry	7.98E-5	3/22/10	0C17003	PNNL-AGG-415
HEIS No.	**B235R2**		**Lab ID:**	**1001004-BV**			
14133-76-7	Technetium-99	<3.90E-5	ug/g dry	3.90E-5	3/22/10	0C17003	PNNL-AGG-415
	Uranium 238	1.07E-4	ug/g dry	7.99E-5	3/22/10	0C17003	PNNL-AGG-415
HEIS No.	**B235R9**		**Lab ID:**	**1001004-CC**			
14133-76-7	Technetium-99	<3.90E-5	ug/g dry	3.90E-5	3/22/10	0C17003	PNNL-AGG-415
	Uranium 238	2.71E-4	ug/g dry	8.00E-5	3/22/10	0C17003	PNNL-AGG-415
HEIS No.	**B235T8**		**Lab ID:**	**1001004-DA**			
14133-76-7	Technetium-99	<3.89E-5	ug/g dry	3.89E-5	3/22/10	0C17003	PNNL-AGG-415
	Uranium 238	3.61E-4	ug/g dry	7.99E-5	3/22/10	0C17003	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B235H1**		**Lab ID:**	**1001004-04**			
14265-72-6	Antimony	<6.55E-4	ug/g dry	6.55E-4	3/10/10	0C10007	PNNL-AGG-415
15756-10-2	Mercury	<6.51E-4	ug/g dry	6.51E-4	3/10/10	0C10007	PNNL-AGG-415
HEIS No.	**B235J0**		**Lab ID:**	**1001004-22**			
14265-72-6	Antimony	<6.64E-4	ug/g dry	6.64E-4	3/10/10	0C10007	PNNL-AGG-415
15756-10-2	Mercury	<6.59E-4	ug/g dry	6.59E-4	3/10/10	0C10007	PNNL-AGG-415
HEIS No.	**B235J6**		**Lab ID:**	**1001004-34**			
14265-72-6	Antimony	9.04E-4	ug/g dry	6.58E-4	3/10/10	0C10007	PNNL-AGG-415
15756-10-2	Mercury	<6.54E-4	ug/g dry	6.54E-4	3/10/10	0C10007	PNNL-AGG-415
HEIS No.	**B235K1**		**Lab ID:**	**1001004-42**			
14265-72-6	Antimony	<6.59E-4	ug/g dry	6.59E-4	3/10/10	0C10007	PNNL-AGG-415
15756-10-2	Mercury	<6.55E-4	ug/g dry	6.55E-4	3/10/10	0C10007	PNNL-AGG-415
HEIS No.	**B235K5**		**Lab ID:**	**1001004-46**			
14265-72-6	Antimony	<6.59E-4	ug/g dry	6.59E-4	3/10/10	0C10007	PNNL-AGG-415
15756-10-2	Mercury	1.05E-3	ug/g dry	6.55E-4	3/10/10	0C10007	PNNL-AGG-415
HEIS No.	**B235L9**		**Lab ID:**	**1001004-98**			
14265-72-6	Antimony	<6.59E-4	ug/g dry	6.59E-4	3/10/10	0C10007	PNNL-AGG-415
15756-10-2	Mercury	1.03E-3	ug/g dry	6.54E-4	3/10/10	0C10007	PNNL-AGG-415
HEIS No.	**B235N9**		**Lab ID:**	**1001004-BC**			
14265-72-6	Antimony	<6.57E-4	ug/g dry	6.57E-4	3/10/10	0C10007	PNNL-AGG-415
15756-10-2	Mercury	<6.52E-4	ug/g dry	6.52E-4	3/10/10	0C10007	PNNL-AGG-415
HEIS No.	**B235R2**		**Lab ID:**	**1001004-BV**			
14265-72-6	Antimony	1.20E-3	ug/g dry	6.58E-4	3/10/10	0C10007	PNNL-AGG-415
15756-10-2	Mercury	<6.53E-4	ug/g dry	6.53E-4	3/10/10	0C10007	PNNL-AGG-415
HEIS No.	**B235R9**		**Lab ID:**	**1001004-CC**			
14265-72-6	Antimony	<6.58E-4	ug/g dry	6.58E-4	3/10/10	0C10007	PNNL-AGG-415
15756-10-2	Mercury	8.61E-4	ug/g dry	6.54E-4	3/10/10	0C10007	PNNL-AGG-415
HEIS No.	**B235T8**		**Lab ID:**	**1001004-DA**			
14265-72-6	Antimony	8.17E-3	ug/g dry	6.57E-4	3/10/10	0C10007	PNNL-AGG-415
15756-10-2	Mercury	1.27E-3	ug/g dry	6.53E-4	3/10/10	0C10007	PNNL-AGG-415

RCRA Metals By PNNL-AGG-415/Acid Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
HEIS No.	**B235H1**		**Lab ID:**	**1001004-04**			
7440-38-2	Arsenic	1.50E0	ug/g dry	2.95E-1	3/11/10	0C10008	PNNL-AGG-415
14265-72-6	Antimony	<1.89E-1	ug/g dry	1.89E-1	3/11/10	0C10008	PNNL-AGG-415
15756-10-2	Mercury	<1.64E-1	ug/g dry	1.64E-1	3/11/10	0C10008	PNNL-AGG-415
HEIS No.	**B235J0**		**Lab ID:**	**1001004-22**			
7440-38-2	Arsenic	1.87E0	ug/g dry	2.89E-1	3/11/10	0C10008	PNNL-AGG-415
14265-72-6	Antimony	<1.85E-1	ug/g dry	1.85E-1	3/11/10	0C10008	PNNL-AGG-415
15756-10-2	Mercury	<1.61E-1	ug/g dry	1.61E-1	3/11/10	0C10008	PNNL-AGG-415
HEIS No.	**B235J6**		**Lab ID:**	**1001004-34**			
7440-38-2	Arsenic	1.90E0	ug/g dry	2.90E-1	3/11/10	0C10008	PNNL-AGG-415
14265-72-6	Antimony	<1.86E-1	ug/g dry	1.86E-1	3/11/10	0C10008	PNNL-AGG-415
15756-10-2	Mercury	<1.62E-1	ug/g dry	1.62E-1	3/11/10	0C10008	PNNL-AGG-415
HEIS No.	**B235K1**		**Lab ID:**	**1001004-42**			
7440-38-2	Arsenic	2.78E0	ug/g dry	3.01E-1	3/11/10	0C10008	PNNL-AGG-415
14265-72-6	Antimony	<1.93E-1	ug/g dry	1.93E-1	3/11/10	0C10008	PNNL-AGG-415
15756-10-2	Mercury	<1.68E-1	ug/g dry	1.68E-1	3/11/10	0C10008	PNNL-AGG-415
HEIS No.	**B235K5**		**Lab ID:**	**1001004-46**			
7440-38-2	Arsenic	1.66E0	ug/g dry	2.94E-1	3/11/10	0C10008	PNNL-AGG-415
14265-72-6	Antimony	<1.89E-1	ug/g dry	1.89E-1	3/11/10	0C10008	PNNL-AGG-415
15756-10-2	Mercury	<1.64E-1	ug/g dry	1.64E-1	3/11/10	0C10008	PNNL-AGG-415
HEIS No.	**B235L9**		**Lab ID:**	**1001004-98**			
7440-38-2	Arsenic	2.84E0	ug/g dry	2.92E-1	3/11/10	0C10008	PNNL-AGG-415
14265-72-6	Antimony	<1.87E-1	ug/g dry	1.87E-1	3/11/10	0C10008	PNNL-AGG-415
15756-10-2	Mercury	<1.63E-1	ug/g dry	1.63E-1	3/11/10	0C10008	PNNL-AGG-415
HEIS No.	**B235N9**		**Lab ID:**	**1001004-BC**			
7440-38-2	Arsenic	9.98E-1	ug/g dry	2.86E-1	3/11/10	0C10008	PNNL-AGG-415
14265-72-6	Antimony	<1.83E-1	ug/g dry	1.83E-1	3/11/10	0C10008	PNNL-AGG-415
15756-10-2	Mercury	<1.59E-1	ug/g dry	1.59E-1	3/11/10	0C10008	PNNL-AGG-415
HEIS No.	**B235R2**		**Lab ID:**	**1001004-BV**			
7440-38-2	Arsenic	6.59E-1	ug/g dry	2.83E-1	3/11/10	0C10008	PNNL-AGG-415
14265-72-6	Antimony	<1.82E-1	ug/g dry	1.82E-1	3/11/10	0C10008	PNNL-AGG-415
15756-10-2	Mercury	<1.58E-1	ug/g dry	1.58E-1	3/11/10	0C10008	PNNL-AGG-415
HEIS No.	**B235R9**		**Lab ID:**	**1001004-CC**			
7440-38-2	Arsenic	4.44E-1	ug/g dry	2.90E-1	3/11/10	0C10008	PNNL-AGG-415
14265-72-6	Antimony	<1.86E-1	ug/g dry	1.86E-1	3/11/10	0C10008	PNNL-AGG-415
15756-10-2	Mercury	<1.62E-1	ug/g dry	1.62E-1	3/11/10	0C10008	PNNL-AGG-415
HEIS No.	**B235T8**		**Lab ID:**	**1001004-DA**			
7440-38-2	Arsenic	7.16E-1	ug/g dry	2.95E-1	3/11/10	0C10008	PNNL-AGG-415
14265-72-6	Antimony	2.41E-1	ug/g dry	1.89E-1	3/11/10	0C10008	PNNL-AGG-415
15756-10-2	Mercury	<1.65E-1	ug/g dry	1.65E-1	3/11/10	0C10008	PNNL-AGG-415

Carbon Analysis/Soil

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1001004-04	B235H1	<2.00E2	2.00E2	3/23/10	[CALC]
1001004-22	B235J0	<2.00E2	2.00E2	3/23/10	[CALC]
1001004-34	B235J6	2.78E2	2.00E2	3/23/10	[CALC]
1001004-42	B235K1	<2.00E2	2.00E2	3/23/10	[CALC]
1001004-46	B235K5	<2.00E2	2.00E2	3/23/10	[CALC]
1001004-98	B235L9	<2.00E2	2.00E2	3/23/10	[CALC]
1001004-BC	B235N9	<2.00E2	2.00E2	3/23/10	[CALC]
1001004-BV	B235R2	<2.00E2	2.00E2	3/23/10	[CALC]
1001004-CC	B235R9	<2.00E2	2.00E2	3/23/10	[CALC]
1001004-DA	B235T8	8.52E2	2.00E2	3/23/10	[CALC]

Carbon Analysis/Soil

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1001004-04	B235H1	2.04E3	2.00E2	3/19/10	0C19002
1001004-22	B235J0	9.63E2	2.00E2	3/19/10	0C19002
1001004-34	B235J6	1.06E3	2.00E2	3/19/10	0C19002
1001004-42	B235K1	1.01E3	2.00E2	3/19/10	0C19002
1001004-46	B235K5	1.94E3	2.00E2	3/19/10	0C19002
1001004-98	B235L9	1.99E3	2.00E2	3/19/10	0C19002
1001004-BC	B235N9	1.17E3	2.00E2	3/19/10	0C19002
1001004-BV	B235R2	1.55E3	2.00E2	3/19/10	0C19002
1001004-CC	B235R9	7.77E2	2.00E2	3/19/10	0C19002
1001004-DA	B235T8	1.41E3	2.00E2	3/19/10	0C19002

Carbon Analysis/Soil

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

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
1001004-04	B235H1	2.17E3	2.00E2	3/23/10	0C23003
1001004-22	B235J0	7.88E2	2.00E2	3/23/10	0C23003
1001004-34	B235J6	7.86E2	2.00E2	3/23/10	0C23003
1001004-42	B235K1	9.40E2	2.00E2	3/23/10	0C23003
1001004-46	B235K5	2.10E3	2.00E2	3/23/10	0C23003
1001004-98	B235L9	2.17E3	2.00E2	3/23/10	0C23003
1001004-BC	B235N9	1.15E3	2.00E2	3/23/10	0C23003
1001004-BV	B235R2	1.42E3	2.00E2	3/23/10	0C23003
1001004-CC	B235R9	6.99E2	2.00E2	3/23/10	0C23003
1001004-DA	B235T8	5.60E2	2.00E2	3/23/10	0C23003

GEA/Soil

CAS #	Analyte	Results	Units	MDA	UNC	Analyzed	Batch	Method
HEIS No.	**B235H1**		**Lab ID:**	**1001004-04**				
10198-40-0	Cobalt-60	<2.18E-1	pCi/g dry	2.18E-1		3/09/10	0C09002	AGG-RRL-001
10045-97-3	Cesium-137	<2.78E-1	pCi/g dry	2.78E-1		3/09/10	0C09002	AGG-RRL-001
14683-23-9	Europium-152	<1.10E0	pCi/g dry	1.10E0		3/09/10	0C09002	AGG-RRL-001
15585-10-1	Europium-154	<6.35E-1	pCi/g dry	6.35E-1		3/09/10	0C09002	AGG-RRL-001
14391-16-3	Europium-155	<1.00E0	pCi/g dry	1.00E0		3/09/10	0C09002	AGG-RRL-001
HEIS No.	**B235J0**		**Lab ID:**	**1001004-22**				
10198-40-0	Cobalt-60	<2.21E-1	pCi/g dry	2.21E-1		3/09/10	0C09002	AGG-RRL-001
10045-97-3	Cesium-137	<2.43E-1	pCi/g dry	2.43E-1		3/09/10	0C09002	AGG-RRL-001
14683-23-9	Europium-152	<9.16E-1	pCi/g dry	9.16E-1		3/09/10	0C09002	AGG-RRL-001
15585-10-1	Europium-154	<5.01E-1	pCi/g dry	5.01E-1		3/09/10	0C09002	AGG-RRL-001
14391-16-3	Europium-155	<8.92E-1	pCi/g dry	8.92E-1		3/09/10	0C09002	AGG-RRL-001
HEIS No.	**B235J6**		**Lab ID:**	**1001004-34**				
10198-40-0	Cobalt-60	<2.08E-1	pCi/g dry	2.08E-1		3/09/10	0C09002	AGG-RRL-001
10045-97-3	Cesium-137	<2.63E-1	pCi/g dry	2.63E-1		3/09/10	0C09002	AGG-RRL-001
14683-23-9	Europium-152	<9.54E-1	pCi/g dry	9.54E-1		3/09/10	0C09002	AGG-RRL-001
15585-10-1	Europium-154	<6.07E-1	pCi/g dry	6.07E-1		3/09/10	0C09002	AGG-RRL-001
14391-16-3	Europium-155	<1.02E0	pCi/g dry	1.02E0		3/09/10	0C09002	AGG-RRL-001
HEIS No.	**B235K1**		**Lab ID:**	**1001004-42**				
10198-40-0	Cobalt-60	<2.66E-1	pCi/g dry	2.66E-1		3/09/10	0C09002	AGG-RRL-001
10045-97-3	Cesium-137	<2.66E-1	pCi/g dry	2.66E-1		3/09/10	0C09002	AGG-RRL-001
14683-23-9	Europium-152	<1.03E0	pCi/g dry	1.03E0		3/09/10	0C09002	AGG-RRL-001
15585-10-1	Europium-154	<5.62E-1	pCi/g dry	5.62E-1		3/09/10	0C09002	AGG-RRL-001
14391-16-3	Europium-155	<1.03E0	pCi/g dry	1.03E0		3/09/10	0C09002	AGG-RRL-001
HEIS No.	**B235K5**		**Lab ID:**	**1001004-46**				
10198-40-0	Cobalt-60	<2.17E-1	pCi/g dry	2.17E-1		3/10/10	0C09002	AGG-RRL-001
10045-97-3	Cesium-137	<2.57E-1	pCi/g dry	2.57E-1		3/10/10	0C09002	AGG-RRL-001
14683-23-9	Europium-152	<9.80E-1	pCi/g dry	9.80E-1		3/10/10	0C09002	AGG-RRL-001
15585-10-1	Europium-154	<5.92E-1	pCi/g dry	5.92E-1		3/10/10	0C09002	AGG-RRL-001
14391-16-3	Europium-155	<9.35E-1	pCi/g dry	9.35E-1		3/10/10	0C09002	AGG-RRL-001
HEIS No.	**B235L9**		**Lab ID:**	**1001004-98**				
10198-40-0	Cobalt-60	<2.42E-1	pCi/g dry	2.42E-1		3/10/10	0C09002	AGG-RRL-001
10045-97-3	Cesium-137	<3.07E-1	pCi/g dry	3.07E-1		3/10/10	0C09002	AGG-RRL-001
14683-23-9	Europium-152	<1.10E0	pCi/g dry	1.10E0		3/10/10	0C09002	AGG-RRL-001
15585-10-1	Europium-154	<5.62E-1	pCi/g dry	5.62E-1		3/10/10	0C09002	AGG-RRL-001
14391-16-3	Europium-155	<9.44E-1	pCi/g dry	9.44E-1		3/10/10	0C09002	AGG-RRL-001
HEIS No.	**B235N9**		**Lab ID:**	**1001004-BC**				
10198-40-0	Cobalt-60	<1.71E-1	pCi/g dry	1.71E-1		3/11/10	0C09002	AGG-RRL-001
10045-97-3	Cesium-137	<2.30E-1	pCi/g dry	2.30E-1		3/11/10	0C09002	AGG-RRL-001
14683-23-9	Europium-152	<8.82E-1	pCi/g dry	8.82E-1		3/11/10	0C09002	AGG-RRL-001
15585-10-1	Europium-154	<5.21E-1	pCi/g dry	5.21E-1		3/11/10	0C09002	AGG-RRL-001
14391-16-3	Europium-155	<8.01E-1	pCi/g dry	8.01E-1		3/11/10	0C09002	AGG-RRL-001
HEIS No.	**B235R2**		**Lab ID:**	**1001004-BV**				
10198-40-0	Cobalt-60	<1.81E-1	pCi/g dry	1.81E-1		3/11/10	0C09002	AGG-RRL-001
10045-97-3	Cesium-137	<1.99E-1	pCi/g dry	1.99E-1		3/11/10	0C09002	AGG-RRL-001
14683-23-9	Europium-152	<7.45E-1	pCi/g dry	7.45E-1		3/11/10	0C09002	AGG-RRL-001
15585-10-1	Europium-154	<3.89E-1	pCi/g dry	3.89E-1		3/11/10	0C09002	AGG-RRL-001
14391-16-3	Europium-155	<6.15E-1	pCi/g dry	6.15E-1		3/11/10	0C09002	AGG-RRL-001

GEA/Soil

CAS #	Analyte	Results	Units	MDA	UNC	Analyzed	Batch	Method
HEIS No.	**B235R9**		**Lab ID:**	**1001004-CC**				
10198-40-0	Cobalt-60	<1.74E-1	pCi/g dry	1.74E-1		3/11/10	0C09002	AGG-RRL-001
10045-97-3	Cesium-137	<2.07E-1	pCi/g dry	2.07E-1		3/11/10	0C09002	AGG-RRL-001
14683-23-9	Europium-152	<8.09E-1	pCi/g dry	8.09E-1		3/11/10	0C09002	AGG-RRL-001
15585-10-1	Europium-154	<4.79E-1	pCi/g dry	4.79E-1		3/11/10	0C09002	AGG-RRL-001
14391-16-3	Europium-155	<7.26E-1	pCi/g dry	7.26E-1		3/11/10	0C09002	AGG-RRL-001
HEIS No.	**B235T8**		**Lab ID:**	**1001004-DA**				
10198-40-0	Cobalt-60	<1.91E-1	pCi/g dry	1.91E-1		3/11/10	0C09002	AGG-RRL-001
10045-97-3	Cesium-137	<2.24E-1	pCi/g dry	2.24E-1		3/11/10	0C09002	AGG-RRL-001
14683-23-9	Europium-152	<8.42E-1	pCi/g dry	8.42E-1		3/11/10	0C09002	AGG-RRL-001
15585-10-1	Europium-154	<4.39E-1	pCi/g dry	4.39E-1		3/11/10	0C09002	AGG-RRL-001
14391-16-3	Europium-155	<7.10E-1	pCi/g dry	7.10E-1		3/11/10	0C09002	AGG-RRL-001

Total Alpha Total Beta/Acid Extract

CAS #	Analyte	Results	Units	MDA	UNC	Analyzed	Batch	Method
HEIS No.	**B235H1**		**Lab ID:**	**1001004-04**				
12587-47-2	Gross Beta	<4.81E1	pCi/g dry	4.81E1		3/17/10	0C17002	AGG-RRL-002
12587-46-1	Gross Alpha	<1.60E1	pCi/g dry	1.60E1		3/17/10	0C17002	AGG-RRL-002
HEIS No.	**B235J0**		**Lab ID:**	**1001004-22**				
12587-47-2	Gross Beta	<4.72E1	pCi/g dry	4.72E1		3/17/10	0C17002	AGG-RRL-002
12587-46-1	Gross Alpha	<1.57E1	pCi/g dry	1.57E1		3/17/10	0C17002	AGG-RRL-002
HEIS No.	**B235J6**		**Lab ID:**	**1001004-34**				
12587-47-2	Gross Beta	<4.74E1	pCi/g dry	4.74E1		3/17/10	0C17002	AGG-RRL-002
12587-46-1	Gross Alpha	<1.58E1	pCi/g dry	1.58E1		3/17/10	0C17002	AGG-RRL-002
HEIS No.	**B235K1**		**Lab ID:**	**1001004-42**				
12587-47-2	Gross Beta	<4.92E1	pCi/g dry	4.92E1		3/17/10	0C17002	AGG-RRL-002
12587-46-1	Gross Alpha	<1.64E1	pCi/g dry	1.64E1		3/17/10	0C17002	AGG-RRL-002
HEIS No.	**B235K5**		**Lab ID:**	**1001004-46**				
12587-47-2	Gross Beta	<4.81E1	pCi/g dry	4.81E1		3/17/10	0C17002	AGG-RRL-002
12587-46-1	Gross Alpha	<1.60E1	pCi/g dry	1.60E1		3/17/10	0C17002	AGG-RRL-002
HEIS No.	**B235L9**		**Lab ID:**	**1001004-98**				
12587-47-2	Gross Beta	<4.77E1	pCi/g dry	4.77E1		3/17/10	0C17002	AGG-RRL-002
12587-46-1	Gross Alpha	<1.59E1	pCi/g dry	1.59E1		3/17/10	0C17002	AGG-RRL-002
HEIS No.	**B235N9**		**Lab ID:**	**1001004-BC**				
12587-47-2	Gross Beta	<4.67E1	pCi/g dry	4.67E1		3/17/10	0C17002	AGG-RRL-002
12587-46-1	Gross Alpha	<1.56E1	pCi/g dry	1.56E1		3/17/10	0C17002	AGG-RRL-002
HEIS No.	**B235R2**		**Lab ID:**	**1001004-BV**				
12587-47-2	Gross Beta	<4.63E1	pCi/g dry	4.63E1		3/17/10	0C17002	AGG-RRL-002
12587-46-1	Gross Alpha	<1.54E1	pCi/g dry	1.54E1		3/17/10	0C17002	AGG-RRL-002
HEIS No.	**B235R9**		**Lab ID:**	**1001004-CC**				
12587-47-2	Gross Beta	<4.74E1	pCi/g dry	4.74E1		3/17/10	0C17002	AGG-RRL-002
12587-46-1	Gross Alpha	<1.58E1	pCi/g dry	1.58E1		3/17/10	0C17002	AGG-RRL-002
HEIS No.	**B235T8**		**Lab ID:**	**1001004-DA**				
12587-47-2	Gross Beta	<4.82E1	pCi/g dry	4.82E1		3/17/10	0C17002	AGG-RRL-002
12587-46-1	Gross Alpha	<1.61E1	pCi/g dry	1.61E1		3/17/10	0C17002	AGG-RRL-002

Total Alpha Total Beta/Water Extract

CAS #	Analyte	Results	Units	MDA	UNC	Analyzed	Batch	Method
HEIS No.	**B235H1**		**Lab ID:**	**1001004-04**				
12587-47-2	Gross Beta	<1.42E1	pCi/g dry	1.42E1		3/17/10	0C17001	AGG-RRL-002
12587-46-1	Gross Alpha	<4.23E0	pCi/g dry	4.23E0		3/17/10	0C17001	AGG-RRL-002
HEIS No.	**B235J0**		**Lab ID:**	**1001004-22**				
12587-47-2	Gross Beta	<1.44E1	pCi/g dry	1.44E1		3/17/10	0C17001	AGG-RRL-002
12587-46-1	Gross Alpha	<4.29E0	pCi/g dry	4.29E0		3/17/10	0C17001	AGG-RRL-002
HEIS No.	**B235J6**		**Lab ID:**	**1001004-34**				
12587-47-2	Gross Beta	<1.42E1	pCi/g dry	1.42E1		3/17/10	0C17001	AGG-RRL-002
12587-46-1	Gross Alpha	<4.25E0	pCi/g dry	4.25E0		3/17/10	0C17001	AGG-RRL-002
HEIS No.	**B235K1**		**Lab ID:**	**1001004-42**				
12587-47-2	Gross Beta	<1.43E1	pCi/g dry	1.43E1		3/17/10	0C17001	AGG-RRL-002
12587-46-1	Gross Alpha	<4.26E0	pCi/g dry	4.26E0		3/17/10	0C17001	AGG-RRL-002
HEIS No.	**B235K5**		**Lab ID:**	**1001004-46**				
12587-47-2	Gross Beta	<1.43E1	pCi/g dry	1.43E1		3/17/10	0C17001	AGG-RRL-002
12587-46-1	Gross Alpha	<4.26E0	pCi/g dry	4.26E0		3/17/10	0C17001	AGG-RRL-002
HEIS No.	**B235L9**		**Lab ID:**	**1001004-98**				
12587-47-2	Gross Beta	<1.43E1	pCi/g dry	1.43E1		3/17/10	0C17001	AGG-RRL-002
12587-46-1	Gross Alpha	<4.26E0	pCi/g dry	4.26E0		3/17/10	0C17001	AGG-RRL-002
HEIS No.	**B235N9**		**Lab ID:**	**1001004-BC**				
12587-47-2	Gross Beta	<1.42E1	pCi/g dry	1.42E1		3/17/10	0C17001	AGG-RRL-002
12587-46-1	Gross Alpha	<4.25E0	pCi/g dry	4.25E0		3/17/10	0C17001	AGG-RRL-002
HEIS No.	**B235R2**		**Lab ID:**	**1001004-BV**				
12587-47-2	Gross Beta	<1.42E1	pCi/g dry	1.42E1		3/17/10	0C17001	AGG-RRL-002
12587-46-1	Gross Alpha	<4.25E0	pCi/g dry	4.25E0		3/17/10	0C17001	AGG-RRL-002
HEIS No.	**B235R9**		**Lab ID:**	**1001004-CC**				
12587-47-2	Gross Beta	<1.42E1	pCi/g dry	1.42E1		3/17/10	0C17001	AGG-RRL-002
12587-46-1	Gross Alpha	<4.25E0	pCi/g dry	4.25E0		3/17/10	0C17001	AGG-RRL-002
HEIS No.	**B235T8**		**Lab ID:**	**1001004-DA**				
12587-47-2	Gross Beta	<1.42E1	pCi/g dry	1.42E1		3/17/10	0C17001	AGG-RRL-002
12587-46-1	Gross Alpha	<4.25E0	pCi/g dry	4.25E0		3/17/10	0C17001	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 0C10003 - 1:1 Water Extract (pH_EC_Alk)										
Blank (0C10003-BLK1)				Prepared & Analyzed: 03/10/10						
Specific Conductance (EC)	<1.00E-2	1.00E-2	mS/cm							
LCS (0C10003-BS1)				Prepared & Analyzed: 03/10/10						
Specific Conductance (EC)	1.03E-1	N/A	mS/cm	1.00E-1		103	80-120			
Duplicate (0C10003-DUP1)		**Source: 1001004-42**		Prepared & Analyzed: 03/10/10						
Specific Conductance (EC)	4.51E0	1.00E-2	mS/cm		4.36E0			3.50	35	
Batch 0C10004 - 1:1 Water Extract (pH_EC_Alk)										
LCS (0C10004-BS1)				Prepared: 03/10/10		Analyzed: 03/19/10				
pH	7.09E0	N/A	pH Units	7.00E0		101	80-120			
Duplicate (0C10004-DUP1)		**Source: 1001004-42**		Prepared & Analyzed: 03/10/10						
pH	6.93E0	N/A	pH Units		6.98E0			0.719	35	
Batch 0D01005 - 1:1 Water Extract (pH_EC_Alk)										
Blank (0D01005-BLK1)				Prepared: 04/01/10		Analyzed: 04/08/10				
Alkalinity as CaCO3	<2.35E1	2.35E1	ug/g wet							
Duplicate (0D01005-DUP1)		**Source: 1001004-42**		Prepared: 04/01/10		Analyzed: 04/08/10				
Alkalinity as CaCO3	<2.41E1	2.41E1	ug/g dry		ND				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 0C11004 - 1:1 Water Extract (IC)										
Blank (0C11004-BLK1)				Prepared & Analyzed: 03/11/10						
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 (0C11004-BS1)				Prepared & Analyzed: 03/11/10						
Fluoride	2.05E0	2.00E-1	ug/g wet	2.00E0		103	80-120			
Chloride	5.01E0	5.00E-1	"	5.00E0		100	80-120			
Nitrite	1.03E1	1.00E0	"	1.00E1		103	80-120			
Bromide	9.98E0	1.00E0	"	1.00E1		99.8	80-120			
Nitrate	1.03E1	1.00E0	"	1.00E1		103	80-120			
Sulfate	1.53E1	1.50E0	"	1.50E1		102	80-120			
Phosphate	1.50E1	1.50E0	"	1.50E1		100	80-120			
Duplicate (0C11004-DUP1)		**Source: 1001004-42**		Prepared & Analyzed: 03/11/10						
Fluoride	<2.05E1	2.05E1	ug/g dry		ND				35	
Chloride	<5.13E1	5.13E1	"		ND				35	
Nitrite	<1.03E2	1.03E2	"		ND				35	
Bromide	<1.03E2	1.03E2	"		ND				35	
Nitrate	2.65E3	1.03E2	"		2.57E3			3.24	35	D
Sulfate	<1.54E2	1.54E2	"		ND				35	
Phosphate	<1.54E2	1.54E2	"		ND				35	
Post Spike (0C11004-PS1)		**Source: 1001004-BC**		Prepared & Analyzed: 03/11/10						
Fluoride	1.16E0	N/A	ug/mL	7.69E-1	4.21E-1	96.3	75-125			D
Chloride	2.87E0	N/A	"	1.92E0	9.09E-1	102	75-125			D
Nitrite	3.81E0	N/A	"	3.85E0	ND	99.1	75-125			D
Bromide	3.82E0	N/A	"	3.85E0	ND	99.2	75-125			D
Nitrate	2.62E1	N/A	"	3.85E0	2.22E1	103	75-125			D
Sulfate	3.29E1	N/A	"	5.77E0	2.79E1	86.4	75-125			D
Phosphate	5.85E0	N/A	"	5.77E0	4.66E-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 0D08003 - NO PREP										
Blank (0D08003-BLK1)				Prepared: 04/08/10		Analyzed: 04/09/10				
Cyanide	<1.00E-1	1.00E-1	ug/g wet							
LCS (0D08003-BS1)				Prepared: 04/08/10		Analyzed: 04/09/10				
Cyanide	1.00E0	5.00E-1	ug/g wet	1.01E0		99.5	80-120			
Duplicate (0D08003-DUP1)		**Source: 1001004-DA**		Prepared: 04/08/10		Analyzed: 04/09/10				
Cyanide	<1.06E-1	1.06E-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 0D09005 - Hexavalent Chromium Digest										
Blank (0D09005-BLK1)				Prepared: 03/19/10		Analyzed: 03/25/10				
Chromium, Hexavalent	<2.50E0	2.50E0	ug/g wet							
LCS (0D09005-BS1)				Prepared: 03/19/10		Analyzed: 03/25/10				
Chromium, Hexavalent	2.14E1	2.50E0	ug/g wet	2.50E1		85.6	70-130			
Duplicate (0D09005-DUP1)		**Source: 1001004-04**		Prepared: 03/19/10		Analyzed: 03/25/10				
Chromium, Hexavalent	<5.29E-1	5.29E-1	ug/g dry		ND				20	
Matrix Spike (0D09005-MS1)		**Source: 1001004-22**		Prepared: 03/19/10		Analyzed: 03/25/10				
Chromium, Hexavalent	2.43E-1	5.14E-1	ug/g dry	5.00E-1	6.00E-3	47.4	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 0C11001 - 1:1 Water Extract (ICP/ICPMS)										
Blank (0C11001-BLK1)				Prepared: 03/10/10	Analyzed: 03/11/10					
Aluminum	<9.37E-2	9.37E-2	ug/g wet							
Arsenic	<3.12E-1	3.12E-1	"							
Calcium	<4.52E-1	4.52E-1	"							
Cadmium	<1.04E-1	1.04E-1	"							
Chromium	<2.84E-2	2.84E-2	"							
Copper	<8.78E-2	8.78E-2	"							
Iron	<1.05E-1	1.05E-1	"							
Potassium	<1.29E0	1.29E0	"							
Magnesium	<4.89E-2	4.89E-2	"							
Manganese	<6.25E-2	6.25E-2	"							
Nickel	<9.67E-2	9.67E-2	"							
Lead	<1.61E-1	1.61E-1	"							
Selenium	<1.20E0	1.20E0	"							
Thallium	<9.88E-1	9.88E-1	"							
Sodium	<7.97E-1	7.97E-1	"							
Silver	<5.68E-2	5.68E-2	"							
LCS (0C11001-BS1)				Prepared: 03/10/10	Analyzed: 03/11/10					
Aluminum	4.74E0	9.37E-2	ug/g wet	5.00E0		94.9	80-120			
Arsenic	4.82E0	3.12E-1	"	5.00E0		96.4	80-120			
Calcium	4.62E0	4.52E-1	"	5.00E0		92.5	80-120			
Cadmium	4.94E0	1.04E-1	"	5.00E0		98.8	80-120			
Chromium	4.98E0	2.84E-2	"	5.00E0		99.7	80-120			
Copper	4.83E0	8.78E-2	"	5.00E0		96.7	80-120			
Iron	4.76E0	1.05E-1	"	5.00E0		95.2	80-120			
Potassium	4.63E1	1.29E0	"	5.00E1		92.7	80-120			
Magnesium	4.81E0	4.89E-2	"	5.00E0		96.3	80-120			
Manganese	4.88E0	6.25E-2	"	5.00E0		97.7	80-120			
Nickel	4.81E0	9.67E-2	"	5.00E0		96.2	80-120			
Lead	4.92E0	1.61E-1	"	5.00E0		98.4	80-120			
Selenium	5.01E0	1.20E0	"	5.00E0		100	80-120			
Thallium	4.84E0	9.88E-1	"	5.00E0		96.7	80-120			
Sodium	4.88E0	7.97E-1	"	5.00E0		97.6	80-120			
Silver	4.88E0	5.68E-2	"	5.00E0		97.6	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 0C11001 - 1:1 Water Extract (ICP/ICPMS)										
Duplicate (0C11001-DUP1)		**Source: 1001004-42**		Prepared: 03/10/10	Analyzed: 03/11/10					
Aluminum	<9.61E-2	9.61E-2	ug/g dry		ND				35	
Arsenic	<3.19E-1	3.19E-1	"		ND				35	
Calcium	7.43E2	4.64E-1	"		6.93E2			6.96	35	
Cadmium	<1.06E-1	1.06E-1	"		ND				35	
Chromium	<2.91E-2	2.91E-2	"		ND				35	
Copper	<9.01E-2	9.01E-2	"		ND				35	
Iron	<1.08E-1	1.08E-1	"		ND				35	
Potassium	2.43E1	1.32E0	"		2.34E1			3.97	35	
Magnesium	7.24E1	5.01E-2	"		6.82E1			5.98	35	
Manganese	2.87E-1	6.40E-2	"		2.72E-1			5.47	35	
Nickel	<9.92E-2	9.92E-2	"		ND				35	
Lead	<1.65E-1	1.65E-1	"		ND				35	
Selenium	<1.23E0	1.23E0	"		ND				35	
Thallium	<1.01E0	1.01E0	"		ND				35	
Sodium	1.96E1	8.17E-1	"		1.88E1			3.99	35	
Silver	<5.82E-2	5.82E-2	"		ND				35	
Post Spike (0C11001-PS1)		**Source: 1001004-42**		Prepared & Analyzed: 03/11/10						
Aluminum	4.84E2	N/A	ug/L	5.00E2	ND	102	75-125			
Arsenic	4.94E2	N/A	"	5.00E2	ND	103	75-125			
Calcium	2.34E5	N/A	"	5.00E2	2.31E5	562	75-125			
Cadmium	2.49E2	N/A	"	2.50E2	ND	100	75-125			
Chromium	1.26E2	N/A	"	1.25E2	1.57E0	99.3	75-125			
Copper	5.09E2	N/A	"	5.00E2	1.47E0	102	75-125			
Iron	4.88E2	N/A	"	5.00E2	ND	97.8	75-125			
Potassium	9.19E3	N/A	"	1.25E3	7.78E3	113	75-125			
Magnesium	2.37E4	N/A	"	5.00E2	2.27E4	207	75-125			
Manganese	3.44E2	N/A	"	2.50E2	9.04E1	101	75-125			
Nickel	4.82E2	N/A	"	5.00E2	1.00E1	94.4	75-125			
Lead	4.44E2	N/A	"	5.00E2	ND	101	75-125			
Selenium	4.90E2	N/A	"	5.00E2	ND	104	75-125			
Thallium	2.04E2	N/A	"	5.00E2	ND	100	75-125			
Sodium	6.88E3	N/A	"	5.00E2	6.27E3	123	75-125			
Silver	5.11E2	N/A	"	5.00E2	ND	103	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 0C11002 - ASTM D 5198 (ICP/ICPMS)										
Blank (0C11002-BLK1)				Prepared: 03/08/10		Analyzed: 03/11/10				
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	"							
LCS (0C11002-BS1)				Prepared: 03/08/10		Analyzed: 03/11/10				
Aluminum	5.31E0	6.76E-1	ug/g wet	5.87E0		90.4	80-120			
Calcium	5.68E0	7.02E-1	"	5.87E0		96.8	80-120			
Cadmium	5.49E0	3.68E-2	"	5.87E0		93.6	80-120			
Chromium	5.87E0	5.90E-2	"	5.87E0		100	80-120			
Copper	5.65E0	1.93E-1	"	5.87E0		96.2	80-120			
Iron	5.69E0	1.82E-1	"	5.87E0		97.0	80-120			
Potassium	5.58E1	2.59E0	"	5.87E1		95.1	80-120			
Magnesium	5.40E0	1.92E-1	"	5.87E0		91.9	80-120			
Manganese	5.72E0	6.04E-2	"	5.87E0		97.4	80-120			
Nickel	5.61E0	1.40E-1	"	5.87E0		95.6	80-120			
Lead	5.69E0	3.02E-1	"	5.87E0		97.0	80-120			
Selenium	5.34E0	1.72E0	"	5.87E0		91.0	80-120			
Thallium	5.67E0	9.70E-1	"	5.87E0		96.6	80-120			
Sodium	5.89E0	1.90E0	"	5.87E0		100	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 0C11002 - ASTM D 5198 (ICP/ICPMS)										
Duplicate (0C11002-DUP1)	**Source: 1001004-42**			Prepared: 03/08/10	Analyzed: 03/11/10					
Aluminum	4.48E3	2.44E1	ug/g dry		3.87E3			14.7	35	
Calcium	4.45E3	2.54E1	"		4.59E3			2.95	35	
Cadmium	<1.33E0	1.33E0	"		ND				35	
Chromium	8.68E0	2.13E0	"		8.70E0			0.217	35	
Copper	<6.99E0	6.99E0	"		ND				35	
Iron	8.96E3	6.57E0	"		9.15E3			2.14	35	
Potassium	9.12E2	9.35E1	"		9.35E2			2.49	35	
Magnesium	3.33E3	6.96E0	"		3.37E3			1.18	35	
Manganese	1.72E2	2.18E0	"		1.77E2			2.88	35	
Nickel	9.10E0	5.07E0	"		9.21E0			1.22	35	
Lead	<1.09E1	1.09E1	"		ND				35	
Selenium	<6.20E1	6.20E1	"		ND				35	
Thallium	<3.51E1	3.51E1	"		ND				35	
Sodium	9.88E1	6.89E1	"		9.80E1			0.876	35	
Post Spike (0C11002-PS1)	**Source: 1001004-42**			Prepared & Analyzed: 03/11/10						
Aluminum	2.16E4	N/A	ug/L	5.00E2	2.11E4	107	75-125			
Calcium	2.55E4	N/A	"	5.00E2	2.50E4	101	75-125			
Cadmium	2.44E2	N/A	"	2.50E2	ND	97.8	75-125			
Chromium	1.72E2	N/A	"	1.25E2	4.74E1	100	75-125			
Copper	5.21E2	N/A	"	5.00E2	3.03E1	98.2	75-125			
Iron	5.00E4	N/A	"	5.00E2	4.99E4	24.8	75-125			
Potassium	6.31E3	N/A	"	1.25E3	5.09E3	97.1	75-125			
Magnesium	1.88E4	N/A	"	5.00E2	1.84E4	90.7	75-125			
Manganese	1.22E3	N/A	"	2.50E2	9.67E2	101	75-125			
Nickel	5.27E2	N/A	"	5.00E2	5.02E1	95.4	75-125			
Lead	4.93E2	N/A	"	5.00E2	ND	100	75-125			
Selenium	4.38E2	N/A	"	5.00E2	ND	90.1	75-125			
Thallium	4.01E2	N/A	"	5.00E2	ND	97.5	75-125			
Sodium	1.05E3	N/A	"	5.00E2	5.34E2	102	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 0C17004 - ASTM D 5198 (ICP/ICPMS)										
Blank (0C17004-BLK1)				Prepared: 03/12/10		Analyzed: 04/04/10				
Technetium-99	<1.47E-3	1.47E-3	ug/g wet							
Uranium 238	<1.00E-2	1.00E-2	"							
Duplicate (0C17004-DUP1)	**Source: 1001004-42**			Prepared: 03/12/10		Analyzed: 04/04/10				
Technetium-99	<2.66E-2	2.66E-2	ug/g dry		ND				35	
Uranium 238	1.57E1	3.62E-2	"		1.55E1			1.68	35	
Post Spike (0C17004-PS1)	**Source: 1001004-42**			Prepared: 03/12/10		Analyzed: 04/04/10				
Technetium-99	5.84E-1	N/A	ug/L	5.00E-1	ND	117	75-125			
Uranium 238	4.25E1	N/A	"	5.00E-1	4.21E1	84.7	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 0C17003 - 1:1 Water Extract (ICP/ICPMS)										
Blank (0C17003-BLK1)				Prepared: 03/12/10		Analyzed: 03/22/10				
Technetium-99	<3.90E-5	3.90E-5	ug/g wet							
Uranium 238	<8.00E-5	8.00E-5	"							
Duplicate (0C17003-DUP1)		**Source: 1001004-42**		Prepared: 03/12/10		Analyzed: 03/22/10				
Technetium-99	<4.00E-5	4.00E-5	ug/g dry		ND				35	
Uranium 238	1.77E0	1.64E-3	"		1.54E0			13.8	35	
Post Spike (0C17003-PS1)		**Source: 1001004-42**		Prepared: 03/12/10		Analyzed: 03/22/10				
Technetium-99	5.20E-1	N/A	ug/L	5.00E-1	ND	110	75-125			
Uranium 238	1.63E1	N/A	"	2.50E-2	1.54E1	NR	75-125			
Batch 0C31001 - 1:1 Water Extract (ICP/ICPMS)										
Duplicate (0C31001-DUP1)		**Source: 1001004-42**		Prepared & Analyzed: 05/03/10						
Iodine-129	1.01E-4	5.13E-5	ug/g dry		8.39E-5			18.8	35	
Post Spike (0C31001-PS1)		**Source: 1001004-42**		Prepared & Analyzed: 05/03/10						
Iodine-129	1.06E-1	N/A	ug/L	1.00E-1	1.68E-2	89	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 0C10007 - 1:1 Water Extract (ICP/ICPMS)										
Blank (0C10007-BLK1)				Prepared & Analyzed: 03/10/10						
Antimony	<6.58E-4	6.58E-4	ug/g wet							
Mercury	<6.54E-4	6.54E-4	"							
Duplicate (0C10007-DUP1)		**Source: 1001004-42**		Prepared & Analyzed: 03/10/10						
Antimony	<6.75E-4	6.75E-4	ug/g dry		ND				35	
Mercury	1.47E-3	6.71E-4	"		ND				35	
Post Spike (0C10007-PS1)		**Source: 1001004-42**		Prepared & Analyzed: 03/10/10						
Antimony	5.16E0	N/A	ug/L	5.00E0	2.42E-2	103	75-125			
Mercury	5.39E0	N/A	"	5.00E0	ND	108	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 0C10008 - ASTM D 5198 (ICP/ICPMS)										
Blank (0C10008-BLK1)				Prepared & Analyzed: 03/11/10						
Arsenic	<8.20E-2	8.20E-2	ug/g wet							
Antimony	<5.26E-2	5.26E-2	"							
Mercury	<4.58E-2	4.58E-2	"							
LCS (0C10008-BS1)				Prepared & Analyzed: 03/11/10						
Arsenic	5.49E0	4.10E-1	ug/g wet	5.87E0		93.5	80-120			
Duplicate (0C10008-DUP1)		**Source: 1001004-42**		Prepared & Analyzed: 03/11/10						
Arsenic	2.68E0	2.96E-1	ug/g dry		2.78E0			3.91	35	
Antimony	<1.90E-1	1.90E-1	"		ND				35	
Mercury	<1.66E-1	1.66E-1	"		ND				35	
Post Spike (0C10008-PS1)		**Source: 1001004-42**		Prepared & Analyzed: 03/11/10						
Arsenic	1.15E1	N/A	ug/L	5.00E0	7.58E0	78.2	75-125			
Antimony	5.35E0	N/A	"	5.00E0	1.38E-1	104	75-125			
Mercury	4.55E0	N/A	"	5.00E0	2.97E-2	90.4	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 0C17002 - ASTM D 5198 (RadChem)										
Blank (0C17002-BLK1)				Prepared & Analyzed: 03/17/10						
Gross Beta	<1.34E1	1.34E1	pCi/g wet							
Gross Alpha	<4.47E0	4.47E0	"							
Duplicate (0C17002-DUP1)		**Source: 1001004-42**		Prepared & Analyzed: 03/17/10						
Gross Beta	<4.84E1	4.84E1	pCi/g dry		ND				35	
Gross Alpha	<1.61E1	1.61E1	"		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 0C17001 - 1:1 Water Extract (RadChem)										
Blank (0C17001-BLK1)				Prepared: 03/16/10	Analyzed: 03/17/10					
Gross Beta	<1.43E1	1.43E1	pCi/g wet							
Gross Alpha	<4.26E0	4.26E0	"							
Duplicate (0C17001-DUP1)	**Source: 1001004-42**			Prepared: 03/16/10	Analyzed: 03/17/10					
Gross Beta	<1.46E1	1.46E1	pCi/g dry		ND				35	
Gross Alpha	<4.36E0	4.36E0	"		ND				35	

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7515 / 299-E28-30	Depth 79.5-93.5'	Date 2/17/10	Sheet 1 of 16
		Location	Project BP-5 M 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
79.5	G	B235H0	SM		S- med. to V. coarse sand, trace G- max= 3mm, loose. mod sorted 30% matic. 2.5Y 5/2 (grayish brown). weak rxn to HCl.	Grab samples in 1L poly bottles - poured into weigh boats for photographs and description
89.6	G	B235H1	M		S- v fine to medium sand, trace G. max= 3mm. loose - some weak consol. due to moisture. poorly sorted. 2.5Y 5/3 (lt. olive brown). Strong rxn to HCl.	
84.8	G	B235H2	SM		S- sand. fine to v. coarse sand - 95% (fine - 60%, med - 20%, coarse + v. coarse - 20%), 5% G. max= 5mm. loose, poorly sorted. 2.5Y 6/2 (lt. brownish gray).	
	G	B235H3	SM		Same as above. more moisture (slightly) 2.5Y 6/3 (lt. yellowish brown). weak rxn to HCl.	
87.3						
	G	B235H4	SM		Sand - fine to v. coarse sand. (fine ~ 10%, med 20%, coarse 50%, v. coarse 20%), trace G max= 3mm. loose. poorly sorted. 20% matic. 2.5Y 6/2 (lt. brownish gray). weak to mod. rxn to HCl.	Abbreviations: med = medium S = sand G = gravel Z = fines (clay/silt) mod = moderately V = very lt = light
89.7						
91					Sand - fine to coarse sand. (fine - 20%, med - 40%, coarse - 40%). trace G. max = 9mm. loose. 20% matic, poorly sorted. 2.5Y 6/3 (lt. yellowish brown). Strong rxn to HCl.	
	G	B235H5	SM			
93.5						

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

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7515 / 299-E28-30	Depth 92.2-105.3'	Date 2/17/10	Sheet 2 of 11
		Location	Project BP-5 M 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
92.2									
	G	B235H6	SM					(g) S- Slightly gravelly sand. 5% G, 95% fine to coarse sand. max = 11mm. poorly sorted. loose. 2.5Y 6/3 (lt. yellowish brown). 20% mafic. Strong rxn to HCl.	
94.7									
96.2								S- v. fine to med. sand, trace Z. max = coarse sand. well-sorted. loose - some weak consol. due to moisture. 2.5Y 6/3 (lt. yellowish brown) mod. rxn to HCl.	
	G	B235H7	M						
97.7									
98.3								S- fine to coarse sand, trace G. max = 4mm. mod-sorted. loose. 10% mafic - 2.5Y 6/2 (lt. brownish gray). mod. rxn to HCl.	
	G	B235H8	SM						
100.8									
	G	B235H9	SM					S- fine to med. sand, trace G. max = 4mm, well sorted, loose. 10% mafic. 2.5Y 6/3 (lt. yellowish brown). Strong rxn to HCl	H9 - depth given as 99.9 - 102.4 (over lap)
102.4									
102.8								S- fine to v. coarse sand, trace G + Z. max = 3mm. loose (c) Some weak consol. due to moisture + Z. 2.5Y 5/4 (lt. olive brown). 20% mafic. weak rxn to HCl.	
	G	B235J0	M						
105.3									

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

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7515 / 299-E28-30	Depth 105.5-120'	Date 2/17/10	Sheet 3 of 16
		Location	Project BP-5 Well		

Logged by Michelle Varma (Print) Michelle Varma (Sign) (Print) (Sign) — Drilling Contractor

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
105.5								S- fine to coarse sand, trace G. max = 3mm. loose, some weak consol. 2.5Y 6/3 (lt. yellowish brown). 20% mafic. mod-sorted. Weak to mod rxn to HCl.	
	G	B235J1	SM						
108									
108.5								S- fine to V. coarse sand. trace G. max = 4mm. loose, poorly sorted. 2.5Y 5/2 (grayish brown). 20% mafic.	
	G	B235J2	SM						
111									
111.3								Same as above. 5% G. trace Z. some mod. consol. max = 3mm. strong rxn to HCl.	
	G	B235J3	SM						
113.8									
114.6	G	B235J4	SM					S- fine to med. sand, trace G + Z. max = 3mm. mod-sorted. loose, some mod. consol. (contains Z). 10% mafic. 2.5Y 6/3 (lt. yellowish brown). mod. rxn to HCl.	
116.6	G	B235J5	SM					(g)S- Slightly gravelly sand. 5% G, 95% fine to V. coarse sand. loose. poorly sorted. 20% mafic. 2.5Y 6/2 (lt. brownish gray).	
120	G	B235J6	M					S- V. fine to med. sand, trace G. max = 4mm. loose. mod-sorted. 10% mafic. 2.5Y 5/3 (lt. olive brown). Weak to mod. rxn to HCl.	

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

Pacific Northwest National Laboratory

GEOLOGIC LOG

Boring/Well No C-7515/299-E28-30 Depth 122.2-136' Date 2/17/10 Sheet 4 of 16

Location _____ Project BP-5M well

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

Reviewed by _____ 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
122.2	G	B235J7	M					S. sand. med to coarse sand, trace Gr. max=3mm. loose. mod-sorted. 10% mafic. 2.5Y 5/2 (grayish brown). weak rxn to HCl.	
124.6	G	B235J8	SM					(g)S- Slightly gravelly sand. 5% G. med to V. coarse sand. 95%. max = 9mm. loose, poorly sorted. 2.5Y 5/2 (grayish brown). 10% mafic. mod rxn to HCl.	
125.1									
	G	B235J9	SM					S- med. to coarse sand. max = V. coarse sand. well-sorted. loose. 2.5Y 5/2 (grayish brown). 20% mafic. mod. rxn to HCl.	
127.6									
130	G	B235K0	SM					(g)S- Slightly gravelly sand. 5% G, 95% med. to V. coarse sand. Mod-Sorted. loose. 30% mafic. 2.5Y 5/2 (grayish brown). weak to no rxn to HCl.	
132	G	B235K1	M					S- fine to med. sand. max = med. sand. well-sorted. loose - consol. due to moisture. 2.5Y 5/3 (light olive brown). weak rxn to HCl.	
136	G	B235K2	SM					same as above - less moisture. visible mica. mod. rxn to HCl.	

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

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7515 / 299-E28-30	Depth 131.5-150.5'	Date 2/17/10	Sheet 5 of 16
		Location	Project BP-5 M well		

Logged by Michelle Valenta (Print) Michelle Valio (Sign) | (Print) (Sign) Drilling Contractor

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
131.5	G	B235K3	SM			S		Same as above. 2.5Y 6/3 (lt. yellowish brown).	
140	G	B235K4	SM			S		S- fine to v. coarse sand. max= v. coarse sand. loose w/some strong consol. - contains Z- mod-sorted. 2.5Y 6/2 (lt. brownish gray). Strong rxn to HCl.	
142	G	B235K5	SM			S		S- fine to coarse sand. max= v. coarse sand. loose w/some (<10%) mod consol. mod-sorted. 2.5Y 5/2 (grayish brown). mod. rxn to HCl.	
145.4	G	B235K6	SM			S	G	S- fine to coarse sand. trace G. max= 3mm. loose w/some (N5%) mod consol. poorly sorted. 2.5Y 6/3 (lt. yellowish brown). mod rxn to HCl.	
148	G	B235K7	SM			S	G	same as above.	
150.5	G	B235K8	SM			S	G	v. fine to med. sand (80%) coarse to v. coarse sand (20%). trace G. max= 5mm. 2.5Y 6/2 (lt. brownish gray). visible mica. mod. rxn to HCl.	

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

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7515/299-E28-30	Depth 151.9-164.2'	Date 2/17/10	Sheet 6 of 16
		Location	Project BP-5M well		

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

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
151.9	G	B235K9	SM					S- fine to V. coarse sand, trace G. max = 4mm. loose, poorly sorted. 20% mafic. 2.5Y 5/2 (grayish brown). mod. rxn to HCl.	
154.2	G	B235L0	SM					S-sand. fine to V. coarse sand, trace G. max = 8mm. loose, poorly sorted. 10% mafic. 2.5Y 6/3 (lt. yellowish brown). mod. rxn to HCl.	
154.4									
	G	B235L1	SM					same as above, less coarse sand 2.5Y 6/2 (lt. brownish gray). mod. rxn to HCl.	
156.9									
158.9	G	B235L2	SM					S fine to med-sand, (10% coarse), trace G. max = 3mm. loose w/ some mod. consol., mod-sorted. 10% mafic. 2.5Y 6/3 (lt. yellowish brown). mod. rxn to HCl.	
162	G	B235L3	SM					S fine to med. sand, trace G. max = 3mm. loose, w/ some mod. consol. (5%). mod-sorted. 10% mafic. 2.5Y 6/3 (lt. yellowish brown). weak to mod. rxn to HCl.	
164.2	G	B235L4	SM					same as above.	

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

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C-7515 / 299-E28-30	Depth 165.8-179.15'	Date 2/18/10	Sheet 1 of 16
		Location	Project BP-5 M well		

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

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
165.8	G	B235L5	SM					S- fine to med. sand. max = V. coarse sand. loose, w/some mod.-consol. mod-sorted. 10% mafic. 2.5Y 6/2 (lt. brownish gray). Weak rxn to HCl.	
169.5	G	B235L6	SM					(g)S- Slightly gravelly sand. 5% G, 95% fine to V. coarse sand (80% fine to med-sand, 20% coarse to V. coarse). max = 5mm. 20% mafic. loose, some weak consol. (~5%). poorly sorted. 2.5Y 5/2 (grayish brown). Weak to no rxn to HCl.	
171.9	G	B235L7	M					S- fine to med. sand. max = medium sand. well-sorted. 5-10% mafic. loose. 2.5Y 6/3 (lt. yellowish brown). mod. rxn to HCl.	
173	G	B235L8	M					same as above.	
177	G	B235L9	M					same as above	
179.15	G	B235M0	SM					(g)S- Slightly gravelly sand 5% G, 95% V. fine to fine sand (90%) + med to coarse sand (10%). loose. poorly sorted. 2.5Y 6/3 (lt. yellowish brown). mod. rxn to HCl.	

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

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7515 / 299-E28-30	Depth 181.65-195'	Date 2/18/10	Sheet 8 of 16
		Location	Project BP-5M well		

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

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
181.65	G	B235M1	SM		gS- gravelly sand. 15% G, 85% fine to V. coarse sand, trace Z. poorly sorted loose w/ small weak consol. of Z + fine sand. 30% mafic. G-angular. 2.5Y 5/3 (lt. olive brown). Strong rxn to HCl. max = 11mm.	
184	G	B235M2	SM		(g) S- Slightly gravelly sand. 10% G, 90% fine to V. coarse sand. max = 10mm. loose. poorly sorted. 30% mafic. higher % of fine versus coarse + V. coarse sand. 2.5Y 6/2 (lt. brownish gray). Weak rxn to HCl.	
186.5	G	B235M3	SM		S- V. fine (80%) to coarse (20%) sand, trace G + Z. max = 3mm. loose w/ small amt (<5%) of mod. consol. poorly sorted. 2.5Y 6/2 (lt. brownish gray). Strong rxn to HCl.	
189.2	G	B235M4	SM		(g) S- Slightly gravelly sand. 10% G, 90% fine to V. coarse sand. max = 10mm. loose. poorly sorted. 20% mafic. 2.5Y 6/2 (lt. brownish gray). mod. to strong rxn to HCl.	
190						
	G	B235M5	SM		same as above	
192.5						
195	G	B235M6	SM		gS- gravelly sand. 20% G, 80% med. to V. coarse sand. loose. poorly sorted. max = 13mm. G-sub ang to sub round. S- 20% mafic. 2.5Y 6/2 (lt. brownish gray). weak rxn to HCl.	

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

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7515/299-E28-30	Depth 197-210'	Date 2/18/10	Sheet 9 of 16
		Location	Project BP-5 well		

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

Reviewed by | Date | Driller

Lithologic Class. Scheme Folk-Wentworth (Print) (Sign) | 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 ony other characteristics)	COMMENTS
197	G	B235M7	SM					Same as 189.2 max = 9mm. Some strong consol. - found trace of iron staining in some consol. Strong rxn to HCl	
200	G	B235M8	SM					gS gravelly sand. 20% G, 80% fine to v. coarse sand (fine 60%, med. 30%, coarse + v. coarse - 10%) max = 12mm. 30% mafic (sand. loose. poorly sorted. 2.5Y 6/2 (lt. brownish gray). Strong rxn to HCl.	
202	G	B235M9	SM					gS gravelly sand. 15% G, 85% fine to v. coarse sand (80% fine + med sand. 20% coarse + v. coarse sand). loose. poorly sorted. max = 9mm. 20% mafic. G - ang to sub-round. 2.5Y 6/2 (lt. brownish gray). weak rxn to HCl.	
205	G	B235N0	SM					same as above. max = 9mm. weak to no rxn to HCl	
207.5	G	B235N1	SM					(g)S - Slightly gravelly sand. 5% G, 95% fine to coarse sand. max = 3mm. S 30% mafic. loose, poorly sorted. 2.5Y 6/2 (lt. brownish gray). weak rxn to HCl.	
210	G	B235N2	SM					(g)S - Slightly gravelly sand. 10% G, 90% med. to v. coarse sand. max = 5mm. 30% mafic. loose. poorly sorted. weak rxn to HCl. 2.5Y 6/2 (lt. brownish gray)	

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

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7515/299-E28-30	Depth 212.5-225'	Date 2/18/10	Sheet 10 of 16
		Location	Project BP-5 N well		

Logged by Michelle Valenta (Print) Michelle Valenta (Sign) (Print) (Sign) — Drilling Contractor

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
212.5	G	B235N3	SM					(g)S - 5% G, 95% fine to v. coarse sand (70% fine to med sand, 30% coarse to v. coarse sand). same as above.	
215.5	G	B235N4	SM					S-sand. mid to coarse sand, trace G. max = 9mm. loose, mod-sorted. 30% mafic. 2.5Y 6/2 (lt. brownish gray). strong rxn to HCl.	
217.5	G	B235N5	SM					S-v. fine to coarse sand. max = v. coarse sand. mod-sorted loose, some mod-consol. 20% mafic. 2.5Y 6/2 (lt. brownish gray). strong rxn to HCl.	
220	G	B235N6	SM					same as above.	
222	G	B235N7	SM					same as above, trace G. max = 3mm.	
225	G	B235N8	SM					S-fine to v. coarse sand. max = v. coarse sand. mod-sorted. loose. 20% mafic. 2.5Y 6/2 (lt. brownish gray). strong rxn to HCl.	

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

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C-7515 / 299-E28-30	Depth 227.5-240'	Date 2/18/10	Sheet 11 of 16
		Location	Project BP-5 N 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
227.5	G	B235N9	SM		S - fine to coarse sand. max = V. coarse sand. mod-sorted. loose w/ some mud. consol. 20% mafic. 2.5Y 6/2 (lt. brownish gray). strong rxn to HCl.	
230	G	B235P0	SM		(g)S - Slightly gravelly sand. 10% G, 90% fine to V. coarse sand. max = 9mm. loose. poorly sorted. 30% mafic. 2.5Y 6/2 (lt. brownish gray). mod. rxn to HCl.	
232.5	G	B235P1	SM		gS - gravelly sand. 15% G, 85% fine to coarse sand. max = 8mm. loose, poorly sorted. 20% mafic. 2.5Y 6/2 (lt. brownish gray). strong rxn to HCl.	
235	G	B235P2	SM		same as above. 10% G, 90% fine to coarse sand. max = 7mm. strong rxn to HCl.	
237	G	B235P3	SM		same as above. max = 12mm.	
240	G	B235P4	SM		S - sand. fine to coarse sand. max = V. coarse sand. loose w/ some mud consol - mod-sorting. 30% mafic, 2.5Y 6/2 (lt. brownish gray). strong rxn to HCl.	

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

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7515/299-E28-30	Depth 241.9-255'	Date 2/18/10	Sheet 12 of 16
		Location	Project BP-5 Maxell		

Logged by Michelle Valenta (Print) Michelle Valo (Sign) | (Print) (Sign) | Drilling Contractor

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
241.9	G	B235P5	SM		(g)S- Slightly gravelly sand. 5% G. 95% fine to V. Coarse Sand. Mod-Sorted. loose w/some mod consol. 20% mafic. 2.5Y 6/2 (lt. brownish gray).	
244	G	B235P6	SM		S- V. fine to Med. sand (90%) (10%) coarse and V. coarse sand. trace G. max= 4mm. mod-sorted. loose w/ some strong cementation (<10%). 20% mafic. 2.5Y 6/2 (lt. brownish gray). strong rxn to HCl.	
247.1	G	B235P7	SM		same as above. 5% G. 95% sand. max = 8mm.	
248.7	G	B235P8	SM		gS - gravelly sand. 15% G 85% V. fine to med. sand. max = 9mm. loose. poorly sorted. 2.5Y 7/3 (pale yellow). 20% mafic. strong rxn to HCl.	
252.5	G	B235P9	SM		same as above. max = 8mm some coarse sand.	
255	G	B235R0	SM		same as 248.7'. max = 17mm (broken).	

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

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7515/299-E28-30	Depth 257.5-270'	Date 2/18/10	Sheet 13 of 16
		Location	Project BP-5 M well		

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

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
257.5	G	B235R1	SM					gS- gravelly sand 30% G, 70% fine to med. sand. max = 19mm. loose, poorly sorted. G- broken (some), sub-ang to rounded. 2.5Y 6/2 (lt. brownish gray). strong rxn to HCl.	
259.5	G	B235R2	SM					Same as above fine sand. G- larger (>10mm) primarily broken. max = 12mm. 2.5Y 6/3 (lt. yellowish brown)	
262.5	G	B235R3	SM					same as above. max = 18mm. 2.5Y 6/2 (lt. brownish gray).	
265	G	B235R4	SM					gS- gravelly sand. 30% G, 70% fine to coarse sand. max = 18mm. poorly sorted loose. 4% mafic. G- sub-ang to rounded. 2.5Y 4/2 (dark grayish brown).	
267.5	G	B235R5	SM					gS- gravelly sand. 25% G, 75% v fine to med sand. max = 15mm. poorly sorted. loose. G- Sub-ang to rounded. 2.5Y 5/2 (grayish brown).	
270	G	B235R6	SM					Same as above max = 10 mm. G- lot of broken pieces 2.5Y 6/2 (lt. brownish gray). Strong rxn to HCl.	

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

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7515 / 299-E28-30	Depth 272.5-286.5'	Date 2/18/10	Sheet 14 of 16
		Location	Project BP-5M 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 ony other characteristics)	COMMENTS
272.5	G	B235R7	SM		same as above max = 19mm. S- v. fine to fine sand.	
275	G	B235R8	SM		same as above. 20% G, 80% sand. max = 22mm (broken) weak rxn to HCl.	
278	G	B235R9	SM		gS- gravelly sand 30% G, 70% v. fine to coarse sand. max = 12mm. G- lots of broken fragments. 30% mafic 2.5Y 5/2 (grayish brown). mod. rxn to HCl.	
280	G	B235T0	SM		SG- sandy gravel. 40% G, 60% v. fine to fine sand. loose, poorly sorted. max = 17mm. G- broken pieces., ang to rounded. 2.5Y 6/2 (lt. brownish gray).	
282.1	G	B235T1	SM		same as above - but less gravel. gS- gravelly sand 30% G, 70% sand. max = 18mm. lot of broken gravel.	
286.5	G	B235T2	D		SG- sandy gravel. 40% G, 60% v. fine sand and pulverized dust from G. G primarily broken in pieces. max = 22mm. loose. v. poorly sorted 2.5Y 7/2 (lt. gray). no rxn to HCl.	

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

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7515 / 299-E28-30	Depth 288.6-303'	Date 2/19/10	Sheet 15 of 16
		Location	Project BP-5 M 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
288.6	G	B235T3	SM		SG- sandy gravel. 40% G, 50% v.fine and fine sand, 10% Z. max = 33 mm. V. poorly sorted, loose. 2.5Y 6/3 (lt. yellowish brown). G- primarily broken gravel.	
289.5	G	B235T4	SM		same as above. max = 33mm.	
292.3	G	B235T5	SM		SG. sandy gravel. 80% G, 20% fine sand. max = 35mm. V. poorly sorted. loose. 2.5Y 5/2 (grayish brown). G- some broken, rounded to well rounded. no rxn to HCl.	
294	G	B235T6	D		mSG. Muddy sandy gravel. 30% G, 50% v.fine to fine sand, 20% Z. max = 15mm. loose, V. poorly sorted. G- broken fragments, 2.5Y 7/2 (lt. gray). Suspect some of Z from pulverized G.	
297.5	G	B235T7	SM		SG- sandy gravel. 30% G. 70% fine to med. sand max = 13mm. v.poorly sorted, loose. G- sub-ang. to rounded. 2.5Y 5/2 (grayish brown).	
299.7	G	B235T8	SM		same as above. more fine sand and Z.	
303	G	B235T9	SM		same as above. 40% G. 60% sand. max = 14mm.	

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

Pacific Northwest National Laboratory	**GEOLOGIC LOG**	Boring/Well No C7515/299-E28-30	Depth 305.6-308.5' Date 2/9/10	Sheet 16 of 16
		Location	Project BP-5 Monitoring 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

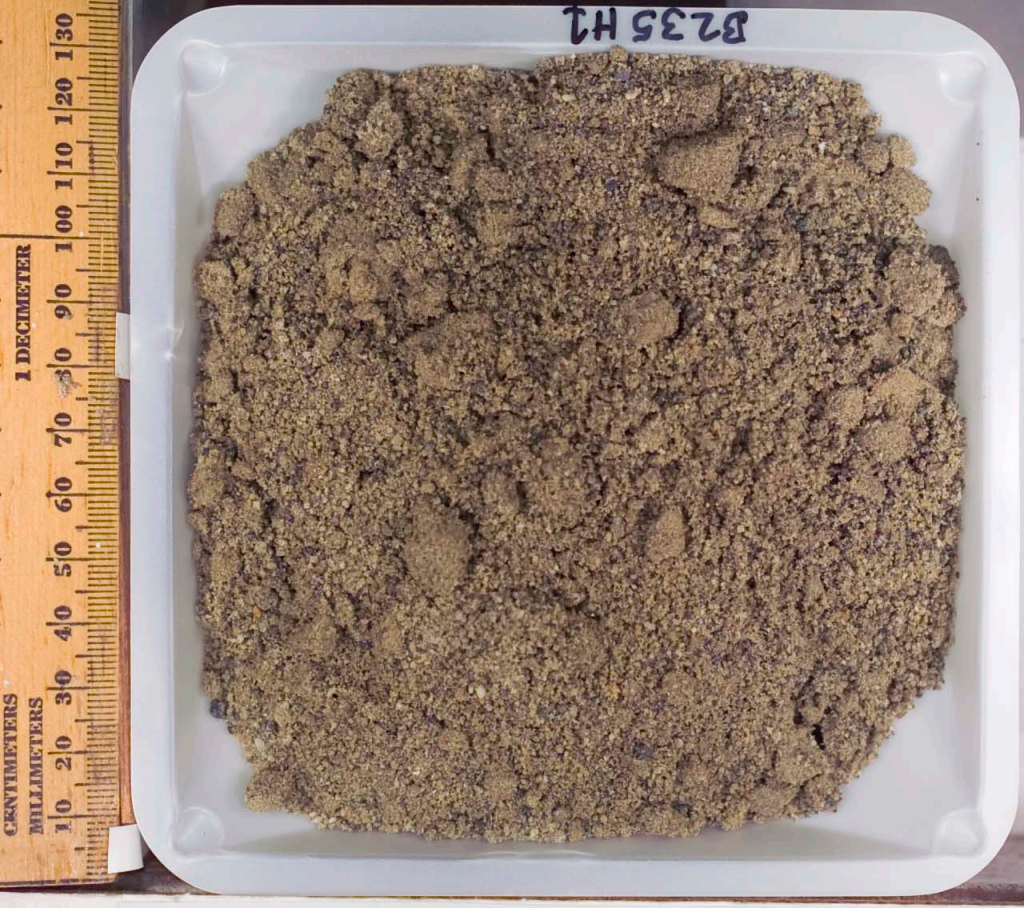
Driller

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
305.6	G	B235V0	SM					gS-gravelly sand 20% G, 80% v. fine and fine sand, trace Z. Max- 11mm. G- broken fragments, sub. ang to well rounded. 2.5Y 6/2 (lt. brownish gray)	
308.5	G	B23V68	W					G. gravel. 85% G, 5% sand, 10% Z. max- 35mm. G- some broken fragments, sub-rounded to well rounded. 2.5Y 4/2 (dark grayish brown).	

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

C7515	B235H0	79.5ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	



C7515	B235H1	82.6ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

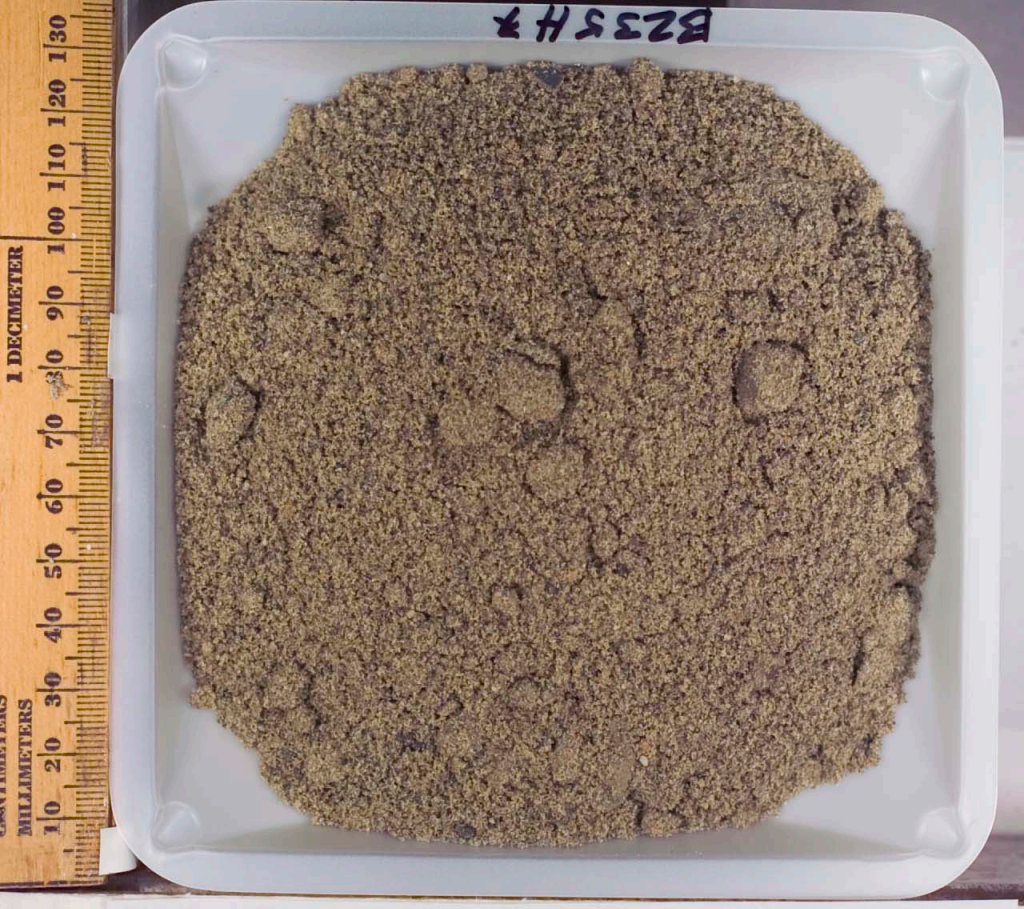
C7515	B235H2	84.8 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C5860	B235H3	84.8-87.3 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235H4	87.2-89.7 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235H5	91.0-93.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

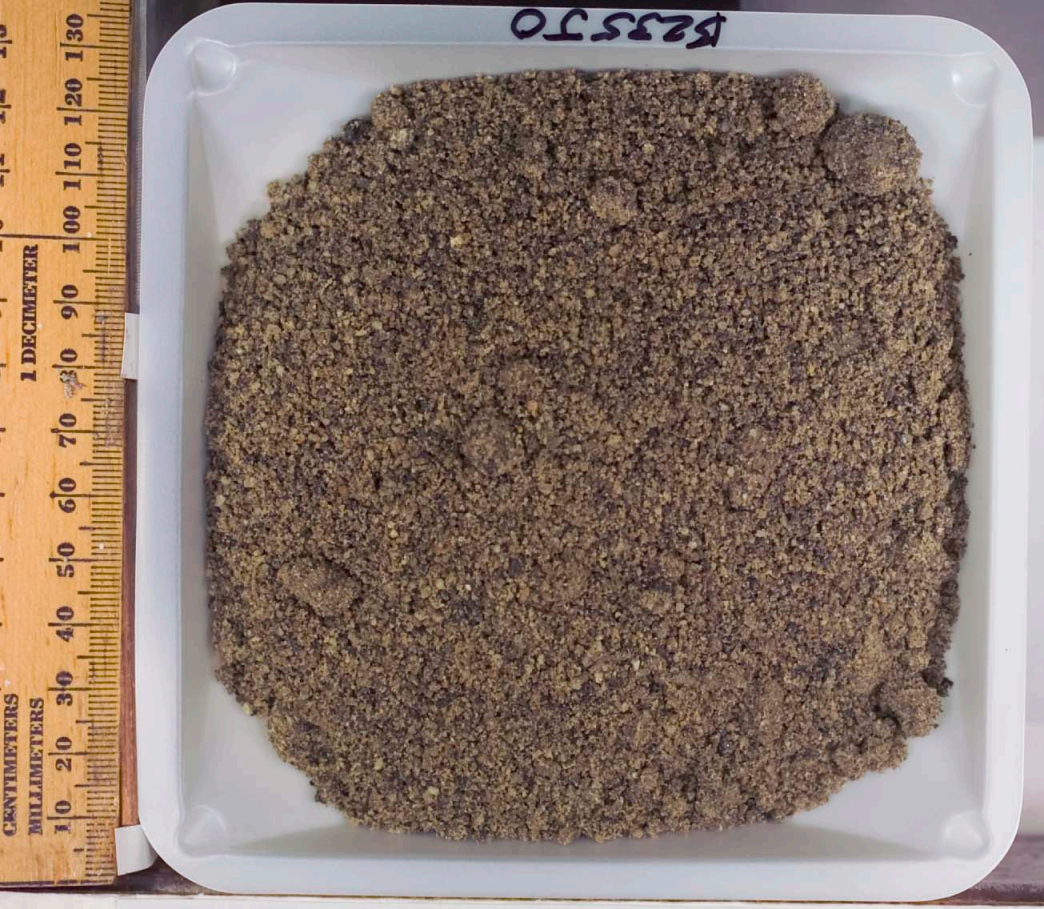
C7515	B235H6	92.2-94.7 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	



C7515	B235H7	95.2-97.7 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235H8	98.3-100.8 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235H9	99.9-102.4 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	



C7515	B235J0	102.8-105.3 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515 Borehole ID | B235J1 Sample ID | 105.5-108.0 ft Depth from Chain-of-Custody | Grab Sample

C7515	B235J2	108.5-111.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515 Borehole ID

B235J3 Sample ID

111.3-113.8 ft Depth from Chain-of-Custody

Grab Sample

C7515 Borehole ID

B235J4 Sample ID

114.6 ft Depth from Chain-of-Custody

Grab Sample

C7515	B235J5	116.6 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235J6	120.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235J7	122.2 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515 Borehole ID | B235J8 Sample ID | 124.6 ft Depth from Chain-of-Custody | Grab Sample

C7515	B235J9	125.1-127.6 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235K0	130.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235K1	132.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235K2	136.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235K3	137.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235K4	140.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

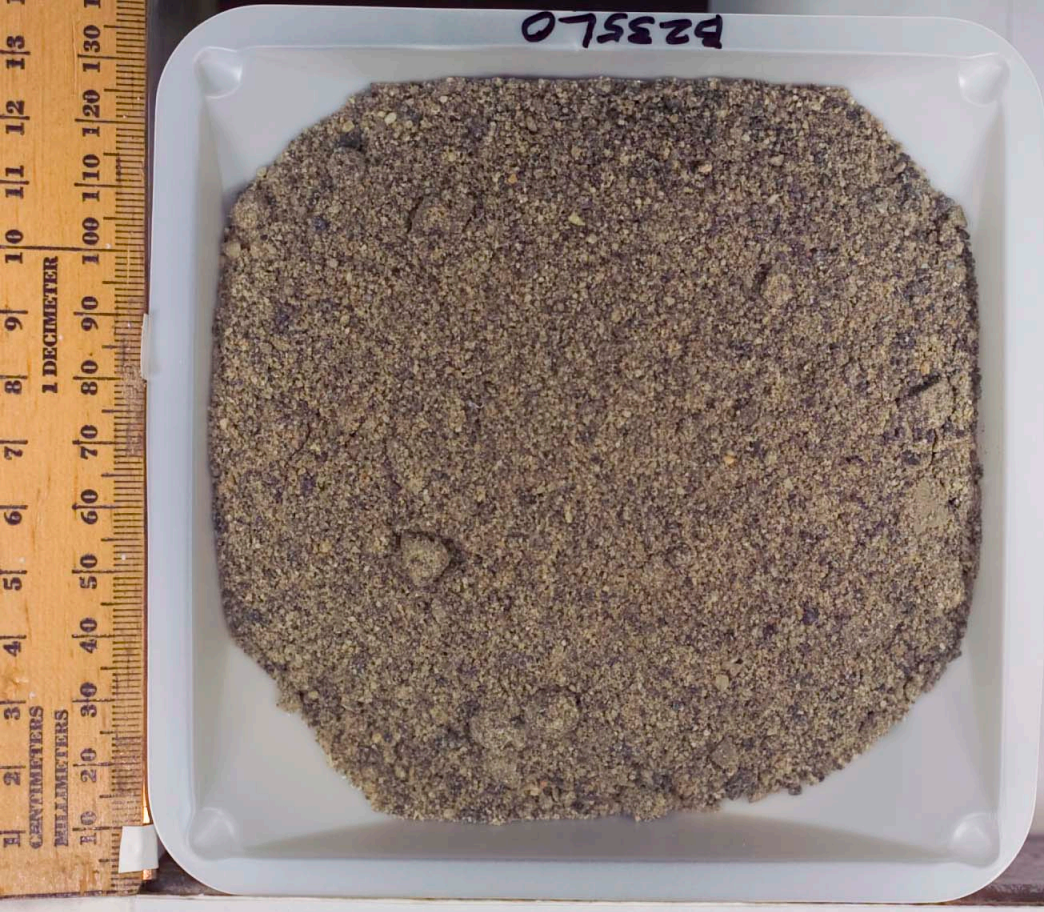
C7515	B235K5	142.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235K6	145.4 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235K7	148.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235K8	150.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235K9	151.9 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	



C7515	B235L0	154.2 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

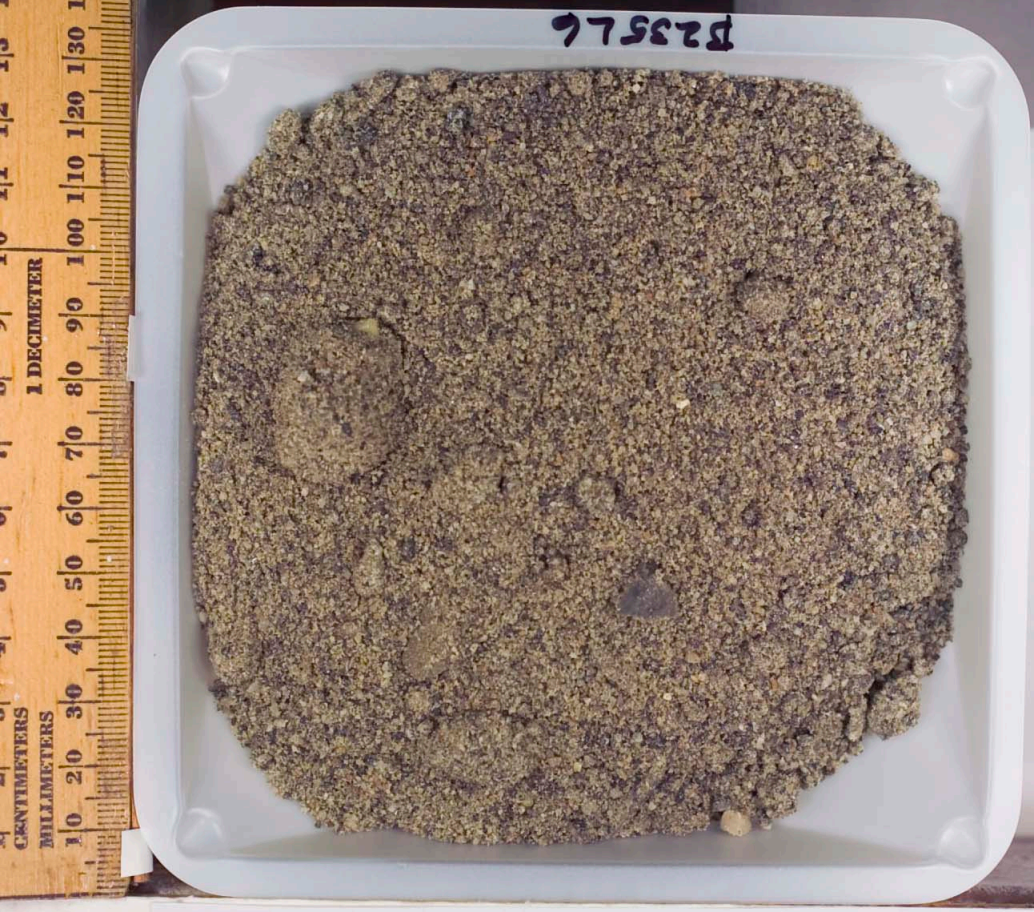
C7515	B235L1	154.4-156.9 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235L2	158.9 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235L3	162.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235L4	164.2 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235L5	165.8 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	



C7515	B235L6	169.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235L7	171.9 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

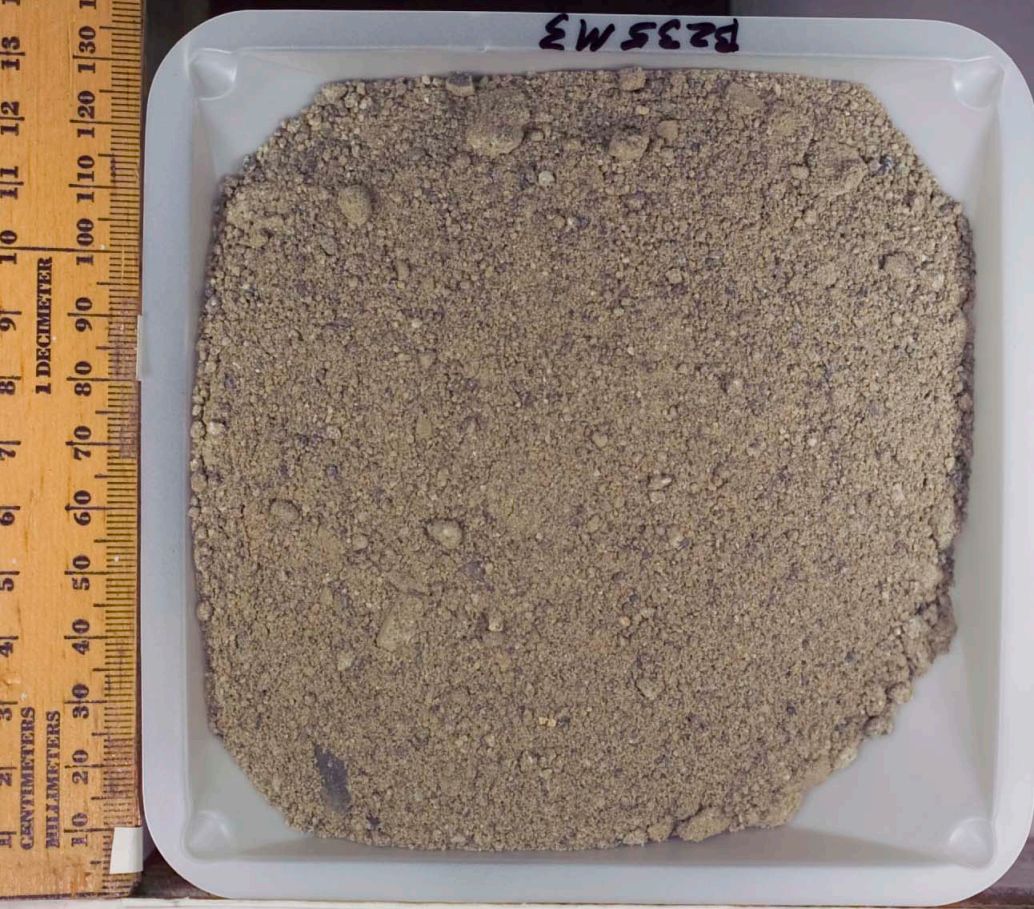
C7515	B235L8	173.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235L9	177.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235M0	179.15 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235M1	181.65 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

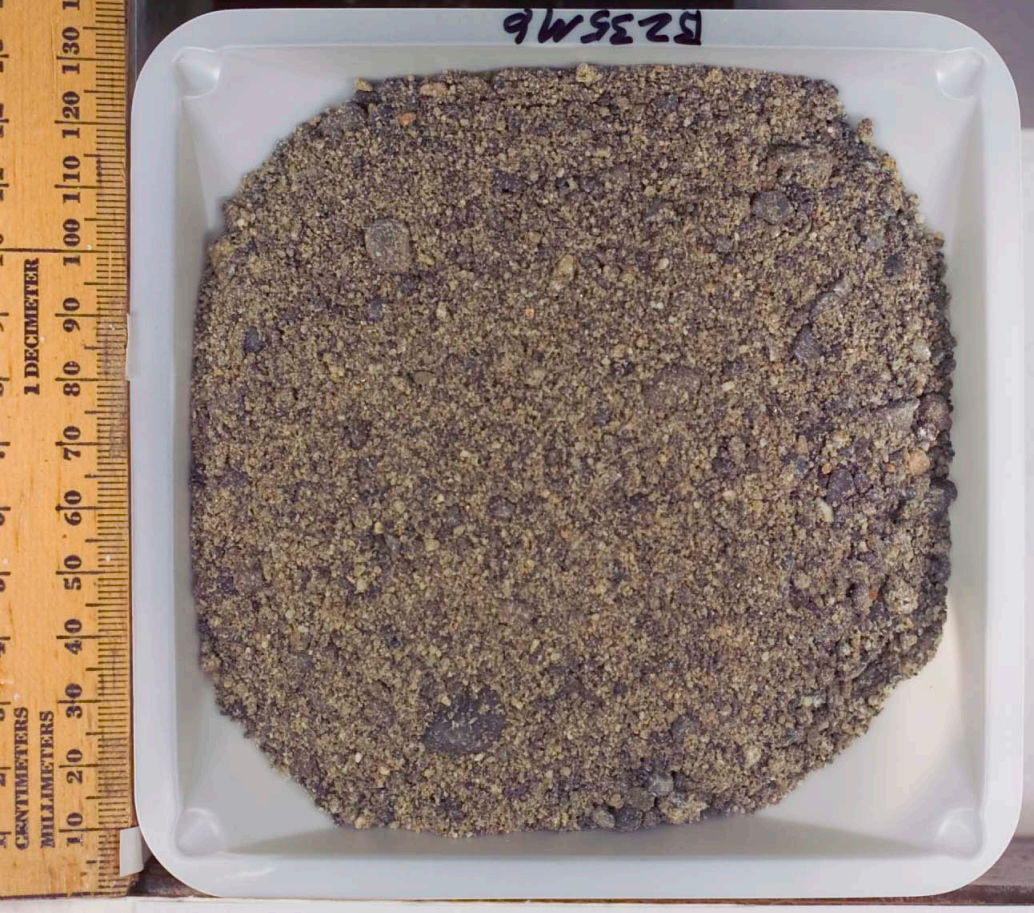
C7515	B235M2	184.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	



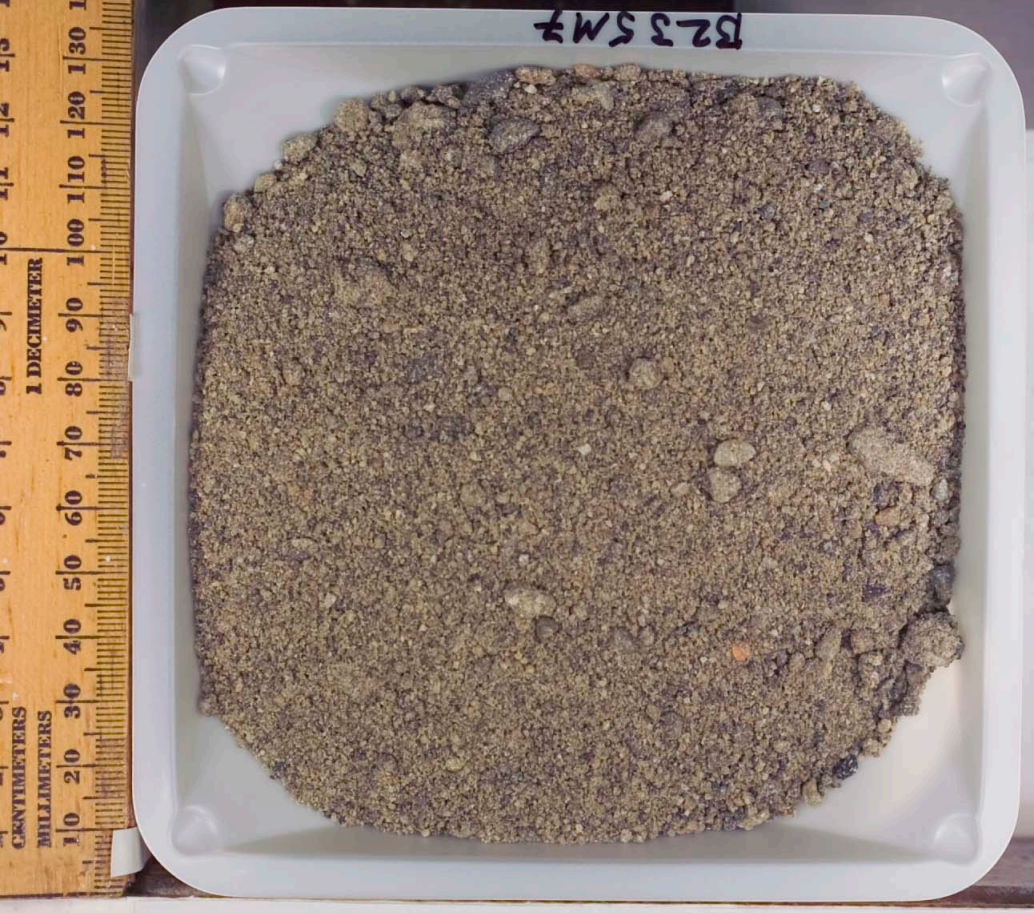
C7515	B235M3	186.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235M4	189.2 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235M5	190.0-192.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	



C7515	B235M6	195.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	



C7515	B235M7	197.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

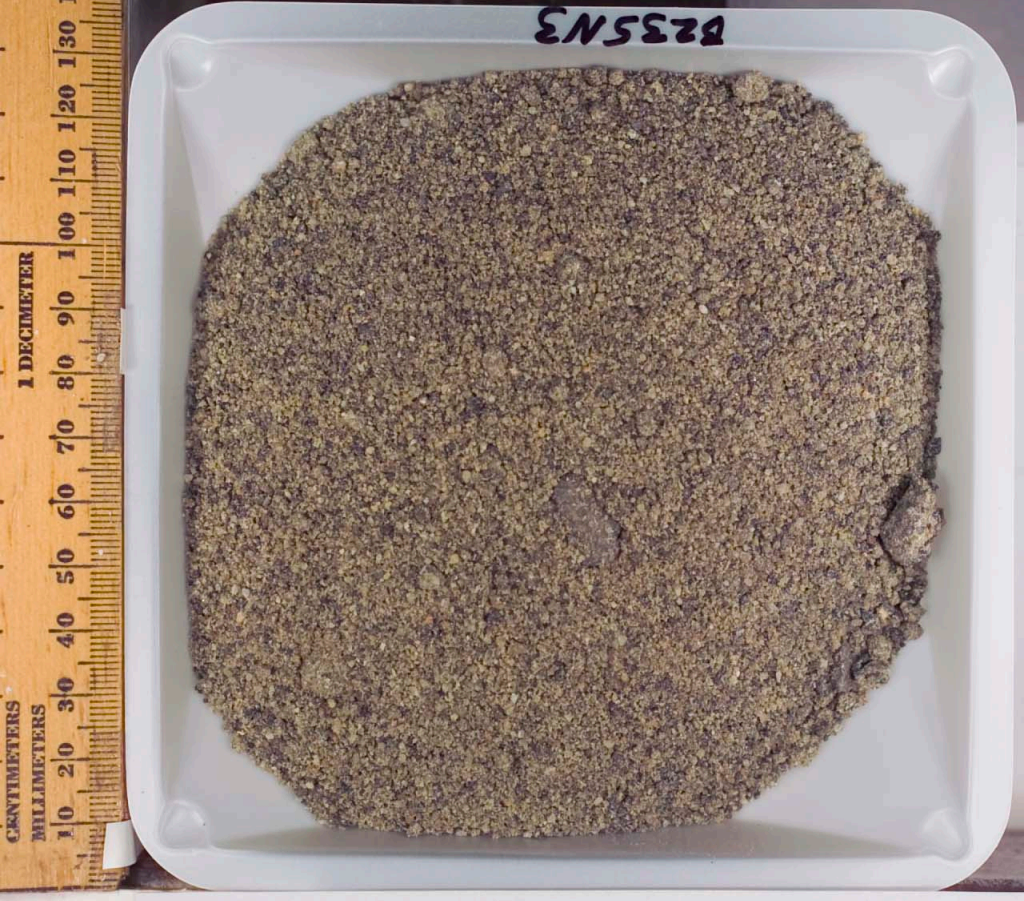
C7515	B235M8	200.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235M9	202.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235N0	205.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235N1	207.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235N2	210.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	



C7515	B235N3	212.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235N4	215.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235N5	217.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515 Borehole ID

B235N6 Sample ID

220.0 ft Depth from Chain-of-Custody

Grab Sample

C7515	B235N7	222.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235N8	225.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235N9	227.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235P0	230.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235P1	232.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235P2	235.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235P3	237.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235P4	240.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235P5	241.9 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235P6	244.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235P7	247.1 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235P8	248.7 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235P9	252.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235R0	255.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235R1	257.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235R2	259.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235R3	262.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235R4	265.0ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235R5	267.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515
Borehole ID

B235R6
Sample ID

270.0 ft
Depth from Chain-of-Custody

Grab Sample

C7515	B235R7	272.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235R8	275.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235R9	278.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235T0	280.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235T1	282.1 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515 Borehole ID

B235T2 Sample ID

286.5 ft Depth from Chain-of-Custody

Grab Sample

C7515	B235T3	288.6 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235T4	289.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235T5	292.3 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515 Borehole ID

B235T6 Sample ID

294.0 ft Depth from Chain-of-Custody

Grab Sample

C7515	B235T7	297.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235T8	299.7 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235T9	303.0 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B235V0	305.6 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

C7515	B23668	308.5 ft	Grab Sample
Borehole ID	Sample ID	Depth from Chain-of-Custody	

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-045-002	PAGE 1 OF 1
COLLECTOR Rosano, Kaver, Chamberlain, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-001	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GRP-03-015	**FIELD LOGBOOK NO.** HNF-N-491-5 PG 45	**ACTUAL SAMPLE DEPTH** 77.0-79.5	**COA** 302117ES30	**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: B23622

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	
B23572	SOIL	1-13-10	1230	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Craig Chamberlain/Craig Chamberlain	1-13-10 1500	MO-413 554-R2	1-13-10 1500
SSU-R2	JAN 14 2010	CHPRC	JAN 14 2010
CHPRC	11:30 JAN 14 2010	Ben Williams	11:30 JAN 14 2010

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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

A-6003-618(01/06)

WO# 1001004 SDG# ESL090014

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-045-003	PAGE 1 OF 2
COLLECTOR Roxane, Kaver, Chamberlain, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-002	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GRP-03-015	**FIELD LOGBOOK NO.** HNF-N-581-5-45 PS	**ACTUAL SAMPLE DEPTH** 79.5	**COA** 302117ES30	**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: B23622

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										
B235H0	SOIL	1-13-10 LBG 1-13-10	1230	Y	Y								

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Craig Chamberlain / [illegible] 1-13-10	1500	MO-413 554-22	1-13-10 / 1500
SSU-R2 DE Parcher CHPRC	JAN 14 2010	DE Parcher CHPRC	JAN 14 2010
DE Parcher CHPRC	11:30 JAN 14 2010	Ben Williams	11:30 JAN 14 2010

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			F10-045-003	PAGE 2 OF 2
COLLECTOR Rosano, Kaver, Chamberlain, 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 C7515 (299-E28-30); I-002	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-581-5 45	**ACTUAL SAMPLE DEPTH** 79.5	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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			F10-045-005	PAGE 1 OF 1
COLLECTOR Rosane, Kaver, Chamberlain, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-003	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GRP-03-015	**FIELD LOGBOOK NO.** HNF-N-491-5 P3 45	**ACTUAL SAMPLE DEPTH** 80.1-82.6	**COA** 302117ES30	**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: B23622

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	
B23573	SOIL	1-13-10	1245	Y

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Craig Chamberlain/Cg	1-13-10 1500	MO-413 554-R2	1-13-10 1500
B&W PGP	JAN 14 2010	DE Parcher CHPRC	JAN 14 2010
DE Parcher CHPRC	11:30 JAN 14 2010	Ben Williams	11:30 JAN 14 2010

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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	F10-045-006	PAGE 1 OF 2

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Rosane, Kaver, Chamberlain, Romo	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7515 (299-E28-30); I-004	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.** PF HNF-N-491-5-45	**ACTUAL SAMPLE DEPTH** 82.6	**COA** 302117ES30	**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: B23622

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									
B235H1	SOIL	1-13-10	1245	✓	✓							

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Craig Chamberlain/ [signature]	1-13-10 1500	MO-413 SSU-R2	1-13-10 1500
SSU-R2 DE Parchen	JAN 14 2010 0800	DE Parchen CHPRC	JAN 14 2010 0800
CHPRC	JAN 14 2010 11:30	Ben Williams [signature]	JAN 14 2010 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			F10-045-006	PAGE 2 OF 2
COLLECTOR Rosane, Kaver, Chamberlain, 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 C7515 (299-E28-30); I-004	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 45 05	**ACTUAL SAMPLE DEPTH** 82.6	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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	F10-045-008	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Rosane, Kaver, Chamberlain, Romo	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7515 (299-E28-30); I-005	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
GRP-03-015	HNF-N-491-5 PS 45	82.3-84.8	302117ES30	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: B23623

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	
B23574	SOIL	1-13-10	1305	✓

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Craig Chamberlain/by Chm	1-13-10 1500	MO-413-554R2	1-13-10 1500
SSU-R2	JAN 14 2010	DE Parchen	JAN 14 2010
DE Parchen	11:30	Ben Williams	11:30 1-14-10
CHPRC	JAN 14 2010	CHPRC	JAN 14 2010

SIGN/ PRINT NAMES

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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			F10-045-009	PAGE 1 OF 2
COLLECTOR Rosane, Kaver, Chamberlain, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-006	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GRP-03-015	**FIELD LOGBOOK NO.** HNF-N-491-5 45	**ACTUAL SAMPLE DEPTH** 84.8	**COA** 302117ES30	**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: B23623

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									
B235H2	SOIL	1-13-10	1305	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Craig Chamberlain/Cg	1-13-10 1500	MO-413 S54-R2	1-13-10 1500
SSU-R2	JAN 14 2010 0800	DE Parcher CHPRC	JAN 14 2010 0800
DE Parcher CHPRC	JAN 14 2010 1130	Ben Williams	JAN 14 2010 1130

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			F10-045-009	PAGE 2 OF 2
COLLECTOR Rosane, Kaver, Chamberlain, 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 C7515 (299-E28-30); I-006	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 PS 45	**ACTUAL SAMPLE DEPTH** 84.8	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

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ORIGINAL

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F10-045-011	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Rosanne Romo Helms Chamberlain	DYEKMAN, DL	373-2530	DYEKMAN, DL		45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	
C7515 (299-E28-30); I-007	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
	HNF-N- 491-5 PS 46	84.8 - 87.3	302117ES30	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: B23623

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	
B23575	SOIL	1-14-10	0830	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Reggae [signature] 1-14-10		MO-413 SSU R2 1-14-10	
SSU-R2	1/14/10 1130	Joaquin Garcia [signature]	1/14/10 1130
Joaquin Garcia [signature] 11:30	1/14/10	Ben Williams [signature] 11:30	1/14/10

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

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(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

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	F10-045-012	PAGE 1 OF 2

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Rosanne Romo Helms Chamberlain	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7515 (299-E28-30); I-008	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
	HNF-N-491-5 PS 46	84.8-87.3	302117ES30	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: B23623

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		
B235H3	SOIL	1-14-10	0830	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Romine Larry Romine	1-14-10	MO-413 SSU-2	1-14-10
SSU-R2	1/14/10 1130	Joaquin Garcia	1/14/10 1130
Joaquin Garcia	1/14/10 1130	Ben Williams Ben Williams	1/14/10 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			F10-045-012	PAGE 2 OF 2
COLLECTOR Rosanne Romo, Helms Chamberlain	**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 C7515 (299-E28-30); I-008	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-481-5 PS 46	**ACTUAL SAMPLE DEPTH** 84.8'-87.3'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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			F10-045-014	PAGE 1 OF 1
COLLECTOR Rosanne Romo Helms	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-009	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 PS 46	**ACTUAL SAMPLE DEPTH** 87.2' - 89.7'	**COA** 302117ES30	**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: B23624

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
B23576	SOIL	1-14-10	0857

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosene Larry Rosene	1-14-10	4HO-413 SSV-R2	1-14-10
SSV-R2	1/14/10 1130	Joaquin Garcia	1/14/10 1130
Joaquin Garcia	11:30 1/14/10	Ben Williams	11:30 1/14/10

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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	F10-045-015	PAGE 1 OF 2

COLLECTOR Roesne Romo Helms	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7515 (299-E28-30); I-010	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 PS 46	**ACTUAL SAMPLE DEPTH** 87.2'- 89.7'	**COA** 302117ES30
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: B23624

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										
B235H4	SOIL	1-14-10	0857	✓	✓								

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Roesne [signature]	1-14-10	MO-413 SSUR-2	1-14-10
SSUR2	1/14/10 1130	Joaquin Garcia [signature]	1/14/10 1130
JOAQUIN GARCIA [signature]	11:30 1/14/09	Ben Williams [signature]	11:30 1/14/10

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			F10-045-015	PAGE 2 OF 2
COLLECTOR Kristine Romo HELMS	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7515 (299-E28-30); I-010	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	45 Days / 45 Days
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 PS 46	**ACTUAL SAMPLE DEPTH** 87.2 - 89.7	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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	F10-045-017	PAGE 1 OF 1

COLLECTOR Rosane, Romo Helms	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N; **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-011	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** HNF-N-491-5 PS 46	**ACTUAL SAMPLE DEPTH** 91.0-93.5'	**COA** 302117ES30	**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: B23624

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	
B23577	SOIL	1-14-10	1023	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane [signature] Larry Rosane	1-14-10 / 1610	MO-413 SSURZ	1-14-10 / 1610
SSU-R2	JAN 18 2010	DW Brotherton [signature]	JAN 18 2010
DW Brotherton [signature]	11:40 JAN 18 2010	Ben Williams [signature]	11:40 JAN 18 2010

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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

A-6003-618(01/06)

WO# 100/004 SDG# ESL 090014 Last sample: 100/004-10

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F10-045-018	PAGE 1 OF 2

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

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.
C7515 (299-E28-30); I-012	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-045

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
6WS-169	HNF-N-491-5 PS 46	91.0' - 93.5'	302117ES30	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: B23624

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										
B235H5	SOIL	1-14-10	1023	✓	✓								

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Lorna Roxanne Lorna Helms 1-14-10	1610	7M0-413 SSU-R2 1-14-10	1610
SSU-R2	JAN 18 2010	DW Brother	JAN 18 2010
DW Brother	11:40 JAN 18 2010	Ben Williams	11:40 JAN 18 2010

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			F10-045-018	PAGE 2 OF 2
COLLECTOR Rosnoe Romne Heems	**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 C7515 (299-E28-30); I-012	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045		
ICE CHEST NO. 6WS-169	**FIELD LOGBOOK NO.** HNF-N-491-5 46 PS	**ACTUAL SAMPLE DEPTH** 91.0-93.5'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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			F10-045-020	PAGE 1 OF 1
COLLECTOR Rosanne Romo Helms	**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 C7515 (299-E28-30); I-013	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045		
ICE CHEST NO. 6WS-169	**FIELD LOGBOOK NO.** HNF-N-481-5-46 P3	**ACTUAL SAMPLE DEPTH** 92.2'-94.7'	**COA** 302117ES30	**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: B23625

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
B23578	SOIL	1-14-10	10:50

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane	1-14-10/1610	JM0-413 SSVR2	1-14-10/1610
SSU-R2	JAN 18 2010	DW Brotherton	JAN 18 2010
DW Brotherton	11:40 JAN 18 2010	Ben Williams	11:40 JAN 18 2010

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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		F10-045-021
COLLECTOR Rosanne Romo Helms	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7515 (299-E28-30); I-014	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045
ICE CHEST NO. 6WS-169	**FIELD LOGBOOK NO.** HNF-N- 491-5 PS 46	**ACTUAL SAMPLE DEPTH** 92.2-94.7	**COA** 302117ES30
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: B23625

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											
B235H6	SOIL	1-14-10	1050	✓	✓									

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosanne [signature] Larry Rosanne	1-14-10/ 1610	MO-413 SSURZ	1-14-10/ 1610
SSU-R2	JAN 18 2010 7:00	DW Brotherton [signature]	JAN 18 2010 8:00
DW Brotherton [signature]	11:40 JAN 18 2010	Ben Williams [signature]	11:40 JAN 18 2010

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			F10-045-021	PAGE 2 OF 2
COLLECTOR Rospape Romo Helms	**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 C7515 (299-E28-30); I-014	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045		
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** HNF-N-481-5 PS 46	**ACTUAL SAMPLE DEPTH** 92.2'-94.7'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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	F10-045-023	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Roswe Romo, Helms	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7515 (299-E28-30); I-015	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
BWS-169	HNF-N-491-5 PS 46	95.2-97.7'	302117ES30	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: B23625

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	
B23579	SOIL	1-14-10	1235	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Roswe Larry Roswe	1-14-10/ 1610	MO-413 S50 R2	1-14-10/ 1610
SSU-R2	JAN 18 2010	DW Brotherton	JAN 18 2010
DW Brotherton	11:40 JAN 18 2010	Ben Williams	11:40 JAN 18 2010

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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	F10-045-024	PAGE 1 OF 2

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Rosanne Rosano Helms	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7515 (299-E28-30); I-016	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
GWS - 169	HNF-N- 491-5 46 PS	95.2 - 97.7'	302117ES30	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: B23625

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									
B235H7	SOIL	1-14-10	1235	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane SSU-R2	1-14-10/ 1610	MO-413 SSU-R2	1-14-10/ 1610
SSU-R2	JAN 18 2010	DW Brotherton	JAN 18 2010
DW Brotherton	JAN 18 2010 11:40	Ben Williams	JAN 18 2010 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			F10-045-024	PAGE 2 OF 2
COLLECTOR Rebecca Long, HELMS	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-016	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** HNF-N- 491-5 46 PS	**ACTUAL SAMPLE DEPTH** 95.2 - 97.7'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-053** | **PAGE 1 OF 1**

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
C7515 (299-E28-30); I-035

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS-169

FIELD LOGBOOK NO.
HNF-N-491-5 48 PS

ACTUAL SAMPLE DEPTH
119.7 TO 122.2

COA
302117ES30

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: B23630

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										
B23589	SOIL	1-19-10	0810	✓									

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E. Kauer/E. Romo	1-19-10 1033	MO413 SSUR2	1-19-10 1033
SSU-R2	JAN 18 2010 DW13	DW Brotherton	JAN 18 2010 DW13
DW Brotherton	JAN 18 2010 DW13	Ben Williams	JAN 18 2010 DW13

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.
** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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

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

SDG# ESL090014 Lot#: 1001004-34

A-6003-618(01/06)

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 C7515 (299-E28-30); I-036	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐
ICE CHEST NO. 6WS-169	**FIELD LOGBOOK NO.** HNF-N- 491-5 48	**ACTUAL SAMPLE DEPTH** 122.2	**COA** 302117ES30	**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: B23630

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		
B235J7	SOIL	1-19-10	0810	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaun / [signature]	1-19-10 1033	MO 413 SSU-R2	1-19-10 1033
SSU-R2	~~JAN 18 2010~~ 1-20-10 800	DW Brotherton [signature]	JAN 20 2010 800
DW Brotherton [signature]	JAN 20 2010 1130	Ben Williams [signature]	1130 JAN 20 2010

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**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Kaufer, Romo	DYEKMAN, DL	373-2530	DYEKMAN, DL		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	45 Days / 45 Days
C7515 (299-E28-30); I-036	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
GWS-169	HNF-N-491-5 48 B	122.2	302117ES30	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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-056** | **PAGE 1 OF 1**

COLLECTOR Kayla Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND**
SAMPLING LOCATION C7515 (299-E28-30); I-037	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐ / 45 Days / 45 Days
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** HNF-N-491-5 48	**ACTUAL SAMPLE DEPTH** 122.1 to 124.6	**COA** 302117ES30	**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: B23631

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										
B23590	SOIL	1-19-10	0920	✓									

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaven Ed Kaven 1-19-10	1033	Mo-413 SSU-R2 1-19-10	1033
SSU-R2	JAN 20 2010 8:00	DW Brotherton	JAN 20 2010 8:00
DW Brotherton	JAN 20 2010 11:50	Ben Williams	JAN 20 2010 11:50

SIGN/ PRINT NAMES

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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

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

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 C7515 (299-E28-30); I-038	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** HNF-N-491-5 PS 48	**ACTUAL SAMPLE DEPTH** 124.6'	**COA** 302117ES30	**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: B23631

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		
B235J8	SOIL	1-19-10	0920	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaiser/Ed Kaiser	1-19-10 1033	Mo 413 SSURZ	1-19-10 1033
SSU-R2	JAN 20 2010 0100	DW Brothers	JAN 20 2010 0100
DW Brothers	JAN 20 2010 11:50	Ben Williams	11:50 JAN 20 2010

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	F10-045-057	PAGE 2 OF 2

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Kaus, Romo	DYEKMAN, DL	373-2530	DYEKMAN, DL		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	45 Days / 45 Days
C7515 (299-E28-30); I-038	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
GWS - 169	HNF-N-491-5 A 48	124.6	302117ES30	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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-059** | **PAGE 1 OF 1**

COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8N / **DATA TURNAROUND**
Kaven Romo	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐ / 45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	
C7515 (299-E28-30); I-039	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045	
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**
6WS-169	HNF-N-491-5 PS 48	125.1 to 127.6	302117 FS30	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: B23631

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
B23591	SOIL	1-19-10	0950

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[signature]	1-19-10 1033	[signature] 413 SSU-R2	1-19-10 1033
SSU-R2	JAN 20 2010	DW Brotherton [signature]	JAN 20 2010
DW Brotherton [signature]	JAN 20 2010 11:50	[signature]	JAN 20 2010 11:50

SIGN/ PRINT NAMES

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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

A-6003-618(01/06)

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

SAMPLING LOCATION: C7515 (299-E28-30); I-040
PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param
SAF NO.: F10-045
AIR QUALITY: ☐

ICE CHEST NO.: GWS-169
FIELD LOGBOOK NO.: HNF-N-491-5 Pg 48
ACTUAL SAMPLE DEPTH: 125.1 to 127.6
COA: 302117ES30
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: B23631

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		
B235J9	SOIL	1-19-10	0950	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaven / [signature]	1-19-10 1033	MO-413 SSU-R2	1-19-10 1033
SSU-R2	JAN 20 2010 8:00	DW Brotherton [signature]	JAN 20 2010 8:00
DW Brotherton [signature]	JAN 20 2010 11:50	Ben Williams [signature]	11:50 JAN 20 2010

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** | **F10-045-060** | **PAGE 2 OF 2**

COLLECTOR Kwan, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐
SAMPLING LOCATION C7515 (299-E28-30); I-040	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**DATA TURNAROUND** 45 Days / 45 Days
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** PG 48 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 125.1 to 127.6	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

F10-045-062 PAGE 1 OF 2

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

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.	AIR QUALITY
C7515 (299-E28-30); I-041	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-045	☐

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
GWS-169	HNF-N-491-5 PS 48	130'	302117ES30	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: B23632

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										
B235K0	SOIL	1-19-10	1015	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E. KAUER/	1-19-10 10:33	SSU-R2	1-19-10 10:33
SSU-R2	JAN 20 2010 8:60	DW Brothers	JAN 20 2010
DW Brothers	JAN 20 2010 11:50	Ben Williams	JAN 20 2010 11:50

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			F10-045-062	PAGE 2 OF 2
COLLECTOR KAUR, Rano	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-041	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** HNF-N- 491-5 48	**ACTUAL SAMPLE DEPTH** 130'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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 | F10-045-063 | 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
C7515 (299-E28-30); I-042

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
2WS - 16

FIELD LOGBOOK NO. B3
HNF-N- 491-548

ACTUAL SAMPLE DEPTH
132'

COA
302117ES30

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: B23632

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										
B235K1	SOIL	1-19-10 DWS 1/20 1/24/10	1155	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer	1-19-10 1612	MO-413 SSU-R2	1-19-10 1612
SSU-R2	JAN 20 2010	DW Brotherton	JAN 20 2010
DW Brotherton	11:50 JAN 20 2010	Bea Williams	11:50 JAN 20 2010

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** | **F10-045-063** | **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 C7515 (299-E28-30); I-042	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**DATA TURNAROUND** 45 Days / 45 Days
ICE CHEST NO. GWS - 16	**FIELD LOGBOOK NO.** PS 48 HNF-N- 491-5	**ACTUAL SAMPLE DEPTH** 132'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

F10-045-065 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
C7515 (299-E28-30); I-043

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

SAF NO.
F10-045

ICE CHEST NO.
6WS-16

FIELD LOGBOOK NO. PS 48
HNF-N-491-5

ACTUAL SAMPLE DEPTH
136

COA
302117ES30

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: ~~B23632~~ B23665
KS 1/12/10

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										
B235K2	SOIL	1-19-10	1235	✓	✓								

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer	1-19-10 1612	MO-413 SSU-R2	1-19-10 1612
SSU-R2	JAN 20 2010 8:00	DW Brotherton	JAN 20 2010 8:00
DW Brotherton	JAN 20 2010 11:50	Ben Williams	JAN 20 2010 11:50

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			F10-04S-065	PAGE 2 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 C7515 (299-E28-30); I-043	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-16	**FIELD LOGBOOK NO.** PS 48 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 136	**COA** 302117ES30	**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 deliiverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

F10-045-066 PAGE 1 OF 2

COLLECTOR
KAUER, Remo

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
C7515 (299-E28-30); I-044

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

SAF NO.
F10-045

ICE CHEST NO.
6WS - 16

FIELD LOGBOOK NO. PS 48
HNF-N- 491-5

ACTUAL SAMPLE DEPTH
137.5

COA
302117ES30

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: ~~B23632~~ B23665 KS 1/12/10

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										
B235K3	SOIL	1-19-10	1245	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed KAUER/	1-19-10 1612	MO-413 SSU-R2	1-19-10 1612
SSU-R2	JAN 20 2010 8100	DW Brotherton	JAN 20 2010 8100
DW Brotherton	JAN 20 2010 11:50	Ben Williams	11:50

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** | **F10-045-066** | **PAGE 2 OF 2**

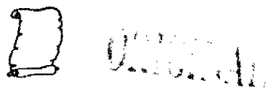
COLLECTOR KAUER, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7515 (299-E28-30); I-044	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045
ICE CHEST NO. 6WS - 16	**FIELD LOGBOOK NO.** PS 48 HNF-N- 491-5	**ACTUAL SAMPLE DEPTH** 137.5	**COA** 302117ES30
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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-068** | **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
C7515 (299-E28-30); I-045

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GCS-16

FIELD LOGBOOK NO.
491-5 Pg 48

ACTUAL SAMPLE DEPTH
140

COA
302117ES30

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: B23633

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									
B235K4	SOIL	1-19-10	1310	✓	✓							

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer/Ed Kauer	1-19-10 1612	MO-413 SSU-R2	1-19-10 1612
SSU-R2	JAN 20 2010	SSU-R2 JAN 20 2010 1-20-10 Brotherton	JAN 20 2010
DW Brotherton	11:50 JAN 20 2010	Ben Williams	11:50 JAN 20 2010

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** | **F10-045-068** | **PAGE 2 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
KAUER, ROMO	DYEKMAN, DL	373-2530	DYEKMAN, DL		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	45 Days / 45 Days
C7515 (299-E28-30); I-045	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
6WS-16	HNF-N-491-5 48 pg	140	302117ES30	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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-069** | **PAGE 1 OF 2**

COLLECTOR
Kaun, Remo

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-046

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS-16

FIELD LOGBOOK NO.
HNF-N-491-5 pg 48

ACTUAL SAMPLE DEPTH
142'

COA
302117ES30

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: B23633

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										
B235K5	SOIL	1-19-10	1420	✓	✓								

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaun, Remo Williams	1-19-10 1627	MO-413 SSU-R2	1-19-10 1612
SSU-R2	JAN 20 2010	DW Brotherton	JAN 20 2010
DW Brotherton 11:50	JAN 20 2010	Ben Williams 11:50	JAN 20 2010

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			F10-045-069	PAGE 2 OF 2
COLLECTOR KAUER, Remo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-046	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-16	**FIELD LOGBOOK NO.** HNF-N- 491-5 pg 48	**ACTUAL SAMPLE DEPTH** 142	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-071** | **PAGE 1 OF 1**

COLLECTOR
KAUSR, 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
C7515 (299-E28-30); I-047

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

SAF NO.
F10-045

ICE CHEST NO.
6WS-16

FIELD LOGBOOK NO.
HNF-N-491-5 48 P3

ACTUAL SAMPLE DEPTH
142.9 to 145.4

COA
302117ES30

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: B23633

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
B23592	SOIL	1-19-10	1425 ✓

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaus/	1-19-10 1612	MO-413 SSU-R2	1-19-10 1612
SSU-R2	JAN 20 2010	DW Brotherton	JAN 20 2010
DW Brotherton	11:50 JAN 20 2010	Ben Williams	11:50 JAN 20 2010

SIGN/ PRINT NAMES

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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** | **F10-045-072** | **PAGE 1 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
C7515 (299-E28-30); I-048

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
6W5-16

FIELD LOGBOOK NO.
HNF-N-491-5 48 Pg

ACTUAL SAMPLE DEPTH
142 ft to 145.4 (1-15-10)

COA
302117ES30

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: B23633

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										
B235K6	SOIL	1-19-10	1425	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E Kaur/Romo	1-19-10 1612	MO-417-550-R2	1-19-10 1612
SSU-R2	JAN 20 2010 8:00	DW Brotherton	JAN 20 2010 8:50
DW Brotherton	JAN 20 2010 11:50	B Williams	JAN 20 2010 11:50

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			F10-045-072	PAGE 2 OF 2
COLLECTOR KAUL, ROMO	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-048	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-16	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 48	**ACTUAL SAMPLE DEPTH** ~~142.9 ft~~ 145.4	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-074** | **PAGE 1 OF 1**

COLLECTOR
Kaun / 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
C7515 (299-E28-30); I-049

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

SAF NO.
F10-045

ICE CHEST NO.
GWS-168

FIELD LOGBOOK NO.
HNF-N. 491-5 pg 48

ACTUAL SAMPLE DEPTH
145.5 to 148.0

COA
302117ES30

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: B23634

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	
B23593	SOIL	1-19-10	1450	✓

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaun / Romo	1-19-10 1612	MO-413-SSU-R2	1-19-10 1612
SSU-R2	JAN 20 2010	DW Brotherton	JAN 20 2010
DW Brotherton	1150 JAN 20 2010	Ben Williams	1150 JAN 20 2010

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

**. The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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** | **F10-045-075** | **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
C7515 (299-E28-30); I-050

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS-168

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

ACTUAL SAMPLE DEPTH
148.0

COA
302117ES30

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: B23634

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
B235K7	SOIL	1-19-10	1450

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer	1-19-10 1612	MO-413 55-R2	1-19-10 1672
SSU-R2	JAN 20 2010	DW Brotherton	JAN 20 2010
DW Brotherton	11:50 JAN 20 2010	Ben Williams	11:50 JAN 20 2010

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			F10-045-075	PAGE 2 OF 2
COLLECTOR KAYE ROMO	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-050	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-168	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 48	**ACTUAL SAMPLE DEPTH** 148.0	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-077** | **PAGE 1 OF 1**

COLLECTOR: Kraus / Romo

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

SAMPLING LOCATION: C7515 (299-E28-30); I-051

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param | **SAF NO.**: F10-045 | **AIR QUALITY**: ☐

ICE CHEST NO.: GWS-168

FIELD LOGBOOK NO.: HNF-N-491-5 48 PG | **ACTUAL SAMPLE DEPTH**: 148.0 to 150.5' | **COA**: 302117ES30 | **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: B23634

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
B23594	SOIL	1-19-10	15 15 ✓

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kraus / Ed Dyekman	1-19-10 1612	MO-413 550-R2	1-19-10 1612
SSU-R2	JAN 20 2010 8:00	DW Brotherton	JAN 20 2010 8:00
DW Brotherton	JAN 20 2010 11:50	Ben Williams	11:50 JAN 20 2010

SIGN/ PRINT NAMES

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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

F10-045-078

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
C7515 (299-E28-30); I-052

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
6WS - 168

FIELD LOGBOOK NO.
HNF-N-491-5 pg 48

ACTUAL SAMPLE DEPTH
150.5

COA
302117ES30

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: B23634

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										
B235K8	SOIL	1-19-10	1515	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauk / Ed Kauk	1-19-10 1612	MO-413 SSU-R2	1-19-10 1612
SSU-R2	JAN 20 2010	DW Brotherton	JAN 20 2010
DW Brotherton	JAN 20 2010 11:50	Ben Williams	JAN 20 2010 11:50

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			F10-045-078	PAGE 2 OF 2
COLLECTOR KNUDSEN, ROMO	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-052	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-168	**FIELD LOGBOOK NO.** HNF-N-491-5 48 P3	**ACTUAL SAMPLE DEPTH** 150.5	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-080** | **PAGE 1 OF 1**

COLLECTOR Kaver, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N
SAMPLING LOCATION C7515 (299-E28-30); I-053	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐
ICE CHEST NO. GWS-168	**FIELD LOGBOOK NO.** HNF-N 491-5 pg 48	**ACTUAL SAMPLE DEPTH** 149.4 to 151.9	**COA** 302117ES30	**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: B23635

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	
B23595	SOIL	1-19-10	1525	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaver, [signature]	1-19-10	MO-413 SSURZ	1-19-10
SSU-R2	JAN 20 2010 800	DW Brotherton [signature]	JAN 20 2010 800
DW Brotherton [signature]	JAN 20 2010 11:50	Ben Williams [signature]	11:50 JAN 20 2010

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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

F10-045-081 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
C7515 (299-E28-30); I-054

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
6WS-168

FIELD LOGBOOK NO. 48
HNF-N-491-5 pg

ACTUAL SAMPLE DEPTH
151.9

COA
302117ES30

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: B23635

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									
B235K9	SOIL	1-19-10	1525	✓	✓							

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E Kauer / E Dyekman	1-19-10 1612	mc 413 550-R2	1-19-10 1612
SSU-R2	JAN 20 2010	DW Brotherton	JAN 20 2010
DW Brotherton	JAN 20 2010 11:50	Ben Williams	JAN 20 2010 11:50

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** | **F10-045-081** | **PAGE 2 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Kaufy Romo	DYEKMAN, DL	373-2530	DYEKMAN, DL		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	45 Days / 45 Days
C7515 (299-E28-30); I-054	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
6WS-168	HNF-N-491-5 Pg 48	151.9	302117ES30	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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

F10-045-084 PAGE 1 OF 2

COLLECTOR
Kayer 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
C7515 (299-E28-30); I-056

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

SAF NO.
F10-045

ICE CHEST NO.
GWS-168

FIELD LOGBOOK NO.
HNF-N-491-5 pg 49

ACTUAL SAMPLE DEPTH
154.2

COA
302117ES30

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: B23635

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										
B235L0	SOIL	1-20-10	0810	/	/								

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Robert Romo	1/20/10 1035	MO-413 554-R2	1-20-10 1035
SSU-R2 JAN 21 2010	0848	J R AGUILAR CHPRC JAN 21 2010	0848
J R AGUILAR CHPRC JAN 21 2010	0848	Ben Williams JAN 21 2010	9:50

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** | **F10-045-084** | **PAGE 2 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
KAGER Romo	DYEKMAN, DL	373-2530	DYEKMAN, DL		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	45 Days / 45 Days
C7515 (299-E28-30); I-056	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
GWS - 168	HNF-N- 491-5 pg 49	154.2	302117ES30	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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-086** | **PAGE 1 OF 1**

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
C7515 (299-E28-30); I-057

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS -168

FIELD LOGBOOK NO.
HNF-N 491-5 Pg 49

ACTUAL SAMPLE DEPTH
154.4
156.9

COA
302117ES30

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: B23636

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	
B23597	SOIL	1-20-10	0845	✓

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo 1-20-10	1035	MO-413 554-R2 1-20-10	1035
SSU-R2 JAN 21 2010	0845	JR AGUILAR CHPRC JAN 21 2010	0845
JR AGUILAR CHPRC JAN 21 2010	0845	Ben Williams	JAN 21 2010 9:50

SIGN/ PRINT NAMES

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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;

LABORATORY SECTION | **RECEIVED BY**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD**

TITLE | **DATE/TIME**

DISPOSED BY | **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-087** | **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
C7515 (299-E28-30); I-058

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GW5-168

FIELD LOGBOOK NO.
HNF-N-491-5 pg 49

ACTUAL SAMPLE DEPTH
154.4 - 158.9

COA
302117ES30

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: B23636

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										
B235L1	SOIL	1-20-10	0845	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo	1/20/10 1035	MO-413 SSU-R2	1-20-10 1035
SSU-R2	JAN 2 1 2010 0845	J R AGUILAR CHPRC	JAN 2 1 2010 0845
J R AGUILAR CHPRC	JAN 2 1 2010 0845	J R AGUILAR CHPRC Ted Williams	JAN 2 1 2010 9:50
J R AGUILAR CHPRC	1/21/10		

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** | **F10-045-087** | **PAGE 2 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	8N	DATA TURNAROUND
KAUER, ROMO	DYEKMAN, DL	373-2530	DYEKMAN, DL			
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY**	☐	**45 Days / 45 Days**
C7515 (299-E28-30); I-058	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045			
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**		
GWS-168	HNF-N-491-5 Pg 44	154.4 - 156.9	302117ES30	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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-089** | **PAGE 1 OF 1**

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
C7515 (299-E28-30); I-059

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS-168

FIELD LOGBOOK NO.
HNF-N-491-5 Pg 49

ACTUAL SAMPLE DEPTH
156.4 — 158.4

COA
302117ES30

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: B23636

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	
B23598	SOIL	1-20-10	0915	✓

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo	1-20-10 1035	MO-413 554-R2	1-20-10 1035
SSU-R2	JAN 21 2010 0845	J R AGUILAR CHPRC	JAN 21 2010 0845
J R AGUILAR CHPRC	JAN 21 2010 0845	Ben Williams	JAN 21 2010 9:50
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

** 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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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** | **F10-045-090** | **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** ☐

SAMPLING LOCATION
C7515 (299-E28-30); I-060

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

SAF NO. F10-045 | **45 Days / 45 Days**

ICE CHEST NO.
GWS-1668

FIELD LOGBOOK NO. HNF-N-491-5 Pg 49 | **ACTUAL SAMPLE DEPTH** 158.9 | **COA** 302117ES30 | **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: B23636

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
B235L2	SOIL	1-20-10	0915

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo	1-20-10 1035	MO-413 SSU-R2	1-20-10 1035
SSU-R2	JAN 21 2010 0845	JR AGUILAR CHPRC	JAN 21 2010 0845
JR AGUILAR CHPRC	JAN 21 2010 0845	Ben Williams Ben Williams	JAN 21 2010 9:50
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

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			F10-045-090	PAGE 2 OF 2
COLLECTOR KAYER, RONO	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-060	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS - 168	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 49	**ACTUAL SAMPLE DEPTH** 158.9	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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}

D ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-092** | **PAGE 1 OF 1**

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
C7515 (299-E28-30); I-061

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

SAF NO.
F10-045

ICE CHEST NO.
GWS-168

FIELD LOGBOOK NO.
HNF-N-491-5 Pg 49

ACTUAL SAMPLE DEPTH
159.5-162

COA
302117ES30

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: B23637

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	
B23599	SOIL	1-20-10	1005	✓

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Robert Romo	1-20-10 1035	MO-413 554-52	1-20-10 1035
SSU-R2	JAN 21 2010 0845	J R AGUILAR CHPRC	JAN 21 2010 0845
J R AGUILAR CHPRC	JAN 21 2010 0845	Ben Williams	JAN 21 2010 9:50

SIGN/ PRINT NAMES

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

**. The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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;

LABORATORY SECTION | **RECEIVED BY**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD**

TITLE | **DATE/TIME**

DISPOSED BY | **DATE/TIME**

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-093** | **PAGE 1 OF 2**

COLLECTOR
KRAER, 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
C7515 (299-E28-30); I-062

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

SAF NO.
F10-045

ICE CHEST NO.
GWS-162

FIELD LOGBOOK NO.
HNF-N- 491-5 Pg 49

ACTUAL SAMPLE DEPTH
162

COA
302117ES30

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 S400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B23637

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										
B235L3	SOIL	1-20-10	1005	V	V								

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo	1-20-10 1035	MO-413 SSU-R2	1-20-10 1035
SSU-R2	JAN 21 2010 0845	J RAGUILAR CHPRC	JAN 21 2010 0845
J RAGUILAR CHPRC	JAN 21 2010 0845	Ben Williams	JAN 21 2010 9:50

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			F10-045-093	PAGE 2 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 C7515 (299-E28-30); I-062	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-168	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 49	**ACTUAL SAMPLE DEPTH** 162	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

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CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-095** | **PAGE 1 OF 1**

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
C7515 (299-E28-30); I-063

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

SAF NO.
F10-045

ICE CHEST NO.
GWS-168

FIELD LOGBOOK NO.
HNF-N-491-5 pg 49

ACTUAL SAMPLE DEPTH
161.7 - 164.2

COA

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: B23637

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	
B235B0	SOIL	1/20/10	1205	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Robert Romo	1-20-10 1330	MO-413 SSU-R2 1-20-10	1330
SSU-R2 JAN 21 2010 0845		JR AGUILAR CHPRC JAN 21 2010 0845	
JR AGUILAR CHPRC JAN 21 2010 0845		Ben Williams	JAN 21 2010 9:50

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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;

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

F10-045-096 PAGE 1 OF 2

COLLECTOR
KAYER ROMO

COMPANY CONTACT DYEKMAN, DL

TELEPHONE NO. 373-2530

PROJECT COORDINATOR DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND 45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-064

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

SAF NO. F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS-16P

FIELD LOGBOOK NO. HNF-N-491-5 Pg 49

ACTUAL SAMPLE DEPTH 164.2

COA 302117ES30

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: B23637

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										
B235L4	SOIL	1-20-10	1205										

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Robin Romo	1-20-10 1330	MO-413 554-R2	1-20-10 1330
SSU-R2	JAN 21 2010 0845	J R AGUILAR CHPRC	JAN 21 2010 0845
J R AGUILAR CHPRC	JAN 21 2010 0845	Ben Williams	JAN 21 2010 9:50

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** | **F10-045-096** | **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 C7515 (299-E28-30); I-064	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**DATA TURNAROUND** 45 Days / 45 Days
ICE CHEST NO. GWS-168	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 49	**ACTUAL SAMPLE DEPTH** 164.2	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-098** | **PAGE 1 OF 2**

COLLECTOR
KAYER, ROMO

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-065

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS-168

FIELD LOGBOOK NO.
HNF-N-491-5 Pg 49

ACTUAL SAMPLE DEPTH
165.8

COA
302117ES30

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: B23638

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									
B235L5	SOIL	1-20-10	1240	✓	✓							

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo	1-20-10 1330	MO-413 SSU-R2	1-20-10 1330
SSU-R2	JAN 2 1 2010 0845	J R AGUILAR CHPRC	JAN 2 1 2010 0845
J R AGUILAR CHPRC	JAN 2 1 2010 0845	Ben Williams Ben Williams	JAN 2 1 2010 9:50

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			F10-045-098	PAGE 2 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 C7515 (299-E28-30); I-065	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-168	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 49	**ACTUAL SAMPLE DEPTH** ~~158~~ 165.8' RCR 1-20-10	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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, Iron, Potassium, Antimony, Aluminum, 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** | **F10-045-099** | **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
C7515 (299-E28-30); I-066

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS-168

FIELD LOGBOOK NO.
HNF-N-491-5 Pg 49

ACTUAL SAMPLE DEPTH
169.5

COA
302117ES30

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: B23638

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									
B235L6	SOIL	1-20-10	1300	✓	✓							

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo	1-20-10 1330	MO-413 554-R2	1-20-10 1330
SSU-R2	JAN 21 2010 0845	J R AGUILAR CHPRC	JAN 21 2010 0845
J R AGUILAR CHPRC	JAN 21 2010 0845	Ben Williams Ben Williams	JAN 21 2010 9:50

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			F10-045-099	PAGE 2 OF 2
COLLECTOR KAYER, ROMO	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-066	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GW5-168	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 49	**ACTUAL SAMPLE DEPTH** +3 169.5 RCR-1-20-10	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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 | F10-045-101 | PAGE 1 OF 2

COLLECTOR
Rust, Rosane. Kaver. Chamberline, Garcia

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

SAMPLING LOCATION
C7515 (299-E28-30); I-067

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

SAF NO. F10-045 | **45 Days / 45 Days**

ICE CHEST NO.
6WS - 169

FIELD LOGBOOK NO. HNF-N-491-5 Pg 50 | **ACTUAL SAMPLE DEPTH** 171.9 | **COA** 302117ES30 | **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: B23657

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										
B235L7	SOIL	1/25/10	12:40	✓	✓								

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Garcia Joaquin	1/25/10 1520	M10-413 SSU R2	1/25/10 1520
SSU-R2	JAN 26 2010 0830	DW Brotherton	JAN 26 2010
DW Brotherton	JAN 26 2010	T. Kutnyakov ✓	11:15 JAN 26 2010
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

SDG # ESL090014

WO # 100100B

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-045-101	PAGE 2 OF 2
COLLECTOR Rust, Rosane, Chamberline, Kaiser, Garcia	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-067	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. 6605-169	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 50	**ACTUAL SAMPLE DEPTH** 171.9	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-102** | **PAGE 1 OF 2**

COLLECTOR
Rust, Rosane, Chamberlain, Kaiser, Garcia

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-068

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
6WS-169

FIELD LOGBOOK NO.
HNF-N-491-5 pg 50

ACTUAL SAMPLE DEPTH
173 ft.

COA
302117ES30

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: B23657

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									
B235L8	SOIL	1/25/10	1246	✓	—							

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Joaquin Garcia	1/25/10 1520	MO-413 SSURE	1/25/10 1520
SSU-R2	JAN 26 2010 0030	DW Brotherton	JAN 26 2010
DW Brotherton	JAN 26 2010 11:15	I. Kudryavtsev	JAN 26 2010

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ ORIGINAL

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

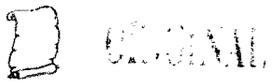
FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE	8N	DATA TURNAROUND
Rust, Chamberline, Rosane, Kaner, Garcia	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY	☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**			
C7515 (299-E28-30); I-068	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045			
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**		
GWS-169	HNF-N-491-5 Pg 50	173.0'	302117ES30	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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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 | F10-045-104 | PAGE 1 OF 2

COLLECTOR
Rust, Chamberline, Kaser, Rosane, Garcia

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

SAMPLING LOCATION
C7515 (299-E28-30); I-069

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

SAF NO. F10-045 | **AIR QUALITY** ☐

ICE CHEST NO.
6WS - 169

FIELD LOGBOOK NO. HNF-N-491-5 pg 50 | **ACTUAL SAMPLE DEPTH** 177.0' | **COA** 302117ES30 | **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: B23639

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
B235L9	SOIL	1/25/10	1305

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Joaquin Garcia	1/25/10 1520	MO-413 SSU-R2	1/25/10 1520
SSU-R2	JAN 26 2010 0830	DW Brotherton	JAN 26 2010 0830
DW Brotherton	JAN 26 2010	I.Kudryavkov 11:15	JAN 26 2010
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			F10-045-104	PAGE 2 OF 2
COLLECTOR Rust, Chamberlain, Kaiser, Rosane, Garcia	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-069	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS - 169	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 50	**ACTUAL SAMPLE DEPTH** 177.0'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

F10-045-105 PAGE 1 OF 2

COLLECTOR
Rust, Rosane, Kaiser, Chamberline, Garcia

COMPANY CONTACT DYEKMAN, DL

TELEPHONE NO. 373-2530

PROJECT COORDINATOR DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND 45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-070

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

SAF NO. F10-045

AIR QUALITY ☐

ICE CHEST NO.
6WS-169

FIELD LOGBOOK NO.
HNF-N-491-5 Pg 50

ACTUAL SAMPLE DEPTH
179.15'

COA 302117ES30

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: B23639

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									
B235M0	SOIL	1/25/10	1405	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Joaquin Garcia	1/25/10 / 1520	MO-413 SSUR2	1/25/10 / 1520
SSU-R2	JAN 26 2010 08:30	DW Brotherton	JAN 26 2010
DW Brotherton	JAN 26 2010 11:15	I. Kudryavtsev	JAN 26 2010
		Lyc Kudryavtsev	

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**

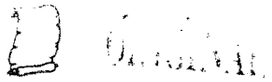
CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-04S-10S** | **PAGE 2 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Rust, Rosane, Kauer, Chamberline, Garcia	DYEKMAN, DL	373-2530	DYEKMAN, DL		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	45 Days / 45 Days
C7515 (299-E28-30); I-070	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
6WS-169	HNF-N-491-5 Pg 50	179.15'	302117ES30	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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-04S-107** | **PAGE 1 OF 1**

COLLECTOR
Rust, Chamberlain, Rosane, Hauer, Garcia

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-071

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
6WS-168

FIELD LOGBOOK NO.
HNF-N-491-5 pg 50

ACTUAL SAMPLE DEPTH
179.15' - 181.65'

COA
302117ES30

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: B23639

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
B235B1	SOIL	1/25/10	1405

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Joaquin Garcia	1/25/10 1520	MO-413, SSOR2	1/25/10 1520
SSU-R2	JAN 26 2010	DW Brotherton	JAN 26 2010
DW Brotherton	JAN 26 2010 11:15	I. Kutsyuba	01.26.2010

SIGN/ PRINT NAMES

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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;

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

F10-045-108 PAGE 1 OF 2

COLLECTOR
Rust, Roscine, Chamberline, Kaver, Garcia

COMPANY CONTACT DYEKMAN, DL

TELEPHONE NO. 373-2530

PROJECT COORDINATOR DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND 45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-072

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

SAF NO. F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS-168

FIELD LOGBOOK NO.
HNF-N-491-5 Pg 50

ACTUAL SAMPLE DEPTH
181.65'

COA 302117ES30

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: B23639

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									
B235M1	SOIL	1/25/10	1405	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Jaywin Garcia	1/25/10 / 1520	MO 413 SSU-R2	1/25/10 / 1520
SSU-R2	JAN 26 2010 0830	DW Brotherton	JAN 26 2010 0830
DW Brotherton	JAN 26 2010 11:15	I Kutnyakov	JAN 26 2010

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** | **F10-045-108** | **PAGE 2 OF 2**

COLLECTOR Rust, Roxane, Chamberline, Kaver, Garcia	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7515 (299-E28-30); I-072	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045
ICE CHEST NO. 6WS-168	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 50	**ACTUAL SAMPLE DEPTH** 181.65'	**COA** 302117ES30
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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

F10-045-110 PAGE 1 OF 1

COLLECTOR
Rust, Rosane, Chamberline, Kauer, Garcia

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-073

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS-169

FIELD LOGBOOK NO.
HNF-N-491-5 pg 50

ACTUAL SAMPLE DEPTH
181.5' - 184.0'

COA
302117ES30

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: B23640

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									
B235B2	SOIL	1/25/10	1440 ✓									

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Joaquin Garcia	1/25/10 / 1520	MO-413 SSU-R2	1/25/10 / 1520
SSU-R2	JAN 26 2010 0930	DW Brotherton	JAN 26 2010 0930
DW Brotherton	JAN 26 2010 11.15	[illegible] Kufnya Kur	JAN 26 2010
		[illegible] Kufnya Kur	

SIGN/ PRINT NAMES

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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** | **F10-045-111** | **PAGE 1 OF 2**

COLLECTOR
Rust, Rosane, Chamberline, Hauer, Garcia

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-074

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
6WS-168

FIELD LOGBOOK NO.
HNF-N-491-5 Pg 50

ACTUAL SAMPLE DEPTH
184.0'

COA
302117ES30

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: B23640

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										
B235M2	SOIL	1/25/10	1440	✓	✓								

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Joaquin Garcia	1/25/10 1520	MO-413 SSU-R2	1/25/10 1520
SSU-R2	JAN 26 2010 08:30	DW Brotherton	JAN 26 2010
DW Brotherton 11:15	JAN 26 2010	J Kutnyako 11:15	JAN 26 2010
		Lynn Kutnyako	

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			F10-045-111	PAGE 2 OF 2
COLLECTOR Rust, Rosane, Chamberline, Kauer, Garcia	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-074	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. 6WS-168	**FIELD LOGBOOK NO.** HNF-N-481-5 Pg 50	**ACTUAL SAMPLE DEPTH** 184.0'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** — **F10-045-113** —

COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8N	**DATA TURNAROUND**
Rosane Garcia Turner	DYEKMAN, DL	373-2530	DYEKMAN, DL	**AIR QUALITY** ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7515 (299-E28-30); I-075	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
SWL-100	HNF-N- 491-5 pg 51	184.0' - 186.5'	302117ES30	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: B23640

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**	
B235B3	SOIL	1-26-10	0745	✓

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

RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
Larry Rosane / Larry Rosane 1-26-10	1530	MO-413 SSURE 1-26-10	1530
MO 413 SSUR-2	1-27-10 0300	D. Parch D...	1-27-10 0300
D. Parch D...	1-27-10 11:00	I. Kudnyakov 1-27-10 Igor Kutnyakov	11:00

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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

SDG# ESL090014

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-04S-114** | **PAGE 1 OF 2**

COLLECTOR: Rosanne Green Turner

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

SAMPLING LOCATION: C7515 (299-E28-30); I-076

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param | **SAF NO.**: F10-045 | **AIR QUALITY**: ☐

ICE CHEST NO.: SML-100 | **FIELD LOGBOOK NO.**: HNF-N-491-5 pg 51 | **ACTUAL SAMPLE DEPTH**: 186.5' | **COA**: 302117ES30 | **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: B23640

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									
B235M3	SOIL	1-26-10	0745	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane 1-26-10	1570	MO-413 SSU RL 1-26-10	1570
MO 413 SSU R-2	1-27-10 0900	D. Parker	1-27-10 0900
D. Parker	1-27-10	I. Kufnyak	1-27-10
	11:00	Lyn Kufnyak	11:00

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

D DYEKMAN

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			F10-045-114	PAGE 2 OF 2
COLLECTOR Rosane Garcia Turner	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-076	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 51	**ACTUAL SAMPLE DEPTH** 186.5'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-116** | **PAGE 1 OF 1**

COLLECTOR
Rosanne Garcia Turner

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
C7515 (299-E28-30); I-077

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

SAF NO.
F10-045

ICE CHEST NO.
SNL-100

FIELD LOGBOOK NO.
HNF-N-491-5 Pg 57

ACTUAL SAMPLE DEPTH
186.7' - 189.2'

COA
302117ES30

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: B23641

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
B235B4	SOIL	1-26-10	0835 ✓

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane	1-26-10/ 1530	MO-413 SSURR	1-26-10/ 1530
MO 413 SSURR	1-27-10 0900	D. Parch	1-27-10 0900
D. Parch	1-27-10	I. Kutnyakov	1-27-10
	11:00		11:00

SIGN/ PRINT NAMES

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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** | **F10-045-117** | **PAGE 1 OF 2**

COLLECTOR: Rosanne Garcia Turner

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

SAMPLING LOCATION: C7515 (299-E28-30); I-078

PROJECT DESIGNATION: 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param | **SAF NO.**: F10-045 | **AIR QUALITY**: ☐

ICE CHEST NO.: SML-100 | **FIELD LOGBOOK NO.**: HNF-N-491-5 pg 51 | **ACTUAL SAMPLE DEPTH**: 189.2' | **COA**: 302117ES30 | **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: B23641

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									
B235M4	SOIL	1-26-10	0835	✓	✓							

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Romine Larry Romine 1-26-10	1530	M0-413 SSURR -1-26-10	1530
M0413 SSURR	1-27-10 0900	D. Parch	1-27-10 0900
D. Parch	1-27-10	I. Kudryakov	1-27-10
	11:00		11:00

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			F10-045-117	PAGE 2 OF 2
COLLECTOR Rosanne Garcia Turner	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-078	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 pg 51	**ACTUAL SAMPLE DEPTH** 189.2'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

F10-045-119 PAGE 1 OF 1

COLLECTOR
Rosane Garcia Turner Rost

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
C7515 (299-E28-30); I-079

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

SAF NO.
F10-045

ICE CHEST NO.
SML100

FIELD LOGBOOK NO.
HNF-N- 491-5 pg 51

ACTUAL SAMPLE DEPTH
190.0' - 192.5'

COA

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: B23641

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										
B235B5	SOIL	1-26-10	0935	✓									

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane 1-26-10	1530	MO-413 SSVR2 1-26-10	1530
MO-413 SSVR2 1-27-10	0900	Malwina Malwina 1-27-10	0900
Malwina Malwina 1-27-10	1100	I. Kufnyakov 1-27-10	
		11:00	

SIGN/ PRINT NAMES

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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

F10-045-120

COLLECTOR Rosawe Garcia Turner Rust	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-080	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. SML100	**FIELD LOGBOOK NO.** HNF-N- 491-5 Pg 51	**ACTUAL SAMPLE DEPTH** 190.0'-192.5'	**COA** 302117ES30	**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: B23641

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		
B235M5	SOIL	1-26-10	0935	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosawe Larry Rosawe	1-26-10/ 1530	MO-413 SSU R2	1-26-10/ 1530
MO 413 SSU-R2	1-27-10 0900	MaWhite MaWhite	1-27-10 0900
MaWhite MaWhite	1-27-10 1100	I Kutnyakov	1-27-10
		Igor Kutnyakov	11:00

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			F10-045-120	PAGE 2 OF 2
COLLECTOR Rosanne Garcia Turner	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-080	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 Pg 51	**ACTUAL SAMPLE DEPTH** 190.0 - 192.5'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.☐☐** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

F10-045-122 PAGE 1 OF 2

COLLECTOR
Rosane, Rust, Turner, Garcia

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
C7515 (299-E28-30); I-081

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

SAF NO.
F10-045

ICE CHEST NO.
SmL 100

FIELD LOGBOOK NO.
HNF-N-491-5 pg 51

ACTUAL SAMPLE DEPTH
195.0'

COA
302117ES30

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: B23642

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										
B235M6	SOIL	1-26-10	1053	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane	1-26-10/1530	MO-413 SSV-R2	1-26-10/1530
MO 413 SSV-R2	1-27/10 0900	MA White MA White	1-27-10 0900
MA White MA White	1-27-10 1100	I. Kutnyakov	1-27-10
		Igor Kutnyakov	11100

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			F10-045-122	PAGE 2 OF 2
COLLECTOR Rosanne Rust Turner Garcia	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-081	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 51	**ACTUAL SAMPLE DEPTH** 195.0'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-123** | **PAGE 1 OF 2**

COLLECTOR
Rosane Rust Turner, Garcia

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
C7515 (299-E28-30); I-082

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

SAF NO.
F10-045

ICE CHEST NO.
5 mL 100

FIELD LOGBOOK NO.
HNF-N-491-5 pg 51

ACTUAL SAMPLE DEPTH
197.0'

COA
302117ES30

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: B23642

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									
B235M7	SOIL	1-26-10	1108	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane	1-26-10/ 1530	MO-413 SSV-R2	1-26-10/ 1530
MO 413 SSV-R2	1-27-10 0900	M A White M A White	1-27-10 0900
M A White M A White	1-27-10 1100	I. Kudnyakov	01-27-10
		[illegible]	11:00

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**

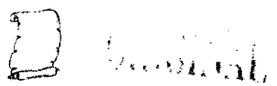
A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-045-123	PAGE 2 OF 2
COLLECTOR Rosanne Rust Turner, Garcia	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-082	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 pg 51	**ACTUAL SAMPLE DEPTH** 197.0'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-125** | **PAGE 1 OF 2**

COLLECTOR Rosanne Rust Turner Garcia	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7515 (299-E28-30); I-083	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045
ICE CHEST NO. SML 100	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg 51	**ACTUAL SAMPLE DEPTH** 200.0'	**COA** 302117ES30
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: B23658

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										
B235M8	SOIL	1-26-10	1325	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Romine-Larry Romine	1-26-10/ 1530	MO-413 SSU-R2	1-26-10/ 1530
MO413 SSU-R2	1-27-10 0900	MA White to MA White	1-27-10 0900
MA White MA White	1-27-10 1100	I Kudnyakov	01-27-10
		Igor Kudnyakov	11:00

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** | **F10-045-125** | **PAGE 2 OF 2**

COLLECTOR Rosane, Rust, Turner, Garcia	**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 C7515 (299-E28-30); I-083	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N- 491-5 Pg 51	**ACTUAL SAMPLE DEPTH** 200.0'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

F10-045-126 PAGE 1 OF 2

COLLECTOR
Rosine, Rust, Turner, Garcia

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
C7515 (299-E28-30); I-084

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

SAF NO.
F10-045

ICE CHEST NO.
SML 100

FIELD LOGBOOK NO.
HNF-N-491-5 pg 51

ACTUAL SAMPLE DEPTH
202.0'

COA
302117ES30

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: B23658

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									
B235M9	SOIL	1-26-10	1425	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosine Larry Rosine	1-26-10/ 1530	MO-413 SSU R2	1-26-10/ 1530
MO-413 SSU R2	1-27-10 0900	Malwitz Malwitz	1-27-10 0900
Malwitz Malwitz	1-27-10 1100	I. Kutnyakov	01-27-10
		Igor Kutnyakov	11:00

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

Unused

LABORATORY SECTION RECEIVED BY — TITLE — DATE/TIME

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

COC # FSL0900014

A-6003-618(01/06)

WO # 100106

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-045-126	PAGE 2 OF 2
COLLECTOR Rosanne Rust Turner, Garcia	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-084	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 51	**ACTUAL SAMPLE DEPTH** 202.0'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-128** | **PAGE 1 OF 2**

COLLECTOR
Rust, Romo, Garcia, Turner

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
C7515 (299-E28-30); I-085

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

SAF NO.
F10-045

ICE CHEST NO.
SOIL - 429 - A

FIELD LOGBOOK NO.
HNF-N-491-Sp 52

ACTUAL SAMPLE DEPTH
205'

COA
302117ES30

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: B23643

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										
B235N0	SOIL	1-27-10	0810	-	/								

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo 1-27-10	1115	MO-413 SSU-R2 1-27-10	1115
J.R. Aguilar CHRBC FEB 01 2010	~~0900~~ 1200	S.A. Ben Williams FEB 01 2010	12:00

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			F10-045-128	PAGE 2 OF 2
COLLECTOR Rust Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7515 (299-E28-30); I-085	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO. SNL-459-A	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 52	**ACTUAL SAMPLE DEPTH** 205'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-129** | **PAGE 1 OF 2**

COLLECTOR Rust, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7515 (299-E28-30); I-086	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045
ICE CHEST NO. SNL-429-A	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 52	**ACTUAL SAMPLE DEPTH** 207.5'	**COA** 302117ES30
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: B23643

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									
B235N1	SOIL	1-27-10	0838	/	/							

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo 1-27-10	1115	MO 413 554-R2 1-27-10	1115
J.H. Aguilar CHRRC FEB 01 2010	0900	B. Williams FEB 01 2010	12:00

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			F10-045-129	PAGE 2 OF 2
COLLECTOR Rust, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-086	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. SML-429-1A	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 52	**ACTUAL SAMPLE DEPTH** 207.5	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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 | F10-045-131 | PAGE 1 OF 2

COLLECTOR
Romo, Rust

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
C7515 (299-E28-30); I-087

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

SAF NO.
F10-045

ICE CHEST NO.
SOIL-429-A

FIELD LOGBOOK NO.
HNF-N-491-5 Pg 52

ACTUAL SAMPLE DEPTH
210'

COA
302117ES30

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: B23659

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									
B235N2	SOIL	1-27-10	0928	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo	1-27-10 1115	MO-413 554-R2	1-27-10 1115
J.R. Aguilar CHPRC	FEB 0 1 2010 0905	Ben Williams	FEB 0 1 2010 12:00
	2/1/10		

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			F10-045-131	PAGE 2 OF 2
COLLECTOR	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7515 (299-E28-30); I-087	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO. SML-429-A	**FIELD LOGBOOK NO.** HNF-N-491-5 Pg	**ACTUAL SAMPLE DEPTH** 210'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-132** | **PAGE 1 OF 2**

COLLECTOR
Romo Rust

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-088

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
SOIL-429-A

FIELD LOGBOOK NO.
HNF-N-491-5 pg 52

ACTUAL SAMPLE DEPTH
212.5'

COA
302117ES30

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: B23659

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									
B235N3	SOIL	1-27-10	1002	/	/							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo/Robert Romo 1-27-10	1115	MO-413 554 R2 1-27-10	1115
J.R. Aguilar CHPRC FEB 01 2010	0700	S. Bea Williams FEB 01 2010	12:00

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			F10-045-132	PAGE 2 OF 2
COLLECTOR Romo, R.J.T	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-088	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. SPIL-429-A	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 52	**ACTUAL SAMPLE DEPTH** 212.5'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-134** | **PAGE 1 OF 2**

COLLECTOR
Rosane, Rust, Turner

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
C7515 (299-E28-30); I-089

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

SAF NO.
F10-045

ICE CHEST NO.
GWS-169

FIELD LOGBOOK NO.
HNF-N-491-5 pg 53

ACTUAL SAMPLE DEPTH
215.5'

COA
302117ES30

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: B23644

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**									
B235N4	SOIL	1-28-10	0755	✓	✓							

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane	1-28-10/ 1505	MO-413 SSV-R2	1-28-10/ 1505
J.H. Aguilar CHPRC	FEB 01 2010 0900 2/1/10	Ben Williams	FEB 01 2010 1200

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**

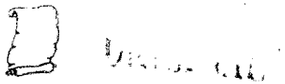
A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-045-134	PAGE 2 OF 2
COLLECTOR Rosawe Rust Turner	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-089	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 53	**ACTUAL SAMPLE DEPTH** 215.5'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-135** | **PAGE 1 OF 2**

COLLECTOR
Rosanne Lost Turner

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
C7515 (299-E28-30); I-090

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

SAF NO.
F10-045

ICE CHEST NO.
GW5-169

FIELD LOGBOOK NO.
HNF-N-491-5 pg 53

ACTUAL SAMPLE DEPTH
217.5'

COA
302117ES30

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: B23644

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										
B235N5	SOIL	1-28-10	0830	✓	✓								

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Lorry Rosane Jenny Rosane	1-28-10 1505	MO-413 JSV-R2	1-28-10 1505
J.H. Aguilar CHPRC	FEB 0 1 2010 ~~0900~~ 1200	Ben Williams	FEB 0 1 2010 12:00
	2/1/10		

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

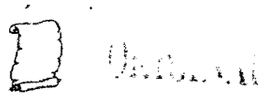
FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-045-135	PAGE 2 OF 2
COLLECTOR Rasmussen, Rust, Turner	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-090	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 53	**ACTUAL SAMPLE DEPTH** 217.5'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-137** | **PAGE 1 OF 2**

COLLECTOR
Rosanne Rust Turner

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-091

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GW5-169

FIELD LOGBOOK NO.
HNF-N-491-5 pg 53

ACTUAL SAMPLE DEPTH
220.0'

COA
302117ES30

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: B23660

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									
B235N6	SOIL	1-28-10	0920	✓	✓							

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosano Larry Rosano 1-28-10	1505	MO-413 SSU-RC 1-28-10	1505
J.R. Aguilar CHPRC	FEB 0 1 2010 0900	JA Ben Williams Ben Williams	FEB 0 1 2010 1200
	2/1/10		

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			F10-045-137	PAGE 2 OF 2
COLLECTOR Leanne Rust Turner	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-091	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 53	**ACTUAL SAMPLE DEPTH** 220.0'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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}

ORIG...AL

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F10-045-138 PAGE 1 OF 2

COLLECTOR
Rosine, Rust, Turner

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
C7515 (299-E28-30); I-092

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

SAF NO.
F10-045

ICE CHEST NO.
GWS-169

FIELD LOGBOOK NO.
HNF-N-491-5 pg 53

ACTUAL SAMPLE DEPTH
222.0'

COA
302117ES30

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: B23660

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								
B235N7	SOIL	1-28-10	0940	✓	✓						

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosine Larry Rosine	1-28-10/ 1505	MO-413 550-RR	1-28-10/ 1505
S.M. Aguilar CHPRC	FEB 0 1 2010 0900	B. Williams	FEB 0 1 2010 12:00

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			F10-045-138	PAGE 2 OF 2
COLLECTOR Rosane, Rust, Turner	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7515 (299-E28-30); I-092	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO. GW5-1169	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 53	**ACTUAL SAMPLE DEPTH** 222.0'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-140** | **PAGE 1 OF 2**

COLLECTOR
Rosane, Rust, Turner

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
C7515 (299-E28-30); I-093

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

SAF NO.
F10-045

ICE CHEST NO.
GWS-169

FIELD LOGBOOK NO. PS 53
HNF-N-491-5

ACTUAL SAMPLE DEPTH
225.0'

COA
302117ES30

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: B23645

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									
B235N8	SOIL	1-28-10	1025	✓	✓							

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Tony Rosane 1-28-10/	1505	MO-413 550-RC 1-28-10/	1505
CHPRC	FEB 0 1 2010 ~~0900~~ 1200	Ben Williams	FEB 0 1 2010 1200
	2/1/10		

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** | **F10-045-140** | **PAGE 2 OF 2**

COLLECTOR Rosane, Rust, Turner	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-093	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** PG 53 HNF-N- 491-5	**ACTUAL SAMPLE DEPTH** 225.0'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-141** | **PAGE 1 OF 2**

COLLECTOR
Rosane Rust Turner

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
C7515 (299-E28-30); I-094

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

SAF NO.
F10-045

ICE CHEST NO.
GW 5-149

FIELD LOGBOOK NO. PS 53
HNF-N-491-5

ACTUAL SAMPLE DEPTH
227.5'

COA
302117ES30

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: B23645

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									
B235N9	SOIL	1-28-10	1048	✓	✓							

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane	1-28-10/ 1505	MO 413 S3UR2	1-28-10/ 1505
U.S. Postal Service CHPRC	FEB 0 1 2010 1200	Ben Williams	FEB 0 1 2010 12:00

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			F10-045-141	PAGE 2 OF 2
COLLECTOR Rosane, Rust, Turner	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-094	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-146	**FIELD LOGBOOK NO.** PF 53 HNF-N- 491-5	**ACTUAL SAMPLE DEPTH** 227.5'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-143** | **PAGE 1 OF 2**

COLLECTOR
Rosane Rust Turner

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
C7515 (299-E28-30); I-095

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

SAF NO.
F10-045

ICE CHEST NO.
GWS-169

FIELD LOGBOOK NO. PS 53
HNF-N-491-5

ACTUAL SAMPLE DEPTH
230.0'

COA
302117ES30

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: B23661

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								
B235P0	SOIL	1-28-10	1245	✓	✓						

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane 1-28-10	1505	MO-413 550-RZ 1-28-10	1505
J.H. Aguilar CHPRC	FEB 0 1 2010 0700	B. Williams	FEB 0 1 2010 12:00
	2010		

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			F10-045-143	PAGE 2 OF 2
COLLECTOR Rosanne Rust Turner	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-095	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** PS 53 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 230.0'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-144** | **PAGE 1 OF 2**

COLLECTOR
Rosane, Rust Turner

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-096

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS-169

FIELD LOGBOOK NO. PS 53
HNF-N-491.5

ACTUAL SAMPLE DEPTH
232.5'

COA
302117ES30

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: B23661

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									
B235P1	SOIL	1-28-10	1310	✓	✓							

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane	1-28-10/ 1505	MO-413 200-22	1-28-10/ 1505
J.R. Aguilar CHPRC	FEB 0 1 2010	Ben Williams	FEB 0 1 2010 12:00

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

UNCONTROLLED

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			F10-045-144 PAGE 2 OF 2
COLLECTOR Rosanne Rust Turner	**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 C7515 (299-E28-30); I-096	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** PG 53 HNF-N- 491-5	**ACTUAL SAMPLE DEPTH** 232.5'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-146** | **PAGE 1 OF 2**

COLLECTOR
Rosanne Rust Turner

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
C7515 (299-E28-30); I-097

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

SAF NO.
F10-045

ICE CHEST NO.
GWS - 169

FIELD LOGBOOK NO. PS 53
HNF-N- 491-5

ACTUAL SAMPLE DEPTH
235.0'

COA
302117ES30

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: B23646

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								
B235P2	SOIL	1-28-10	1342	✓	✓						

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Jenny Rosane 1-28-10	1505	Mo-413 550-22 1-28-10	1505
J.R. Aguilar CHPRC	FEB 01 2010 1200	B. Williams	FEB 01 2010 12:00
	2/1/10		

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			F10-045-146	PAGE 2 OF 2
COLLECTOR Rosanne Rust Turner	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-097	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** PS 53 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 235.0'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

F10-045-147 PAGE 1 OF 2

COLLECTOR
Rosane Lust Turner

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
C7515 (299-E28-30); I-098

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

SAF NO.
F10-045

ICE CHEST NO.
GWS - 169

FIELD LOGBOOK NO. PS 53
HNF-N- 591-5

ACTUAL SAMPLE DEPTH
237.0'

COA
302117ES30

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: B23646

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									
B235P3	SOIL	1-28-10	1435	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane	1-28-10/ 1505	MO-413 550-22	1-28-10/ 1505
CHPRC	FEB 0 1 2010 0900	P Ben Williams	FEB 0 1 2010 12:00
	2/1/10		

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			F10-045-147	PAGE 2 OF 2
COLLECTOR Rosanne Rust Turner	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND**
SAMPLING LOCATION C7515 (299-E28-30); I-098	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	**45 Days / 45 Days**
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** PS 53 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 237.0'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-149** | **PAGE 1 OF 2**

COLLECTOR Rosane, Rust, Rome	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-099	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐
ICE CHEST NO. SML-429-A	**FIELD LOGBOOK NO.** HNF-N-491-5 54	**ACTUAL SAMPLE DEPTH** 240.0'	**COA** 302117ES30	**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: B23666

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**								
B235P4	SOIL	1-29-10	0748	✓	✓						

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

RELINQUISHED BY/REMOVED FROM	**DATE/TIME**	**RECEIVED BY/STORED IN**	**DATE/TIME**
Larry Rosane Larry Rosane	1-29-10/ 1510	200 MO-413 S50-R2	1-29-10/ 1510
J.R. Aguilar CHPRC	FEB 01 2010 0900	M Ben Williams	FEB 01 2010 12:00
	2/1/10		

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**

SAF# ESL 09 0014

A-6003-618(01/06)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-149** | **PAGE 2 OF 2**

COLLECTOR ROSANE, RUST, ROMO	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-099	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. SML-429-8A JA 2/19/10	**FIELD LOGBOOK NO.** PS 54 HNF-N- 491-5	**ACTUAL SAMPLE DEPTH** 240.0'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-150** | **PAGE 1 OF 2**

COLLECTOR
Rosane, Rust Romo

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-100

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
SML-429-28A JA 2/1/10

FIELD LOGBOOK NO. PS 54
HNF-N-491-5

ACTUAL SAMPLE DEPTH
241.9'

COA
302117ES30

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: B23666

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								
B235P5	SOIL	1-29-10	0820	✓	✓						

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane 1-29-10/ 1510		7410-413 550-RL 1-29-10/ 1510	
CHPRC FEB 01 2010	0900	J.R. Williams FEB 01 2010	12:00
	2/1/10		

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** | **F10-045-150** | **PAGE 2 OF 2**

COLLECTOR
Rosane Rust 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
C7515 (299-E28-30); I-100

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

SAF NO.
F10-045

ICE CHEST NO.
SML-429-28A 2/11/10 SR

FIELD LOGBOOK NO. PS 54
HNF-N- 491-5

ACTUAL SAMPLE DEPTH
241.9

COA
302117ES30

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** — **F10-045-152** — **PAGE 1 OF 1**

COLLECTOR Rosane, Rost, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N
SAMPLING LOCATION C7515 (299-E28-30); I-101	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐
ICE CHEST NO. 429 SMC-142-A	**FIELD LOGBOOK NO.** PS 54 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 241.9'-244.4'	**COA** 302117ES30	**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

JA 2/1/10

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: B23647

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	
B235B6	SOIL	1-29-10	0820	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane / Larry Rosane	1-29-10 1510	MO-413 SSU22	1-29-10 1510
CHPRC	FEB 01 2010 ~~0900~~ 1200 JA 2/1/10	Ben Williams / Ben Williams	FEB 01 2010 12:00

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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

F10-045-153

COLLECTOR Rosane Rust Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N
SAMPLING LOCATION C7515 (299-E28-30); I-102	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐
ICE CHEST NO. SML-429-A	**FIELD LOGBOOK NO.** PS 54 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 244.4'	**COA** 302117ES30	**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: B23647

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		
B235P6	SOIL	1-29-10	0820	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane	1-29-10 / 1510	MO-418 SSU-R2	1-29-10 / 1510
CHPRC FEB 0 1 2010	SSU-R2 2/1/10	Ben Williams Ben Williams FEB 0 1 2010	12:00

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			F10-045-153	PAGE 2 OF 2
COLLECTOR Rouwe Rust Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-102	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. SMC-429-A	**FIELD LOGBOOK NO.** PS 54 HNF-N- 5191-5	**ACTUAL SAMPLE DEPTH** 244.4'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** — F10-045-155 — PAGE 1 OF 1

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

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.	AIR QUALITY
C7515 (299-E28-30); I-103	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-045	☐

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
SML-429-A	PS 54 INF-N-491-5	244.6-247.1	302117ES30	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: B23647

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	
B235B7	SOIL	1-29-10	1045	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Roxanne Terry Rosone	1-29-10/ 1510	MO-413 SSU-R2	1-29-10/ 1510
J.R. Aguilar CHPRC	FEB 0 1 2010 0900 2/1/10	SSU Ben Williams	FEB 0 1 2010 12:00

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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** | **F10-045-156** | **PAGE 1 OF 2**

COLLECTOR
Rosanne Rust Romo

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-104

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
SML-429-A

FIELD LOGBOOK NO. PS 54
HNF-N-491-5

ACTUAL SAMPLE DEPTH
247.1

COA
302117ES30

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: B23647

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										
B235P7	SOIL	1-29-10	1045	✓	✓								

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane	1-29-10/ 1510	MO-413 550-RD	1-29-10/ 1510
J.R. Aguilar CHPRC	FEB 0 1 2010 0900	Ben Williams	FEB 0 1 2010 12:00
	2/1/10		

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** | **F10-045-156** | **PAGE 2 OF 2**

COLLECTOR Lonnie Lust Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-104	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. SML-429-A	**FIELD LOGBOOK NO.** PS 54 HNF-N- 491-5	**ACTUAL SAMPLE DEPTH** 244.6-247.1	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

F10-045-158 **PAGE 1 OF 1**

COLLECTOR
Rosario Rust Romo

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-105

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
SML-429-A

FIELD LOGBOOK NO. 15 54

ACTUAL SAMPLE DEPTH
246.2 - 248.7'

COA

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Environmental Sciences Laboratory

OFFSITE PROPERTY NO.
HNF-N-491-5

BILL OF LADING/AIR BILL NO.
N/A

OFFSITE PROPERTY 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: B23648

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									
B235B8	SOIL	1-29-10	1222	✓								

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosario Larry Rosario	1-29-10/ 1510	MO-413 550-R2	1-29-10/ 1510
J.H. Aguilar CHPRC	FEB 0 1 2010 0700	Ben Williams	FEB 0 1 2010 12:00
	2/1/10		

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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** | **F10-045-159** | **PAGE 1 OF 2**

COLLECTOR Rosane, Rust, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-106	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. SMC-429-A	**FIELD LOGBOOK NO.** HNF-N-491-5 PG 54	**ACTUAL SAMPLE DEPTH** 248.7'	**COA** 302117ES30	**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: B23648

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		
B235P8	SOIL	1-29-10	1222	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane 1-29-10/	1510	MO-413 SSU-RE 1-29-10/	1510
J.H. Aguilar CHPRC FEB 0 1 2010	~~0900~~ 200 JA 2/1/10	Ben Williams Ben Williams FEB 0 1 2010	1200

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** | **F10-045-159** | **PAGE 2 OF 2**

COLLECTOR
Rosanne Rust Romo

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-106

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
SAL-429-A

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

ACTUAL SAMPLE DEPTH
248.7'

COA
302117ES30

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-161** |

COLLECTOR Rosanne Rust Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-107	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. SMC-459-A	**FIELD LOGBOOK NO.** PS 54 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 252.5'	**COA** 302117ES30	**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: B23662

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**		
B235P9	SOIL	1-29-10	1355	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosanne [signature]	1-29-10/ 1510	MO-413 SSU-R2	1-29-10/ 1510
J.R. Aguilar CHPRC [signature] FEB 01 2010	0900 2/1/10	SA Ben Williams [signature]	FEB 01 2010 12:00

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** | **F10-045-161** | **PAGE 2 OF 2**

COLLECTOR Rosane Rust Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐
SAMPLING LOCATION C7515 (299-E28-30); I-107	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**DATA TURNAROUND** 45 Days / 45 Days
ICE CHEST NO. SML-429-A	**FIELD LOGBOOK NO.** PS 54 HNF-N- 5991-5	**ACTUAL SAMPLE DEPTH** 252.5'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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 Rosane Rust Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N
SAMPLING LOCATION C7515 (299-E28-30); I-108	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐
ICE CHEST NO. SML-629.A	**FIELD LOGBOOK NO.** FS 54 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 255.0'	**COA** 302117ES30	**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: B23662

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		
B235R0	SOIL	1-29-10	1440	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane	1-29-10/ 1510	MO-413 550-R2	1-29-10/ 1510
J.R. Aguilar CHPRC	FEB 0 1 2010 0900 1200 2/1/10	Ben Williams	FEB 0 1 2010 12:00

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** | **F10-045-162** | **PAGE 2 OF 2**

COLLECTOR
Rosawe Rust Romo

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-108

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
SML-429-A

FIELD LOGBOOK NO. PS 54
HNF-N- 451-5

ACTUAL SAMPLE DEPTH
255.0'

COA
302117ES30

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** — F10-045-164 —

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Rosane, Rust, Anderson	DYEKMAN, DL	373-2530	DYEKMAN, DL		45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	
C7515 (299-E28-30); I-109	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.** PS 55	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
GWS-169	HNF-N- 491-5	257.5'	302117ES30	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: B23649

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		
B235R1	SOIL	2-1-10	0805	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane 2-1-10	1452	Mo-113 SSU R2 2-1-10	1452
SSU-R2 FEB 0 2 2010	0810	J.R. Aguilar CHPRC FEB 0 2 2010	0810
J.R. Aguilar CHPRC FEB 0 2 2010	12:10	Ben Williams Ben Williams FEB 0 2 2010	12:10

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# ~~[illegible]~~ ESL090014 Lot: 1001004-RT

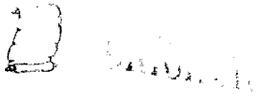
CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-164** | **PAGE 2 OF 2**

COLLECTOR Reanne, Lost Andersen	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-109	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS - 169	**FIELD LOGBOOK NO.** PF 55 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 257.5'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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 — F10-045-165 —

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

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.	AIR QUALITY
C7515 (299-E28-30); I-110	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-045	☐

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
GWS - 169	PS 55 HNF-N- 491-5	259.5'	302117ES30	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: B23649

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		
B235R2	SOIL	2-1-10	0908	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane 2-1-10	1452	MO-413 SSURL 2-1-10	1452
SSU-R2 FEB 0 2 2010	0810	J.H. Aguilar CHPRC FEB 0 2 2010	0810
J.H. Aguilar CHPRC FEB 0 2 2010	12:10	Ben Williams FEB 0 2 2010	12:10

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			F10-045-165	PAGE 2 OF 2
COLLECTOR Rosane, Rust ANDERSON	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-110	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** PG 55 HNF-N-5/91-5	**ACTUAL SAMPLE DEPTH** 259.5'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

F10-045-167 PAGE 1 OF 2

COLLECTOR
Rosnke, Rust Anderson

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-111

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GW3-169

FIELD LOGBOOK NO. PS 55
HNF-N- 491-5

ACTUAL SAMPLE DEPTH
262.5'

COA
302117ES30

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: B23663

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									
B235R3	SOIL	2-1-10	0943	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosnke Larry Rosnke 2-1-10/	1452	MO-413 550R2 2-1-10	1452
B50R2 FEB 0 2 2010	0810	J.H. Aguilar CHPRC FEB 0 2 2010	0810
J.H. Aguilar CHPRC FEB 0 2 2010	12:10	Ben Williams FEB 0 2 2010	12:10
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

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)

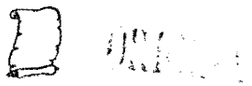
CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-167** | **PAGE 2 OF 2**

COLLECTOR Rossane, Rust, Anderson	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐
SAMPLING LOCATION C7515 (299-E28-30); I-111	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**DATA TURNAROUND** 45 Days / 45 Days
ICE CHEST NO. CW33-169	**FIELD LOGBOOK NO.** PS 55 INF-N-491-5	**ACTUAL SAMPLE DEPTH** 262.5'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

F10-045-168 PAGE 1 OF 2

COLLECTOR
Rosanne Rust Anderson

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
C7515 (299-E28-30); I-112

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

SAF NO.
F10-045

ICE CHEST NO.
GWS-169

FIELD LOGBOOK NO. PS 55
HNF-N-591-5

ACTUAL SAMPLE DEPTH
265.0'

COA
302117ES30

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: B23663

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									
B235R4	SOIL	2-1-10	1100	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME
Larry Rosanne Larry Rosanne 2-1-10/	1452
SSU-R2 FEB 02 2010	0810
J.H. Aguilar CHPRC FEB 02 2010	12:10

SIGN/ PRINT NAMES

RECEIVED BY/STORED IN	DATE/TIME
MO-413 550 R2 2-1-10/	1452
J.H. Aguilar CHPRC FEB 02 2010	0810
Ben Williams FEB 02 2010	12:10

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** | **F10-045-168** | **PAGE 2 OF 2**

COLLECTOR Rosanne Rust Anderson	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-112	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GW5-169	**FIELD LOGBOOK NO.** BP 55 HNF-N-391-5	**ACTUAL SAMPLE DEPTH** 265.0'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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, Potassium, Antimony, Aluminum, Iron, 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** | **F10-045-170** | **PAGE 1 OF 2**

COLLECTOR
Rosanne Rust Anderson

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

SAMPLING LOCATION
C7515 (299-E28-30); I-113

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

SAF NO. F10-045 | **AIR QUALITY** ☐

ICE CHEST NO.
6W5-169

FIELD LOGBOOK NO. HNF-N-391-5 — 55 | **ACTUAL SAMPLE DEPTH** 267.5

COA 302117ES30 | **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: B23650

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									
B235R5	SOIL	2-1-10	1215	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rosanne Rust Anderson 2-1-10	1452	MO-413 550-R2 2-1-10	1452
SSU-R2	FEB 02 2010 0810	J.R. Aguilar CHPRC	FEB 02 2010 0810
J.R. Aguilar CHPRC	FEB 02 2010 1210	Ben Williams	FEB 02 2010 1210

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** | **F10-045-170** | **PAGE 2 OF 2**

COLLECTOR Rosanne Rust Anderson	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N **AIR QUALITY** ☐
SAMPLING LOCATION C7515 (299-E28-30); I-113	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**DATA TURNAROUND** 45 Days / 45 Days
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** PS 55 HNF-N- 491-5	**ACTUAL SAMPLE DEPTH** 267.5'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-171** | **PAGE 1 OF 2**

COLLECTOR
Rosane, Lost Anderson, Green

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-114

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS - 169

FIELD LOGBOOK NO. PS 55
HNF-N-491-5

ACTUAL SAMPLE DEPTH
270.0'

COA
302117ES30

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: B23650

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										
B235R6	SOIL	2-1-10	1330	✓	✓								

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane	2-1-10/ 1452	MO-413 550 Rz 2-1-10/	1452
SSU-R2 FEB 02 2010	0810	J.R. Aguilar CHPRC FEB 02 2010	0810
J.R. Aguilar CHPRC FEB 02 2010	12:10	FEB 02 2010	12:10

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** | **F10-045-171** | **PAGE 2 OF 2**

COLLECTOR Rosane, Rust, Anderson, Garcia	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N
SAMPLING LOCATION C7515 (299-E28-30); I-114	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐
ICE CHEST NO. GWS-169	**FIELD LOGBOOK NO.** PS 55 HNF-N-591-5	**ACTUAL SAMPLE DEPTH** 270.0'	**COA** 302117ES30	**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

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-173** | **PAGE 1 OF 2**

COLLECTOR
Rosalie Rust Anderson, Garcia

SAMPLING LOCATION
C7515 (299-E28-30); I-115

ICE CHEST NO.
GWS-169

SHIPPED TO
Environmental Sciences Laboratory

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

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

FIELD LOGBOOK NO. B5 55
HNF-N-591-5

ACTUAL SAMPLE DEPTH
272.5'

OFFSITE PROPERTY NO.
N/A

PROJECT COORDINATOR
DYEKMAN, DL

SAF NO.
F10-045

COA
302117ES30

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: B23664

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									
B235R7	SOIL	2-1-10	1355	✓	✓							

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Leny Romero Leny Romero 2-1-10	1452	MO-413 550-R2 2-1-10	1452
SSU-R2 FEB 02 2010	0810	CHPRC FEB 02 2010	0810
CHPRC FEB 02 2010	12:10	Ben Williams FEB 02 2010	12:10

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** | **F10-04S-173** | **PAGE 2 OF 2**

COLLECTOR
Rosane, Rust Amerson, Garcia

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-115

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS-169

FIELD LOGBOOK NO. HNF-N-355-5

ACTUAL SAMPLE DEPTH
272.5'

COA
302117ES30

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-174** | **PAGE 1 OF 2**

COLLECTOR
KAYSER, 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
C7515 (299-E28-30); I-116

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

SAF NO.
F10-045

ICE CHEST NO.
GWS - 166

FIELD LOGBOOK NO. PG
HNF-N- 491-5-56

ACTUAL SAMPLE DEPTH
275'

COA
302117ES30

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: B23664

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									
B235R8	SOIL	2-3-10	0945	✓								

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo	2-3-10 / 1550	MO-413, 554-R2	2/3/10 / 1550
SSU-R2	FEB 04 2010 0700	CH. Agent CHPRC	FEB 04 2010 0700
CH. Agent CHPRC	FEB 04 2010 9:30	Ben Williams	FEB 04 2010 9:30

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

F10-045-174

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
KAUER, ROMO	DYEKMAN, DL	373-2530	DYEKMAN, DL	AIR QUALITY ☐	45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
C7515 (299-E28-30); I-116	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.** 13 56	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
GWS-166	HNF-N-491-5	275'	302117ES30	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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-176** | **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
C7515 (299-E28-30); I-117

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS - 166

FIELD LOGBOOK NO. PS 56

ACTUAL SAMPLE DEPTH
278.0

COA
302117ES30

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: B23651

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									
B235R9	SOIL	2-3-10	1035	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME
Rob Romo Robert Romo	2/3/10 1550
SSU-R2	FEB 04 2010 0700
J.H. Aguilar CHPRC	FEB 04 2010 9:30

SIGN/ PRINT NAMES

RECEIVED BY/STORED IN	DATE/TIME
MO-413, S54-R2	2/3/10 1550
CHPRC	FEB 04 2010 0700
Ben Williams	FEB 04 2010 9:30

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			F10-045-176	PAGE 2 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 C7515 (299-E28-30); I-117	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-164	**FIELD LOGBOOK NO.** PG 56 HNF-N-481-5	**ACTUAL SAMPLE DEPTH** 278	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-177** | **PAGE 1 OF 2**

COLLECTOR
Kaller, 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
C7515 (299-E28-30); I-118

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

SAF NO.
F10-045

ICE CHEST NO.
GWS - 166

FIELD LOGBOOK NO. 15 56
HNF-N- 491-5

ACTUAL SAMPLE DEPTH
280'

COA
302117ES30

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: B23651

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									
B235T0	SOIL	2-3-10	1245	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Robert Romo 2/3/10	1550	MO-413, 554-R2 2/3/10	1550
SSU-R2 FEB 04 2010	0700	CHPRC FEB 04 2010	0700
C.H. Aguilar CHPRC FEB 04 2010	9:30	Brett Williams FEB 04 2010	9:30

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

A-6003-618(01/06)

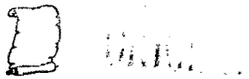
CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-177** | **PAGE 2 OF 2**

COLLECTOR KAUER, 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 C7515 (299-E28-30); I-118	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	
ICE CHEST NO. GWS-164	**FIELD LOGBOOK NO.** PP 56 HNF-N-549-5	**ACTUAL SAMPLE DEPTH** 280'	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-04S-179** | **PAGE 1 OF 1**

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
C7515 (299-E28-30); I-119

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

SAF NO.
F10-045

ICE CHEST NO.
GWS-166

FIELD LOGBOOK NO. 15 56
HNF-N-491-5

ACTUAL SAMPLE DEPTH
279.1 - 282.6'

COA
302117ES30

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: B23651

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									
B235B9	SOIL	2-3-10	1255	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo	2/3/10 1550	MO-413, 554-R2	2-3-10 1550
SSU-R2	FEB 04 2010 0700	J.H. Aguilar CHPRC	FEB 04 2010 0700
J.H. Aguilar CHPRC	FEB 04 2010 9:30	Ben Williams for M. Hill	FEB 04 2010 9:30

SIGN/ PRINT NAMES

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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;

TITLE ORIGINAL **DATE/TIME**

LABORATORY SECTION **RECEIVED BY**

FINAL SAMPLE DISPOSITION **DISPOSAL METHOD**

DISPOSED BY **DATE/TIME**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-180** | **PAGE 1 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
C7515 (299-E28-30); I-120

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS - 166

FIELD LOGBOOK NO. PS 56

ACTUAL SAMPLE DEPTH
282.1

COA
302117ES30

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: B23651

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									
B235T1	SOIL	2-3-10	1255	/	/							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo	2/3/10 1550	MO-413 SSU-R2	2/3/10 1550
SSU-R2	FEB 04 2010 0700	CHPRC	FEB 04 2010 0700
CHPRC	FEB 04 2010 9:30	Ben Williams	FEB 04 2010 9:30

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** | **F10-045-180** | **PAGE 2 OF 2**

COLLECTOR KAGER	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-120	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GW5-164	**FIELD LOGBOOK NO.** B-56 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 282.1	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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}

D ORIGINAL

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-182** | **PAGE 1 OF 1**

COLLECTOR Kauer, Romo, Byrks	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N
SAMPLING LOCATION C7515 (299-E28-30); I-121	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐
ICE CHEST NO. GW2-166	**FIELD LOGBOOK NO.** PS 57 HNF-N- 4945	**ACTUAL SAMPLE DEPTH** 284.0 to 286.5	**COA** 302117ES30	**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: B23652

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	
B235C0	SOIL	2-4-10	1045	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer/Ed Kauer	2-4-10 1540	MO-413 SSU-R2	2-4-10 1540
MO-413 SSU-R2	FEB 05 2010 0730	L.D. Wall CHPRC L.D. Wall	FEB 05 2010 0730
L.D. Wall CHPRC L.D. Wall	FEB 05 2010 9:30	Ben Williams Ben Williams	FEB 05 2010 9:30

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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; * Linner #3 only 3/4 full

ORIGINAL

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

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

A-6003-618(01/06)

13 SDG# ESLC90014 Lot: 1001004-CG

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-183** | **PAGE 1 OF 2**

COLLECTOR
KAUR, Lemo, Bates

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-122

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
6W2-166

FIELD LOGBOOK NO. RS 57
HNF-N-491-5

ACTUAL SAMPLE DEPTH
286.5

COA
302117ES30

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: B23652

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										
B235T2	SOIL	2-4-10	1045	✓	✓								

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed KAUR	2-4-10 1540	MO-413 SSU#2	2-4-10 1540
MO-413 SSU-R2	FEB 05 2010 0730	L.D. Wall CHPRC	FEB 05 2010 0730
L.D. Wall CHPRC	FEB 05 2010 9:30	Be Williams	FEB 05 2010 9:30

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
K/L Bottle only 1/2 full Due to Amount of material in Split Spoon
☐ UNUSED

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

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

SDG# ESL090014 Last: 1001004-CG

A-6003-618(01/06)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-183** | **PAGE 2 OF 2**

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
Kaufl, Romo, Bates	DYEKMAN, DL	373-2530	DYEKMAN, DL		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	45 Days / 45 Days
C7515 (299-E28-30); I-122	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.** PG 57	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
6W2-166	HNF-N- 548-5	286.5	302117ES30	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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-185** | **PAGE 1 OF 1**

COLLECTOR Kruer, Romo / Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7515 (299-E28-30); I-123	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045
ICE CHEST NO. GW2-166	**FIELD LOGBOOK NO.** INF-N-491-5 57	**ACTUAL SAMPLE DEPTH** 288.1 to 288.6	**COA** 302117ES30
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: B23652

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
B235C1	SOIL	2-4-10	1215 ✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kruer/Romo/Bates	2-4-10 1540	MO-413 SSU-R2	2-4-10 1540
MO-413 SSU-R2	FEB 05 2010 0730	L.D. Wall CHPRC	FEB 05 2010 0730
L.D. Wall CHPRC	FEB 05 2010 9:30	Ben Williams	FEB 05 2010 9:30

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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;

LABORATORY SECTION **RECEIVED BY**

TITLE ORIGINAL **DATE/TIME**

FINAL SAMPLE DISPOSITION **DISPOSAL METHOD**

DISPOSED BY **DATE/TIME**

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-186** | **PAGE 1 OF 2**

COLLECTOR Kauer, Remo, Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7515 (299-E28-30); I-124	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045
ICE CHEST NO. 6W2-166	**FIELD LOGBOOK NO.** HNF-N-491-5 B 57	**ACTUAL SAMPLE DEPTH** 288.6	**COA** 302117ES30
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 ☐

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: B23652

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									
B235T3	SOIL	2-4-10	1215	✓	✓							

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer, Edwin Bates	2-4-10 1540	MO-413 SSU-R2	2-4-10 1540
MO-413 SSU-R2	FEB 05 2010 0730	L.D. Wall CHPRC L.D. Wall	FEB 05 2010 0730
L.D. Wall CHPRC L.D. Wall	FEB 05 2010 9:30	Ben Williams	FEB 05 2010 9:30

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** | **F10-045-186** | **PAGE 2 OF 2**

COLLECTOR KAUER, RAMO, BATES	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7515 (299-E28-30); I-124	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045
ICE CHEST NO. GW2-166	**FIELD LOGBOOK NO.** PS 57 HNF-N- 491-5	**ACTUAL SAMPLE DEPTH** 288.6	**COA** 302117ES30
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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-188** | **PAGE 1 OF 1**

COLLECTOR Krause, Roma; Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
PRICE CODE 8N	**DATA TURNAROUND** 45 Days / 45 Days		
SAMPLING LOCATION C7515 (299-E28-30); I-125	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045
AIR QUALITY ☐			
ICE CHEST NO. 6002-166	**FIELD LOGBOOK NO.** HNF-N-491-5 p. 57	**ACTUAL SAMPLE DEPTH** 287.0 to 289.5	**COA** 302117ES30
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: B23653

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										
B235C2	SOIL	2-4-10	1245	✓									

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Krause/Edward Krause	2-4-10 1540	MO-413 SSU-RZ	2-4-10 1540
MO-413 SSU-RZ	FEB 05 2010 0730	L.D. Wall CHPRC	FEB 05 2010 0730
L.D. Wall CHPRC	FEB 05 2010 9:30	Ben Williams	FEB 05 2010 9:30

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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;

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** | **F10-045-189** | **PAGE 1 OF 2**

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

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.
C7515 (299-E28-30); I-126	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param	F10-045

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
GW2-166	HNF-N-491-5 57	289.5	302117ES30	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: B23653

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										
B235T4	SOIL	2-4-10	1245	✓	✓								

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
E. Kaur / E. Kaur	2-4-10 1540	MO-413 SSU-R2	2-4-10 1540
MO-413 SSU-R2	FEB 05 2010 0730	L.D. Wall CHPRC	FEB 05 2010 0730
L.D. Wall CHPRC	FEB 05 2010 9:30	Bert Williams	FEB 05 2010 9:30

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

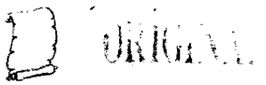
LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-045-189	PAGE 2 OF 2
COLLECTOR Kaur, Romo, Bates	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-126	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GW2-166	**FIELD LOGBOOK NO.** PS 57 HNF-N- 499-5	**ACTUAL SAMPLE DEPTH** 289.5	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-191** | **PAGE 1 OF 1**

COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8N / **DATA TURNAROUND**
KAUER, Romo, Bates	DYEKMAN, DL	373-2530	DYEKMAN, DL	
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐ / 45 Days / 45 Days
C7515 (299-E28-30); I-127	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 289.8 to 292.3	**COA** 302117ES30	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
EW2-166				
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: B23653

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										
B235C3	SOIL	2-4-10	1400	✓									

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed KAUER, Ed Kauer	2-4-10 1540	MO-413 SSU-R2	2-4-10 1540
MO-413 SSU-R2	FEB 05 2010 0730	L.D. Wall CHPRC	FEB 05 2010 0730
L.D. Wall CHPRC	FEB 05 2010 9:30	Ben Williams	FEB 05 2010 9:30

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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;

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** | **F10-045-192** | **PAGE 1 OF 2**

COLLECTOR
KAUER, ROMO, BATES

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
C7515 (299-E28-30); I-128

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

SAF NO.
F10-045

ICE CHEST NO.
6W2-166

FIELD LOGBOOK NO. HNF-N-481-5 (PS 57)

ACTUAL SAMPLE DEPTH
292.3

COA
302117ES30

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: B23653

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										
B235T5	SOIL	2-4-10	1400	✓	✓								

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kauer/Edward Kauer	2-4-10 1540	MO-413 SSU-R2	2-4-10 1540
MO-413 SSU-R2	FEB 05 2010 0730	L.D. Wall CHPRC	FEB 05 2010 0730
L.D. Wall CHPRC	FEB 05 2010 0730	Ben Williams	FEB 05 2010 9:30

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**

A-6003-618(01/06)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-045-192	PAGE 2 OF 2
COLLECTOR KAUER Romo, BATES	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-128	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GW2-166	**FIELD LOGBOOK NO.** PS 57 HNF-N- 491-5	**ACTUAL SAMPLE DEPTH** 292.3	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

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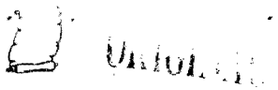


CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-193** | **PAGE 1 OF 1**

COLLECTOR
Kaus, Romo, Baxter

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
C7515 (299-E28-30); I-129

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

SAF NO.
F10-045

ICE CHEST NO.
602-166

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

ACTUAL SAMPLE DEPTH
292.3 to 294.8

COA
302117ES30

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: B23653

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

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME										
B235C4	SOIL	2-4-10	1500	✓									

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kaus/	2-4-10 1540	MO-413 SSU-R2	2-4-10 1540
MO-413 SSU-R2	FEB 05 2010 0730	L.D. Wall CHPRC	FEB 05 2010 0730
L.D. Wall CHPRC	FEB 05 2010 9:30	Ben Williams	FEB 05 2010 9:30

LABORATORY SECTION | **RECEIVED BY**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD**

SIGN/ PRINT NAMES

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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; * NO Recovery 25% ONLY ONE Liner #2 CAP

TITLE | **DATE/TIME**

DISPOSED BY | **DATE/TIME**

(22)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-195** | **PAGE 1 OF 2**

COLLECTOR
KAUSE, Remo GARCIA, ASPLAR

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
C7515 (299-E28-30); I-130

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

SAF NO.
F10-045

ICE CHEST NO.
GWS - 036

FIELD LOGBOOK NO. PS 58
1HNF-N-491-5

ACTUAL SAMPLE DEPTH
294.0

COA
302117ES30

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: B23654

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									
B235T6	SOIL	2-8-10	0750	✓	✓							

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Ed Kause Ed Kause	2-8-10 1516	MO-413 SSU-R2	2-8-10 1516
SSU-R2	FEB 09 2010 0800	Pat Anderson Douglas Anderson	FEB 09 2010 0800
Douglas Anderson Dave Anderson	FEB 09 2010 10:00	Ben Williams	FEB 09 2010 10:00

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			F10-045-195	PAGE 2 OF 2
COLLECTOR KAUER, REMO, GARCIA, AGUILAR,	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-130	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS - 036	**FIELD LOGBOOK NO.** PS 58 ITNF-N-491-5	**ACTUAL SAMPLE DEPTH** 294.0	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-196** | **PAGE 1 OF 1**

COLLECTOR
KRAMER, REMO, GARCIA, Aguilar

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
C7515 (299-E28-30); I-131

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

SAF NO.
F10-045

ICE CHEST NO.

FIELD LOGBOOK NO. PS 58
HNF-N- 491-5

ACTUAL SAMPLE DEPTH
314.0/317.5

COA
302117ES30

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: B23654

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	
B235C5	SOIL	2-8-10	0810	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[signature]	2/8/10 1516	SSU-R2	2/8/10 1516
SSU-R2	FEB 09 2010 1500	DW Brotherton	FEB 09 2010 1500
DW Brotherton	FEB 09 2010 1000	Ben Williams	FEB 09 2010 10:00

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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** | **F10-045-198** | **PAGE 1 OF 2**

COLLECTOR
Kaiser, Aguilar

COMPANY CONTACT
DYEKMAN, DL

TELEPHONE NO.
373-2530

PROJECT COORDINATOR
DYEKMAN, DL

PRICE CODE 8N

DATA TURNAROUND
45 Days / 45 Days

SAMPLING LOCATION
C7515 (299-E28-30); I-132

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

SAF NO.
F10-045

AIR QUALITY ☐

ICE CHEST NO.
GWS-036

FIELD LOGBOOK NO. 15958
HNF-N-491-5

ACTUAL SAMPLE DEPTH
297.5

COA
302117ES30

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: B23654

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										
B235T7	SOIL	2-8-10	0810	L	L								

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[signature]	2/8/10 1516	SSU R2	2/8/10 1516
SSU-R2 0800	FEB 09 2010	Douglas Anderson 0800	FEB 09 2010
Douglas Anderson 10:00	FEB 09 2010	Ben Williams 10:00	FEB 09 2010

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** | **F10-045-198** | **PAGE 2 OF 2**

COLLECTOR Kaiser, Acevedo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N / **AIR QUALITY** ☐
SAMPLING LOCATION C7515 (299-E28-30); I-132	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**DATA TURNAROUND** 45 Days / 45 Days
ICE CHEST NO. 6WS-036	**FIELD LOGBOOK NO.** 95 58 HNF-N- 391-5	**ACTUAL SAMPLE DEPTH** 297.5	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-199** | **PAGE 1 OF 1**

COLLECTOR
Kaller, Aguilar

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
C7515 (299-E28-30); I-133

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

SAF NO.
F10-045

ICE CHEST NO.
EWS-036

FIELD LOGBOOK NO. HNF-N-191-5 PG 58

ACTUAL SAMPLE DEPTH
297.2 / 299.7

COA
302117ES30

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: B23654

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
B235C6	SOIL	2/8/10	1015

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J.R. Kaller	2/8/10 1516	SSU R2	2/8/10 1516
SSU-R2	FEB 09 2010	DW Brotherton	FEB 09 2010
DW Brotherton	FEB 09 2010	Ben Williams	10:00 FEB 09 2010

SIGN/ PRINT NAMES

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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;

LABORATORY SECTION | **RECEIVED BY**

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD**

TITLE | **DATE/TIME**

DISPOSED BY | **DATE/TIME**

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F10-045-201** | **PAGE 1 OF 2**

COLLECTOR
J.D. Aguilar

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
C7515 (299-E28-30); I-134

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

SAF NO.
F10-045

ICE CHEST NO.
6W3-036

FIELD LOGBOOK NO. 99 53
HNF-N-581-5

ACTUAL SAMPLE DEPTH
349.7

COA
302117ES30

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO ESL
~~Environmental Sciences Laboratory~~ 3332

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)

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;

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B23655

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B235T8	SOIL	2/8/10	1015	V	—						

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J.D. Aguilar	2/8/10 1516	SSU R2	2/8/10 1516
SSU-R2	FEB 09 2010	DW Brotherton	FEB 09 2010
DW Brotherton	FEB 09 2010	Ben Williams	FEB 09 2010

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

☐ ORIGINAL

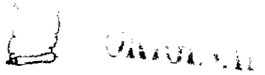
LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F10-045-201	PAGE 2 OF 2
COLLECTOR Kaller Aguilar	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-134	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. 6WS036	**FIELD LOGBOOK NO.** PS 58 HNF-N-571-5	**ACTUAL SAMPLE DEPTH** 399.7	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

F10-045-202

COLLECTOR [signature]	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7515 (299-E28-30); I-135	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045
ICE CHEST NO. GWS-036	**FIELD LOGBOOK NO.** PS 58 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 300.5/308.0	**COA** 302117ES30
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: B23655

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	
B235C7	SOIL	2/8/10	1215	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[signature]	2/8/10 1514	SSU R2	2/8/10 1516
SSU-R2	FEB 09 2010 0800	DW Brotherton [signature]	FEB 09 2010 0800
DW Brotherton [signature]	FEB 09 2010 10:00	Bert Williams [signature] 10:00	FEB 09 2010

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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;

[signature]

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** | **F10-045-204** | **PAGE 1 OF 2**

COLLECTOR Hauer, Hartman	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7515 (299-E28-30); I-136	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045
ICE CHEST NO. GWS-036	**FIELD LOGBOOK NO.** PS-8 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 303.0	**COA** 302117ES30
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 ☐

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: B23655

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								
B235T9	SOIL	2/e/10	1215	✓	✓						

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J.R. Hauer	2/e/10 1516	SSU R2	2/e/10 1516
SSU-R2	FEB 09 2010 0815	DW Brotherton	FEB 09 2010 0815
DW Brotherton	FEB 09 2010 10:00	Ben Williams	10:00 FEB 09 2010

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** | **F10-045-204** | **PAGE 2 OF 2**

COLLECTOR Lauer Aaron	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-136	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-036	**FIELD LOGBOOK NO.** PS 5-E HNF-N-591-5	**ACTUAL SAMPLE DEPTH** 303.0	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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	F10-045-205	PAGE 1 OF 1

COLLECTOR Kaller, Romo, Azurin	**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 C7515 (299-E28-30); I-137	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	
ICE CHEST NO. GWS-036	**FIELD LOGBOOK NO.** HNF-N-591-5 pg 58	**ACTUAL SAMPLE DEPTH** 303.1/305.6	**COA** 302117ES30	**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: B23655

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	
B235C8	SOIL	2/8/10	1320	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J.R. Hauger (signature)	2/8/10 1514	SSU R2	2/8/10 1514
SSU-R2 (signature)	FEB 09 2010 0810	DW Brotherton (signature)	FEB 09 2010 0810
DW Brotherton (signature)	FEB 09 2010 10:00	Ben Williams (signature)	FEB 09 2010 10:00

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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

F10-045-207

COLLECTOR Krauer, Rosno, Aguilar	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N
SAMPLING LOCATION C7515 (299-E28-30); I-138	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐
ICE CHEST NO. GWS-036	**FIELD LOGBOOK NO.** PS58 HNF-N- 491-5	**ACTUAL SAMPLE DEPTH** 305.6	**COA** 302117ES30	**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: B23656

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		
B235V0	SOIL	2/8/10	1320	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[signature]	2/8/10 1516	SSU R2	2/8/10 1516
SSU-R2	FEB 09 2010 8:00	DW Brotherton [signature]	FEB 09 2010 08:00
DW Brotherton [signature]	FEB 09 2010 10:00	Ben Williams [signature] 10:00	FEB 09 2010

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			F10-045-207	PAGE 2 OF 2
COLLECTOR Uauer, Rosso, Arcuino	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); I-138	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-036	**FIELD LOGBOOK NO.** Pg 58 HNF-N- 491-5	**ACTUAL SAMPLE DEPTH** 305.6	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

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ORIGINAL

CH2MHill Plateau Remediation Company | CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST | F10-045-208 | PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8N	DATA TURNAROUND
[handwritten signatures]	DYEKMAN, DL	373-2530	DYEKMAN, DL		45 Days / 45 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	
C7515 (299-E28-30); I-139	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		F10-045		
ICE CHEST NO.	**FIELD LOGBOOK NO.** PS 58	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
GWS-036	HNF-N-491-5	306.0 / 308.5	302117ES30	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: B23656

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	
B235C9	SOIL	2/8/10	1410	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[signature]	2/8/10 1514	SSU R2	2/8/10 1516
SSU-R2	FEB 09 2010 0815	DW Brotherton [signature]	FEB 09 2010 0815
DW Brotherton [signature]	FEB 09 2010	Ben Williams [signature]	10:00 FEB 09 2010

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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

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(1)Density; CATIONEXCH_TR; Particle Size (Dry Sieve) - D422; Particle Size (Hydrometer) - D422; KD - Batch;

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 — F10-045-220

COLLECTOR	Kevin Anglin
COMPANY CONTACT	DYEKMAN, DL
TELEPHONE NO.	373-2530
PROJECT COORDINATOR	DYEKMAN, DL
PRICE CODE	8N
DATA TURNAROUND	45 Days / 45 Days
SAMPLING LOCATION	C7515 (299-E28-30); ADD ON 1
PROJECT DESIGNATION	200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param
SAF NO.	F10-045
AIR QUALITY	☐
ICE CHEST NO.	GWS-036
FIELD LOGBOOK NO.	HNF-N-491-5 Pg 58
ACTUAL SAMPLE DEPTH	302.5
COA	302117ES30
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: B23667

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		
B23668	SOIL	2/8/10	1410	✓	✓

CHAIN OF POSSESSION — SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
S. Rettmann	2/8/10 1516	SSU R2	2/8/10 1516
SSU-R2	FEB 09 2010 0800	DW Brotherton	FEB 09 2010 0800
DW Brotherton	FEB 09 2010 1000	Ben Williams	10:00 FEB 09 2010

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			F10-045-220	PAGE 2 OF 2
COLLECTOR KANE, AUGUSTA	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL	**PRICE CODE** 8N	**DATA TURNAROUND** 45 Days / 45 Days
SAMPLING LOCATION C7515 (299-E28-30); ADD ON 1	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045	**AIR QUALITY** ☐	
ICE CHEST NO. GWS-036	**FIELD LOGBOOK NO.** Fy 58 HNF-N-491-5	**ACTUAL SAMPLE DEPTH** 308.5	**COA** 302117ES30	**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 C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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** | **F10-045-083** | **PAGE 1 OF 1**

COLLECTOR Kauer, Romo	**COMPANY CONTACT** DYEKMAN, DL	**TELEPHONE NO.** 373-2530	**PROJECT COORDINATOR** DYEKMAN, DL
SAMPLING LOCATION C7515 (299-E28-30); I-055	**PROJECT DESIGNATION** 200-PW-2 OU Characterization Vadose Zone - Geochemical Modeling Param		**SAF NO.** F10-045
ICE CHEST NO. GW3 - 168	**FIELD LOGBOOK NO.** HNF-N-491-5 pg 49	**ACTUAL SAMPLE DEPTH** 151.7 - 154.2	**COA** 302117ES30
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: B23635

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										
B23596	SOIL	1-20-10	0910	✓									

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Rob Romo Rob Romo	1-20-10 1035	MO-413 554 R2	1-20-10 1035
SSU-R2	JAN 21 2010 0845	JR AGUILAR CHPRC	JAN 21 2010 0845
JR AGUILAR CHPRC	JAN 21 2010 0845	Ben Williams CHPRC 1/21/10	9150 JAN 21 2010

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

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** ESL shall submit all data deliverables according to SOW "200-LW-2 and 200-BP-5 Operable Units/Contaminant and Transport Property Analysis and Report for Vadose Zone Sediments at Borehole C5860/Well 299-E29-54" for C7515/Well 299-E28-30 ("M" Well) and shall adhere to all S&GRP standard protocol.

** The ESL laboratory shall meet prior requested and confirmed turnaround times and RDLs specified 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

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

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

SDG# ESL090014 Last: 100604-5478

A-6003-618(01/06)