CHPRC - REVIEW COMMENT RECORD (RCR)

1. Date	2. Review No.
08/20/2012	
3. Project No.	Page 1 of 1

5. Document Number(s)/Title(s)	6. Program/Project/Building Number	7. Reviewer	8. Organization/Group	9. Location/Phone
VSR12-021	100-K Remedial Action	JL Hammons	D&D CHPRC	MO-1106/100-K 509-942-3946

17. Comment Submittal Approval	10. Agreement With Indicated Comment Disposition(s)	11. CLOSED
8/21/12 Date; Organization Manager (optional) (print and sign)	Date; Reviewer/Point of Contact (print and sign); Author/Originator (print and sign)	8/20/12 Date; Reviewer/Point of Contact (print and sign); Author/Originator (print and sign)

12. Item	13a. Comments	13b. Basis	13c. Recommendation	14. Reviewer Concurrence Required (Y or N)	15. Disposition (provide justification if **NOT** accepted)	16. Status
1	Page 425 has no circled on sample hold times acceptable.	SIR12-338 cited on page 354 and found on page 358.	Circle yes hold times are acceptable.	N		Closed

CHPRC - REVIEW COMMENT RECORD (RCR)

1. Date	2. Review No.
08/16/2012	
3. Project No.	Page 1 of 2

5. Document Number(s)/Title(s)	6. Program/Project/Building Number	7. Reviewer	8. Organization/Group	9. Location/Phone
VSR12-021		Scot Fitzgerald	Analytical Support Group	2753/373-7495

17. Comment Submittal Approval	10. Agreement With Indicated Comment Disposition(s)	11. CLOSED
Date / Organization Manager (optional) (print and sign)	Scot Fitzgerald Reviewer/Point of Contact (print and sign) 08/06/2012 Date Author/Originator (print and sign)	Scot Fitzgerald Reviewer/Point of Contact (print and sign) Date Author/Originator (print and sign)

12. Item	13a. Comments	13b. Basis	13c. Recommendation	14. Reviewer Concurrence Required (Y or N)	15. Disposition (provide justification if **NOT** accepted)	16. Status
1	Page 6 Surrogates section states: "All surrogate recoveries were acceptable." and "All surrogate recoveries were acceptable with the following acceptions."	Inconsistent verbiage	Remove "All surrogate recoveries were acceptable." statement	Y		
2	Inorganics section missing discussion and flags for SDG WSCF120922 batch 205258 Zn spike failure.		Add discussion and flags to qualification summary and appended data.	Y		
3	General chemistrysection missing discussion and flags for SDGs WSCF120895 QC batch 204913 and WSCF120900 QC batch 204923 sulfate spike failures.		Add discussion and flags to qualification summary and appended data.	Y		
4	Page 1122 typo on analyte Pu-236/240 - should be Pu-239/240.		Correct typo.	Y		

CHPRC - REVIEW COMMENT RECORD (RCR)

1. Date	2. Review No.
8/21/2012	RCR-VSR12-021
3. Project No. 100K	Page 1 of 1

5. Document Number(s)/Title(s)	6. Program/Project/Building Number	7. Reviewer	8. Organization/Group	9. Location/Phone
VSR12-21, Area AG Zoen 2 Verification Samples, Project 100K	SGRP	SL Huggins	SGRP QA	MO-2216E/A101 373-3630

17. Comment Submittal Approval	10. Agreement With Indicated Comment Disposition(s)	11. CLOSED
8/21/12 Date; SL Huggins Organization Manager (optional) (print and sign)	Date; Reviewer/Point of Contact (print and sign); Author/Originator (print and sign)	8/28/12 Date; Reviewer/Point of Contact (print and sign); 8/21/12 Date; SL Huggins Author/Originator (print and sign)

12. Item	13a. Comments	13b. Basis	13c. Recommendation	14. Reviewer Concurrence Required (Y or N)	15. Disposition (provide justification if **NOT** accepted)	16. Status
1	Radiochemical Section on the data qualification summary sheet need to correct Pu-236/240 to Pu-239/240	editorial		Y	Error corrected	CLOSED

ANALYTICAL QUALITY ASSOCIATES, INC.
616 Maxine NE
Albuquerque, NM 87123
505-299-5201
www.aqainc.net

Data Validation Report for CH2M Hill
Plateau Remediation Company

VSR12-021
Area AG Zone 2 Verification Samples
Project 100-K

Chemical & Radiochemical Validation - Level C

Validation Performed By: _____ ***Date: 08-13-12***
Kenneth Salaz

Validation Performed By: Eyda Hergenreder ***Date: 08-10-12***
Eyda Hergenreder

Validation reviewed by: _____ ***Date: 08-15-12***
Marcia Hilchey

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Date: 13 August 2012
To: CH2M Hill (technical representative)
From: Analytical Quality Associates, Inc.
Project: 100 K RA
Subject: SVOCs - Sample Data Groups (SDGs) WSCF120788, WSCF120894, WSCF120895, WSCF120900, WSCF120922

INTRODUCTION

This memorandum presents the results of data validation for SDGs WSCF120788, WSCF120894, WSCF120895, WSCF120900, and WSCF120922 prepared by WSCF Analytical Laboratories. A list of samples validated along with the analytical methods is provided in the following table.

Sample ID	Sample Date	Media	Validation Level	Analytical Methods
B2JDD8	6/18/12	Soil	C	8270D
B2JDH9	7/10/12	Soil	C	8270D
B2JDH6	7/10/12	Soil	C	8270D
B2JDM8	7/11/12	Soil	C	8270D
B2JDN1	7/11/12	Soil	C	8270D
B2JDV3	7/11/12	Soil	C	8270D
B2JDP6	7/11/12	Soil	C	8270D
B2JDN7	7/11/12	Soil	C	8270D
B2JDN4	7/11/12	Soil	C	8270D
B2JDT7	7/12/12	Soil	C	8270D
B2JDT4	7/12/12	Soil	C	8270D
B2JDH3	7/10/12	Soil	C	8270D
B2JDK4	7/12/12	Soil	C	8270D
B2JDJ5	7/12/12	Soil	C	8270D
B2JDV0	7/12/12	Soil	C	8270D
B2JDP0	7/10/12	Soil	C	8270D
B2JDR8	7/12/12	Soil	C	8270D
B2JDT1	7/12/12	Soil	C	8270D
B2JF32	7/10/12	Soil	C	8270D
B2JDJ8	7/10/12	Soil	C	8270D
B2JDR2	7/11/12	Soil	C	8270D
B2JDR5	7/12/12	Soil	C	8270D
B2JDP3	7/11/12	Soil	C	8270D
B2JDP9	7/11/12	Soil	C	8270D
B2JDV6	7/11/12	Soil	C	8270D
B2JDK1	7/11/12	Soil	C	8270D
B2JF35	7/11/12	Soil	C	8270D
B2JF47	7/11/12	Soil	C	8270D
B2JF44	7/17/12	Soil	C	8270D
B2JDJ2	7/17/12	Soil	C	8270D

B2JDK7	7/17/12	Soil	C	8270D

Data validation was conducted in accordance with the CHPRC validation statement of work and the Sampling and Analysis Plan for Supplemental Remedial Investigation/Feasibility Study Work Plan for the 100 Area Remedial Action Sampling and Analysis Plan, DOE/RL-96-22, Rev. 5 (SAP). Appendices 1 through 6 provide the following information as indicated below:

Appendix 1. Glossary of Data Reporting Qualifiers
Appendix 2. Summary of Data Qualification
Appendix 3. Annotated Laboratory Reports
Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
Appendix 5. Data Validation Supporting Documentation
Appendix 6. Additional Documentation Requested By Client

DATA QUALITY OBJECTIVES

- **Holding Times and Sample Preservation**

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The holding time requirements for SVOCs in soil are extraction within 14 days of sample collection and analysis within 40 days of sample extraction.

The samples were extracted and analyzed within the prescribed holding times and properly preserved.

- **Blanks**

The blank data results are reviewed to assess the extent of contamination introduced through sampling, sample preparation, and analysis.

Laboratory Blanks

All laboratory blank results were acceptable.

Trip Blanks

No trip blanks were submitted for validation.

Field Blanks

No field blanks were submitted for validation.

Equipment Blanks

All equipment blanks results were acceptable.

- **Accuracy**

Accuracy is evaluated by reviewing surrogate results, matrix spike sample results, and laboratory control sample results. According to the SAP, the matrix spike and laboratory control sample accuracy limits are 50% to 150%.

Surrogates

All surrogate recoveries were acceptable with the following exceptions.

For SDG WSCF120788, the nitrobenzene-d5 surrogate percent recovery (%R) for sample B2JDD8 was > the QC acceptance limit. However, the associated sample results were all non-detects (NDs) and, therefore, should not be qualified.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Samples

All MS/MSD recoveries were acceptable except as noted below.

For SDGs WSCF120895 & WSCF120900, batch 205198, the MS/MSD %Rs for 3,3'-dichlorobenzidine were < the QC acceptance limit but >20%. The associated sample results were non-detects (NDs) and, therefore, should be qualified as estimated and flagged "UJ."

Laboratory Control Samples (LCSs)

All LCS recoveries were acceptable except as noted below.

For SDG WSCF120895, Batch 205198, the LCS %R for 3,3'-dichlorobenzidine was < the QC acceptance limit but >20%. The associated result of sample B2JDN4 was ND and, therefore, should be qualified as estimated and flagged "UJ."

- **Precision**

Precision is evaluated by reviewing MS/MSD results, LCS/LCSD results, field duplicate sample results, and field split sample results. These QC results provide information on the laboratory reproducibility and whether sampling activities are adequate to acquire consistent sample results. According to the SAP, the relative percent difference (RPD) limit is 30%. When duplicate RPDs exceed the limits and have associated results <5X the SAP required detection limits with differences <2X the required detection limits no precision infraction occurred.

MS/MSD Samples

All MS/MSD RPD values were acceptable.

Field Duplicate Samples

All field duplicate results were acceptable.

Field Split Samples

No field splits were submitted for validation.

- **Internal Standards**

Internal standard performance criteria ensure that GC/MS sensitivity and response are stable during each analysis. Internal standards are added to all samples, including QC samples, prior to analysis.

Internal standards data was not included in the data package. Sample results should not be qualified based on this.

- **Detection Limits**

Reported MDLs are compared against the contractually required detection limits (CRDLs) to ensure that laboratory detection limits meet the required criteria.

All reported sample MDLs were below the CRDLs.

- **Completeness**

SDGs WSCF120788, WSCF120894, WSCF120895, WSCF120900, and WSCF120922 were submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

Minor deficiencies leading to qualification of 3,3'-dichlorobenzidine as estimates were due to LCS and MS/MSD %Rs < the QC acceptance limit. See the table in Appendix 2 for a listing of all affected sample results.

REFERENCES

GRP-GD-003, Rev. 0, Change 0, *Data Validation for Chemical Analyses*, August 2010.

DOE/RL-96-22, Rev. 5, *100 Area Remedial Action Sampling and Analysis Plan*, September 2009.

Appendix 1

Glossary of Data Reporting Qualifiers

Qualifiers that may be applied by data validators in compliance with the CHPRC statement of work are as follows:

- **U** — The constituent was analyzed for, but was not detected. The data should be considered usable for decision-making purposes.

- **UJ** — The constituent was analyzed for and was not detected. Due to a quality control deficiency identified during data validation the value reported may not accurately reflect the RL. The data should be considered usable for decision-making purposes.

- **J** — Indicates the constituent was analyzed for and detected. The associated value is estimated due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J+** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected positive bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J-** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected negative bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **N** — The analysis indicates the presence of an analyte that has been tentatively identified.

- **NJ** — The analysis indicates the presence of an analyte that has been tentatively identified and the associated numerical value represents its approximate concentration.

- **NJ+** — The analysis indicates the presence of an analyte that has been tentatively identified. The associated value is estimated with a suspected positive bias due to a quality control deficiency identified during data validation.

- **NJ-** — The analysis indicates the presence of an analyte that has been tentatively identified. The associated value is estimated with a suspected negative bias due to a quality control deficiency identified during data validation.

- **UR** — Indicates the constituent was analyzed for and not detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

- **R** — Indicates the constituent was analyzed for and detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

Appendix 2

Summary of Data Qualification

Semivolatile Organics Data Qualification Summary			
SDGs: WSCF120895 & WSCF120900	Reviewer: AQA	Project: 100 K RA	Page 1 of 1
Analyte(s)	**Qualifier**	**Samples Affected**	**Reason**
3,3'-dichlorobenzidine	**UJ**	B2JDN4, B2JDT7, B2JDT4, B2JDK4, B2JDR2, B2JDP3, B2JDP9, B2JDV6, B2JDK1, B2JF35, B2JF47	Low LCS and MS/MSD %Rs

Comments: None

Appendix 3

Annotated Laboratory Reports

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Sample # 120788001
SAF# F12-005
Sample ID B2JDD8

Matrix SOIL
Sampled 06/18/12
Received 06/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**06/21/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	06/26/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	06/26/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	06/26/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	06/26/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	06/26/12
Aroclor-1254	11097-69-1	LA-523-427		12		ug/kg	1	4	8	06/26/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	06/26/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	06/26/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	06/26/12
Preparation for 8270 (S) ASE										**06/19/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

REVISED120788 -

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Sample # 120788001
SAF# F12-005
Sample ID B2JDD8

Matrix SOIL
Sampled 06/18/12
Received 06/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
4-Chloroaniline	106-47-8	LA-523-456	U	<400		ug/kg	1	400	800	06/21/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12

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DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

REVISED120788 -

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Sample # 120788001
SAF# F12-005
Sample ID B2JDD8

Matrix SOIL
Sampled 06/18/12
Received 06/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Diethyl phthalate	84-66-2	LA-523-456	U	<300		ug/kg	1	300	800	06/21/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<300		ug/kg	1	300	800	06/21/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12

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DF = Dilution Factor
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

REVISED120788 -

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Sample # 120788001
SAF# F12-005
Sample ID B2JDD8

Matrix SOIL
Sampled 06/18/12
Received 06/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

REVISED120788 -

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Sample # 120894007
SAF# F12-005
Sample ID B2JDH9

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

MDL = Minimum Detection Limit
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+ - Indicates more than nine qualifier

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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Sample # 120894007
SAF# F12-005
Sample ID B2JDH9

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Sample # 120894007
SAF# F12-005
Sample ID B2JDH9

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

MDL = Minimum Detection Limit
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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Sample # 120894007
SAF# F12-005
Sample ID B2JDH9

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Sample # 120894008
SAF# F12-005
Sample ID B2JDH6

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427		17		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Sample # 120894008
SAF# F12-005
Sample ID B2JDH6

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Sample # 120894008
SAF# F12-005
Sample ID B2JDH6

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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TP Err = Total Propagated Error
DF = Dilution Factor
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N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Sample # 120894008
SAF# F12-005
Sample ID B2JDH6

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895001
SAF# F12-005
Sample ID B2JDM8

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	UD	<8		ug/kg	2	8	20	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	UD	<20		ug/kg	2	20	30	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	UD	<8		ug/kg	2	8	20	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	UD	<8		ug/kg	2	8	20	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	UD	<8		ug/kg	2	8	20	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	UD	<8		ug/kg	2	8	20	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	D	200		ug/kg	2	8	20	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	UD	<8		ug/kg	2	8	20	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	UD	<8		ug/kg	2	8	20	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895001
SAF# F12-005
Sample ID B2JDM8

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

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D - Analyte was reported at a secondary diltution factor.
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895001
SAF# F12-005
Sample ID B2JDM8

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

MDL = Minimum Detection Limit
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DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895001
SAF# F12-005
Sample ID B2JDM8

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895002
SAF# F12-005
Sample ID B2JDN1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427		12		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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TP Err = Total Propagated Error
DF = Dilution Factor
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J - Analyte < lowest calibration but >= MDL.
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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895002
SAF# F12-005
Sample ID B2JDN1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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D - Analyte was reported at a secondary diltution factor.
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895002
SAF# F12-005
Sample ID B2JDN1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

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D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895002
SAF# F12-005
Sample ID B2JDN1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

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D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895003
SAF# F12-005
Sample ID B2JDV3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	UD	<400		ug/kg	50	400	800	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895003
SAF# F12-005
Sample ID B2JDV3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895003
SAF# F12-005
Sample ID B2JDV3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895003
SAF# F12-005
Sample ID B2JDV3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895004
SAF# F12-005
Sample ID B2JDP6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427		53		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

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D - Analyte was reported at a secondary diltution factor.
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895004
SAF# F12-005
Sample ID B2JDP6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

MDL = Minimum Detection Limit
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TP Err = Total Propagated Error
DF = Dilution Factor
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E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895004
SAF# F12-005
Sample ID B2JDP6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

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D - Analyte was reported at a secondary diltution factor.
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895004
SAF# F12-005
Sample ID B2JDP6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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B - Analyte was detected in both the BLANK and SAMPLE
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895005
SAF# F12-005
Sample ID B2JDN7

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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TP Err = Total Propagated Error
DF = Dilution Factor
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N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895005
SAF# F12-005
Sample ID B2JDN7

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895005
SAF# F12-005
Sample ID B2JDN7

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895005
SAF# F12-005
Sample ID B2JDN7

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895006
SAF# F12-005
Sample ID B2JDN4

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895006
SAF# F12-005
Sample ID B2JDN4

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895006
SAF# F12-005
Sample ID B2JDN4

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	UX	<200	UJ	ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895006
SAF# F12-005
Sample ID B2JDN4

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900001
SAF# F12-005
Sample ID B2JDT7

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900001
SAF# F12-005
Sample ID B2JDT7

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/25/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900001
SAF# F12-005
Sample ID B2JDT7

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/25/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	UX	<200	UJ	ug/kg	1	200	300	07/25/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900001
SAF# F12-005
Sample ID B2JDT7

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900002
SAF# F12-005
Sample ID B2JDT4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

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

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D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900002
SAF# F12-005
Sample ID B2JDT4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/25/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900002
SAF# F12-005
Sample ID B2JDT4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/25/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	UX	<200	UJ	ug/kg	1	200	300	07/25/12

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

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D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900002
SAF# F12-005
Sample ID B2JDT4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900003
SAF# F12-005
Sample ID B2JDH3

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427		24		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900003
SAF# F12-005
Sample ID B2JDH3

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900003
SAF# F12-005
Sample ID B2JDH3

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

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D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900003
SAF# F12-005
Sample ID B2JDH3

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900004
SAF# F12-005
Sample ID B2JDK4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

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

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D - Analyte was reported at a secondary diltution factor.
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900004
SAF# F12-005
Sample ID B2JDK4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/25/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900004
SAF# F12-005
Sample ID B2JDK4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/25/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	UX	<200	UJ	ug/kg	1	200	300	07/25/12

MDL = Minimum Detection Limit
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900004
SAF# F12-005
Sample ID B2JDK4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900005
SAF# F12-005
Sample ID B2JDJ5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Preparation for 8270 (S) ASE										**07/24/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

MDL = Minimum Detection Limit
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900005
SAF# F12-005
Sample ID B2JDJ5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/25/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

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J - Analyte < lowest calibration but >= MDL.
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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900005
SAF# F12-005
Sample ID B2JDJ5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/25/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

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

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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900005
SAF# F12-005
Sample ID B2JDJ5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

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D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900006
SAF# F12-005
Sample ID B2JDV0

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Preparation for 8270 (S) ASE										**07/24/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900006
SAF# F12-005
Sample ID B2JDV0

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/26/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

MDL = Minimum Detection Limit
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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900006
SAF# F12-005
Sample ID B2JDV0

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/26/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900006
SAF# F12-005
Sample ID B2JDV0

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900007
SAF# F12-005
Sample ID B2JDP0

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427		250		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

MDL = Minimum Detection Limit
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900007
SAF# F12-005
Sample ID B2JDP0

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900007
SAF# F12-005
Sample ID B2JDP0

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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DF = Dilution Factor
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N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900007
SAF# F12-005
Sample ID B2JDP0

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

MDL = Minimum Detection Limit
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DF = Dilution Factor
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D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900008
SAF# F12-005
Sample ID B2JDR8

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Preparation for 8270 (S) ASE										**07/24/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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DF = Dilution Factor
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900008
SAF# F12-005
Sample ID B2JDR8

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/26/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900008
SAF# F12-005
Sample ID B2JDR8

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/26/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900008
SAF# F12-005
Sample ID B2JDR8

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900009
SAF# F12-005
Sample ID B2JDT1

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Preparation for 8270 (S) ASE										**07/24/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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J - Analyte < lowest calibration but >= MDL.
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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900009
SAF# F12-005
Sample ID B2JDT1

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/26/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900009
SAF# F12-005
Sample ID B2JDT1

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/26/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900009
SAF# F12-005
Sample ID B2JDT1

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900010
SAF# F12-005
Sample ID B2JF32

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427		17		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900010
SAF# F12-005
Sample ID B2JF32

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900010
SAF# F12-005
Sample ID B2JF32

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

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D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900010
SAF# F12-005
Sample ID B2JF32

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

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N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900011
SAF# F12-005
Sample ID B2JDJ8

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	J	5.7		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427		18		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

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D - Analyte was reported at a secondary diltution factor.
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900011
SAF# F12-005
Sample ID B2JDJ8

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900011
SAF# F12-005
Sample ID B2JDJ8

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/18/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900011
SAF# F12-005
Sample ID B2JDJ8

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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D - Analyte was reported at a secondary diltution factor.
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900012
SAF# F12-005
Sample ID B2JDR2

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900012
SAF# F12-005
Sample ID B2JDR2

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900012
SAF# F12-005
Sample ID B2JDR2

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	UX	<200	UJ	ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900012
SAF# F12-005
Sample ID B2JDR2

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900013
SAF# F12-005
Sample ID B2JDR5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Preparation for 8270 (S) ASE										**07/24/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
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DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900013
SAF# F12-005
Sample ID B2JDR5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/26/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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

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D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900013
SAF# F12-005
Sample ID B2JDR5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/26/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900013
SAF# F12-005
Sample ID B2JDR5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900014
SAF# F12-005
Sample ID B2JDP3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427		28		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900014
SAF# F12-005
Sample ID B2JDP3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900014
SAF# F12-005
Sample ID B2JDP3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	UX	<200	UJ	ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900014
SAF# F12-005
Sample ID B2JDP3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900015
SAF# F12-005
Sample ID B2JDP9

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900015
SAF# F12-005
Sample ID B2JDP9

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
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J - Analyte < lowest calibration but >= MDL.
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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900015
SAF# F12-005
Sample ID B2JDP9

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	UX	<200	UJ	ug/kg	1	200	300	07/24/12

MDL = Minimum Detection Limit
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900015
SAF# F12-005
Sample ID B2JDP9

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900016
SAF# F12-005
Sample ID B2JDV6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900016
SAF# F12-005
Sample ID B2JDV6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900016
SAF# F12-005
Sample ID B2JDV6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	UX	<200	UJ	ug/kg	1	200	300	07/24/12

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TP Err = Total Propagated Error
DF = Dilution Factor
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N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900016
SAF# F12-005
Sample ID B2JDV6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900017
SAF# F12-005
Sample ID B2JDK1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900017
SAF# F12-005
Sample ID B2JDK1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

MDL = Minimum Detection Limit
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N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900017
SAF# F12-005
Sample ID B2JDK1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	UX	<200	UJ	ug/kg	1	200	300	07/24/12

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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900017
SAF# F12-005
Sample ID B2JDK1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900018
SAF# F12-005
Sample ID B2JF35

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900018
SAF# F12-005
Sample ID B2JF35

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

MDL = Minimum Detection Limit
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DF = Dilution Factor
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N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900018
SAF# F12-005
Sample ID B2JF35

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	UX	<200	UJ	ug/kg	1	200	300	07/24/12

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N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900018
SAF# F12-005
Sample ID B2JF35

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
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D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900019
SAF# F12-005
Sample ID B2JF47

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900019
SAF# F12-005
Sample ID B2JF47

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

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D - Analyte was reported at a secondary diltution factor.
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900019
SAF# F12-005
Sample ID B2JF47

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/24/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	UX	<200	UJ	ug/kg	1	200	300	07/24/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900019
SAF# F12-005
Sample ID B2JF47

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Sample # 120922007
SAF# F12-005
Sample ID B2JF44

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Preparation for 8270 (S) ASE										**07/24/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

MDL = Minimum Detection Limit
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DF = Dilution Factor
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J - Analyte < lowest calibration but >= MDL.
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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Sample # 120922007
SAF# F12-005
Sample ID B2JF44

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/26/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Sample # 120922007
SAF# F12-005
Sample ID B2JF44

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/26/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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D - Analyte was reported at a secondary diltution factor.
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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Sample # 120922007
SAF# F12-005
Sample ID B2JF44

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Sample # 120922008
SAF# F12-005
Sample ID B2JDJ2

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Preparation for 8270 (S) ASE										**07/24/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Sample # 120922008
SAF# F12-005
Sample ID B2JDJ2

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/26/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Sample # 120922008
SAF# F12-005
Sample ID B2JDJ2

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/26/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

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D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Sample # 120922008
SAF# F12-005
Sample ID B2JDJ2

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Sample # 120922009
SAF# F12-005
Sample ID B2JDK7

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Preparation for 8270 (S) ASE										**07/24/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Sample # 120922009
SAF# F12-005
Sample ID B2JDK7

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
n-Nitroso-di-n-propylamine	621-64-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Pentachlorophenol	87-86-5	LA-523-456	U	<200		ug/kg	1	200	500	07/26/12
2-Chlorophenol	95-57-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Nitroaniline	100-01-6	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Bromophenyl-phenylether	101-55-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloroaniline	106-47-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis(1-Chloro-2-propyl)ether	108-60-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Chloroethyl) ether	111-44-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Chloroethoxy)methane	111-91-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Di-n-octylphthalate	117-84-0	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorobenzene	118-74-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Dimethylphthalate	131-11-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Dibenzofuran	132-64-9	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Sample # 120922009
SAF# F12-005
Sample ID B2JDK7

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<200		ug/kg	1	200	500	07/26/12
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,3-Dichlorobenzene	541-73-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,6-Dinitrotoluene	606-20-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chlorophenyl-phenylether	7005-72-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorocyclopentadiene	77-47-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Isophorone	78-59-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Diethyl phthalate	84-66-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Di-n-butylphthalate	84-74-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Butylbenzylphthalate	85-68-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
n-Nitrosodiphenylamine	86-30-6	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Carbazole	86-74-8	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachlorobutadiene	87-68-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Nitroaniline	88-74-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Nitrophenol	88-75-5	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2-Chloronaphthalene	91-58-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
3,3-Dichlorobenzidine	91-94-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

MDL = Minimum Detection Limit
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TP Err = Total Propagated Error
DF = Dilution Factor
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T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Sample # 120922009
SAF# F12-005
Sample ID B2JDK7

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2-Methylphenol	95-48-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2-Dichlorobenzene	95-50-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Nitrobenzene	98-95-3	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
3-Nitroaniline	99-09-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Hexachloroethane	67-72-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

Attachment 2
Narrative Rev1
WSCF120788

Revision 1: P&D to correct 3-nitroaniline MDL and PQL – this case narrative replaces the prior in its entirety.

Introduction

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

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

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

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

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

Analytical Methodology for Requested Analyses

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

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Attachment 2
Narrative Rev1
WSCF120788

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

- All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Vanadium and Copper – Detected in the Blank and evaluated. No sample results in this batch were affected. "C" Flags not required.
- All other applicable QC controls are within the established limits.

Organic Comments

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

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- The Method Blank, LCS, MS, MSD and sample B2JDD8 (120788001) did not meet the acceptance limits for surrogate Nitrobenzene-d5. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.
- The Method Blank did not meet the acceptance limits for surrogate Terphenyl-d14. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.
- All other applicable QC controls are within the established limits.

Radiochemistry Comments

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

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gamma Energy Analysis:

Attachment 2
Narrative Rev1
WSCF120788

- Europium-155 - Duplicate Relative Percent Difference (RPD) could not be reported by the LIMS system because it cannot perform the calculation from a value divisible by zero.

- All applicable QC controls are within the established limits.

Americium-241:

- Americium-241 – The Blank is less than two times the RDL. "B" Flag not required.

- Americium-241 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results near the minimum detectable activity. No flags issued.

- All other applicable QC controls are within the established limits.

Isotopic Plutonium analysis:

- Plutonium-239/240 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results near the minimum detectable activity. No flags issued.

- All other applicable QC controls are within the established limits.

Isotopic Uranium analysis:

- Uranium-234 and Uranium-238 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.

- Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.

- All other applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

Attachment 2
Narrative Rev1
WSCF120788

Problem and Discrepancy Report

WSCF

SDG WSCF120788

07/26/2012

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1. The data package has the following issues:

a) The electronic data, as well as, the sample result, MDL and PQL is missing for 3-Nitroaniline page 23 of the hardcopy data package, sample B2JDD8.

Resolution: *Provide appropriate correction*

Lab Response: **The MDL and PQL have been added**

Please correct the issues and resubmit the electronic **and** hardcopy data packages.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-013

PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #5

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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
WT=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

120788

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS PCB	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am Au SR	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDD8 1	SOIL	JUN 18 2012	1016

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Frank Hall	JUN 18 2012 1300	TA Fowler	JUN 18 2012 1300

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

F12-005-013 — PAGE 2 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample 45	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N 507 - 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6002-618 (REV 2)

REVISED120788 -

Attachment 2
Narrative
WSCF120894

Introduction

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

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

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

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

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

Analytical Methodology for Requested Analyses

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

Attachment 2
Narrative
WSCF120894

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

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

- All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Manganese Matrix Spike Duplicate recovery is outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- All other applicable QC controls are within the established limits.

Organic Comments

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

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Radiochemistry Comments

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

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gamma Energy Analysis:

- All applicable QC controls are within the established limits.

Attachment 2
Narrative
WSCF120894

Americium-241:

- All applicable QC controls are within the established limits.

Isotopic Plutonium analysis:

- Batch QC 204881
  - Plutonium-239/240 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - All other applicable QC controls are within the established limits.

Isotopic Uranium analysis:

- Batch QC 204881
  - Uranium-238 – The Blank is less than two times the RDL. "B" Flag not required.
  - Uranium-238 – The duplicate is outside of default RPD limits. RPD limit does not apply to results with greater than 20% counting uncertainty.
- Batch QC 204882
  - Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.
  - All other applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-184

PAGE 1 OF 2

COLLECTOR: Kevin Patterson

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #62

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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)

120894

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 y/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex /196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270 SVOA SP LOAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**
B2JF29	SOIL	JUL 09 2012	1018

JM 7/20/12

Jit 7/20/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	[illegible]	7/16/12 0800
[illegible]	7/16/12 1100	[illegible]	7/16/12 1100

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**

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-184

PAGE 2 OF 2

COLLECTOR: Kevin Patterson	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #62	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005	AIR QUALITY: ☐	
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N-507-25	ACTUAL SAMPLE DEPTH: 6"	COA: 302677ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9" 6/20/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-025 — PAGE 1 OF 2

COLLECTOR Kevin Patterson	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days	**SAMPLING LOCATION** Area AG Zone 2 Verification Sample #9	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil
SAF NO. F12-005	**AIR QUALITY** ☐	**ICE CHEST NO.** (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25
ACTUAL SAMPLE DEPTH 6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP EQUAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium);

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**
B2JDH0	SOIL	JUL 09 2012	1109

✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

9A 4/22/12 — 9A 4/22/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	ARMS Tech	7/16/12 0800
ARMS Tech	7/16/12 1100	TA Frazier	7/16/12 1100

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**

PRINTED ON 12/8/2011 — A 6003 618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-025 — PAGE 2 OF 2

COLLECTOR Kevin Patterson	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #9	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 6/28/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-019 PAGE 1 OF 2

COLLECTOR KC Patterson CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #7

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-28

ACTUAL SAMPLE DEPTH 6"

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex -(Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDF4	3 SOIL	JUL 09 2012	1018

9H 07/20/12

9H 07/20/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	AKMcIntyre	7/16/12 0800
AKMcIntyre	7/16/12 1100		7/16/12 1100
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-019

PAGE 2 OF 2

COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #7	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N-507-25	ACTUAL SAMPLE DEPTH: 6"	COA: 302677ES10
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A

PRICE CODE: BC

AIR QUALITY: ☐

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

DATA TURNAROUND: 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 12/8/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-022 | PAGE 1 OF 2

COLLECTOR	Kevin Patterson
COMPANY CONTACT	TRENT, SJ
TELEPHONE NO.	373-5869
PROJECT COORDINATOR	TRENT, SJ
PRICE CODE	8C
DATA TURNAROUND	15 Days / 15 Days
SAMPLING LOCATION	Area AG Zone 2 Verification Sample #8
PROJECT DESIGNATION	Area AG Zone 2 Sampling Verification Sampling - Soil
SAF NO.	F12-005
AIR QUALITY	☐
ICE CHEST NO.	(N/A)
FIELD LOGBOOK NO.	HNF-N-507-25
ACTUAL SAMPLE DEPTH	6"
COA	302677ES10
METHOD OF SHIPMENT	GOVERNMENT VEHICLE
	ORIGINAL
SHIPPED TO	Waste Sampling & Characterization
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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP EDMA;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Rm U R SR	Tritium - Liq Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDF7	4 SOIL	JUL 09 2012	1049	✓	✓			✓	✓	✓

JH 6/29/12 JH 6/29/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1100	SSU-1	JUL 09 2012 1110
SSU-1	7/16/12 0800	AR McIntyre	7/16/12 0800
AR McIntyre	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011 A-6005-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-022	PAGE 2 OF 2
COLLECTOR Kevin Patterson	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BC	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #8	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	
ICE CHEST NO. (N/A)	FIELD LOGBOOK NO. HNF-N- 507-25	ACTUAL SAMPLE DEPTH 6"	COA 302677ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ gjt 12/12/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-196

PAGE 1 OF 2

COLLECTOR: Kevin Patterson

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #66

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: IF-N-507-23.23

ACTUAL SAMPLE DEPTH: N/A

COA: 302677E510

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	3G	3G	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP 8270_SVOA_SP	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JF41	5	SOIL	JUL 09 2012	0910	✓	✓		✓	✓	✓	

7/12/12 7/12/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1410	SSU-1	JUL 09 2012 1410
SSU-1	7/16/12 0800	ARMS Entry	7/16/12 0800
ARMS Entry	7/16/12 1100	TA Frazier	7/16/12 1100

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**

PRINTED ON 12/8/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-196	PAGE 2 OF 2
COLLECTOR Kevin Patterson	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #66	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. INF -N-507- 25-23	ACTUAL SAMPLE DEPTH N/A	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1260};~~ 4/23/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-016

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #6

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - /196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (1mLm);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDF1	6	SOIL	JUL 09 2012	0945	✓	✓		✓	✓	✓	

JH 6/29/12 JH 6/29/12 JH 6/29/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	ARMGuitze	7/16/12 0800
ARMGuitze	7/16/12 1100	TAFrazier	7/16/12 1100

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	

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-016	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #6	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F17-005	AIR QUALITY ☐	
ICE CHEST NO. (N/A)	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 6"	COA 302677ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ GJK 6/28/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-034

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #12

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-502-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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 concentrat ons that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 7008	Chromium Hex - 7196	SEE ITEM (2) IN SPECIAL INSTRUCTIONS PCB	8270_SVOA_SPECIAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am U Pu Sr	Tritium - Liq Sc (Tritium)

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDH9	7 SOIL	JUL 10 2012	0923	X	X	X	X	X	X	X	X

04/22/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	SS Wall	JUL 10 2012 1330
SS Wall	7/16/12 0800	Alm Cintyre	7/16/12 0800
Alm Cintyre	7/16/12 1100		7/16/12 1100

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

PRINTED ON 12/8/2011

A 6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-034

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #12	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-[illegible]	**ACTUAL SAMPLE DEPTH** 0" - 6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-031 PAGE 1 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #11	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0'-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE BC
AIR QUALITY ☐
DATA TURNAROUND 15 Days / 15 Days
METHOD OF SHIPMENT GOVERNMENT VEHICLE
ORIGINAL

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium Ion Ex (Tritium);

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**								
B2JDH6	8 SOIL	JUL 10 2012	0915	X	X	X	X	X	X	X	

7/16/12 JC

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	SJ Trent	JUL 10 2012 1330
SJ Trent	7/16/12 0800	ARM Equipment	7/16/12 0800
ARM Equipment	7/16/12 1100	TA Processing	7/16/12 1100

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**

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-031

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRG	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #11	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soi.	**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120895

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

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

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

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

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

Analytical Methodology for Requested Analyses

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

Inorganic Comments

Attachment 2
Narrative
WSCF120895

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204913
  - Sulfate – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

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

  - All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204901
  - Manganese – Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

Organic Comments

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

  - B2JDV3 (120895003) did not meet the acceptance limits for surrogate Decachlorobiphenyl. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.
  - All other applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 205183
  - 3, 3-Dichlorobenzidine did not meet the LCS acceptance limits. Sample results for these analytes were "X" flagged.

Attachment 2
Narrative
WSCF120895

- All other applicable QC controls are within the established limits.

Radiochemistry Comments

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

- Americium-241:
  - Batch QC 204922
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
    - All other applicable QC controls are within the established limits.
- Gamma Energy Analysis:
    - All applicable QC controls are within the established limits.
- Isotopic Plutonium analysis:
  - Batch QC 204922
    - Plutonium 239/240—the blank is less than 2X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
    - Plutonium 239/240— Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
    - All other applicable QC controls are within the established limits.
- Isotopic Uranium analysis:
  - Batch QC 204882
    - Uranium-234 and Uranium-238 — The blank is less than 5X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
    - All other applicable QC controls are within the established limits.
- Strontium-89/90:
    - All applicable QC controls are within the established limits.

Narrative

Attachment 2
Narrative
WSCF120895

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-073 PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #25

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6'

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250ml	60ml	250ml	250ml	60ml	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS ICV	SEE ITEM (4) IN SPECIAL INSTRUCTIONS CEIZV	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Liq Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
120895 B2JDM8	SOIL	JUL 11 2012	0828	✓	✓	✓	✓	✓	✓	✓	✓

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM McIntyre	7/16/12 0800
ARM McIntyre	7/16/12 1100	TA Pinzin	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-073** — **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C
SAMPLING LOCATION Area AG Zone 2 Verification Sample #25	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-076

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #26

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507 25

ACTUAL SAMPLE DEPTH: 0-6'

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250ml	250ml	60ml	500ml	120mL	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDN1 2	SOIL	JUL 11 2012	0834

9K 7/20/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1130	SSU-1	JUL 11 2012 1130
SSU-1	7/16/12 0800	ARMCIUTYRE	7/16/12 0800
ARMCIUTYRE	7/16/12 1100	[illegible]	7/16/12 1100

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**

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-076** — **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #26	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY ☐			
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-118 PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #40

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF -N-507- 25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196,	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SvOA_SPECIAL,	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDV3 3	SOIL	JUL 11 2012	0803	✓	✓	✓	✓	✓	✓	✓	

OK 6/20/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-118** — **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #40	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-61'	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-091

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #31

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium (Low Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDP6	4	SOIL	JUL 11 2012	0752	✓	✓	✓	✓	✓	✓	✓	

07/31/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSintyre	7/16/12 0800
ARMSintyre	7/16/12 1100		7/16/12 1100

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

PRINTED ON 12/8/2011

A 6003 618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-091 | **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #31	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY [ ]

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-082

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #28

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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, Sd=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270 SVOA SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDN7 5	SOIL	JUL 11 2012	0941	✓	✓	✓	✓	✓	✓	✓

JH 6/26/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM Guthrie	7/16/12 0800
ARM Guthrie	7/16/12 1100		7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-082** — **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #28	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-2.5	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-079

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #27

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: | |

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF -N-507- 25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196,	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL,	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDN4	SOIL	JUL 11 2012	0838

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM Chitwood	7/16/12 0800
ARM Chitwood	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-079 — PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #27	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY	**ORIGINAL**		
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** 1F-N-507-2.5	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120900

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

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

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

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

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

Analytical Methodology for Requested Analyses

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

Inorganic Comments

Attachment 2
Narrative
WSCF120900

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204923
  - Chloride and Sulfate – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

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

  - All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204901
  - Manganese – Matrix Spike Duplicate recovery was outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- Batch QC 204902
  - Manganese, Barium and Strontium – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

Organic Comments

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

  - All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 205183

Attachment 2
Narrative
WSCF120900

- 3, 3-Dichlorobenzidine did not meet the LCS acceptance limits. Sample results for these analytes were "X" flagged.
- All other applicable QC controls are within the established limits.

Radiochemistry Comments

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

- Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.
- Americium-241:
  - Batch QC 204922
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
  - Batch QC 204884
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - Batch QC 204884
    - Americium-243 Tracer for sample B2JDJ8—tracer recovery was slightly above the established laboratory limits. No flags issued.
    - All other applicable QC controls are within the established limits.
- Gamma Energy Analysis:
    - All applicable QC controls are within the established limits.
- Isotopic Plutonium analysis:
  - Batch QC 204884
    - Plutonium 239/240—the blank is less than 2X the MDC and is acceptable, per S&GRP SOW.
  - Batch QC 204922

- Plutonium 239/240—the blank is less than 2X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
- Plutonium 239/240— Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
- All other applicable QC controls are within the established limits.

- Isotopic Uranium analysis:
  - Batch QC 204882
    - Uranium-234 and Uranium-238—the blank is less than 5X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
  - Batch QC 204883
    - Uranium-234—the blank is less than 5X the MDC and is acceptable, per S&GRP SOW.
    - Uranium-235— Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
  - Batch QC 204884
    - Uranium-234— the blank is less than 5X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
    - All other applicable QC controls are within the established limits.
- Strontium-89/90:
    - All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-112

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #38

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35.

ACTUAL SAMPLE DEPTH

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

OFFSITE PROPERTY NO.: N/A

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

MATRIX*: A=Air, DC=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

120900

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008	Chromium (Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS PCB	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am U Pu SR	Thorium - 230 Ex (Thorium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDT7	SOIL	JUN 12 2012	0931	✓	✓	✓	✓	✓	✓	✓

gk 7/20/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU#1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMCulture	7/16/12 0800
ARMCulture 7/16/12	1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-112

PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #38	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677FS10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-109

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #37

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	ntium - on Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDT4	2	SOIL	JUN 12 2012	0656	✓	✓	✓	✓	✓	✓	✓	

GK 7/12/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	Alan Cintze	7/16/12 0800
Alan Cintze	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-109** — **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days	**SAMPLING LOCATION** Area AG Zone 2 Verification Sample #37	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil
SAF NO. F12-005	**AIR QUALITY** ☐	**ICE CHEST NO.** (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-20
ACTUAL SAMPLE DEPTH 0-6 inches	**COA** 302677E510	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-028

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #10

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0'-6'

COA: 3026//ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

OFFSITE PROPERTY NO.: N/A

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

MATRIX*: A=Air, DI=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium),

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDH3	3	SOIL	JUL 10 2012	0730

9/6/2012

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	KC Patterson CHPRC	JUL 10 2012 1330
Sample #1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12		7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-028** — **PAGE 2 OF 2**

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #10	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0"-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-049

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #17

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.:

FIELD LOGBOOK NO.: HNF-N-507-25.

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120m
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7199;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Thorium - Ion Ex (Thisom);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDK4	4	SOIL	JUN 12 2012	0755	✓	✓	✓	✓	✓	✓	✓	

OH 6/12/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU#1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMSEntyre	7/16/12 0800
ARMSEntyre	7/16/12 1100	TA Pnazin	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-049** | **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #17	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-807-25.	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C | **AIR QUALITY** ☐ | **DATA TURNAROUND** 15 Days / 15 Days | **METHOD OF SHIPMENT** GOVERNMENT VEHICLE | **ORIGINAL**

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-040

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #14

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.:

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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:

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDJ5 5	SOIL	JUN 12 2012	0819	✓	✓	✓	✓	✓	✓	✓

GH 7/23/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks	JUN 12 2012 1000	SSU#1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ALMELITYRE	7/16/12 0800
ALMELITYRE	7/16/12 1100	TA Amazin Jones	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-040** | **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #14	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-507-22	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-115

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #39

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);
SAMPLE NO. / MATRIX* / SAMPLE DATE / SAMPLE TIME								
B2JDV0 6 SOIL JUN 12 2012 0714	✓	✓	✓	✓	✓	✓	✓	

ok 7/16/2012

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU#1	JUN 12 2012 1100
SSU#1	7/16/12 0800	ARMSITE	7/16/12 0800
ARMSITE	7/16/12 1100	TA Pnazim Jefferson	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-613 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-115 — PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #39	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C — **AIR QUALITY** ☐ — **METHOD OF SHIPMENT** GOVERNMENT VEHICLE — **DATA TURNAROUND** 15 Days / 15 Days — **ORIGINAL**

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-085

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #29

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: 1

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0"-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/10 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDP0 7	SOIL	JUL 10 2012	0740	X	X	X	X	X	X	X	

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1331	Sutt!	JUL 10 2012 1331
Sutt!	7/16/12 0800	APM Courier	7/16/12 0800
APM Courier	7/16/12 1100	TA Rnazim Jerez Arzin	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-085

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample 429	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-[illegible]-23	**ACTUAL SAMPLE DEPTH** 0'-6'	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-103

PAGE 1 OF 2

COLLECTOR: DJ Sparks, CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #35

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35.

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDR8	8	SOIL	JUN 12 2012	0701	✓	✓	✓	✓	✓	✓	✓	

CH 6/12/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	AMMcIntyre	7/16/12 0800
AMMcIntyre	7/16/12 1100	TA Frazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-103

PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #35

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-25

ACTUAL SAMPLE DEPTH 0-6 inches

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

OFFSITE PROPERTY NO. N/A

BILL OF LADING/AIR BILL NO. N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium 155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-106

PAGE 1 OF 2

COLLECTOR: DJ Sparks, CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #36

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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
SF=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDT1	9	SOIL	JUN 12 2012	0707	✓	✓	✓	✓	✓	✓	✓	

9 7/16/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARM Courier	7/16/12 0800
ARM Courier	7/16/12 1100	JA Frazim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-106** — **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #36	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium 154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-187

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #63

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0'-6'

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool<4C	Cool<4C	Cool<4C	Cool<4C	Cool<4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270 SVOA SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - ion ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JF32	10 SOIL	JUL 10 2012	0750	X	X	X	X	X	X	X

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	3Suite1	JUL 10 2012 1336
3Suite1	7/16/12 0800	ARMCintyre	7/16/12 0800
ARMCintyre	7/16/12 1100	TA Pmzim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-187	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #63	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	
ICE CHEST NO. (N/A)	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 6'-6'	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-043 — PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days		
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #15	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil	SAF NO.: F12-005	AIR QUALITY: ☐
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N-507-25	ACTUAL SAMPLE DEPTH: 0"-6"	COA: 302677ES10
METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL		
SHIPPED TO: Waste Sampling & Characterization	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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDJ8	11	SOIL	JUL 10 2012	0750	X	X	X	X	X	X	X	

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012		JUL 10 2012
3Sunit1	7/16/12 0800	ARMcIntyre	7/16/12 0800
ARMcIntyre	7/16/12 1100	TA Rinaldi	7/16/12 1100

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

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-043

PAGE 2 OF 2

COLLECTOR: KC Patterson, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #15	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling Soil		SAF NO.: F12-005
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N-567-25	ACTUAL SAMPLE DEPTH: 0"- 6"	COA: 302677ES10
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium 152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-097

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #33

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDR2	12 SOIL	JUL 11 2012	0949	✓	✓	✓	✓	✓	✓	✓	

JK 6/28/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM Chitty	7/16/12 0800
ARM Chitty	7/16/12 1100	TA Frazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-097

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #33	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-100 | PAGE 1 OF 2

COLLECTOR: DJ Sparks, CHPRC

COMPANY CONTACT: TRENT, SJ | TELEPHONE NO.: 373-5869 | PROJECT COORDINATOR: TRENT, SJ | PRICE CODE: 8C | DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #34

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soi | SAF NO.: F12-005 | AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25 | ACTUAL SAMPLE DEPTH: 0-6 inches | COA: 302677ES10 | METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDR5	13 SOIL	JUN 12 2012	0724	✓	✓	✓	✓	✓	✓	✓

JH 6/28/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12 1100	TA FRAZIER	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-100

PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #34

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-25

ACTUAL SAMPLE DEPTH 0-6 inches

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

OFFSITE PROPERTY NO. N/A

BILL OF LADING/AIR BILL NO. N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-613 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-088 | PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #30

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDP3	14	SOIL	JUL 11 2012	0741	✓	✓	✓	✓	✓	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSLL-1	JUL 11 2012 1830
SSLL-1	7/16/12 0800	ARMESINTYRE	7/16/12 0800
ARMESINTYRE	7/16/12 1100	TAMAZIM	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-088

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #30	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soi		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-094 — PAGE 1 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**AIR QUALITY** ☐	**DATA TURNAROUND** 15 Days / 15 Days	
SAMPLING LOCATION Area AG Zone 2 Verification Sample #32	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/18 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium (Ion Ex (Tritium);

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**
B2JDP9 15	SOIL	JUL 11 2012	0855

7/16/2012

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSchutze	7/16/12 0800
ARMSchutze	7/16/12 1100	TA Frazier	7/16/12 1100

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**

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-094** — **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #32	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12 005	**AIR QUALITY** [ ]
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** WMSJ-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-121

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: BC

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #41

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDV6	16 SOIL	JUL 11 2012	0846	✓	✓	✓	✓	✓	✓	✓	

GH 7/25/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMS Courier	7/16/12 0800
ARMS Courier	7/16/12 1100	TA Fnazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-121

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #41	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-046 — PAGE 1 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #16	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**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, SF=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDK1	17	SOIL	JUL 11 2012	0954	✓	✓	✓	✓	✓	✓	✓	

7/16/2012

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSTUTYRE	7/16/12 0800
ARMSTUTYRE	7/16/12 1100	TA FNAZIM	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-046

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #16	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium 155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-190

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #64

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY:

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium-Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JF35	18 SOIL	JUL 11 2012	0855	✓	✓	✓	✓	✓	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSchtyre	7/16/12 0800
ARMSchtyre	7/16/12 1100	TAFrazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-190

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #64	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT FEDERAL EXPRESS

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A 6003 618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-202 PAGE 1 OF 2

COLLECTOR John Fulton

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #68

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF -N-507- 25

ACTUAL SAMPLE DEPTH 0-6"

COA 302677ES10

METHOD OF SHIPMENT FEDERAL EXPRESS

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - /196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270, SVOA SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JF47	19	SOIL	JUL 11 2012	0808	✓	✓	✓	✓	✓	✓	✓	

7/16/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430		JUL 11 2012 1430
SSU #1	7/16/12 0800	ARMSTRYE	7/16/12 0800
ARMSTRYE	7/16/12 1100	TA FRAZIER	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-202

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #68	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507-75	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT FEDERAL EXPRESS

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120922

Introduction

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

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

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

- Sample Issue Resolution Form SDR12-308 regarding missing sample collector on COC is attached to this report.

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

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

Analytical Methodology for Requested Analyses

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

Attachment 2
Narrative
WSCF120922

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

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

- All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Vanadium, Strontium, Zinc and Barium – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- Vanadium and Manganese were detected in the Blank and evaluated.
- Manganese – Exceeded spiking levels by a factor of 4. Spike recoveries and associated RPDs are not valid.
- All other applicable QC controls are within the established limits.

Organic Comments

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

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Radiochemistry Comments

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

Attachment 2
Narrative
WSCF120922

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gamma Energy Analysis:

- All applicable QC controls are within the established limits.

Americium-241:

- The Blank is less than two times the RDL. "B" Flag not required.
- Americium-243 - Tracer recovery did not meet the established laboratory limits. No flags issued on sample results. The quality control report was flagged for the failure.
- All other applicable QC controls are within the established limits.

Isotopic Plutonium analysis:

- All applicable QC controls are within the established limits.

Isotopic Uranium analysis:

- Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.
- All other applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-055

PAGE 1 OF 2

COLLECTOR: DJ Sparks

SAMPLING LOCATION: Area AG Zone 2 Verificaton Sample #19

ICE CHEST NO.: (N/A)

SHIPPED TO: Waste Sampling & Characterization

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

FIELD LOGBOOK NO.: HNF-N-507-22

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

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: 120922

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2DS2	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am U Pu Sr	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDL0	SOIL	JUL 17 2012	1413	X	X	X	X	X	X	X	

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU-1	JUL 17 2012 1515
[illegible]	7-18-12 0730	ARMCINTYRE	7/18/12 0730
ARMCINTYRE	7/18/12 0800	TA Fraziar	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-055** — **PAGE 2 OF 2**

COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8C	**DATA TURNAROUND**
	TRENT, SJ	373-5869	TRENT, SJ		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	**15 Days / 15 Days**
Area AG Zone 2 Verification Sample #19	Area AG Zone 2 Sampling Verification Sampling Soil		F12-005		
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 6-6'	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Waste Sampling & Characterization	N/A		N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ GH 4/29/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-058

PAGE 1 OF 2

COLLECTOR

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5859

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #20

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507 D.

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDL3	2 SOIL	JUL 17 2012	1420	X	X			X	X	X	

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU-1	JUL 17 2012 1515
SSU-1	JUL 18 2012 0730	Randy Ellingsworth	JUL 18 2012 0730
Randy Ellingsworth	JUL 18 2012 0800	TA Frazier	JUL 18 2012 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-058** — **PAGE 2 OF 2**

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #20	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9/4/2011 12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-061

PAGE 1 OF 2

COLLECTOR
DJ Sparks
CHPRC

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #21

ICE CHEST NO.
(N/A)

SHIPPED TO
Waste Sampling & Characterization

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

FIELD LOGBOOK NO.
HNF -N-507-25

ACTUAL SAMPLE DEPTH
6-6"

OFFSITE PROPERTY NO.
N/A

PROJECT COORDINATOR
TRENT, SJ

SAF NO.
F12-005

COA
302677ES10

BILL OF LADING/AIR BILL NO.
N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

DATA TURNAROUND
15 Days / 15 Days

ORIGINAL

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 y/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	RCRA_SVOA_SP EC/AL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Non Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDL6	3	SOIL	JUL 17 2012	1313	X	X	X	X	X	X	X	

7-23-12 9H 7/29/12

9H 7/27/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	550 #1	JUL 17 2012 1515
550 #1	7-18-12 0730	ARM Intyre	7-18-12 0730
AR McIntyre	7-18-12 0800	TA Knazian	7/18/12 0800

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**

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-061** — **PAGE 2 OF 2**

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #21	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ -- 8H 6/29/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-064

PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #22

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool--4C	Cool--4C	Cool--4C	Cool--4C	Cool--4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP FETAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDL9	4	SOIL	JUN 16 2012	0954

7/4 6/20/12

7/4 6/20/12

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: Frank Hall	DATE/TIME: JUN 16 2012 1515	RECEIVED BY/STORED IN: SSU #1	DATE/TIME: JUN 16 2012 1515
RELINQUISHED BY/REMOVED FROM: SSU #1 7-18-12	DATE/TIME: 0730	RECEIVED BY/STORED IN: ARM Stutzo 7-18-12	DATE/TIME: 0730
RELINQUISHED BY/REMOVED FROM: ARM Stutzo 7/18/12	DATE/TIME: 0800	RECEIVED BY/STORED IN: TA Frazier 7/18/12	DATE/TIME: 0800
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-064 **PAGE 2 OF 2**

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #22	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9/17/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-067

PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #23

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF -N-507- 25

ACTUAL SAMPLE DEPTH: 0 - 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDM2	5	SOIL	JUN 16 2012	1024

9H 6/29/12

9H 6/28/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Frank Hall	JUN 16 2012 1515	SSU #1	JUN 16 2012 1515
SSU #1	7.18.12 0730	ARM Courier	7.18.12 0730
ARM Courier	7.18.12 0820	TA Frazier	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-067

PAGE 2 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #23	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9H 4/29/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-070 — PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #24

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: YNF-N-507- 25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Gen Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDM5	6	SOIL	JUN 16 2012	0940

9/4 6/29/12 — 9/4 6/28/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Frank Hall	JUN 16 2012 1500	SSL #1	JUN 16 2012 1500
SSL-1	JUL 18 2012 0730	Randy Ellingsworth	JUL 18 2012 0730
Randy Ellingsworth	JUL 18 2012 0800	TA Fragzin	JUL 18 2012 0800

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

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-070

PAGE 2 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #24	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677E510
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY [ ]

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9H 6/29/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-199

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #67

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: NA

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: NA

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization NA

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - (3196);	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP &CEAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - (in Fe (Tritium);
SAMPLE NO. / **MATRIX*** / **SAMPLE DATE** / **SAMPLE TIME**								
B2JF44 7 SOIL JUL 17 2012 1250	X	X	X	X	X	X	X	

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	CSU #1	JUL 17 2012 1515
SSU #1	7.18.12 0730	AHM Sutgre	7.18.12 0730
AHM Sutgre	7.18.12 0800	TA Fnazisa	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-199

PAGE 2 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #67	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF -N-507-25	**ACTUAL SAMPLE DEPTH** N/A	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT FEDERAL EXPRESS

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-037 — PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #13

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6'

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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:

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Inorganic - Ion Ex (Thallium);
SAMPLE NO. B2JDJ2	**MATRIX*** S SOIL	**SAMPLE DATE** JUL 17 2012	**SAMPLE TIME** 1355	X	X	X	X	X	X	X

Qt Metallic

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU #1	JUL 17 2012 1515
SSU #1	7.18.12 0730	ARM Eastyre	7.18.12 0730
ARM Eastyre	7.18.12 0800	TA Franzim	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-037 — PAGE 2 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #13	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-052

PAGE 1 OF 2

COLLECTOR DJ Sparks CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #18

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. N/A

FIELD LOGBOOK NO. HNF -N-507-23

ACTUAL SAMPLE DEPTH 0 - 6"

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION		Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME		6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER		G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)		1	1	1	1	1	1	1	1
VOLUME		250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Gas Ex (Tritium);
SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**						
B2JDK7	9 SOIL	JUL 17 2012	1308	X	X	X	X	X	X

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU #1	JUL 17 2012 1515
SSU #1	7.18.12 0730	ARM CENTURE	7.18.12 0730
ARM CENTURE	7.18.12 0830	TA FRAZIER	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-052 — PAGE 2 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #18	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. NA	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Appendix 5

Data Validation Supporting Documentation

Appendix A - Chemical Data Validation Checklist

VALIDATION LEVEL:	A	B	C	D	E
PROJECT: 100 K RA			DATA PACKAGE: VSR12-021		
VALIDATOR: Ken Salaz		LAB: WSCF		DATE: 08/13/12	
			SDG: WSCF120788, WSCF120894, WSCF120895, WSCF120900, WSCF120922		
ANALYSES PERFORMED					
SW-846 8260		SW-846 8260 (TCLP)	SW-846 8270 X		SW-846 8270 (TCLP)

SAMPLES/MATRIX Soil Samples

SDG WSCF120788: B2JDD8
SDG WSCF120894: B2JDH9, B2JDH6
SDG WSCF120895: B2JDM8, B2JDN1, B2JDV3, B2JDP6, B2JDN7, B2JDN4
SDG WSCF120900: B2JDT7, B2JDT4, B2JDH3, B2JDK4, B2JDJ5, B2JDV0, B2JDP0, B2JDR8, B2JDT1, B2JF32, B2JDJ8, B2JDR2, B2JDR5, B2JDP3, B2JDP9, B2JDV6, B2JDK1, B2JF35, B2JF47
SDG WSCF120922: B2JF44, BJDJ2, B2JDK7

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present?..... Yes (No) N/A

Comments: None

2. INSTRUMENT TUNING AND CALIBRATION (Levels D and E)

GC/MS tuning/performance check acceptable? ..... Yes No N/A

Initial calibrations acceptable? ..... Yes No N/A

Continuing calibrations acceptable? ..... Yes No N/A

Standards traceable? ..... Yes No N/A

Standards expired? ..... Yes No N/A

Calculation check acceptable? ..... Yes No N/A

Comments:

3. BLANKS (Levels B, C, D, and E)

Calibration blanks analyzed? (Levels D, E) ..... Yes No N/A

Calibration blank results acceptable? (Levels D, E) ..... Yes No N/A

Laboratory blanks analyzed? ..... Yes No N/A

Laboratory blank results acceptable? ..... Yes No N/A

Field/trip blanks analyzed? (Levels C, D, E) ..... Yes No N/A

Field/trip blank results acceptable? (Levels C, D, E) ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Comments: None

4. ACCURACY (Levels C, D, and E)

Surrogates/system monitoring compounds analyzed? ..... Yes No N/A

Surrogate/system monitoring compound recoveries acceptable? ..... Yes No N/A

Surrogates traceable? (Levels D, E) ..... Yes No N/A

Surrogates expired? (Levels D, E) ..... Yes No N/A

MS/MSD samples analyzed? ..... Yes No N/A

MS/MSD results acceptable? ..... Yes No N/A

MS/MSD standards NIST traceable? (Levels D, E) ..... Yes No N/A

MS/MSD standards? (Levels D, E) ..... Yes No N/A

LCS/BSS samples analyzed? ..... Yes No N/A

LCS/BSS results acceptable? ..... Yes No N/A

Standards traceable? (Levels D, E) ..... Yes No N/A

Standards expired? (Levels D, E) ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Performance audit sample(s) analyzed? ..... Yes No N/A

Performance audit sample results acceptable? ..... Yes No N/A

Comments: None

WSCF120788: Surrogate Nitrobenzene-d5: B2JDD8=136, MB(77149)=131, LCS(77150)=127, MS (77151)=131, MSD(77152)=131

WSCF120895 & WSCF120900, Batch 205198, 3,3'-dichlorobenzidine: LCS (78658)=34, MS/MSD (78659/60)=33/37

5. PRECISION (Levels C, D, and E)

MS/MSD samples analyzed? ..... Yes No N/A

MS/MSD RPD values acceptable? ..... Yes No N/A

MS/MSD standards NIST traceable? (Levels D, E) ..... Yes No N/A

MS/MSD standards expired? (Levels D, E) ..... Yes No N/A

Field duplicate RPD values acceptable? ..... Yes No N/A

Field split RPD values acceptable? ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Comments: None

6. SYSTEM PERFORMANCE (Levels D and E)

Internal standards analyzed? ..... Yes No N/A

Internal standard areas acceptable? ..... Yes No N/A

Internal standard retention times acceptable? ..... Yes No N/A

Standards traceable? ..... Yes No N/A

Standards expired? ..... Yes No N/A

Transcription/calculation errors? ..... Yes No N/A

Comments:

7. HOLDING TIMES (all levels)

Samples properly preserved? ..... (Yes) No N/A

Sample holding times acceptable? ..... (Yes) No N/A

Comments: None

8. COMPOUND IDENTIFICATION, QUANTITATION, AND DETECTION LIMITS (all levels)

Compound identification acceptable? (Levels D, E) ..... Yes No (N/A)

Compound quantitation acceptable? (Levels D, E) ..... Yes No (N/A)

Results reported for all requested analyses? ..... (Yes) No N/A

Results supported in the raw data? (Levels D, E) ..... Yes No (N/A)

Samples properly prepared? (Levels D, E) ..... Yes No (N/A)

Laboratory properly identified and coded all TIC? (Levels D, E) ..... Yes No (N/A)

Detection limits meet RDL? ..... (Yes) No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No (N/A)

Comments: None

9. SAMPLE CLEANUP (Levels D and E)

GPC cleanup performed? ..... Yes No N/A

GPC check performed?..... Yes No N/A

GPC check recoveries acceptable?..... Yes No N/A

GPC calibration performed?..... Yes No N/A

GPC calibration check performed? ..... Yes No N/A

GPC calibration check retention times acceptable? ..... Yes No N/A

Check/calibration materials traceable? ..... Yes No N/A

Check/calibration materials Expired?..... Yes No N/A

Analytical batch QC given similar cleanup?..... Yes No N/A

Transcription/Calculation Errors?..... Yes No N/A

Comments:

Comments (attach additional sheets as necessary):

Appendix 6

Additional Documentation Requested By Client

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
203580	203660	1	BLANK	77149	BLANK		SW-846 8270D Semivolatiles
203580	203660	2	LCS	77150	LCS		SW-846 8270D Semivolatiles
203580	203660	3	MS	77151	B2JDD8(120788001MS)	120788001	SW-846 8270D Semivolatiles
203580	203660	4	MSD	77152	B2JDD8(120788001MSD)	120788001	SW-846 8270D Semivolatiles
203580	203660	5	SAMPLE	120788001	B2JDD8		SW-846 8270D Semivolatiles
203676	203852	1	BLANK	77290	BLANK		PCBs by EPA SW-846 Method 8082
203676	203852	2	LCS	77291	LCS		PCBs by EPA SW-846 Method 8082
203676	203852	3	MS	77292	B2JDD8(120788001MS)	120788001	PCBs by EPA SW-846 Method 8082
203676	203852	4	MSD	77293	B2JDD8(120788001MSD)	120788001	PCBs by EPA SW-846 Method 8082
203676	203852	5	SAMPLE	120788001	B2JDD8		PCBs by EPA SW-846 Method 8082

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Analytical Batch 203660 (QC Batch: 203580)
Associated Samples 120788001

Test SW-846 8270D Semivolatiles

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #77149**							
4-Nitrophenol	100-02-7		<200	ug/kg					U	06/21/12
1,2,4-Trichlorobenzene	120-82-1		<200	ug/kg					U	06/21/12
1,4-Dichlorobenzene	106-46-7		<200	ug/kg					U	06/21/12
Phenol	108-95-2		<200	ug/kg					U	06/21/12
2,4-Dinitrotoluene	121-14-2		<200	ug/kg					U	06/21/12
4-Chloro-3-methylphenol	59-50-7		<200	ug/kg					U	06/21/12
n-Nitroso-di-n-propylamine	621-64-7		<200	ug/kg					U	06/21/12
Pentachlorophenol	87-86-5		<200	ug/kg					U	06/21/12
2-Chlorophenol	95-57-8		<200	ug/kg					U	06/21/12
4-Nitroaniline	100-01-6		<200	ug/kg					U	06/21/12
4-Bromophenyl-phenylether	101-55-3		<200	ug/kg					U	06/21/12
2,4-Dimethylphenol	105-67-9		<200	ug/kg					U	06/21/12
4-Chloroaniline	106-47-8		<300	ug/kg					U	06/21/12
Bis(1-Chloro-2-propyl)ether	108-60-1		<200	ug/kg					U	06/21/12

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

REVISED120788 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Chloroethyl) ether	111-44-4		<200	ug/kg					U	06/21/12
Bis-(2-Chloroethoxy)methane	111-91-1		<200	ug/kg					U	06/21/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		<200	ug/kg					U	06/21/12
Di-n-octylphthalate	117-84-0		<200	ug/kg					U	06/21/12
Hexachlorobenzene	118-74-1		<200	ug/kg					U	06/21/12
2,4-Dichlorophenol	120-83-2		<200	ug/kg					U	06/21/12
Dimethylphthalate	131-11-3		<200	ug/kg					U	06/21/12
Dibenzofuran	132-64-9		<200	ug/kg					U	06/21/12
2,4-Dinitrophenol	51-28-5		<200	ug/kg					U	06/21/12
4,6-Dinitro-2-methylphenol	534-52-1		<200	ug/kg					U	06/21/12
1,3-Dichlorobenzene	541-73-1		<200	ug/kg					U	06/21/12
2,6-Dinitrotoluene	606-20-2		<200	ug/kg					U	06/21/12
4-Chlorophenyl-phenylether	7005-72-3		<200	ug/kg					U	06/21/12
Hexachlorocyclopentadiene	77-47-4		<200	ug/kg					U	06/21/12
Isophorone	78-59-1		<200	ug/kg					U	06/21/12
Diethyl phthalate	84-66-2		<200	ug/kg					U	06/21/12
Di-n-butylphthalate	84-74-2		<200	ug/kg					U	06/21/12
Butylbenzylphthalate	85-68-7		<200	ug/kg					U	06/21/12
n-Nitrosodiphenylamine	86-30-6		<200	ug/kg					U	06/21/12

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

REVISED120788 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Carbazole	86-74-8		<200	ug/kg					U	06/21/12
Hexachlorobutadiene	87-68-3		<200	ug/kg					U	06/21/12
2-Nitroaniline	88-74-4		<200	ug/kg					U	06/21/12
2-Nitrophenol	88-75-5		<200	ug/kg					U	06/21/12
2-Chloronaphthalene	91-58-7		<200	ug/kg					U	06/21/12
3,3-Dichlorobenzidine	91-94-1		<200	ug/kg					U	06/21/12
2-Methylphenol	95-48-7		<200	ug/kg					U	06/21/12
1,2-Dichlorobenzene	95-50-1		<200	ug/kg					U	06/21/12
2,4,5-Trichlorophenol	95-95-4		<200	ug/kg					U	06/21/12
Nitrobenzene	98-95-3		<200	ug/kg					U	06/21/12
3-Nitroaniline	99-09-2		<200	ug/kg					U	06/21/12
Hexachloroethane	67-72-1		<200	ug/kg					U	06/21/12
2,4,6-Trichlorophenol	88-06-2		<200	ug/kg					U	06/21/12
LCS			**QC Sample #77150**							
4-Nitrophenol	100-02-7		5300	ug/kg	88.5	49 - 128				06/21/12
1,2,4-Trichlorobenzene	120-82-1		5500	ug/kg	91.7	73 - 127				06/21/12
Phenol	108-95-2		6000	ug/kg	99.3	72 - 123				06/21/12
1,4-Dichlorobenzene	106-46-7		4000	ug/kg	100.2	71 - 122				06/21/12
2,4-Dinitrotoluene	121-14-2		5800	ug/kg	97.2	68 - 121				06/21/12
4-Chloro-3-methylphenol	59-50-7		6100	ug/kg	101	69 - 127				06/21/12
n-Nitroso-di-n-propylamine	621-64-7		6300	ug/kg	105.4	73 - 125				06/21/12

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

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Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Pentachlorophenol	87-86-5		5200	ug/kg	86	42 - 132				06/21/12
2-Chlorophenol	95-57-8		6000	ug/kg	100.3	71 - 123				06/21/12
2-Methylphenol	95-48-7		6100	ug/kg	101.1	50 - 140				06/21/12
Hexachloroethane	67-72-1		5900	ug/kg	98.7	50 - 140				06/21/12
2-Nitrophenol	88-75-5		6300	ug/kg	104.2	50 - 140				06/21/12
2,4-Dimethylphenol	105-67-9		5500	ug/kg	91.2	50 - 140				06/21/12
2,4-Dichlorophenol	120-83-2		5800	ug/kg	97.2	50 - 140				06/21/12
2-Nitroaniline	88-74-4		6400	ug/kg	106.6	50 - 140				06/21/12
Dibenzofuran	132-64-9		6100	ug/kg	102.1	50 - 140				06/21/12
Hexachlorobenzene	118-74-1		6100	ug/kg	101.9	50 - 140				06/21/12
Carbazole	86-74-8		5500	ug/kg	91.3	50 - 140				06/21/12
Di-n-butylphthalate	84-74-2		6200	ug/kg	102.8	50 - 140				06/21/12
3,3-Dichlorobenzidine	91-94-1		3800	ug/kg	63.6	50 - 140				06/21/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		7600	ug/kg	126	50 - 140				06/21/12
Di-n-octylphthalate	117-84-0		7900	ug/kg	132.4	50 - 140				06/21/12
Bis(1-Chloro-2-propyl)ether	108-60-1		6200	ug/kg	102.8	50 - 140				06/21/12
4-Chloroaniline	106-47-8		4800	ug/kg	80	50 - 140				06/21/12
MS			**QC Sample #77151**							
			Original 120788001							
4-Nitrophenol	100-02-7	<200	5300	ug/kg	88.7	53 - 130				06/21/12
1,2,4-Trichlorobenzene	120-82-1	<200	5500	ug/kg	93.1	76 - 125				06/21/12
Phenol	108-95-2	<200	6200	ug/kg	103.5	76 - 123				06/21/12

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

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Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,4-Dichlorobenzene	106-46-7	<200	4000	ug/kg	102.2	75 - 117				06/21/12
2,4-Dinitrotoluene	121-14-2	<200	5900	ug/kg	99.1	73 - 120				06/21/12
4-Chloro-3-methylphenol	59-50-7	<200	6300	ug/kg	105.7	71 - 129				06/21/12
n-Nitroso-di-n-propylamine	621-64-7	<200	6500	ug/kg	108.6	75 - 124				06/21/12
Pentachlorophenol	87-86-5	<200	3800	ug/kg	64.3	39 - 140				06/21/12
2-Chlorophenol	95-57-8	<200	6000	ug/kg	101.3	75 - 123				06/21/12
2-Methylphenol	95-48-7	<200	6200	ug/kg	104.3	50 - 140				06/21/12
Hexachloroethane	67-72-1	<200	6000	ug/kg	100.4	50 - 140				06/21/12
2-Nitrophenol	88-75-5	<200	5900	ug/kg	99.1	50 - 140				06/21/12
2,4-Dimethylphenol	105-67-9	<200	5800	ug/kg	98.3	50 - 140				06/21/12
2,4-Dichlorophenol	120-83-2	<200	6000	ug/kg	101.4	50 - 140				06/21/12
2-Nitroaniline	88-74-4	<200	6600	ug/kg	111.4	50 - 140				06/21/12
Dibenzofuran	132-64-9	<200	6200	ug/kg	105.1	50 - 140				06/21/12
Hexachlorobenzene	118-74-1	<200	6100	ug/kg	102.5	50 - 140				06/21/12
Carbazole	86-74-8	<200	5700	ug/kg	96	50 - 140				06/21/12
Di-n-butylphthalate	84-74-2	<200	6300	ug/kg	106.5	50 - 140				06/21/12
3,3-Dichlorobenzidine	91-94-1	<200	4200	ug/kg	70.6	50 - 140				06/21/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	<200	7400	ug/kg	124.5	50 - 140				06/21/12
Di-n-octylphthalate	117-84-0	<200	7800	ug/kg	131.6	50 - 140				06/21/12
Bis(1-Chloro-2-propyl)ether	108-60-1	<200	6400	ug/kg	108.1	50 - 140				06/21/12
4-Chloroaniline	106-47-8	<400	5800	ug/kg	98	50 - 140				06/21/12

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

REVISED120788 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #77152**							
			Original 120788001						**Paired 77151**	
4-Nitrophenol	100-02-7	<200	5300	ug/kg	88.7	53 - 130	0.00	30		06/21/12
1,2,4-Trichlorobenzene	120-82-1	<200	5600	ug/kg	94.3	76 - 125	1.80	30		06/21/12
Phenol	108-95-2	<200	6200	ug/kg	102.9	76 - 123	0.00	30		06/21/12
1,4-Dichlorobenzene	106-46-7	<200	4100	ug/kg	102.4	75 - 117	2.50	30		06/21/12
2,4-Dinitrotoluene	121-14-2	<200	5900	ug/kg	98.6	73 - 120	0.00	30		06/21/12
4-Chloro-3-methylphenol	59-50-7	<200	6200	ug/kg	103.3	71 - 129	1.60	30		06/21/12
n-Nitroso-di-n-propylamine	621-64-7	<200	6500	ug/kg	108.9	75 - 124	0.00	30		06/21/12
Pentachlorophenol	87-86-5	<200	4100	ug/kg	69	39 - 140	7.60	30		06/21/12
2-Chlorophenol	95-57-8	<200	5900	ug/kg	99.3	75 - 123	1.70	30		06/21/12
2-Methylphenol	95-48-7	<200	6200	ug/kg	103.5	50 - 140	0.00	30		06/21/12
Hexachloroethane	67-72-1	<200	6000	ug/kg	100.2	50 - 140	0.00	30		06/21/12
2-Nitrophenol	88-75-5	<200	5900	ug/kg	97.8	50 - 140	0.00	30		06/21/12
2,4-Dimethylphenol	105-67-9	<200	5700	ug/kg	95.1	50 - 140	1.70	30		06/21/12
2,4-Dichlorophenol	120-83-2	<200	6000	ug/kg	99.8	50 - 140	0.00	30		06/21/12
2-Nitroaniline	88-74-4	<200	6500	ug/kg	108.9	50 - 140	1.50	30		06/21/12
Dibenzofuran	132-64-9	<200	6200	ug/kg	102.8	50 - 140	0.00	30		06/21/12
Hexachlorobenzene	118-74-1	<200	6100	ug/kg	101.2	50 - 140	0.00	30		06/21/12
Carbazole	86-74-8	<200	5800	ug/kg	96.3	50 - 140	1.70	30		06/21/12
Di-n-butylphthalate	84-74-2	<200	6500	ug/kg	108.5	50 - 140	3.10	30		06/21/12
3,3-Dichlorobenzidine	91-94-1	<200	4400	ug/kg	73.7	50 - 140	4.70	30		06/21/12

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

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Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Ethylhexyl)phthalate	117-81-7	<200	7200	ug/kg	119.5	50 - 140	2.70	30		06/21/12
Di-n-octylphthalate	117-84-0	<200	7400	ug/kg	123.4	50 - 140	5.30	30		06/21/12
Bis(1-Chloro-2-propyl)ether	108-60-1	<200	6500	ug/kg	107.9	50 - 140	1.60	30		06/21/12
4-Chloroaniline	106-47-8	<400	5900	ug/kg	98.2	50 - 140	1.70	30		06/21/12

* - QC result out of range

n/a - Not Applicable

REVISED120788 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Analytical Batch 203660 (QC Batch: 203580)
Associated Samples 120788001

Test SW-846 8270D Semivolatiles

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120788001**							
2-Fluorophenol	367-12-4				119.7	44 - 135				06/21/12
Phenol-d5	4165-62-2				123.8	41 - 136				06/21/12
Nitrobenzene-d5	4165-60-0				136.1	53 - 129			X	06/21/12
2-Methylnaphthalene-d10	7297-45-2				122.7	50 - 140				06/21/12
2-Fluorobiphenyl	321-60-8				126	36 - 141				06/21/12
2,4,6-Tribromophenol	118-79-6				91.9	17 - 142				06/21/12
Fluoranthene-d10	93951-69-0				118.9	50 - 140				06/21/12
Terphenyl-d14	98904-43-9				141.8	61 - 142				06/21/12
BLANK			**QC Sample #77149**							
2-Fluorophenol	367-12-4				115	44 - 135				06/21/12
Phenol-d5	4165-62-2				116.6	41 - 136				06/21/12
Nitrobenzene-d5	4165-60-0				130.6	53 - 129			X	06/21/12
2-Methylnaphthalene-d10	7297-45-2				117.1	50 - 140				06/21/12
2-Fluorobiphenyl	321-60-8				119.9	36 - 141				06/21/12
2,4,6-Tribromophenol	118-79-6				86.1	17 - 142				06/21/12

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

REVISED120788 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Fluoranthene-d10	93951-69-0				110.3	50 - 140				06/21/12
Terphenyl-d14	98904-43-9				143.1	61 - 142			X	06/21/12
LCS			**QC Sample #77150**							
2-Fluorophenol	367-12-4			ug/kg	115.3	19 - 140				06/21/12
Phenol-d5	4165-62-2			ug/kg	119.5	32 - 134				06/21/12
Nitrobenzene-d5	4165-60-0			ug/kg	127.3	60 - 122			X	06/21/12
2,4,6-Tribromophenol	118-79-6			ug/kg	109.9	34 - 139				06/21/12
2-Fluorobiphenyl	321-60-8			ug/kg	119.3	57 - 122				06/21/12
Terphenyl-d14	98904-43-9			ug/kg	142.4	49 - 147				06/21/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	112.3	50 - 140				06/21/12
Fluoranthene-d10	93951-69-0			ug/kg	105.6	50 - 140				06/21/12
MS			**QC Sample #77151**							
			Original 120788001							
2-Fluorophenol	367-12-4			ug/kg	116.5	44 - 135				06/21/12
Phenol-d5	4165-62-2			ug/kg	120.6	41 - 136				06/21/12
Nitrobenzene-d5	4165-60-0			ug/kg	130.8	53 - 129			X	06/21/12
2,4,6-Tribromophenol	118-79-6			ug/kg	107.3	17 - 142				06/21/12
2-Fluorobiphenyl	321-60-8			ug/kg	122.8	36 - 141				06/21/12
Terphenyl-d14	98904-43-9			ug/kg	137.2	61 - 142				06/21/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	117.1	50 - 140				06/21/12
Fluoranthene-d10	93951-69-0			ug/kg	110.1	50 - 140				06/21/12

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

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Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #77152**							
			Original	**120788001**				**Paired**	**77151**	
2-Fluorophenol	367-12-4			ug/kg	113.9	44 - 135	n/a			06/21/12
Phenol-d5	4165-62-2			ug/kg	121.2	41 - 136	n/a			06/21/12
Nitrobenzene-d5	4165-60-0			ug/kg	130.5	53 - 129	n/a		X	06/21/12
2,4,6-Tribromophenol	118-79-6			ug/kg	106	17 - 142	n/a			06/21/12
2-Fluorobiphenyl	321-60-8			ug/kg	119.6	36 - 141	n/a			06/21/12
Terphenyl-d14	98904-43-9			ug/kg	130.7	61 - 142	n/a			06/21/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	115.5	50 - 140	n/a			06/21/12
Fluoranthene-d10	93951-69-0			ug/kg	110.4	50 - 140	n/a			06/21/12

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

REVISED120788 -

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204887	204946	1	BLANK	78136	BLANK		SW-846 8270D Semivolatiles
204887	204946	2	LCS	78137	LCS		SW-846 8270D Semivolatiles
204887	204946	3	MS	78138	B2JDH9(120894007MS)	120894007	SW-846 8270D Semivolatiles
204887	204946	4	MSD	78139	B2JDH9(120894007MSD)	120894007	SW-846 8270D Semivolatiles
204887	204946	5	SAMPLE	120894007	B2JDH9		SW-846 8270D Semivolatiles
204887	204946	6	SAMPLE	120894008	B2JDH6		SW-846 8270D Semivolatiles
204926	205318	1	BLANK	78281	BLANK		PCBs by EPA SW-846 Method 8082
204926	205318	2	LCS	78282	LCS		PCBs by EPA SW-846 Method 8082
204926	205318	3	MS	78283	B2JDH6(120894008MS)	120894008	PCBs by EPA SW-846 Method 8082
204926	205318	4	MSD	78284	B2JDH6(120894008MSD)	120894008	PCBs by EPA SW-846 Method 8082
204926	205318	5	SAMPLE	120894007	B2JDH9		PCBs by EPA SW-846 Method 8082
204926	205318	6	SAMPLE	120894008	B2JDH6		PCBs by EPA SW-846 Method 8082

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Analytical Batch 204946 (QC Batch: 204887)
Associated Samples 120894007, 120894008

Test SW-846 8270D Semivolatiles

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78136**							
4-Nitrophenol	100-02-7		<200	ug/kg					U	07/18/12
1,4-Dichlorobenzene	106-46-7		<200	ug/kg					U	07/18/12
Phenol	108-95-2		<200	ug/kg					U	07/18/12
1,2,4-Trichlorobenzene	120-82-1		<200	ug/kg					U	07/18/12
2,4-Dinitrotoluene	121-14-2		<200	ug/kg					U	07/18/12
4-Chloro-3-methylphenol	59-50-7		<200	ug/kg					U	07/18/12
n-Nitroso-di-n-propylamine	621-64-7		<200	ug/kg					U	07/18/12
Pentachlorophenol	87-86-5		<200	ug/kg					U	07/18/12
2-Chlorophenol	95-57-8		<200	ug/kg					U	07/18/12
4-Nitroaniline	100-01-6		<200	ug/kg					U	07/18/12
4-Bromophenyl-phenylether	101-55-3		<200	ug/kg					U	07/18/12
2,4-Dimethylphenol	105-67-9		<200	ug/kg					U	07/18/12
4-Chloroaniline	106-47-8		<200	ug/kg					U	07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1		<200	ug/kg					U	07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Chloroethyl) ether	111-44-4		<200	ug/kg					U	07/18/12
Bis-(2-Chloroethoxy)methane	111-91-1		<200	ug/kg					U	07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		<200	ug/kg					U	07/18/12
Di-n-octylphthalate	117-84-0		<200	ug/kg					U	07/18/12
Hexachlorobenzene	118-74-1		<200	ug/kg					U	07/18/12
2,4-Dichlorophenol	120-83-2		<200	ug/kg					U	07/18/12
Dimethylphthalate	131-11-3		<200	ug/kg					U	07/18/12
Dibenzofuran	132-64-9		<200	ug/kg					U	07/18/12
2,4-Dinitrophenol	51-28-5		<200	ug/kg					U	07/18/12
4,6-Dinitro-2-methylphenol	534-52-1		<200	ug/kg					U	07/18/12
1,3-Dichlorobenzene	541-73-1		<200	ug/kg					U	07/18/12
2,6-Dinitrotoluene	606-20-2		<200	ug/kg					U	07/18/12
4-Chlorophenyl-phenylether	7005-72-3		<200	ug/kg					U	07/18/12
Hexachlorocyclopentadiene	77-47-4		<200	ug/kg					U	07/18/12
Isophorone	78-59-1		<200	ug/kg					U	07/18/12
Diethyl phthalate	84-66-2		<200	ug/kg					U	07/18/12
Di-n-butylphthalate	84-74-2		<200	ug/kg					U	07/18/12
Butylbenzylphthalate	85-68-7		<200	ug/kg					U	07/18/12
n-Nitrosodiphenylamine	86-30-6		<200	ug/kg					U	07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Carbazole	86-74-8		<200	ug/kg					U	07/18/12
Hexachlorobutadiene	87-68-3		<200	ug/kg					U	07/18/12
2-Nitroaniline	88-74-4		<200	ug/kg					U	07/18/12
2-Nitrophenol	88-75-5		<200	ug/kg					U	07/18/12
2-Chloronaphthalene	91-58-7		<200	ug/kg					U	07/18/12
3,3-Dichlorobenzidine	91-94-1		<200	ug/kg					U	07/18/12
2-Methylphenol	95-48-7		<200	ug/kg					U	07/18/12
1,2-Dichlorobenzene	95-50-1		<200	ug/kg					U	07/18/12
2,4,5-Trichlorophenol	95-95-4		<200	ug/kg					U	07/18/12
Nitrobenzene	98-95-3		<200	ug/kg					U	07/18/12
3-Nitroaniline	99-09-2		<200	ug/kg					U	07/18/12
Hexachloroethane	67-72-1		<200	ug/kg					U	07/18/12
2,4,6-Trichlorophenol	88-06-2		<200	ug/kg					U	07/18/12
LCS			**QC Sample #78137**							
4-Nitrophenol	100-02-7		5400	ug/kg	90	48 - 120				07/18/12
1,2,4-Trichlorobenzene	120-82-1		5200	ug/kg	86.1	69 - 114				07/18/12
Phenol	108-95-2		5600	ug/kg	93.1	70 - 119				07/18/12
1,4-Dichlorobenzene	106-46-7		3800	ug/kg	95	64 - 125				07/18/12
2,4-Dinitrotoluene	121-14-2		5500	ug/kg	92.3	58 - 124				07/18/12
4-Chloro-3-methylphenol	59-50-7		5600	ug/kg	93.5	73 - 121				07/18/12
n-Nitroso-di-n-propylamine	621-64-7		5900	ug/kg	99	72 - 119				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Pentachlorophenol	87-86-5		5000	ug/kg	83.1	28 - 127				07/18/12
2-Chlorophenol	95-57-8		5700	ug/kg	94.8	71 - 120				07/18/12
2-Methylphenol	95-48-7		5700	ug/kg	94.9	73 - 122				07/18/12
Hexachloroethane	67-72-1		5700	ug/kg	94.2	59 - 114				07/18/12
2-Nitrophenol	88-75-5		5700	ug/kg	95.5	56 - 124				07/18/12
2,4-Dimethylphenol	105-67-9		5000	ug/kg	83.4	75 - 124				07/18/12
2,4-Dichlorophenol	120-83-2		5400	ug/kg	90.1	68 - 118				07/18/12
2-Nitroaniline	88-74-4		6000	ug/kg	100.7	62 - 131				07/18/12
Dibenzofuran	132-64-9		5800	ug/kg	97.1	70 - 122				07/18/12
Hexachlorobenzene	118-74-1		5700	ug/kg	95.1	72 - 127				07/18/12
Carbazole	86-74-8		6000	ug/kg	100.3	46 - 121				07/18/12
Di-n-butylphthalate	84-74-2		6100	ug/kg	101.2	60 - 131				07/18/12
3,3-Dichlorobenzidine	91-94-1		3600	ug/kg	60.1	41 - 131				07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		6300	ug/kg	104.2	68 - 131				07/18/12
Di-n-octylphthalate	117-84-0		6300	ug/kg	105.3	55 - 131				07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1		5900	ug/kg	97.9	70 - 120				07/18/12
4-Chloroaniline	106-47-8		4500	ug/kg	75.2	39 - 109				07/18/12
MS			**QC Sample #78138**							
			Original 120894007							
4-Nitrophenol	100-02-7	<200	5800	ug/kg	96.4	40 - 126				07/18/12
1,2,4-Trichlorobenzene	120-82-1	<200	5300	ug/kg	89.4	52 - 130				07/18/12
Phenol	108-95-2	<200	5900	ug/kg	98.9	55 - 132				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,4-Dichlorobenzene	106-46-7	<200	4000	ug/kg	100.8	55 - 130				07/18/12
2,4-Dinitrotoluene	121-14-2	<200	6100	ug/kg	102	56 - 125				07/18/12
4-Chloro-3-methylphenol	59-50-7	<200	6000	ug/kg	100	62 - 128				07/18/12
n-Nitroso-di-n-propylamine	621-64-7	<200	6500	ug/kg	108.2	56 - 130				07/18/12
Pentachlorophenol	87-86-5	<200	5100	ug/kg	85.6	21 - 141				07/18/12
2-Chlorophenol	95-57-8	<200	5800	ug/kg	97.6	61 - 129				07/18/12
2-Methylphenol	95-48-7	<200	6000	ug/kg	99.8	61 - 129				07/18/12
Hexachloroethane	67-72-1	<200	6000	ug/kg	99.8	38 - 132				07/18/12
2-Nitrophenol	88-75-5	<200	5900	ug/kg	98.9	50 - 128				07/18/12
2,4-Dimethylphenol	105-67-9	<200	5100	ug/kg	86	58 - 133				07/18/12
2,4-Dichlorophenol	120-83-2	<200	5600	ug/kg	94	51 - 132				07/18/12
2-Nitroaniline	88-74-4	<200	6600	ug/kg	110.4	60 - 131				07/18/12
Dibenzofuran	132-64-9	<200	6200	ug/kg	103.7	61 - 127				07/18/12
Hexachlorobenzene	118-74-1	<200	5700	ug/kg	96.2	57 - 133				07/18/12
Carbazole	86-74-8	<200	6300	ug/kg	105.4	38 - 125				07/18/12
Di-n-butylphthalate	84-74-2	<200	6200	ug/kg	104	62 - 129				07/18/12
3,3-Dichlorobenzidine	91-94-1	<200	4700	ug/kg	78.7	24 - 141				07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	<200	6800	ug/kg	113.3	49 - 145				07/18/12
Di-n-octylphthalate	117-84-0	<200	6000	ug/kg	101.1	53 - 144				07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	<200	6300	ug/kg	106.2	53 - 132				07/18/12
4-Chloroaniline	106-47-8	<200	5500	ug/kg	92.9	23 - 152				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #78139**							
			Original 120894007						**Paired 78138**	
4-Nitrophenol	100-02-7	<200	5000	ug/kg	85.3	40 - 126	14.80	30		07/18/12
1,2,4-Trichlorobenzene	120-82-1	<200	4900	ug/kg	82.8	52 - 130	7.80	30		07/18/12
Phenol	108-95-2	<200	5300	ug/kg	90.9	55 - 132	10.70	30		07/18/12
1,4-Dichlorobenzene	106-46-7	<200	3700	ug/kg	93.7	55 - 130	7.80	30		07/18/12
2,4-Dinitrotoluene	121-14-2	<200	5200	ug/kg	89	56 - 125	15.90	30		07/18/12
4-Chloro-3-methylphenol	59-50-7	<200	5300	ug/kg	90	62 - 128	12.40	30		07/18/12
n-Nitroso-di-n-propylamine	621-64-7	<200	5800	ug/kg	99.5	56 - 130	11.40	30		07/18/12
Pentachlorophenol	87-86-5	<200	4500	ug/kg	77.4	21 - 141	12.50	30		07/18/12
2-Chlorophenol	95-57-8	<200	5300	ug/kg	90.8	61 - 129	9.00	30		07/18/12
2-Methylphenol	95-48-7	<200	5400	ug/kg	91.4	61 - 129	10.50	30		07/18/12
Hexachloroethane	67-72-1	<200	5400	ug/kg	91.4	38 - 132	10.50	30		07/18/12
2-Nitrophenol	88-75-5	<200	5300	ug/kg	89.9	50 - 128	10.70	30		07/18/12
2,4-Dimethylphenol	105-67-9	<200	4700	ug/kg	79.5	58 - 133	8.20	30		07/18/12
2,4-Dichlorophenol	120-83-2	<200	5100	ug/kg	87.7	51 - 132	9.30	30		07/18/12
2-Nitroaniline	88-74-4	<200	5800	ug/kg	99.5	60 - 131	12.90	30		07/18/12
Dibenzofuran	132-64-9	<200	5400	ug/kg	92.6	61 - 127	13.80	30		07/18/12
Hexachlorobenzene	118-74-1	<200	5100	ug/kg	87.8	57 - 133	11.10	30		07/18/12
Carbazole	86-74-8	<200	5600	ug/kg	94.8	38 - 125	11.80	30		07/18/12
Di-n-butylphthalate	84-74-2	<200	5600	ug/kg	95.7	62 - 129	10.20	30		07/18/12
3,3-Dichlorobenzidine	91-94-1	<200	4000	ug/kg	67.4	24 - 141	16.10	30		07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Ethylhexyl)phthalate	117-81-7	<200	6100	ug/kg	103.6	49 - 145	10.90	30		07/18/12
Di-n-octylphthalate	117-84-0	<200	5700	ug/kg	97.9	53 - 144	5.10	30		07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1	<200	5800	ug/kg	99.1	53 - 132	8.30	30		07/18/12
4-Chloroaniline	106-47-8	<200	5100	ug/kg	87.3	23 - 152	7.50	30		07/18/12

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Analytical Batch 204946 (QC Batch: 204887)
Associated Samples 120894007, 120894008

Test SW-846 8270D Semivolatiles

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120894007**							
2-Fluorophenol	367-12-4				98.5	44 - 135				07/18/12
Phenol-d5	4165-62-2				105.4	41 - 136				07/18/12
Nitrobenzene-d5	4165-60-0				110.4	53 - 129				07/18/12
2-Methylnaphthalene-d10	7297-45-2				99.4	50 - 140				07/18/12
2-Fluorobiphenyl	321-60-8				103.4	36 - 141				07/18/12
2,4,6-Tribromophenol	118-79-6				86.6	17 - 142				07/18/12
Fluoranthene-d10	93951-69-0				102.2	50 - 140				07/18/12
Terphenyl-d14	98904-43-9				100.8	61 - 142				07/18/12
SAMPLE			**Sample #120894008**							
2-Fluorophenol	367-12-4				99.7	44 - 135				07/18/12
Phenol-d5	4165-62-2				108.7	41 - 136				07/18/12
Nitrobenzene-d5	4165-60-0				114	53 - 129				07/18/12
2-Methylnaphthalene-d10	7297-45-2				102.7	50 - 140				07/18/12
2-Fluorobiphenyl	321-60-8				105.2	36 - 141				07/18/12
2,4,6-Tribromophenol	118-79-6				88.6	17 - 142				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Fluoranthene-d10	93951-69-0				104.2	50 - 140				07/18/12
Terphenyl-d14	98904-43-9				104.8	61 - 142				07/18/12
BLANK			**QC Sample #78136**							
2-Fluorophenol	367-12-4				96.2	44 - 135				07/18/12
Phenol-d5	4165-62-2				106.2	41 - 136				07/18/12
Nitrobenzene-d5	4165-60-0				111.7	53 - 129				07/18/12
2-Methylnaphthalene-d10	7297-45-2				102	50 - 140				07/18/12
2-Fluorobiphenyl	321-60-8				104	36 - 141				07/18/12
2,4,6-Tribromophenol	118-79-6				79.7	17 - 142				07/18/12
Fluoranthene-d10	93951-69-0				101.5	50 - 140				07/18/12
Terphenyl-d14	98904-43-9				106.4	61 - 142				07/18/12
LCS			**QC Sample #78137**							
2-Fluorophenol	367-12-4			ug/kg	95.5	38 - 151				07/18/12
Phenol-d5	4165-62-2			ug/kg	102.4	38 - 153				07/18/12
Nitrobenzene-d5	4165-60-0			ug/kg	107.7	42 - 153				07/18/12
2,4,6-Tribromophenol	118-79-6			ug/kg	90.1	21 - 147				07/18/12
2-Fluorobiphenyl	321-60-8			ug/kg	103.3	34 - 160				07/18/12
Terphenyl-d14	98904-43-9			ug/kg	98.1	51 - 155				07/18/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	98.6	27 - 197				07/18/12
Fluoranthene-d10	93951-69-0			ug/kg	100.8	39 - 168				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MS			**QC Sample #78138**							
			Original 120894007							
2-Fluorophenol	367-12-4			ug/kg	103	38 - 151				07/18/12
Phenol-d5	4165-62-2			ug/kg	107.8	38 - 153				07/18/12
Nitrobenzene-d5	4165-60-0			ug/kg	115.3	42 - 153				07/18/12
2,4,6-Tribromophenol	118-79-6			ug/kg	100.4	21 - 147				07/18/12
2-Fluorobiphenyl	321-60-8			ug/kg	108.9	34 - 160				07/18/12
Terphenyl-d14	98904-43-9			ug/kg	100.8	51 - 155				07/18/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	104.9	27 - 197				07/18/12
Fluoranthene-d10	93951-69-0			ug/kg	106.8	39 - 168				07/18/12
MSD			**QC Sample #78139**							
			Original 120894007					**Paired**	**78138**	
2-Fluorophenol	367-12-4			ug/kg	93.4	38 - 151	n/a			07/18/12
Phenol-d5	4165-62-2			ug/kg	98.8	38 - 153	n/a			07/18/12
Nitrobenzene-d5	4165-60-0			ug/kg	104.2	42 - 153	n/a			07/18/12
2,4,6-Tribromophenol	118-79-6			ug/kg	87.5	21 - 147	n/a			07/18/12
2-Fluorobiphenyl	321-60-8			ug/kg	97.7	34 - 160	n/a			07/18/12
Terphenyl-d14	98904-43-9			ug/kg	94.8	51 - 155	n/a			07/18/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	96.1	27 - 197	n/a			07/18/12
Fluoranthene-d10	93951-69-0			ug/kg	93.4	39 - 168	n/a			07/18/12

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

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204887	204946	1	BLANK	78136	BLANK		SW-846 8270D Semivolatiles
204887	204946	2	LCS	78137	LCS		SW-846 8270D Semivolatiles
204887	204946	3	MS	78138	B2JDH9(120894007MS)	120894007	SW-846 8270D Semivolatiles
204887	204946	4	MSD	78139	B2JDH9(120894007MSD)	120894007	SW-846 8270D Semivolatiles
204887	204946	7	SAMPLE	120895001	B2JDM8		SW-846 8270D Semivolatiles
204887	204946	8	SAMPLE	120895002	B2JDN1		SW-846 8270D Semivolatiles
204887	204946	9	SAMPLE	120895003	B2JDV3		SW-846 8270D Semivolatiles
204887	204946	10	SAMPLE	120895004	B2JDP6		SW-846 8270D Semivolatiles
204887	204946	11	SAMPLE	120895005	B2JDN7		SW-846 8270D Semivolatiles
204926	205318	1	BLANK	78281	BLANK		PCBs by EPA SW-846 Method 8082
204926	205318	2	LCS	78282	LCS		PCBs by EPA SW-846 Method 8082
204926	205318	3	MS	78283	B2JDH6(120894008MS)	120894008	PCBs by EPA SW-846 Method 8082
204926	205318	4	MSD	78284	B2JDH6(120894008MSD)	120894008	PCBs by EPA SW-846 Method 8082
204926	205318	7	SAMPLE	120895001	B2JDM8		PCBs by EPA SW-846 Method 8082
204926	205318	8	SAMPLE	120895002	B2JDN1		PCBs by EPA SW-846 Method 8082
204926	205318	9	SAMPLE	120895003	B2JDV3		PCBs by EPA SW-846 Method 8082
204926	205318	10	SAMPLE	120895004	B2JDP6		PCBs by EPA SW-846 Method 8082
204926	205318	11	SAMPLE	120895005	B2JDN7		PCBs by EPA SW-846 Method 8082
204971	205314	1	BLANK	78402	BLANK		PCBs by EPA SW-846 Method 8082
204971	205314	2	LCS	78403	LCS		PCBs by EPA SW-846 Method 8082
204971	205314	3	MS	78404	B2JDN4(120895006MS)	120895006	PCBs by EPA SW-846 Method 8082
204971	205314	4	MSD	78405	B2JDN4(120895006MSD)	120895006	PCBs by EPA SW-846 Method 8082
204971	205314	5	SAMPLE	120895006	B2JDN4		PCBs by EPA SW-846 Method 8082

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
205183	205198	1	BLANK	78657	BLANK		SW-846 8270D Semivolatiles
205183	205198	2	LCS	78658	LCS		SW-846 8270D Semivolatiles
205183	205198	3	MS	78659	B2JDN4(120895006MS)	120895006	SW-846 8270D Semivolatiles
205183	205198	4	MSD	78660	B2JDN4(120895006MSD)	120895006	SW-846 8270D Semivolatiles
205183	205198	5	SAMPLE	120895006	B2JDN4		SW-846 8270D Semivolatiles

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analytical Batch 204946 (QC Batch: 204887) **Test** SW-846 8270D Semivolatiles
Associated Samples 120895001, 120895002, 120895003, 120895004, 120895005

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78136**							
4-Nitrophenol	100-02-7		<200	ug/kg					U	07/18/12
Phenol	108-95-2		<200	ug/kg					U	07/18/12
1,2,4-Trichlorobenzene	120-82-1		<200	ug/kg					U	07/18/12
1,4-Dichlorobenzene	106-46-7		<200	ug/kg					U	07/18/12
2,4-Dinitrotoluene	121-14-2		<200	ug/kg					U	07/18/12
4-Chloro-3-methylphenol	59-50-7		<200	ug/kg					U	07/18/12
n-Nitroso-di-n-propylamine	621-64-7		<200	ug/kg					U	07/18/12
Pentachlorophenol	87-86-5		<200	ug/kg					U	07/18/12
2-Chlorophenol	95-57-8		<200	ug/kg					U	07/18/12
4-Nitroaniline	100-01-6		<200	ug/kg					U	07/18/12
4-Bromophenyl-phenylether	101-55-3		<200	ug/kg					U	07/18/12
2,4-Dimethylphenol	105-67-9		<200	ug/kg					U	07/18/12
4-Chloroaniline	106-47-8		<200	ug/kg					U	07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1		<200	ug/kg					U	07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Chloroethyl) ether	111-44-4		<200	ug/kg					U	07/18/12
Bis-(2-Chloroethoxy)methane	111-91-1		<200	ug/kg					U	07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		<200	ug/kg					U	07/18/12
Di-n-octylphthalate	117-84-0		<200	ug/kg					U	07/18/12
Hexachlorobenzene	118-74-1		<200	ug/kg					U	07/18/12
2,4-Dichlorophenol	120-83-2		<200	ug/kg					U	07/18/12
Dimethylphthalate	131-11-3		<200	ug/kg					U	07/18/12
Dibenzofuran	132-64-9		<200	ug/kg					U	07/18/12
2,4-Dinitrophenol	51-28-5		<200	ug/kg					U	07/18/12
4,6-Dinitro-2-methylphenol	534-52-1		<200	ug/kg					U	07/18/12
1,3-Dichlorobenzene	541-73-1		<200	ug/kg					U	07/18/12
2,6-Dinitrotoluene	606-20-2		<200	ug/kg					U	07/18/12
4-Chlorophenyl-phenylether	7005-72-3		<200	ug/kg					U	07/18/12
Hexachlorocyclopentadiene	77-47-4		<200	ug/kg					U	07/18/12
Isophorone	78-59-1		<200	ug/kg					U	07/18/12
Diethyl phthalate	84-66-2		<200	ug/kg					U	07/18/12
Di-n-butylphthalate	84-74-2		<200	ug/kg					U	07/18/12
Butylbenzylphthalate	85-68-7		<200	ug/kg					U	07/18/12
n-Nitrosodiphenylamine	86-30-6		<200	ug/kg					U	07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Carbazole	86-74-8		<200	ug/kg					U	07/18/12
Hexachlorobutadiene	87-68-3		<200	ug/kg					U	07/18/12
2-Nitroaniline	88-74-4		<200	ug/kg					U	07/18/12
2-Nitrophenol	88-75-5		<200	ug/kg					U	07/18/12
2-Chloronaphthalene	91-58-7		<200	ug/kg					U	07/18/12
3,3-Dichlorobenzidine	91-94-1		<200	ug/kg					U	07/18/12
2-Methylphenol	95-48-7		<200	ug/kg					U	07/18/12
1,2-Dichlorobenzene	95-50-1		<200	ug/kg					U	07/18/12
2,4,5-Trichlorophenol	95-95-4		<200	ug/kg					U	07/18/12
Nitrobenzene	98-95-3		<200	ug/kg					U	07/18/12
3-Nitroaniline	99-09-2		<200	ug/kg					U	07/18/12
Hexachloroethane	67-72-1		<200	ug/kg					U	07/18/12
2,4,6-Trichlorophenol	88-06-2		<200	ug/kg					U	07/18/12
LCS			**QC Sample #78137**							
4-Nitrophenol	100-02-7		5400	ug/kg	90	48 - 120				07/18/12
1,2,4-Trichlorobenzene	120-82-1		5200	ug/kg	86.1	69 - 114				07/18/12
Phenol	108-95-2		5600	ug/kg	93.1	70 - 119				07/18/12
1,4-Dichlorobenzene	106-46-7		3800	ug/kg	95	64 - 125				07/18/12
2,4-Dinitrotoluene	121-14-2		5500	ug/kg	92.3	58 - 124				07/18/12
4-Chloro-3-methylphenol	59-50-7		5600	ug/kg	93.5	73 - 121				07/18/12
n-Nitroso-di-n-propylamine	621-64-7		5900	ug/kg	99	72 - 119				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Pentachlorophenol	87-86-5		5000	ug/kg	83.1	28 - 127				07/18/12
2-Chlorophenol	95-57-8		5700	ug/kg	94.8	71 - 120				07/18/12
2-Methylphenol	95-48-7		5700	ug/kg	94.9	73 - 122				07/18/12
Hexachloroethane	67-72-1		5700	ug/kg	94.2	59 - 114				07/18/12
2-Nitrophenol	88-75-5		5700	ug/kg	95.5	56 - 124				07/18/12
2,4-Dimethylphenol	105-67-9		5000	ug/kg	83.4	75 - 124				07/18/12
2,4-Dichlorophenol	120-83-2		5400	ug/kg	90.1	68 - 118				07/18/12
2-Nitroaniline	88-74-4		6000	ug/kg	100.7	62 - 131				07/18/12
Dibenzofuran	132-64-9		5800	ug/kg	97.1	70 - 122				07/18/12
Hexachlorobenzene	118-74-1		5700	ug/kg	95.1	72 - 127				07/18/12
Carbazole	86-74-8		6000	ug/kg	100.3	46 - 121				07/18/12
Di-n-butylphthalate	84-74-2		6100	ug/kg	101.2	60 - 131				07/18/12
3,3-Dichlorobenzidine	91-94-1		3600	ug/kg	60.1	41 - 131				07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		6300	ug/kg	104.2	68 - 131				07/18/12
Di-n-octylphthalate	117-84-0		6300	ug/kg	105.3	55 - 131				07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1		5900	ug/kg	97.9	70 - 120				07/18/12
4-Chloroaniline	106-47-8		4500	ug/kg	75.2	39 - 109				07/18/12
MS			**QC Sample #78138**							
			Original 120894007							
4-Nitrophenol	100-02-7		5800	ug/kg	96.4	40 - 126				07/18/12
1,2,4-Trichlorobenzene	120-82-1		5300	ug/kg	89.4	52 - 130				07/18/12
Phenol	108-95-2		5900	ug/kg	98.9	55 - 132				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,4-Dichlorobenzene	106-46-7		4000	ug/kg	100.8	55 - 130				07/18/12
2,4-Dinitrotoluene	121-14-2		6100	ug/kg	102	56 - 125				07/18/12
4-Chloro-3-methylphenol	59-50-7		6000	ug/kg	100	62 - 128				07/18/12
n-Nitroso-di-n-propylamine	621-64-7		6500	ug/kg	108.2	56 - 130				07/18/12
Pentachlorophenol	87-86-5		5100	ug/kg	85.6	21 - 141				07/18/12
2-Chlorophenol	95-57-8		5800	ug/kg	97.6	61 - 129				07/18/12
2-Methylphenol	95-48-7		6000	ug/kg	99.8	61 - 129				07/18/12
Hexachloroethane	67-72-1		6000	ug/kg	99.8	38 - 132				07/18/12
2-Nitrophenol	88-75-5		5900	ug/kg	98.9	50 - 128				07/18/12
2,4-Dimethylphenol	105-67-9		5100	ug/kg	86	58 - 133				07/18/12
2,4-Dichlorophenol	120-83-2		5600	ug/kg	94	51 - 132				07/18/12
2-Nitroaniline	88-74-4		6600	ug/kg	110.4	60 - 131				07/18/12
Dibenzofuran	132-64-9		6200	ug/kg	103.7	61 - 127				07/18/12
Hexachlorobenzene	118-74-1		5700	ug/kg	96.2	57 - 133				07/18/12
Carbazole	86-74-8		6300	ug/kg	105.4	38 - 125				07/18/12
Di-n-butylphthalate	84-74-2		6200	ug/kg	104	62 - 129				07/18/12
3,3-Dichlorobenzidine	91-94-1		4700	ug/kg	78.7	24 - 141				07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		6800	ug/kg	113.3	49 - 145				07/18/12
Di-n-octylphthalate	117-84-0		6000	ug/kg	101.1	53 - 144				07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1		6300	ug/kg	106.2	53 - 132				07/18/12
4-Chloroaniline	106-47-8		5500	ug/kg	92.9	23 - 152				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #78139**							
			Original	**120894007**					**Paired**	**78138**
4-Nitrophenol	100-02-7		5000	ug/kg	85.3	40 - 126	14.80	30		07/18/12
1,2,4-Trichlorobenzene	120-82-1		4900	ug/kg	82.8	52 - 130	7.80	30		07/18/12
Phenol	108-95-2		5300	ug/kg	90.9	55 - 132	10.70	30		07/18/12
1,4-Dichlorobenzene	106-46-7		3700	ug/kg	93.7	55 - 130	7.80	30		07/18/12
2,4-Dinitrotoluene	121-14-2		5200	ug/kg	89	56 - 125	15.90	30		07/18/12
4-Chloro-3-methylphenol	59-50-7		5300	ug/kg	90	62 - 128	12.40	30		07/18/12
n-Nitroso-di-n-propylamine	621-64-7		5800	ug/kg	99.5	56 - 130	11.40	30		07/18/12
Pentachlorophenol	87-86-5		4500	ug/kg	77.4	21 - 141	12.50	30		07/18/12
2-Chlorophenol	95-57-8		5300	ug/kg	90.8	61 - 129	9.00	30		07/18/12
2-Methylphenol	95-48-7		5400	ug/kg	91.4	61 - 129	10.50	30		07/18/12
Hexachloroethane	67-72-1		5400	ug/kg	91.4	38 - 132	10.50	30		07/18/12
2-Nitrophenol	88-75-5		5300	ug/kg	89.9	50 - 128	10.70	30		07/18/12
2,4-Dimethylphenol	105-67-9		4700	ug/kg	79.5	58 - 133	8.20	30		07/18/12
2,4-Dichlorophenol	120-83-2		5100	ug/kg	87.7	51 - 132	9.30	30		07/18/12
2-Nitroaniline	88-74-4		5800	ug/kg	99.5	60 - 131	12.90	30		07/18/12
Dibenzofuran	132-64-9		5400	ug/kg	92.6	61 - 127	13.80	30		07/18/12
Hexachlorobenzene	118-74-1		5100	ug/kg	87.8	57 - 133	11.10	30		07/18/12
Carbazole	86-74-8		5600	ug/kg	94.8	38 - 125	11.80	30		07/18/12
Di-n-butylphthalate	84-74-2		5600	ug/kg	95.7	62 - 129	10.20	30		07/18/12
3,3-Dichlorobenzidine	91-94-1		4000	ug/kg	67.4	24 - 141	16.10	30		07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Ethylhexyl)phthalate	117-81-7		6100	ug/kg	103.6	49 - 145	10.90	30		07/18/12
Di-n-octylphthalate	117-84-0		5700	ug/kg	97.9	53 - 144	5.10	30		07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1		5800	ug/kg	99.1	53 - 132	8.30	30		07/18/12
4-Chloroaniline	106-47-8		5100	ug/kg	87.3	23 - 152	7.50	30		07/18/12

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analytical Batch 205198 (QC Batch: 205183)
Associated Samples 120895006

Test SW-846 8270D Semivolatiles

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78657**							
4-Nitrophenol	100-02-7		<200	ug/kg					U	07/24/12
Phenol	108-95-2		<200	ug/kg					U	07/24/12
1,4-Dichlorobenzene	106-46-7		<200	ug/kg					U	07/24/12
1,2,4-Trichlorobenzene	120-82-1		<200	ug/kg					U	07/24/12
2,4-Dinitrotoluene	121-14-2		<200	ug/kg					U	07/24/12
4-Chloro-3-methylphenol	59-50-7		<200	ug/kg					U	07/24/12
n-Nitroso-di-n-propylamine	621-64-7		<200	ug/kg					U	07/24/12
Pentachlorophenol	87-86-5		<200	ug/kg					U	07/24/12
2-Chlorophenol	95-57-8		<200	ug/kg					U	07/24/12
4-Nitroaniline	100-01-6		<200	ug/kg					U	07/24/12
4-Bromophenyl-phenylether	101-55-3		<200	ug/kg					U	07/24/12
2,4-Dimethylphenol	105-67-9		<200	ug/kg					U	07/24/12
4-Chloroaniline	106-47-8		<200	ug/kg					U	07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1		<200	ug/kg					U	07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Chloroethyl) ether	111-44-4		<200	ug/kg					U	07/24/12
Bis-(2-Chloroethoxy)methane	111-91-1		<200	ug/kg					U	07/24/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		<200	ug/kg					U	07/24/12
Di-n-octylphthalate	117-84-0		<200	ug/kg					U	07/24/12
Hexachlorobenzene	118-74-1		<200	ug/kg					U	07/24/12
2,4-Dichlorophenol	120-83-2		<200	ug/kg					U	07/24/12
Dimethylphthalate	131-11-3		<200	ug/kg					U	07/24/12
Dibenzofuran	132-64-9		<200	ug/kg					U	07/24/12
2,4-Dinitrophenol	51-28-5		<200	ug/kg					U	07/24/12
4,6-Dinitro-2-methylphenol	534-52-1		<200	ug/kg					U	07/24/12
1,3-Dichlorobenzene	541-73-1		<200	ug/kg					U	07/24/12
2,6-Dinitrotoluene	606-20-2		<200	ug/kg					U	07/24/12
4-Chlorophenyl-phenylether	7005-72-3		<200	ug/kg					U	07/24/12
Hexachlorocyclopentadiene	77-47-4		<200	ug/kg					U	07/24/12
Isophorone	78-59-1		<200	ug/kg					U	07/24/12
Diethyl phthalate	84-66-2		<200	ug/kg					U	07/24/12
Di-n-butylphthalate	84-74-2		<200	ug/kg					U	07/24/12
Butylbenzylphthalate	85-68-7		<200	ug/kg					U	07/24/12
n-Nitrosodiphenylamine	86-30-6		<200	ug/kg					U	07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Carbazole	86-74-8		<200	ug/kg					U	07/24/12
Hexachlorobutadiene	87-68-3		<200	ug/kg					U	07/24/12
2-Nitroaniline	88-74-4		<200	ug/kg					U	07/24/12
2-Nitrophenol	88-75-5		<200	ug/kg					U	07/24/12
2-Chloronaphthalene	91-58-7		<200	ug/kg					U	07/24/12
3,3-Dichlorobenzidine	91-94-1		<200	ug/kg					UX	07/24/12
2-Methylphenol	95-48-7		<200	ug/kg					U	07/24/12
1,2-Dichlorobenzene	95-50-1		<200	ug/kg					U	07/24/12
2,4,5-Trichlorophenol	95-95-4		<200	ug/kg					U	07/24/12
Nitrobenzene	98-95-3		<200	ug/kg					U	07/24/12
3-Nitroaniline	99-09-2		<200	ug/kg					U	07/24/12
Hexachloroethane	67-72-1		<200	ug/kg					U	07/24/12
2,4,6-Trichlorophenol	88-06-2		<200	ug/kg					U	07/24/12
LCS			**QC Sample #78658**							
4-Nitrophenol	100-02-7		5200	ug/kg	87.2	48 - 120				07/24/12
1,2,4-Trichlorobenzene	120-82-1		5200	ug/kg	86.2	69 - 114				07/24/12
Phenol	108-95-2		5500	ug/kg	92	70 - 119				07/24/12
1,4-Dichlorobenzene	106-46-7		3800	ug/kg	95	64 - 125				07/24/12
2,4-Dinitrotoluene	121-14-2		5800	ug/kg	96.2	58 - 124				07/24/12
4-Chloro-3-methylphenol	59-50-7		5300	ug/kg	88.5	73 - 121				07/24/12
n-Nitroso-di-n-propylamine	621-64-7		6500	ug/kg	107.7	72 - 119				07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Pentachlorophenol	87-86-5		4800	ug/kg	80.8	28 - 127				07/24/12
2-Chlorophenol	95-57-8		5300	ug/kg	88.1	71 - 120				07/24/12
2-Methylphenol	95-48-7		5600	ug/kg	93.6	73 - 122				07/24/12
Hexachloroethane	67-72-1		5800	ug/kg	97.4	59 - 114				07/24/12
2-Nitrophenol	88-75-5		5400	ug/kg	90.2	56 - 124				07/24/12
2,4-Dimethylphenol	105-67-9		4800	ug/kg	79.2	75 - 124				07/24/12
2,4-Dichlorophenol	120-83-2		5100	ug/kg	84.4	68 - 118				07/24/12
2-Nitroaniline	88-74-4		6100	ug/kg	102.5	62 - 131				07/24/12
Dibenzofuran	132-64-9		6000	ug/kg	99.7	70 - 122				07/24/12
Hexachlorobenzene	118-74-1		5300	ug/kg	88.1	72 - 127				07/24/12
Carbazole	86-74-8		5900	ug/kg	98.7	46 - 121				07/24/12
Di-n-butylphthalate	84-74-2		5600	ug/kg	93.8	60 - 131				07/24/12
3,3-Dichlorobenzidine	91-94-1		2100	ug/kg	34.2	41 - 131			X	07/24/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		4500	ug/kg	75.2	68 - 131				07/24/12
Di-n-octylphthalate	117-84-0		5000	ug/kg	83.4	55 - 131				07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1		6400	ug/kg	106	70 - 120				07/24/12
4-Chloroaniline	106-47-8		3700	ug/kg	61	39 - 109				07/24/12
MS			**QC Sample #78659**							
			Original 120895006							
4-Nitrophenol	100-02-7	<200	4600	ug/kg	76.1	40 - 126				07/24/12
1,2,4-Trichlorobenzene	120-82-1	<200	5100	ug/kg	84.7	52 - 130				07/24/12
Phenol	108-95-2	<200	5400	ug/kg	89.7	55 - 132				07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,4-Dichlorobenzene	106-46-7	<200	3700	ug/kg	91.9	55 - 130				07/24/12
2,4-Dinitrotoluene	121-14-2	<200	5400	ug/kg	90.9	56 - 125				07/24/12
4-Chloro-3-methylphenol	59-50-7	<200	5200	ug/kg	86.3	62 - 128				07/24/12
n-Nitroso-di-n-propylamine	621-64-7	<200	6100	ug/kg	101.8	56 - 130				07/24/12
Pentachlorophenol	87-86-5	<200	4100	ug/kg	67.8	21 - 141				07/24/12
2-Chlorophenol	95-57-8	<200	5100	ug/kg	85.1	61 - 129				07/24/12
2-Methylphenol	95-48-7	<200	5300	ug/kg	89.1	61 - 129				07/24/12
Hexachloroethane	67-72-1	<200	5700	ug/kg	96	38 - 132				07/24/12
2-Nitrophenol	88-75-5	<200	5200	ug/kg	87	50 - 128				07/24/12
2,4-Dimethylphenol	105-67-9	<200	4200	ug/kg	69.4	58 - 133				07/24/12
2,4-Dichlorophenol	120-83-2	<200	4800	ug/kg	80.4	51 - 132				07/24/12
2-Nitroaniline	88-74-4	<200	5900	ug/kg	98.6	60 - 131				07/24/12
Dibenzofuran	132-64-9	<200	5800	ug/kg	96.7	61 - 127				07/24/12
Hexachlorobenzene	118-74-1	<200	5300	ug/kg	88	57 - 133				07/24/12
Carbazole	86-74-8	<200	5700	ug/kg	95.1	38 - 125				07/24/12
Di-n-butylphthalate	84-74-2	<200	5400	ug/kg	90.5	62 - 129				07/24/12
3,3-Dichlorobenzidine	91-94-1	<200	2000	ug/kg	32.7	24 - 141			X	07/24/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	<200	4300	ug/kg	72.6	49 - 145				07/24/12
Di-n-octylphthalate	117-84-0	<200	4600	ug/kg	76.5	53 - 144				07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1	<200	6200	ug/kg	103.9	53 - 132				07/24/12
4-Chloroaniline	106-47-8	<200	4800	ug/kg	79.9	23 - 152				07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #78660**							
			Original	**120895006**				**Paired**	**78659**	
4-Nitrophenol	100-02-7	<200	4900	ug/kg	82.2	40 - 126	6.30	30		07/24/12
1,2,4-Trichlorobenzene	120-82-1	<200	5400	ug/kg	90.2	52 - 130	5.70	30		07/24/12
Phenol	108-95-2	<200	5700	ug/kg	95.6	55 - 132	5.40	30		07/24/12
1,4-Dichlorobenzene	106-46-7	<200	4000	ug/kg	99.7	55 - 130	7.80	30		07/24/12
2,4-Dinitrotoluene	121-14-2	<200	5900	ug/kg	98.3	56 - 125	8.80	30		07/24/12
4-Chloro-3-methylphenol	59-50-7	<200	5400	ug/kg	90.9	62 - 128	3.80	30		07/24/12
n-Nitroso-di-n-propylamine	621-64-7	<200	6500	ug/kg	109.2	56 - 130	6.30	30		07/24/12
Pentachlorophenol	87-86-5	<200	4800	ug/kg	80	21 - 141	15.70	30		07/24/12
2-Chlorophenol	95-57-8	<200	5400	ug/kg	89.7	61 - 129	5.70	30		07/24/12
2-Methylphenol	95-48-7	<200	5500	ug/kg	92	61 - 129	3.70	30		07/24/12
Hexachloroethane	67-72-1	<200	6100	ug/kg	101.8	38 - 132	6.80	30		07/24/12
2-Nitrophenol	88-75-5	<200	5600	ug/kg	94	50 - 128	7.40	30		07/24/12
2,4-Dimethylphenol	105-67-9	<200	4100	ug/kg	68.7	58 - 133	2.40	30		07/24/12
2,4-Dichlorophenol	120-83-2	<200	5100	ug/kg	84.8	51 - 132	6.10	30		07/24/12
2-Nitroaniline	88-74-4	<200	6300	ug/kg	105.6	60 - 131	6.60	30		07/24/12
Dibenzofuran	132-64-9	<200	6100	ug/kg	102.8	61 - 127	5.00	30		07/24/12
Hexachlorobenzene	118-74-1	<200	5700	ug/kg	95.5	57 - 133	7.30	30		07/24/12
Carbazole	86-74-8	<200	6100	ug/kg	102	38 - 125	6.80	30		07/24/12
Di-n-butylphthalate	84-74-2	<200	5800	ug/kg	97.4	62 - 129	7.10	30		07/24/12
3,3-Dichlorobenzidine	91-94-1	<200	2200	ug/kg	36.9	24 - 141	9.50	30	X	07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Ethylhexyl)phthalate	117-81-7	<200	4700	ug/kg	79.3	49 - 145	8.90	30		07/24/12
Di-n-octylphthalate	117-84-0	<200	4700	ug/kg	78.7	53 - 144	2.20	30		07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1	<200	6600	ug/kg	110.1	53 - 132	6.20	30		07/24/12
4-Chloroaniline	106-47-8	<200	5100	ug/kg	85.2	23 - 152	6.10	30		07/24/12

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analytical Batch 204946 (QC Batch: 204887) **Test** SW-846 8270D Semivolatiles
Associated Samples 120895001, 120895002, 120895003, 120895004, 120895005

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120895001**							
2-Fluorophenol	367-12-4				96.4	44 - 135				07/18/12
Phenol-d5	4165-62-2				106.4	41 - 136				07/18/12
Nitrobenzene-d5	4165-60-0				113.4	53 - 129				07/18/12
2-Methylnaphthalene-d10	7297-45-2				103.4	50 - 140				07/18/12
2-Fluorobiphenyl	321-60-8				104.8	36 - 141				07/18/12
2,4,6-Tribromophenol	118-79-6				81.1	17 - 142				07/18/12
Fluoranthene-d10	93951-69-0				104.8	50 - 140				07/18/12
Terphenyl-d14	98904-43-9				100.4	61 - 142				07/18/12
SAMPLE			**Sample #120895002**							
2-Fluorophenol	367-12-4				98.8	44 - 135				07/18/12
Phenol-d5	4165-62-2				107.9	41 - 136				07/18/12
Nitrobenzene-d5	4165-60-0				115.3	53 - 129				07/18/12
2-Methylnaphthalene-d10	7297-45-2				102.1	50 - 140				07/18/12
2-Fluorobiphenyl	321-60-8				106.6	36 - 141				07/18/12
2,4,6-Tribromophenol	118-79-6				79.3	17 - 142				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Fluoranthene-d10	93951-69-0				100.6	50 - 140				07/18/12
Terphenyl-d14	98904-43-9				105.4	61 - 142				07/18/12
SAMPLE			**Sample #120895003**							
2-Fluorophenol	367-12-4				99.3	44 - 135				07/18/12
Phenol-d5	4165-62-2				108.8	41 - 136				07/18/12
Nitrobenzene-d5	4165-60-0				116.3	53 - 129				07/18/12
2-Methylnaphthalene-d10	7297-45-2				104.4	50 - 140				07/18/12
2-Fluorobiphenyl	321-60-8				107.2	36 - 141				07/18/12
2,4,6-Tribromophenol	118-79-6				82	17 - 142				07/18/12
Fluoranthene-d10	93951-69-0				106.5	50 - 140				07/18/12
Terphenyl-d14	98904-43-9				104.3	61 - 142				07/18/12
SAMPLE			**Sample #120895004**							
2-Fluorophenol	367-12-4				98.4	44 - 135				07/18/12
Phenol-d5	4165-62-2				108.4	41 - 136				07/18/12
Nitrobenzene-d5	4165-60-0				115.8	53 - 129				07/18/12
2-Methylnaphthalene-d10	7297-45-2				104	50 - 140				07/18/12
2-Fluorobiphenyl	321-60-8				107.3	36 - 141				07/18/12
2,4,6-Tribromophenol	118-79-6				79.8	17 - 142				07/18/12
Fluoranthene-d10	93951-69-0				104	50 - 140				07/18/12
Terphenyl-d14	98904-43-9				100.1	61 - 142				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120895005**							
2-Fluorophenol	367-12-4				93.8	44 - 135				07/18/12
Phenol-d5	4165-62-2				101.7	41 - 136				07/18/12
Nitrobenzene-d5	4165-60-0				111.6	53 - 129				07/18/12
2-Methylnaphthalene-d10	7297-45-2				99.5	50 - 140				07/18/12
2-Fluorobiphenyl	321-60-8				105.8	36 - 141				07/18/12
2,4,6-Tribromophenol	118-79-6				70.4	17 - 142				07/18/12
Fluoranthene-d10	93951-69-0				95	50 - 140				07/18/12
Terphenyl-d14	98904-43-9				109.2	61 - 142				07/18/12
BLANK			**QC Sample #78136**							
2-Fluorophenol	367-12-4				96.2	44 - 135				07/18/12
Phenol-d5	4165-62-2				106.2	41 - 136				07/18/12
Nitrobenzene-d5	4165-60-0				111.7	53 - 129				07/18/12
2-Methylnaphthalene-d10	7297-45-2				102	50 - 140				07/18/12
2-Fluorobiphenyl	321-60-8				104	36 - 141				07/18/12
2,4,6-Tribromophenol	118-79-6				79.7	17 - 142				07/18/12
Fluoranthene-d10	93951-69-0				101.5	50 - 140				07/18/12
Terphenyl-d14	98904-43-9				106.4	61 - 142				07/18/12
LCS			**QC Sample #78137**							
2-Fluorophenol	367-12-4			ug/kg	95.5	38 - 151				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Phenol-d5	4165-62-2			ug/kg	102.4	38 - 153				07/18/12
Nitrobenzene-d5	4165-60-0			ug/kg	107.7	42 - 153				07/18/12
2,4,6-Tribromophenol	118-79-6			ug/kg	90.1	21 - 147				07/18/12
2-Fluorobiphenyl	321-60-8			ug/kg	103.3	34 - 160				07/18/12
Terphenyl-d14	98904-43-9			ug/kg	98.1	51 - 155				07/18/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	98.6	27 - 197				07/18/12
Fluoranthene-d10	93951-69-0			ug/kg	100.8	39 - 168				07/18/12
MS			**QC Sample #78138**							
			Original 120894007							
2-Fluorophenol	367-12-4			ug/kg	103	38 - 151				07/18/12
Phenol-d5	4165-62-2			ug/kg	107.8	38 - 153				07/18/12
Nitrobenzene-d5	4165-60-0			ug/kg	115.3	42 - 153				07/18/12
2,4,6-Tribromophenol	118-79-6			ug/kg	100.4	21 - 147				07/18/12
2-Fluorobiphenyl	321-60-8			ug/kg	108.9	34 - 160				07/18/12
Terphenyl-d14	98904-43-9			ug/kg	100.8	51 - 155				07/18/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	104.9	27 - 197				07/18/12
Fluoranthene-d10	93951-69-0			ug/kg	106.8	39 - 168				07/18/12
MSD			**QC Sample #78139**							
			Original 120894007					**Paired**	**78138**	
2-Fluorophenol	367-12-4			ug/kg	93.4	38 - 151	n/a			07/18/12
Phenol-d5	4165-62-2			ug/kg	98.8	38 - 153	n/a			07/18/12
Nitrobenzene-d5	4165-60-0			ug/kg	104.2	42 - 153	n/a			07/18/12
2,4,6-Tribromophenol	118-79-6			ug/kg	87.5	21 - 147	n/a			07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
2-Fluorobiphenyl	321-60-8			ug/kg	97.7	34 - 160	n/a			07/18/12
Terphenyl-d14	98904-43-9			ug/kg	94.8	51 - 155	n/a			07/18/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	96.1	27 - 197	n/a			07/18/12
Fluoranthene-d10	93951-69-0			ug/kg	93.4	39 - 168	n/a			07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analytical Batch 205198 (QC Batch: 205183)
Associated Samples 120895006

Test SW-846 8270D Semivolatiles

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120895006**							
2-Fluorophenol	367-12-4				82.7	44 - 135				07/24/12
Phenol-d5	4165-62-2				94.9	41 - 136				07/24/12
Nitrobenzene-d5	4165-60-0				112.7	53 - 129				07/24/12
2-Methylnaphthalene-d10	7297-45-2				102.1	50 - 140				07/24/12
2-Fluorobiphenyl	321-60-8				103.9	36 - 141				07/24/12
2,4,6-Tribromophenol	118-79-6				50.9	17 - 142				07/24/12
Fluoranthene-d10	93951-69-0				97	50 - 140				07/24/12
Terphenyl-d14	98904-43-9				98.8	61 - 142				07/24/12
BLANK			**QC Sample #78657**							
2-Fluorophenol	367-12-4				90	44 - 135				07/24/12
Phenol-d5	4165-62-2				101.1	41 - 136				07/24/12
Nitrobenzene-d5	4165-60-0				116.9	53 - 129				07/24/12
2-Methylnaphthalene-d10	7297-45-2				104.1	50 - 140				07/24/12
2-Fluorobiphenyl	321-60-8				107.1	36 - 141				07/24/12
2,4,6-Tribromophenol	118-79-6				55.9	17 - 142				07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Fluoranthene-d10	93951-69-0				98	50 - 140				07/24/12
Terphenyl-d14	98904-43-9				103.3	61 - 142				07/24/12
LCS			**QC Sample #78658**							
2-Fluorophenol	367-12-4			ug/kg	82.5	38 - 151				07/24/12
Phenol-d5	4165-62-2			ug/kg	94	38 - 153				07/24/12
Nitrobenzene-d5	4165-60-0			ug/kg	107.3	42 - 153				07/24/12
2,4,6-Tribromophenol	118-79-6			ug/kg	78.8	21 - 147				07/24/12
2-Fluorobiphenyl	321-60-8			ug/kg	99.5	34 - 160				07/24/12
Terphenyl-d14	98904-43-9			ug/kg	92.1	51 - 155				07/24/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	98.7	27 - 197				07/24/12
Fluoranthene-d10	93951-69-0			ug/kg	96.9	39 - 168				07/24/12
MS			**QC Sample #78659**							
			Original 120895006							
2-Fluorophenol	367-12-4			ug/kg	75.2	38 - 151				07/24/12
Phenol-d5	4165-62-2			ug/kg	89.3	38 - 153				07/24/12
Nitrobenzene-d5	4165-60-0			ug/kg	103.9	42 - 153				07/24/12
2,4,6-Tribromophenol	118-79-6			ug/kg	72.5	21 - 147				07/24/12
2-Fluorobiphenyl	321-60-8			ug/kg	98.1	34 - 160				07/24/12
Terphenyl-d14	98904-43-9			ug/kg	94.7	51 - 155				07/24/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	96.6	27 - 197				07/24/12
Fluoranthene-d10	93951-69-0			ug/kg	92.4	39 - 168				07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #78660**							
			Original	**120895006**				**Paired**	**78659**	
2-Fluorophenol	367-12-4			ug/kg	83.1	38 - 151	n/a			07/24/12
Phenol-d5	4165-62-2			ug/kg	95.3	38 - 153	n/a			07/24/12
Nitrobenzene-d5	4165-60-0			ug/kg	110.9	42 - 153	n/a			07/24/12
2,4,6-Tribromophenol	118-79-6			ug/kg	78.2	21 - 147	n/a			07/24/12
2-Fluorobiphenyl	321-60-8			ug/kg	102	34 - 160	n/a			07/24/12
Terphenyl-d14	98904-43-9			ug/kg	100.8	51 - 155	n/a			07/24/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	102.4	27 - 197	n/a			07/24/12
Fluoranthene-d10	93951-69-0			ug/kg	99.3	39 - 168	n/a			07/24/12

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

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204887	204946	1	BLANK	78136	BLANK		SW-846 8270D Semivolatiles
204887	204946	2	LCS	78137	LCS		SW-846 8270D Semivolatiles
204887	204946	3	MS	78138	B2JDH9(120894007MS)	120894007	SW-846 8270D Semivolatiles
204887	204946	4	MSD	78139	B2JDH9(120894007MSD)	120894007	SW-846 8270D Semivolatiles
204887	204946	12	SAMPLE	120900003	B2JDH3		SW-846 8270D Semivolatiles
204887	204946	13	SAMPLE	120900007	B2JDP0		SW-846 8270D Semivolatiles
204887	204946	14	SAMPLE	120900010	B2JF32		SW-846 8270D Semivolatiles
204887	204946	15	SAMPLE	120900011	B2JDJ8		SW-846 8270D Semivolatiles
204926	205318	1	BLANK	78281	BLANK		PCBs by EPA SW-846 Method 8082
204926	205318	2	LCS	78282	LCS		PCBs by EPA SW-846 Method 8082
204926	205318	3	MS	78283	B2JDH6(120894008MS)	120894008	PCBs by EPA SW-846 Method 8082
204926	205318	4	MSD	78284	B2JDH6(120894008MSD)	120894008	PCBs by EPA SW-846 Method 8082
204926	205318	12	SAMPLE	120900003	B2JDH3		PCBs by EPA SW-846 Method 8082
204926	205318	13	SAMPLE	120900007	B2JDP0		PCBs by EPA SW-846 Method 8082
204926	205318	14	SAMPLE	120900010	B2JF32		PCBs by EPA SW-846 Method 8082
204926	205318	15	SAMPLE	120900011	B2JDJ8		PCBs by EPA SW-846 Method 8082
204971	205314	1	BLANK	78402	BLANK		PCBs by EPA SW-846 Method 8082
204971	205314	2	LCS	78403	LCS		PCBs by EPA SW-846 Method 8082
204971	205314	3	MS	78404	B2JDN4(120895006MS)	120895006	PCBs by EPA SW-846 Method 8082
204971	205314	4	MSD	78405	B2JDN4(120895006MSD)	120895006	PCBs by EPA SW-846 Method 8082
204971	205314	6	SAMPLE	120900001	B2JDT7		PCBs by EPA SW-846 Method 8082
204971	205314	7	SAMPLE	120900002	B2JDT4		PCBs by EPA SW-846 Method 8082
204971	205314	8	SAMPLE	120900004	B2JDK4		PCBs by EPA SW-846 Method 8082

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204971	205314	9	SAMPLE	120900012	B2JDR2		PCBs by EPA SW-846 Method 8082
204971	205314	10	SAMPLE	120900014	B2JDP3		PCBs by EPA SW-846 Method 8082
204971	205314	11	SAMPLE	120900015	B2JDP9		PCBs by EPA SW-846 Method 8082
204971	205314	12	SAMPLE	120900016	B2JDV6		PCBs by EPA SW-846 Method 8082
204971	205314	13	SAMPLE	120900017	B2JDK1		PCBs by EPA SW-846 Method 8082
204971	205314	14	SAMPLE	120900018	B2JF35		PCBs by EPA SW-846 Method 8082
204971	205314	15	SAMPLE	120900019	B2JF47		PCBs by EPA SW-846 Method 8082
205183	205198	1	BLANK	78657	BLANK		SW-846 8270D Semivolatiles
205183	205198	2	LCS	78658	LCS		SW-846 8270D Semivolatiles
205183	205198	3	MS	78659	B2JDN4(120895006MS)	120895006	SW-846 8270D Semivolatiles
205183	205198	4	MSD	78660	B2JDN4(120895006MSD)	120895006	SW-846 8270D Semivolatiles
205183	205198	6	SAMPLE	120900001	B2JDT7		SW-846 8270D Semivolatiles
205183	205198	7	SAMPLE	120900002	B2JDT4		SW-846 8270D Semivolatiles
205183	205198	8	SAMPLE	120900004	B2JDK4		SW-846 8270D Semivolatiles
205183	205198	9	SAMPLE	120900012	B2JDR2		SW-846 8270D Semivolatiles
205183	205198	10	SAMPLE	120900014	B2JDP3		SW-846 8270D Semivolatiles
205183	205198	11	SAMPLE	120900015	B2JDP9		SW-846 8270D Semivolatiles
205183	205198	12	SAMPLE	120900016	B2JDV6		SW-846 8270D Semivolatiles
205183	205198	13	SAMPLE	120900017	B2JDK1		SW-846 8270D Semivolatiles
205183	205198	14	SAMPLE	120900018	B2JF35		SW-846 8270D Semivolatiles
205183	205198	15	SAMPLE	120900019	B2JF47		SW-846 8270D Semivolatiles
205218	205244	1	BLANK	78721	BLANK		SW-846 8270D Semivolatiles
205218	205244	2	LCS	78722	LCS		SW-846 8270D Semivolatiles

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
205218	205244	3	MS	78723	B2JDJ5(120900005MS)	120900005	SW-846 8270D Semivolatiles
205218	205244	4	MSD	78724	B2JDJ5(120900005MSD)	120900005	SW-846 8270D Semivolatiles
205218	205244	5	SAMPLE	120900005	B2JDJ5		SW-846 8270D Semivolatiles
205218	205244	6	SAMPLE	120900006	B2JDV0		SW-846 8270D Semivolatiles
205218	205244	7	SAMPLE	120900008	B2JDR8		SW-846 8270D Semivolatiles
205218	205244	8	SAMPLE	120900009	B2JDT1		SW-846 8270D Semivolatiles
205218	205244	9	SAMPLE	120900013	B2JDR5		SW-846 8270D Semivolatiles
205218	205244	11	DUP	78725	B2LTY9(120902002DUP)	120902002	SW-846 8270D Semivolatiles
205281	205317	1	BLANK	78906	BLANK		PCBs by EPA SW-846 Method 8082
205281	205317	2	LCS	78907	LCS		PCBs by EPA SW-846 Method 8082
205281	205317	3	MS	78908	B2JDJ5(120900005MS)	120900005	PCBs by EPA SW-846 Method 8082
205281	205317	4	MSD	78909	B2JDJ5(120900005MSD)	120900005	PCBs by EPA SW-846 Method 8082
205281	205317	5	SAMPLE	120900005	B2JDJ5		PCBs by EPA SW-846 Method 8082
205281	205317	6	SAMPLE	120900006	B2JDV0		PCBs by EPA SW-846 Method 8082
205281	205317	7	SAMPLE	120900008	B2JDR8		PCBs by EPA SW-846 Method 8082
205281	205317	8	SAMPLE	120900009	B2JDT1		PCBs by EPA SW-846 Method 8082
205281	205317	9	SAMPLE	120900013	B2JDR5		PCBs by EPA SW-846 Method 8082

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analytical Batch 204946 (QC Batch: 204887)
Associated Samples 120900003, 120900007, 120900010, 120900011

Test SW-846 8270D Semivolatiles

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78136**							
4-Nitrophenol	100-02-7		<200	ug/kg					U	07/18/12
1,2,4-Trichlorobenzene	120-82-1		<200	ug/kg					U	07/18/12
Phenol	108-95-2		<200	ug/kg					U	07/18/12
1,4-Dichlorobenzene	106-46-7		<200	ug/kg					U	07/18/12
2,4-Dinitrotoluene	121-14-2		<200	ug/kg					U	07/18/12
4-Chloro-3-methylphenol	59-50-7		<200	ug/kg					U	07/18/12
n-Nitroso-di-n-propylamine	621-64-7		<200	ug/kg					U	07/18/12
Pentachlorophenol	87-86-5		<200	ug/kg					U	07/18/12
2-Chlorophenol	95-57-8		<200	ug/kg					U	07/18/12
4-Nitroaniline	100-01-6		<200	ug/kg					U	07/18/12
4-Bromophenyl-phenylether	101-55-3		<200	ug/kg					U	07/18/12
2,4-Dimethylphenol	105-67-9		<200	ug/kg					U	07/18/12
4-Chloroaniline	106-47-8		<200	ug/kg					U	07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1		<200	ug/kg					U	07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Chloroethyl) ether	111-44-4		<200	ug/kg					U	07/18/12
Bis-(2-Chloroethoxy)methane	111-91-1		<200	ug/kg					U	07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		<200	ug/kg					U	07/18/12
Di-n-octylphthalate	117-84-0		<200	ug/kg					U	07/18/12
Hexachlorobenzene	118-74-1		<200	ug/kg					U	07/18/12
2,4-Dichlorophenol	120-83-2		<200	ug/kg					U	07/18/12
Dimethylphthalate	131-11-3		<200	ug/kg					U	07/18/12
Dibenzofuran	132-64-9		<200	ug/kg					U	07/18/12
2,4-Dinitrophenol	51-28-5		<200	ug/kg					U	07/18/12
4,6-Dinitro-2-methylphenol	534-52-1		<200	ug/kg					U	07/18/12
1,3-Dichlorobenzene	541-73-1		<200	ug/kg					U	07/18/12
2,6-Dinitrotoluene	606-20-2		<200	ug/kg					U	07/18/12
4-Chlorophenyl-phenylether	7005-72-3		<200	ug/kg					U	07/18/12
Hexachlorocyclopentadiene	77-47-4		<200	ug/kg					U	07/18/12
Isophorone	78-59-1		<200	ug/kg					U	07/18/12
Diethyl phthalate	84-66-2		<200	ug/kg					U	07/18/12
Di-n-butylphthalate	84-74-2		<200	ug/kg					U	07/18/12
Butylbenzylphthalate	85-68-7		<200	ug/kg					U	07/18/12
n-Nitrosodiphenylamine	86-30-6		<200	ug/kg					U	07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Carbazole	86-74-8		<200	ug/kg					U	07/18/12
Hexachlorobutadiene	87-68-3		<200	ug/kg					U	07/18/12
2-Nitroaniline	88-74-4		<200	ug/kg					U	07/18/12
2-Nitrophenol	88-75-5		<200	ug/kg					U	07/18/12
2-Chloronaphthalene	91-58-7		<200	ug/kg					U	07/18/12
3,3-Dichlorobenzidine	91-94-1		<200	ug/kg					U	07/18/12
2-Methylphenol	95-48-7		<200	ug/kg					U	07/18/12
1,2-Dichlorobenzene	95-50-1		<200	ug/kg					U	07/18/12
2,4,5-Trichlorophenol	95-95-4		<200	ug/kg					U	07/18/12
Nitrobenzene	98-95-3		<200	ug/kg					U	07/18/12
3-Nitroaniline	99-09-2		<200	ug/kg					U	07/18/12
Hexachloroethane	67-72-1		<200	ug/kg					U	07/18/12
2,4,6-Trichlorophenol	88-06-2		<200	ug/kg					U	07/18/12
LCS			**QC Sample #78137**							
4-Nitrophenol	100-02-7		5400	ug/kg	90	48 - 120				07/18/12
1,2,4-Trichlorobenzene	120-82-1		5200	ug/kg	86.1	69 - 114				07/18/12
Phenol	108-95-2		5600	ug/kg	93.1	70 - 119				07/18/12
1,4-Dichlorobenzene	106-46-7		3800	ug/kg	95	64 - 125				07/18/12
2,4-Dinitrotoluene	121-14-2		5500	ug/kg	92.3	58 - 124				07/18/12
4-Chloro-3-methylphenol	59-50-7		5600	ug/kg	93.5	73 - 121				07/18/12
n-Nitroso-di-n-propylamine	621-64-7		5900	ug/kg	99	72 - 119				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Pentachlorophenol	87-86-5		5000	ug/kg	83.1	28 - 127				07/18/12
2-Chlorophenol	95-57-8		5700	ug/kg	94.8	71 - 120				07/18/12
2-Methylphenol	95-48-7		5700	ug/kg	94.9	73 - 122				07/18/12
Hexachloroethane	67-72-1		5700	ug/kg	94.2	59 - 114				07/18/12
2-Nitrophenol	88-75-5		5700	ug/kg	95.5	56 - 124				07/18/12
2,4-Dimethylphenol	105-67-9		5000	ug/kg	83.4	75 - 124				07/18/12
2,4-Dichlorophenol	120-83-2		5400	ug/kg	90.1	68 - 118				07/18/12
2-Nitroaniline	88-74-4		6000	ug/kg	100.7	62 - 131				07/18/12
Dibenzofuran	132-64-9		5800	ug/kg	97.1	70 - 122				07/18/12
Hexachlorobenzene	118-74-1		5700	ug/kg	95.1	72 - 127				07/18/12
Carbazole	86-74-8		6000	ug/kg	100.3	46 - 121				07/18/12
Di-n-butylphthalate	84-74-2		6100	ug/kg	101.2	60 - 131				07/18/12
3,3-Dichlorobenzidine	91-94-1		3600	ug/kg	60.1	41 - 131				07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		6300	ug/kg	104.2	68 - 131				07/18/12
Di-n-octylphthalate	117-84-0		6300	ug/kg	105.3	55 - 131				07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1		5900	ug/kg	97.9	70 - 120				07/18/12
4-Chloroaniline	106-47-8		4500	ug/kg	75.2	39 - 109				07/18/12
MS			**QC Sample #78138**							
			Original 120894007							
4-Nitrophenol	100-02-7		5800	ug/kg	96.4	40 - 126				07/18/12
1,2,4-Trichlorobenzene	120-82-1		5300	ug/kg	89.4	52 - 130				07/18/12
Phenol	108-95-2		5900	ug/kg	98.9	55 - 132				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,4-Dichlorobenzene	106-46-7		4000	ug/kg	100.8	55 - 130				07/18/12
2,4-Dinitrotoluene	121-14-2		6100	ug/kg	102	56 - 125				07/18/12
4-Chloro-3-methylphenol	59-50-7		6000	ug/kg	100	62 - 128				07/18/12
n-Nitroso-di-n-propylamine	621-64-7		6500	ug/kg	108.2	56 - 130				07/18/12
Pentachlorophenol	87-86-5		5100	ug/kg	85.6	21 - 141				07/18/12
2-Chlorophenol	95-57-8		5800	ug/kg	97.6	61 - 129				07/18/12
2-Methylphenol	95-48-7		6000	ug/kg	99.8	61 - 129				07/18/12
Hexachloroethane	67-72-1		6000	ug/kg	99.8	38 - 132				07/18/12
2-Nitrophenol	88-75-5		5900	ug/kg	98.9	50 - 128				07/18/12
2,4-Dimethylphenol	105-67-9		5100	ug/kg	86	58 - 133				07/18/12
2,4-Dichlorophenol	120-83-2		5600	ug/kg	94	51 - 132				07/18/12
2-Nitroaniline	88-74-4		6600	ug/kg	110.4	60 - 131				07/18/12
Dibenzofuran	132-64-9		6200	ug/kg	103.7	61 - 127				07/18/12
Hexachlorobenzene	118-74-1		5700	ug/kg	96.2	57 - 133				07/18/12
Carbazole	86-74-8		6300	ug/kg	105.4	38 - 125				07/18/12
Di-n-butylphthalate	84-74-2		6200	ug/kg	104	62 - 129				07/18/12
3,3-Dichlorobenzidine	91-94-1		4700	ug/kg	78.7	24 - 141				07/18/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		6800	ug/kg	113.3	49 - 145				07/18/12
Di-n-octylphthalate	117-84-0		6000	ug/kg	101.1	53 - 144				07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1		6300	ug/kg	106.2	53 - 132				07/18/12
4-Chloroaniline	106-47-8		5500	ug/kg	92.9	23 - 152				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #78139**							
			Original	**120894007**					**Paired**	**78138**
4-Nitrophenol	100-02-7		5000	ug/kg	85.3	40 - 126	14.80	30		07/18/12
1,2,4-Trichlorobenzene	120-82-1		4900	ug/kg	82.8	52 - 130	7.80	30		07/18/12
Phenol	108-95-2		5300	ug/kg	90.9	55 - 132	10.70	30		07/18/12
1,4-Dichlorobenzene	106-46-7		3700	ug/kg	93.7	55 - 130	7.80	30		07/18/12
2,4-Dinitrotoluene	121-14-2		5200	ug/kg	89	56 - 125	15.90	30		07/18/12
4-Chloro-3-methylphenol	59-50-7		5300	ug/kg	90	62 - 128	12.40	30		07/18/12
n-Nitroso-di-n-propylamine	621-64-7		5800	ug/kg	99.5	56 - 130	11.40	30		07/18/12
Pentachlorophenol	87-86-5		4500	ug/kg	77.4	21 - 141	12.50	30		07/18/12
2-Chlorophenol	95-57-8		5300	ug/kg	90.8	61 - 129	9.00	30		07/18/12
2-Methylphenol	95-48-7		5400	ug/kg	91.4	61 - 129	10.50	30		07/18/12
Hexachloroethane	67-72-1		5400	ug/kg	91.4	38 - 132	10.50	30		07/18/12
2-Nitrophenol	88-75-5		5300	ug/kg	89.9	50 - 128	10.70	30		07/18/12
2,4-Dimethylphenol	105-67-9		4700	ug/kg	79.5	58 - 133	8.20	30		07/18/12
2,4-Dichlorophenol	120-83-2		5100	ug/kg	87.7	51 - 132	9.30	30		07/18/12
2-Nitroaniline	88-74-4		5800	ug/kg	99.5	60 - 131	12.90	30		07/18/12
Dibenzofuran	132-64-9		5400	ug/kg	92.6	61 - 127	13.80	30		07/18/12
Hexachlorobenzene	118-74-1		5100	ug/kg	87.8	57 - 133	11.10	30		07/18/12
Carbazole	86-74-8		5600	ug/kg	94.8	38 - 125	11.80	30		07/18/12
Di-n-butylphthalate	84-74-2		5600	ug/kg	95.7	62 - 129	10.20	30		07/18/12
3,3-Dichlorobenzidine	91-94-1		4000	ug/kg	67.4	24 - 141	16.10	30		07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Ethylhexyl)phthalate	117-81-7		6100	ug/kg	103.6	49 - 145	10.90	30		07/18/12
Di-n-octylphthalate	117-84-0		5700	ug/kg	97.9	53 - 144	5.10	30		07/18/12
Bis(1-Chloro-2-propyl)ether	108-60-1		5800	ug/kg	99.1	53 - 132	8.30	30		07/18/12
4-Chloroaniline	106-47-8		5100	ug/kg	87.3	23 - 152	7.50	30		07/18/12

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analytical Batch 205198 (QC Batch: 205183) **Test** SW-846 8270D Semivolatiles
Associated Samples 120900001, 120900002, 120900004, 120900012, 120900014, 120900015, 120900016, 120900017, 120900018, 120900019

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78657**						
4-Nitrophenol	100-02-7		<200	ug/kg				U	07/24/12
1,4-Dichlorobenzene	106-46-7		<200	ug/kg				U	07/24/12
Phenol	108-95-2		<200	ug/kg				U	07/24/12
1,2,4-Trichlorobenzene	120-82-1		<200	ug/kg				U	07/24/12
2,4-Dinitrotoluene	121-14-2		<200	ug/kg				U	07/24/12
4-Chloro-3-methylphenol	59-50-7		<200	ug/kg				U	07/24/12
n-Nitroso-di-n-propylamine	621-64-7		<200	ug/kg				U	07/24/12
Pentachlorophenol	87-86-5		<200	ug/kg				U	07/24/12
2-Chlorophenol	95-57-8		<200	ug/kg				U	07/24/12
4-Nitroaniline	100-01-6		<200	ug/kg				U	07/24/12
4-Bromophenyl-phenylether	101-55-3		<200	ug/kg				U	07/24/12
2,4-Dimethylphenol	105-67-9		<200	ug/kg				U	07/24/12
4-Chloroaniline	106-47-8		<200	ug/kg				U	07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1		<200	ug/kg				U	07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Chloroethyl) ether	111-44-4		<200	ug/kg					U	07/24/12
Bis-(2-Chloroethoxy)methane	111-91-1		<200	ug/kg					U	07/24/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		<200	ug/kg					U	07/24/12
Di-n-octylphthalate	117-84-0		<200	ug/kg					U	07/24/12
Hexachlorobenzene	118-74-1		<200	ug/kg					U	07/24/12
2,4-Dichlorophenol	120-83-2		<200	ug/kg					U	07/24/12
Dimethylphthalate	131-11-3		<200	ug/kg					U	07/24/12
Dibenzofuran	132-64-9		<200	ug/kg					U	07/24/12
2,4-Dinitrophenol	51-28-5		<200	ug/kg					U	07/24/12
4,6-Dinitro-2-methylphenol	534-52-1		<200	ug/kg					U	07/24/12
1,3-Dichlorobenzene	541-73-1		<200	ug/kg					U	07/24/12
2,6-Dinitrotoluene	606-20-2		<200	ug/kg					U	07/24/12
4-Chlorophenyl-phenylether	7005-72-3		<200	ug/kg					U	07/24/12
Hexachlorocyclopentadiene	77-47-4		<200	ug/kg					U	07/24/12
Isophorone	78-59-1		<200	ug/kg					U	07/24/12
Diethyl phthalate	84-66-2		<200	ug/kg					U	07/24/12
Di-n-butylphthalate	84-74-2		<200	ug/kg					U	07/24/12
Butylbenzylphthalate	85-68-7		<200	ug/kg					U	07/24/12
n-Nitrosodiphenylamine	86-30-6		<200	ug/kg					U	07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Carbazole	86-74-8		<200	ug/kg					U	07/24/12
Hexachlorobutadiene	87-68-3		<200	ug/kg					U	07/24/12
2-Nitroaniline	88-74-4		<200	ug/kg					U	07/24/12
2-Nitrophenol	88-75-5		<200	ug/kg					U	07/24/12
2-Chloronaphthalene	91-58-7		<200	ug/kg					U	07/24/12
3,3-Dichlorobenzidine	91-94-1		<200	ug/kg					UX	07/24/12
2-Methylphenol	95-48-7		<200	ug/kg					U	07/24/12
1,2-Dichlorobenzene	95-50-1		<200	ug/kg					U	07/24/12
2,4,5-Trichlorophenol	95-95-4		<200	ug/kg					U	07/24/12
Nitrobenzene	98-95-3		<200	ug/kg					U	07/24/12
3-Nitroaniline	99-09-2		<200	ug/kg					U	07/24/12
Hexachloroethane	67-72-1		<200	ug/kg					U	07/24/12
2,4,6-Trichlorophenol	88-06-2		<200	ug/kg					U	07/24/12
LCS			**QC Sample #78658**							
4-Nitrophenol	100-02-7		5200	ug/kg	87.2	48 - 120				07/24/12
1,2,4-Trichlorobenzene	120-82-1		5200	ug/kg	86.2	69 - 114				07/24/12
Phenol	108-95-2		5500	ug/kg	92	70 - 119				07/24/12
1,4-Dichlorobenzene	106-46-7		3800	ug/kg	95	64 - 125				07/24/12
2,4-Dinitrotoluene	121-14-2		5800	ug/kg	96.2	58 - 124				07/24/12
4-Chloro-3-methylphenol	59-50-7		5300	ug/kg	88.5	73 - 121				07/24/12
n-Nitroso-di-n-propylamine	621-64-7		6500	ug/kg	107.7	72 - 119				07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Pentachlorophenol	87-86-5		4800	ug/kg	80.8	28 - 127				07/24/12
2-Chlorophenol	95-57-8		5300	ug/kg	88.1	71 - 120				07/24/12
2-Methylphenol	95-48-7		5600	ug/kg	93.6	73 - 122				07/24/12
Hexachloroethane	67-72-1		5800	ug/kg	97.4	59 - 114				07/24/12
2-Nitrophenol	88-75-5		5400	ug/kg	90.2	56 - 124				07/24/12
2,4-Dimethylphenol	105-67-9		4800	ug/kg	79.2	75 - 124				07/24/12
2,4-Dichlorophenol	120-83-2		5100	ug/kg	84.4	68 - 118				07/24/12
2-Nitroaniline	88-74-4		6100	ug/kg	102.5	62 - 131				07/24/12
Dibenzofuran	132-64-9		6000	ug/kg	99.7	70 - 122				07/24/12
Hexachlorobenzene	118-74-1		5300	ug/kg	88.1	72 - 127				07/24/12
Carbazole	86-74-8		5900	ug/kg	98.7	46 - 121				07/24/12
Di-n-butylphthalate	84-74-2		5600	ug/kg	93.8	60 - 131				07/24/12
3,3-Dichlorobenzidine	91-94-1		2100	ug/kg	34.2	41 - 131			X	07/24/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		4500	ug/kg	75.2	68 - 131				07/24/12
Di-n-octylphthalate	117-84-0		5000	ug/kg	83.4	55 - 131				07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1		6400	ug/kg	106	70 - 120				07/24/12
4-Chloroaniline	106-47-8		3700	ug/kg	61	39 - 109				07/24/12
MS			**QC Sample #78659**							
			Original 120895006							
4-Nitrophenol	100-02-7		4600	ug/kg	76.1	40 - 126				07/24/12
1,2,4-Trichlorobenzene	120-82-1		5100	ug/kg	84.7	52 - 130				07/24/12
Phenol	108-95-2		5400	ug/kg	89.7	55 - 132				07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,4-Dichlorobenzene	106-46-7		3700	ug/kg	91.9	55 - 130				07/24/12
2,4-Dinitrotoluene	121-14-2		5400	ug/kg	90.9	56 - 125				07/24/12
4-Chloro-3-methylphenol	59-50-7		5200	ug/kg	86.3	62 - 128				07/24/12
n-Nitroso-di-n-propylamine	621-64-7		6100	ug/kg	101.8	56 - 130				07/24/12
Pentachlorophenol	87-86-5		4100	ug/kg	67.8	21 - 141				07/24/12
2-Chlorophenol	95-57-8		5100	ug/kg	85.1	61 - 129				07/24/12
2-Methylphenol	95-48-7		5300	ug/kg	89.1	61 - 129				07/24/12
Hexachloroethane	67-72-1		5700	ug/kg	96	38 - 132				07/24/12
2-Nitrophenol	88-75-5		5200	ug/kg	87	50 - 128				07/24/12
2,4-Dimethylphenol	105-67-9		4200	ug/kg	69.4	58 - 133				07/24/12
2,4-Dichlorophenol	120-83-2		4800	ug/kg	80.4	51 - 132				07/24/12
2-Nitroaniline	88-74-4		5900	ug/kg	98.6	60 - 131				07/24/12
Dibenzofuran	132-64-9		5800	ug/kg	96.7	61 - 127				07/24/12
Hexachlorobenzene	118-74-1		5300	ug/kg	88	57 - 133				07/24/12
Carbazole	86-74-8		5700	ug/kg	95.1	38 - 125				07/24/12
Di-n-butylphthalate	84-74-2		5400	ug/kg	90.5	62 - 129				07/24/12
3,3-Dichlorobenzidine	91-94-1		2000	ug/kg	32.7	24 - 141			X	07/24/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		4300	ug/kg	72.6	49 - 145				07/24/12
Di-n-octylphthalate	117-84-0		4600	ug/kg	76.5	53 - 144				07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1		6200	ug/kg	103.9	53 - 132				07/24/12
4-Chloroaniline	106-47-8		4800	ug/kg	79.9	23 - 152				07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #78660**							
			Original	**120895006**				**Paired**	**78659**	
4-Nitrophenol	100-02-7		4900	ug/kg	82.2	40 - 126	6.30	30		07/24/12
1,2,4-Trichlorobenzene	120-82-1		5400	ug/kg	90.2	52 - 130	5.70	30		07/24/12
Phenol	108-95-2		5700	ug/kg	95.6	55 - 132	5.40	30		07/24/12
1,4-Dichlorobenzene	106-46-7		4000	ug/kg	99.7	55 - 130	7.80	30		07/24/12
2,4-Dinitrotoluene	121-14-2		5900	ug/kg	98.3	56 - 125	8.80	30		07/24/12
4-Chloro-3-methylphenol	59-50-7		5400	ug/kg	90.9	62 - 128	3.80	30		07/24/12
n-Nitroso-di-n-propylamine	621-64-7		6500	ug/kg	109.2	56 - 130	6.30	30		07/24/12
Pentachlorophenol	87-86-5		4800	ug/kg	80	21 - 141	15.70	30		07/24/12
2-Chlorophenol	95-57-8		5400	ug/kg	89.7	61 - 129	5.70	30		07/24/12
2-Methylphenol	95-48-7		5500	ug/kg	92	61 - 129	3.70	30		07/24/12
Hexachloroethane	67-72-1		6100	ug/kg	101.8	38 - 132	6.80	30		07/24/12
2-Nitrophenol	88-75-5		5600	ug/kg	94	50 - 128	7.40	30		07/24/12
2,4-Dimethylphenol	105-67-9		4100	ug/kg	68.7	58 - 133	2.40	30		07/24/12
2,4-Dichlorophenol	120-83-2		5100	ug/kg	84.8	51 - 132	6.10	30		07/24/12
2-Nitroaniline	88-74-4		6300	ug/kg	105.6	60 - 131	6.60	30		07/24/12
Dibenzofuran	132-64-9		6100	ug/kg	102.8	61 - 127	5.00	30		07/24/12
Hexachlorobenzene	118-74-1		5700	ug/kg	95.5	57 - 133	7.30	30		07/24/12
Carbazole	86-74-8		6100	ug/kg	102	38 - 125	6.80	30		07/24/12
Di-n-butylphthalate	84-74-2		5800	ug/kg	97.4	62 - 129	7.10	30		07/24/12
3,3-Dichlorobenzidine	91-94-1		2200	ug/kg	36.9	24 - 141	9.50	30	X	07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Ethylhexyl)phthalate	117-81-7		4700	ug/kg	79.3	49 - 145	8.90	30		07/24/12
Di-n-octylphthalate	117-84-0		4700	ug/kg	78.7	53 - 144	2.20	30		07/24/12
Bis(1-Chloro-2-propyl)ether	108-60-1		6600	ug/kg	110.1	53 - 132	6.20	30		07/24/12
4-Chloroaniline	106-47-8		5100	ug/kg	85.2	23 - 152	6.10	30		07/24/12

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analytical Batch 205244 (QC Batch: 205218) **Test** SW-846 8270D Semivolatiles
Associated Samples 120900005, 120900006, 120900008, 120900009, 120900013

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78721**							
4-Nitrophenol	100-02-7		<200	ug/kg					U	07/25/12
1,4-Dichlorobenzene	106-46-7		<200	ug/kg					U	07/25/12
Phenol	108-95-2		<200	ug/kg					U	07/25/12
1,2,4-Trichlorobenzene	120-82-1		<200	ug/kg					U	07/25/12
2,4-Dinitrotoluene	121-14-2		<200	ug/kg					U	07/25/12
4-Chloro-3-methylphenol	59-50-7		<200	ug/kg					U	07/25/12
n-Nitroso-di-n-propylamine	621-64-7		<200	ug/kg					U	07/25/12
Pentachlorophenol	87-86-5		<200	ug/kg					U	07/25/12
2-Chlorophenol	95-57-8		<200	ug/kg					U	07/25/12
4-Nitroaniline	100-01-6		<200	ug/kg					U	07/25/12
4-Bromophenyl-phenylether	101-55-3		<200	ug/kg					U	07/25/12
2,4-Dimethylphenol	105-67-9		<200	ug/kg					U	07/25/12
4-Chloroaniline	106-47-8		<200	ug/kg					U	07/25/12
Bis(1-Chloro-2-propyl)ether	108-60-1		<200	ug/kg					U	07/25/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Chloroethyl) ether	111-44-4		<200	ug/kg					U	07/25/12
Bis-(2-Chloroethoxy)methane	111-91-1		<200	ug/kg					U	07/25/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		<200	ug/kg					U	07/25/12
Di-n-octylphthalate	117-84-0		<200	ug/kg					U	07/25/12
Hexachlorobenzene	118-74-1		<200	ug/kg					U	07/25/12
2,4-Dichlorophenol	120-83-2		<200	ug/kg					U	07/25/12
Dimethylphthalate	131-11-3		<200	ug/kg					U	07/25/12
Dibenzofuran	132-64-9		<200	ug/kg					U	07/25/12
2,4-Dinitrophenol	51-28-5		<200	ug/kg					U	07/25/12
4,6-Dinitro-2-methylphenol	534-52-1		<200	ug/kg					U	07/25/12
1,3-Dichlorobenzene	541-73-1		<200	ug/kg					U	07/25/12
2,6-Dinitrotoluene	606-20-2		<200	ug/kg					U	07/25/12
4-Chlorophenyl-phenylether	7005-72-3		<200	ug/kg					U	07/25/12
Hexachlorocyclopentadiene	77-47-4		<200	ug/kg					U	07/25/12
Isophorone	78-59-1		<200	ug/kg					U	07/25/12
Diethyl phthalate	84-66-2		<200	ug/kg					U	07/25/12
Di-n-butylphthalate	84-74-2		<200	ug/kg					U	07/25/12
Butylbenzylphthalate	85-68-7		<200	ug/kg					U	07/25/12
n-Nitrosodiphenylamine	86-30-6		<200	ug/kg					U	07/25/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Carbazole	86-74-8		<200	ug/kg					U	07/25/12
Hexachlorobutadiene	87-68-3		<200	ug/kg					U	07/25/12
2-Nitroaniline	88-74-4		<200	ug/kg					U	07/25/12
2-Nitrophenol	88-75-5		<200	ug/kg					U	07/25/12
2-Chloronaphthalene	91-58-7		<200	ug/kg					U	07/25/12
3,3-Dichlorobenzidine	91-94-1		<200	ug/kg					U	07/25/12
2-Methylphenol	95-48-7		<200	ug/kg					U	07/25/12
1,2-Dichlorobenzene	95-50-1		<200	ug/kg					U	07/25/12
2,4,5-Trichlorophenol	95-95-4		<200	ug/kg					U	07/25/12
Nitrobenzene	98-95-3		<200	ug/kg					U	07/25/12
3-Nitroaniline	99-09-2		<200	ug/kg					U	07/25/12
Hexachloroethane	67-72-1		<200	ug/kg					U	07/25/12
2,4,6-Trichlorophenol	88-06-2		<200	ug/kg					U	07/25/12
LCS			**QC Sample #78722**							
4-Nitrophenol	100-02-7		6100	ug/kg	101.4	48 - 120				07/25/12
1,2,4-Trichlorobenzene	120-82-1		5700	ug/kg	94.4	69 - 114				07/25/12
Phenol	108-95-2		6300	ug/kg	105.2	70 - 119				07/25/12
1,4-Dichlorobenzene	106-46-7		4300	ug/kg	107.8	64 - 125				07/25/12
2,4-Dinitrotoluene	121-14-2		6200	ug/kg	103.4	58 - 124				07/25/12
4-Chloro-3-methylphenol	59-50-7		6400	ug/kg	107.1	73 - 121				07/25/12
n-Nitroso-di-n-propylamine	621-64-7		6400	ug/kg	106.3	72 - 119				07/25/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Pentachlorophenol	87-86-5		6000	ug/kg	100.2	28 - 127				07/25/12
2-Chlorophenol	95-57-8		6300	ug/kg	105.1	71 - 120				07/25/12
2-Methylphenol	95-48-7		6400	ug/kg	106.4	73 - 122				07/25/12
Hexachloroethane	67-72-1		5800	ug/kg	96.2	59 - 114				07/25/12
2-Nitrophenol	88-75-5		6300	ug/kg	104.9	56 - 124				07/25/12
2,4-Dimethylphenol	105-67-9		5700	ug/kg	94.6	75 - 124				07/25/12
2,4-Dichlorophenol	120-83-2		6000	ug/kg	100.7	68 - 118				07/25/12
2-Nitroaniline	88-74-4		6600	ug/kg	110	62 - 131				07/25/12
Dibenzofuran	132-64-9		6400	ug/kg	107.1	70 - 122				07/25/12
Hexachlorobenzene	118-74-1		6200	ug/kg	103.9	72 - 127				07/25/12
Carbazole	86-74-8		6600	ug/kg	109.7	46 - 121				07/25/12
Di-n-butylphthalate	84-74-2		6400	ug/kg	107.3	60 - 131				07/25/12
3,3-Dichlorobenzidine	91-94-1		5100	ug/kg	85.5	41 - 131				07/25/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		6900	ug/kg	114.2	68 - 131				07/25/12
Di-n-octylphthalate	117-84-0		6100	ug/kg	102.4	55 - 131				07/25/12
Bis(1-Chloro-2-propyl)ether	108-60-1		6600	ug/kg	109.9	70 - 120				07/25/12
4-Chloroaniline	106-47-8		5600	ug/kg	93.4	39 - 109				07/25/12
MS			**QC Sample #78723**							
			Original 120900005							
4-Nitrophenol	100-02-7	<200	6000	ug/kg	101.4	40 - 126				07/26/12
1,2,4-Trichlorobenzene	120-82-1	<200	5800	ug/kg	96.7	52 - 130				07/26/12
Phenol	108-95-2	<200	6400	ug/kg	108	55 - 132				07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,4-Dichlorobenzene	106-46-7	<200	4200	ug/kg	106.8	55 - 130				07/26/12
2,4-Dinitrotoluene	121-14-2	<200	6100	ug/kg	102.9	56 - 125				07/26/12
4-Chloro-3-methylphenol	59-50-7	<200	6400	ug/kg	107.6	62 - 128				07/26/12
n-Nitroso-di-n-propylamine	621-64-7	<200	6500	ug/kg	108.5	56 - 130				07/26/12
Pentachlorophenol	87-86-5	<200	5600	ug/kg	94.2	21 - 141				07/26/12
2-Chlorophenol	95-57-8	<200	6400	ug/kg	107.3	61 - 129				07/26/12
2-Methylphenol	95-48-7	<200	6400	ug/kg	107.7	61 - 129				07/26/12
Hexachloroethane	67-72-1	<200	5800	ug/kg	97.3	38 - 132				07/26/12
2-Nitrophenol	88-75-5	<200	6300	ug/kg	106.3	50 - 128				07/26/12
2,4-Dimethylphenol	105-67-9	<200	5700	ug/kg	95.8	58 - 133				07/26/12
2,4-Dichlorophenol	120-83-2	<200	6000	ug/kg	100.9	51 - 132				07/26/12
2-Nitroaniline	88-74-4	<200	6500	ug/kg	108.7	60 - 131				07/26/12
Dibenzofuran	132-64-9	<200	6500	ug/kg	108.2	61 - 127				07/26/12
Hexachlorobenzene	118-74-1	<200	6100	ug/kg	103.1	57 - 133				07/26/12
Carbazole	86-74-8	<200	6600	ug/kg	111.3	38 - 125				07/26/12
Di-n-butylphthalate	84-74-2	<200	6500	ug/kg	108.5	62 - 129				07/26/12
3,3-Dichlorobenzidine	91-94-1	<200	5500	ug/kg	92.3	24 - 141				07/26/12
Bis-(2-Ethylhexyl)phthalate	117-81-7	<200	6800	ug/kg	113.4	49 - 145				07/26/12
Di-n-octylphthalate	117-84-0	<200	6400	ug/kg	106.7	53 - 144				07/26/12
Bis(1-Chloro-2-propyl)ether	108-60-1	<200	6600	ug/kg	110.1	53 - 132				07/26/12
4-Chloroaniline	106-47-8	<200	6100	ug/kg	102.6	23 - 152				07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #78724**							
			Original	**120900005**					**Paired**	**78723**
4-Nitrophenol	100-02-7	<200	5600	ug/kg	94.2	40 - 126	6.90	30		07/26/12
1,2,4-Trichlorobenzene	120-82-1	<200	5400	ug/kg	90.3	52 - 130	7.10	30		07/26/12
Phenol	108-95-2	<200	6000	ug/kg	101.7	55 - 132	6.50	30		07/26/12
1,4-Dichlorobenzene	106-46-7	<200	4100	ug/kg	103.4	55 - 130	2.40	30		07/26/12
2,4-Dinitrotoluene	121-14-2	<200	5800	ug/kg	97	56 - 125	5.00	30		07/26/12
4-Chloro-3-methylphenol	59-50-7	<200	6100	ug/kg	102.6	62 - 128	4.80	30		07/26/12
n-Nitroso-di-n-propylamine	621-64-7	<200	6100	ug/kg	103.2	56 - 130	6.30	30		07/26/12
Pentachlorophenol	87-86-5	<200	5200	ug/kg	87.3	21 - 141	7.40	30		07/26/12
2-Chlorophenol	95-57-8	<200	6000	ug/kg	101.4	61 - 129	6.50	30		07/26/12
2-Methylphenol	95-48-7	<200	6100	ug/kg	103.2	61 - 129	4.80	30		07/26/12
Hexachloroethane	67-72-1	<200	5500	ug/kg	92.9	38 - 132	5.30	30		07/26/12
2-Nitrophenol	88-75-5	<200	5800	ug/kg	98.5	50 - 128	8.30	30		07/26/12
2,4-Dimethylphenol	105-67-9	<200	5500	ug/kg	93.3	58 - 133	3.60	30		07/26/12
2,4-Dichlorophenol	120-83-2	<200	5600	ug/kg	94.5	51 - 132	6.90	30		07/26/12
2-Nitroaniline	88-74-4	<200	6100	ug/kg	103.2	60 - 131	6.30	30		07/26/12
Dibenzofuran	132-64-9	<200	6000	ug/kg	100.8	61 - 127	8.00	30		07/26/12
Hexachlorobenzene	118-74-1	<200	5900	ug/kg	99.2	57 - 133	3.30	30		07/26/12
Carbazole	86-74-8	<200	6300	ug/kg	106.7	38 - 125	4.70	30		07/26/12
Di-n-butylphthalate	84-74-2	<200	6100	ug/kg	103.1	62 - 129	6.30	30		07/26/12
3,3-Dichlorobenzidine	91-94-1	<200	5300	ug/kg	89.4	24 - 141	3.70	30		07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Ethylhexyl)phthalate	117-81-7	<200	6400	ug/kg	107.7	49 - 145	6.10	30		07/26/12
Di-n-octylphthalate	117-84-0	<200	6000	ug/kg	101.9	53 - 144	6.50	30		07/26/12
Bis(1-Chloro-2-propyl)ether	108-60-1	<200	6300	ug/kg	105.7	53 - 132	4.70	30		07/26/12
4-Chloroaniline	106-47-8	<200	5800	ug/kg	97.5	23 - 152	5.00	30		07/26/12
DUP			**QC Sample #78725**							
			Original 120902002							
4-Nitrophenol	100-02-7		<300	ug/kg			0.00	30	U	07/26/12
Phenol	108-95-2		<300	ug/kg			0.00	30	U	07/26/12
1,2,4-Trichlorobenzene	120-82-1		<300	ug/kg			0.00	30	U	07/26/12
1,4-Dichlorobenzene	106-46-7		<300	ug/kg			0.00	30	U	07/26/12
2,4-Dinitrotoluene	121-14-2		<300	ug/kg			0.00	30	U	07/26/12
4-Chloro-3-methylphenol	59-50-7		<300	ug/kg			0.00	30	U	07/26/12
n-Nitroso-di-n-propylamine	621-64-7		<300	ug/kg			0.00	30	U	07/26/12
Pentachlorophenol	87-86-5		<300	ug/kg			0.00	30	U	07/26/12
2-Chlorophenol	95-57-8		<300	ug/kg			0.00	30	U	07/26/12
4-Nitroaniline	100-01-6		<300	ug/kg			0.00	30	U	07/26/12
4-Bromophenyl-phenylether	101-55-3		<300	ug/kg			0.00	30	U	07/26/12
2,4-Dimethylphenol	105-67-9		<300	ug/kg			0.00	30	U	07/26/12
4-Chloroaniline	106-47-8		<300	ug/kg			0.00	30	U	07/26/12
Bis(1-Chloro-2-propyl)ether	108-60-1		<300	ug/kg			0.00	30	U	07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Chloroethyl) ether	111-44-4		<300	ug/kg		0.00	30	U	07/26/12
Bis-(2-Chloroethoxy)methane	111-91-1		<300	ug/kg		0.00	30	U	07/26/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		<300	ug/kg		0.00	30	U	07/26/12
Di-n-octylphthalate	117-84-0		<300	ug/kg		0.00	30	U	07/26/12
Hexachlorobenzene	118-74-1		<300	ug/kg		0.00	30	U	07/26/12
2,4-Dichlorophenol	120-83-2		<300	ug/kg		0.00	30	U	07/26/12
Dimethylphthalate	131-11-3		<300	ug/kg		0.00	30	U	07/26/12
Dibenzofuran	132-64-9		<300	ug/kg		0.00	30	U	07/26/12
2,4-Dinitrophenol	51-28-5		<300	ug/kg		0.00	30	U	07/26/12
4,6-Dinitro-2-methylphenol	534-52-1		<300	ug/kg		0.00	30	U	07/26/12
1,3-Dichlorobenzene	541-73-1		<300	ug/kg		0.00	30	U	07/26/12
2,6-Dinitrotoluene	606-20-2		<300	ug/kg		0.00	30	U	07/26/12
4-Chlorophenyl-phenylether	7005-72-3		<300	ug/kg		0.00	30	U	07/26/12
Hexachlorocyclopentadiene	77-47-4		<300	ug/kg		0.00	30	U	07/26/12
Isophorone	78-59-1		<300	ug/kg		0.00	30	U	07/26/12
Diethyl phthalate	84-66-2		<300	ug/kg		0.00	30	U	07/26/12
Di-n-butylphthalate	84-74-2		<300	ug/kg		0.00	30	U	07/26/12
Butylbenzylphthalate	85-68-7		<300	ug/kg		0.00	30	U	07/26/12
n-Nitrosodiphenylamine	86-30-6		<300	ug/kg		0.00	30	U	07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Carbazole	86-74-8		<300	ug/kg			0.00	30	U	07/26/12
Hexachlorobutadiene	87-68-3		<300	ug/kg			0.00	30	U	07/26/12
2-Nitroaniline	88-74-4		<300	ug/kg			0.00	30	U	07/26/12
2-Nitrophenol	88-75-5		<300	ug/kg			0.00	30	U	07/26/12
2-Chloronaphthalene	91-58-7		<300	ug/kg			0.00	30	U	07/26/12
3,3-Dichlorobenzidine	91-94-1		<300	ug/kg			0.00	30	U	07/26/12
2-Methylphenol	95-48-7		<300	ug/kg			0.00	30	U	07/26/12
1,2-Dichlorobenzene	95-50-1		<300	ug/kg			0.00	30	U	07/26/12
2,4,5-Trichlorophenol	95-95-4		<300	ug/kg			0.00	30	U	07/26/12
Nitrobenzene	98-95-3		<300	ug/kg			0.00	30	U	07/26/12
3-Nitroaniline	99-09-2		<300	ug/kg			0.00	30	U	07/26/12
Hexachloroethane	67-72-1		2.7E4	ug/kg			3.80	30		07/26/12
2,4,6-Trichlorophenol	88-06-2		<300	ug/kg			0.00	30	U	07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analytical Batch 204946 (QC Batch: 204887)
Associated Samples 120900003, 120900007, 120900010, 120900011

Test SW-846 8270D Semivolatiles

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900003**							
2-Fluorophenol	367-12-4				99.3	44 - 135				07/18/12
Phenol-d5	4165-62-2				108.6	41 - 136				07/18/12
Nitrobenzene-d5	4165-60-0				114.8	53 - 129				07/18/12
2-Methylnaphthalene-d10	7297-45-2				102.9	50 - 140				07/18/12
2-Fluorobiphenyl	321-60-8				105.8	36 - 141				07/18/12
2,4,6-Tribromophenol	118-79-6				81.6	17 - 142				07/18/12
Fluoranthene-d10	93951-69-0				100.2	50 - 140				07/18/12
Terphenyl-d14	98904-43-9				109.6	61 - 142				07/18/12
SAMPLE			**Sample #120900007**							
2-Fluorophenol	367-12-4				102	44 - 135				07/18/12
Phenol-d5	4165-62-2				109.8	41 - 136				07/18/12
Nitrobenzene-d5	4165-60-0				117.1	53 - 129				07/18/12
2-Methylnaphthalene-d10	7297-45-2				106.4	50 - 140				07/18/12
2-Fluorobiphenyl	321-60-8				110.1	36 - 141				07/18/12
2,4,6-Tribromophenol	118-79-6				88.9	17 - 142				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Fluoranthene-d10	93951-69-0				104.7	50 - 140				07/18/12
Terphenyl-d14	98904-43-9				109.1	61 - 142				07/18/12
SAMPLE			**Sample #120900010**							
2-Fluorophenol	367-12-4				107.8	44 - 135				07/18/12
Phenol-d5	4165-62-2				118.4	41 - 136				07/18/12
Nitrobenzene-d5	4165-60-0				126	53 - 129				07/18/12
2-Methylnaphthalene-d10	7297-45-2				111.3	50 - 140				07/18/12
2-Fluorobiphenyl	321-60-8				114.8	36 - 141				07/18/12
2,4,6-Tribromophenol	118-79-6				94.1	17 - 142				07/18/12
Fluoranthene-d10	93951-69-0				112.5	50 - 140				07/18/12
Terphenyl-d14	98904-43-9				112.5	61 - 142				07/18/12
SAMPLE			**Sample #120900011**							
2-Fluorophenol	367-12-4				80.5	44 - 135				07/18/12
Phenol-d5	4165-62-2				87.2	41 - 136				07/18/12
Nitrobenzene-d5	4165-60-0				93.4	53 - 129				07/18/12
2-Methylnaphthalene-d10	7297-45-2				83.6	50 - 140				07/18/12
2-Fluorobiphenyl	321-60-8				85.6	36 - 141				07/18/12
2,4,6-Tribromophenol	118-79-6				64.2	17 - 142				07/18/12
Fluoranthene-d10	93951-69-0				81.6	50 - 140				07/18/12
Terphenyl-d14	98904-43-9				82.6	61 - 142				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78136**							
2-Fluorophenol	367-12-4				96.2	44 - 135				07/18/12
Phenol-d5	4165-62-2				106.2	41 - 136				07/18/12
Nitrobenzene-d5	4165-60-0				111.7	53 - 129				07/18/12
2-Methylnaphthalene-d10	7297-45-2				102	50 - 140				07/18/12
2-Fluorobiphenyl	321-60-8				104	36 - 141				07/18/12
2,4,6-Tribromophenol	118-79-6				79.7	17 - 142				07/18/12
Fluoranthene-d10	93951-69-0				101.5	50 - 140				07/18/12
Terphenyl-d14	98904-43-9				106.4	61 - 142				07/18/12
LCS			**QC Sample #78137**							
2-Fluorophenol	367-12-4			ug/kg	95.5	38 - 151				07/18/12
Phenol-d5	4165-62-2			ug/kg	102.4	38 - 153				07/18/12
Nitrobenzene-d5	4165-60-0			ug/kg	107.7	42 - 153				07/18/12
2,4,6-Tribromophenol	118-79-6			ug/kg	90.1	21 - 147				07/18/12
2-Fluorobiphenyl	321-60-8			ug/kg	103.3	34 - 160				07/18/12
Terphenyl-d14	98904-43-9			ug/kg	98.1	51 - 155				07/18/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	98.6	27 - 197				07/18/12
Fluoranthene-d10	93951-69-0			ug/kg	100.8	39 - 168				07/18/12
MS			**QC Sample #78138**							
			Original	**120894007**						
2-Fluorophenol	367-12-4			ug/kg	103	38 - 151				07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Phenol-d5	4165-62-2			ug/kg	107.8	38 - 153				07/18/12
Nitrobenzene-d5	4165-60-0			ug/kg	115.3	42 - 153				07/18/12
2,4,6-Tribromophenol	118-79-6			ug/kg	100.4	21 - 147				07/18/12
2-Fluorobiphenyl	321-60-8			ug/kg	108.9	34 - 160				07/18/12
Terphenyl-d14	98904-43-9			ug/kg	100.8	51 - 155				07/18/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	104.9	27 - 197				07/18/12
Fluoranthene-d10	93951-69-0			ug/kg	106.8	39 - 168				07/18/12
MSD			**QC Sample #78139**							
			Original	**120894007**				**Paired**	**78138**	
2-Fluorophenol	367-12-4			ug/kg	93.4	38 - 151	n/a			07/18/12
Phenol-d5	4165-62-2			ug/kg	98.8	38 - 153	n/a			07/18/12
Nitrobenzene-d5	4165-60-0			ug/kg	104.2	42 - 153	n/a			07/18/12
2,4,6-Tribromophenol	118-79-6			ug/kg	87.5	21 - 147	n/a			07/18/12
2-Fluorobiphenyl	321-60-8			ug/kg	97.7	34 - 160	n/a			07/18/12
Terphenyl-d14	98904-43-9			ug/kg	94.8	51 - 155	n/a			07/18/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	96.1	27 - 197	n/a			07/18/12
Fluoranthene-d10	93951-69-0			ug/kg	93.4	39 - 168	n/a			07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analytical Batch 205198 (QC Batch: 205183) **Test** SW-846 8270D Semivolatiles
Associated Samples 120900001, 120900002, 120900004, 120900012, 120900014, 120900015, 120900016, 120900017, 120900018, 120900019

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900001**							
2-Fluorophenol	367-12-4				73.8	44 - 135				07/25/12
Phenol-d5	4165-62-2				83.3	41 - 136				07/25/12
Nitrobenzene-d5	4165-60-0				107.4	53 - 129				07/25/12
2-Methylnaphthalene-d10	7297-45-2				97.7	50 - 140				07/25/12
2-Fluorobiphenyl	321-60-8				101.2	36 - 141				07/25/12
2,4,6-Tribromophenol	118-79-6				43.7	17 - 142				07/25/12
Fluoranthene-d10	93951-69-0				94.6	50 - 140				07/25/12
Terphenyl-d14	98904-43-9				96.3	61 - 142				07/25/12
SAMPLE			**Sample #120900002**							
2-Fluorophenol	367-12-4				70.1	44 - 135				07/25/12
Phenol-d5	4165-62-2				82.8	41 - 136				07/25/12
Nitrobenzene-d5	4165-60-0				106.5	53 - 129				07/25/12
2-Methylnaphthalene-d10	7297-45-2				100.2	50 - 140				07/25/12
2-Fluorobiphenyl	321-60-8				100.9	36 - 141				07/25/12
2,4,6-Tribromophenol	118-79-6				43.8	17 - 142				07/25/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Fluoranthene-d10	93951-69-0				100.1	50 - 140				07/25/12
Terphenyl-d14	98904-43-9				91.2	61 - 142				07/25/12
SAMPLE			**Sample #120900004**							
2-Fluorophenol	367-12-4				78.3	44 - 135				07/25/12
Phenol-d5	4165-62-2				90.3	41 - 136				07/25/12
Nitrobenzene-d5	4165-60-0				114.4	53 - 129				07/25/12
2-Methylnaphthalene-d10	7297-45-2				106.8	50 - 140				07/25/12
2-Fluorobiphenyl	321-60-8				108	36 - 141				07/25/12
2,4,6-Tribromophenol	118-79-6				46.7	17 - 142				07/25/12
Fluoranthene-d10	93951-69-0				102.7	50 - 140				07/25/12
Terphenyl-d14	98904-43-9				105.1	61 - 142				07/25/12
SAMPLE			**Sample #120900012**							
2-Fluorophenol	367-12-4				84.6	44 - 135				07/24/12
Phenol-d5	4165-62-2				95.8	41 - 136				07/24/12
Nitrobenzene-d5	4165-60-0				114.9	53 - 129				07/24/12
2-Methylnaphthalene-d10	7297-45-2				104	50 - 140				07/24/12
2-Fluorobiphenyl	321-60-8				108	36 - 141				07/24/12
2,4,6-Tribromophenol	118-79-6				51.2	17 - 142				07/24/12
Fluoranthene-d10	93951-69-0				102.5	50 - 140				07/24/12
Terphenyl-d14	98904-43-9				98.4	61 - 142				07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900014**							
2-Fluorophenol	367-12-4				79.6	44 - 135				07/24/12
Phenol-d5	4165-62-2				92.4	41 - 136				07/24/12
Nitrobenzene-d5	4165-60-0				112.4	53 - 129				07/24/12
2-Methylnaphthalene-d10	7297-45-2				101.1	50 - 140				07/24/12
2-Fluorobiphenyl	321-60-8				102.2	36 - 141				07/24/12
2,4,6-Tribromophenol	118-79-6				50.4	17 - 142				07/24/12
Fluoranthene-d10	93951-69-0				97.9	50 - 140				07/24/12
Terphenyl-d14	98904-43-9				98.9	61 - 142				07/24/12
SAMPLE			**Sample #120900015**							
2-Fluorophenol	367-12-4				85.2	44 - 135				07/24/12
Phenol-d5	4165-62-2				97.4	41 - 136				07/24/12
Nitrobenzene-d5	4165-60-0				119.8	53 - 129				07/24/12
2-Methylnaphthalene-d10	7297-45-2				108.4	50 - 140				07/24/12
2-Fluorobiphenyl	321-60-8				112.6	36 - 141				07/24/12
2,4,6-Tribromophenol	118-79-6				53.3	17 - 142				07/24/12
Fluoranthene-d10	93951-69-0				110.2	50 - 140				07/24/12
Terphenyl-d14	98904-43-9				106.2	61 - 142				07/24/12
SAMPLE			**Sample #120900016**							
2-Fluorophenol	367-12-4				75.1	44 - 135				07/24/12

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

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Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Phenol-d5	4165-62-2				86.6	41 - 136				07/24/12
Nitrobenzene-d5	4165-60-0				106.7	53 - 129				07/24/12
2-Methylnaphthalene-d10	7297-45-2				99.2	50 - 140				07/24/12
2-Fluorobiphenyl	321-60-8				101	36 - 141				07/24/12
2,4,6-Tribromophenol	118-79-6				46.7	17 - 142				07/24/12
Fluoranthene-d10	93951-69-0				99.1	50 - 140				07/24/12
Terphenyl-d14	98904-43-9				92.7	61 - 142				07/24/12
SAMPLE			**Sample #120900017**							
2-Fluorophenol	367-12-4				71.9	44 - 135				07/24/12
Phenol-d5	4165-62-2				83.6	41 - 136				07/24/12
Nitrobenzene-d5	4165-60-0				106.2	53 - 129				07/24/12
2-Methylnaphthalene-d10	7297-45-2				95.1	50 - 140				07/24/12
2-Fluorobiphenyl	321-60-8				98.7	36 - 141				07/24/12
2,4,6-Tribromophenol	118-79-6				43.1	17 - 142				07/24/12
Fluoranthene-d10	93951-69-0				94.5	50 - 140				07/24/12
Terphenyl-d14	98904-43-9				95.2	61 - 142				07/24/12
SAMPLE			**Sample #120900018**							
2-Fluorophenol	367-12-4				77.3	44 - 135				07/24/12
Phenol-d5	4165-62-2				89.5	41 - 136				07/24/12
Nitrobenzene-d5	4165-60-0				112.4	53 - 129				07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
2-Methylnaphthalene-d10	7297-45-2				104.4	50 - 140				07/24/12
2-Fluorobiphenyl	321-60-8				106.3	36 - 141				07/24/12
2,4,6-Tribromophenol	118-79-6				49.1	17 - 142				07/24/12
Fluoranthene-d10	93951-69-0				101	50 - 140				07/24/12
Terphenyl-d14	98904-43-9				105.1	61 - 142				07/24/12
SAMPLE			**Sample #120900019**							
2-Fluorophenol	367-12-4				76.9	44 - 135				07/24/12
Phenol-d5	4165-62-2				88.6	41 - 136				07/24/12
Nitrobenzene-d5	4165-60-0				114.7	53 - 129				07/24/12
2-Methylnaphthalene-d10	7297-45-2				102.6	50 - 140				07/24/12
2-Fluorobiphenyl	321-60-8				109.7	36 - 141				07/24/12
2,4,6-Tribromophenol	118-79-6				46.5	17 - 142				07/24/12
Fluoranthene-d10	93951-69-0				102.4	50 - 140				07/24/12
Terphenyl-d14	98904-43-9				112.9	61 - 142				07/24/12
BLANK			**QC Sample #78657**							
2-Fluorophenol	367-12-4				90	44 - 135				07/24/12
Phenol-d5	4165-62-2				101.1	41 - 136				07/24/12
Nitrobenzene-d5	4165-60-0				116.9	53 - 129				07/24/12
2-Methylnaphthalene-d10	7297-45-2				104.1	50 - 140				07/24/12
2-Fluorobiphenyl	321-60-8				107.1	36 - 141				07/24/12

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

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Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
2,4,6-Tribromophenol	118-79-6				55.9	17 - 142				07/24/12
Fluoranthene-d10	93951-69-0				98	50 - 140				07/24/12
Terphenyl-d14	98904-43-9				103.3	61 - 142				07/24/12
LCS			**QC Sample #78658**							
2-Fluorophenol	367-12-4			ug/kg	82.5	38 - 151				07/24/12
Phenol-d5	4165-62-2			ug/kg	94	38 - 153				07/24/12
Nitrobenzene-d5	4165-60-0			ug/kg	107.3	42 - 153				07/24/12
2,4,6-Tribromophenol	118-79-6			ug/kg	78.8	21 - 147				07/24/12
2-Fluorobiphenyl	321-60-8			ug/kg	99.5	34 - 160				07/24/12
Terphenyl-d14	98904-43-9			ug/kg	92.1	51 - 155				07/24/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	98.7	27 - 197				07/24/12
Fluoranthene-d10	93951-69-0			ug/kg	96.9	39 - 168				07/24/12
MS			**QC Sample #78659**							
			Original	**120895006**						
2-Fluorophenol	367-12-4			ug/kg	75.2	38 - 151				07/24/12
Phenol-d5	4165-62-2			ug/kg	89.3	38 - 153				07/24/12
Nitrobenzene-d5	4165-60-0			ug/kg	103.9	42 - 153				07/24/12
2,4,6-Tribromophenol	118-79-6			ug/kg	72.5	21 - 147				07/24/12
2-Fluorobiphenyl	321-60-8			ug/kg	98.1	34 - 160				07/24/12
Terphenyl-d14	98904-43-9			ug/kg	94.7	51 - 155				07/24/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	96.6	27 - 197				07/24/12
Fluoranthene-d10	93951-69-0			ug/kg	92.4	39 - 168				07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #78660**							
			Original	**120895006**				**Paired**	**78659**	
2-Fluorophenol	367-12-4			ug/kg	83.1	38 - 151	n/a			07/24/12
Phenol-d5	4165-62-2			ug/kg	95.3	38 - 153	n/a			07/24/12
Nitrobenzene-d5	4165-60-0			ug/kg	110.9	42 - 153	n/a			07/24/12
2,4,6-Tribromophenol	118-79-6			ug/kg	78.2	21 - 147	n/a			07/24/12
2-Fluorobiphenyl	321-60-8			ug/kg	102	34 - 160	n/a			07/24/12
Terphenyl-d14	98904-43-9			ug/kg	100.8	51 - 155	n/a			07/24/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	102.4	27 - 197	n/a			07/24/12
Fluoranthene-d10	93951-69-0			ug/kg	99.3	39 - 168	n/a			07/24/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analytical Batch 205244 (QC Batch: 205218) **Test** SW-846 8270D Semivolatiles
Associated Samples 120900005, 120900006, 120900008, 120900009, 120900013

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900005**							
2-Fluorophenol	367-12-4				101.8	44 - 135				07/25/12
Phenol-d5	4165-62-2				102.4	41 - 136				07/25/12
Nitrobenzene-d5	4165-60-0				99.3	53 - 129				07/25/12
2-Methylnaphthalene-d10	7297-45-2				100.9	50 - 140				07/25/12
2-Fluorobiphenyl	321-60-8				101.6	36 - 141				07/25/12
2,4,6-Tribromophenol	118-79-6				85.4	17 - 142				07/25/12
Fluoranthene-d10	93951-69-0				99.4	50 - 140				07/25/12
Terphenyl-d14	98904-43-9				96.9	61 - 142				07/25/12
SAMPLE			**Sample #120900006**							
2-Fluorophenol	367-12-4				106.1	44 - 135				07/26/12
Phenol-d5	4165-62-2				108.8	41 - 136				07/26/12
Nitrobenzene-d5	4165-60-0				107.1	53 - 129				07/26/12
2-Methylnaphthalene-d10	7297-45-2				108.9	50 - 140				07/26/12
2-Fluorobiphenyl	321-60-8				108.3	36 - 141				07/26/12
2,4,6-Tribromophenol	118-79-6				88.8	17 - 142				07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Fluoranthene-d10	93951-69-0				109.3	50 - 140				07/26/12
Terphenyl-d14	98904-43-9				107	61 - 142				07/26/12
SAMPLE			**Sample #120900008**							
2-Fluorophenol	367-12-4				106.2	44 - 135				07/26/12
Phenol-d5	4165-62-2				108.9	41 - 136				07/26/12
Nitrobenzene-d5	4165-60-0				105.2	53 - 129				07/26/12
2-Methylnaphthalene-d10	7297-45-2				106.6	50 - 140				07/26/12
2-Fluorobiphenyl	321-60-8				106.4	36 - 141				07/26/12
2,4,6-Tribromophenol	118-79-6				87.2	17 - 142				07/26/12
Fluoranthene-d10	93951-69-0				105.1	50 - 140				07/26/12
Terphenyl-d14	98904-43-9				107.5	61 - 142				07/26/12
SAMPLE			**Sample #120900009**							
2-Fluorophenol	367-12-4				117.6	44 - 135				07/26/12
Phenol-d5	4165-62-2				119.3	41 - 136				07/26/12
Nitrobenzene-d5	4165-60-0				114.2	53 - 129				07/26/12
2-Methylnaphthalene-d10	7297-45-2				114.7	50 - 140				07/26/12
2-Fluorobiphenyl	321-60-8				116.9	36 - 141				07/26/12
2,4,6-Tribromophenol	118-79-6				95.8	17 - 142				07/26/12
Fluoranthene-d10	93951-69-0				112.7	50 - 140				07/26/12
Terphenyl-d14	98904-43-9				110	61 - 142				07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900013**							
2-Fluorophenol	367-12-4				102.3	44 - 135				07/26/12
Phenol-d5	4165-62-2				104.4	41 - 136				07/26/12
Nitrobenzene-d5	4165-60-0				102.5	53 - 129				07/26/12
2-Methylnaphthalene-d10	7297-45-2				103.1	50 - 140				07/26/12
2-Fluorobiphenyl	321-60-8				103.6	36 - 141				07/26/12
2,4,6-Tribromophenol	118-79-6				84	17 - 142				07/26/12
Fluoranthene-d10	93951-69-0				105.4	50 - 140				07/26/12
Terphenyl-d14	98904-43-9				99.8	61 - 142				07/26/12
BLANK			**QC Sample #78721**							
2-Fluorophenol	367-12-4				100.9	44 - 135				07/25/12
Phenol-d5	4165-62-2				103.2	41 - 136				07/25/12
Nitrobenzene-d5	4165-60-0				102.1	53 - 129				07/25/12
2-Methylnaphthalene-d10	7297-45-2				102.9	50 - 140				07/25/12
2-Fluorobiphenyl	321-60-8				103	36 - 141				07/25/12
2,4,6-Tribromophenol	118-79-6				80.3	17 - 142				07/25/12
Fluoranthene-d10	93951-69-0				99.1	50 - 140				07/25/12
Terphenyl-d14	98904-43-9				107.2	61 - 142				07/25/12
LCS			**QC Sample #78722**							
2-Fluorophenol	367-12-4			ug/kg	113.6	38 - 151				07/25/12

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

Quality Control Report

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Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Phenol-d5	4165-62-2			ug/kg	113.9	38 - 153				07/25/12
Nitrobenzene-d5	4165-60-0			ug/kg	110.8	42 - 153				07/25/12
2,4,6-Tribromophenol	118-79-6			ug/kg	108.5	21 - 147				07/25/12
2-Fluorobiphenyl	321-60-8			ug/kg	112.9	34 - 160				07/25/12
Terphenyl-d14	98904-43-9			ug/kg	115.5	51 - 155				07/25/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	110.6	27 - 197				07/25/12
Fluoranthene-d10	93951-69-0			ug/kg	108.2	39 - 168				07/25/12
MS			**QC Sample #78723**							
			Original 120900005							
2-Fluorophenol	367-12-4			ug/kg	113.4	38 - 151				07/26/12
Phenol-d5	4165-62-2			ug/kg	114.2	38 - 153				07/26/12
Nitrobenzene-d5	4165-60-0			ug/kg	112.4	42 - 153				07/26/12
2,4,6-Tribromophenol	118-79-6			ug/kg	106.2	21 - 147				07/26/12
2-Fluorobiphenyl	321-60-8			ug/kg	112.6	34 - 160				07/26/12
Terphenyl-d14	98904-43-9			ug/kg	111.8	51 - 155				07/26/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	112	27 - 197				07/26/12
Fluoranthene-d10	93951-69-0			ug/kg	111	39 - 168				07/26/12
MSD			**QC Sample #78724**							
			Original 120900005					**Paired**	**78723**	
2-Fluorophenol	367-12-4			ug/kg	107.8	38 - 151	n/a			07/26/12
Phenol-d5	4165-62-2			ug/kg	108.8	38 - 153	n/a			07/26/12
Nitrobenzene-d5	4165-60-0			ug/kg	104.6	42 - 153	n/a			07/26/12
2,4,6-Tribromophenol	118-79-6			ug/kg	99.4	21 - 147	n/a			07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
2-Fluorobiphenyl	321-60-8			ug/kg	105.4	34 - 160	n/a			07/26/12
Terphenyl-d14	98904-43-9			ug/kg	104.4	51 - 155	n/a			07/26/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	105.4	27 - 197	n/a			07/26/12
Fluoranthene-d10	93951-69-0			ug/kg	105.9	39 - 168	n/a			07/26/12
DUP			**QC Sample #78725**							
			Original 120902002							
2-Fluorophenol	367-12-4				119.7	44 - 135	n/a			07/26/12
Phenol-d5	4165-62-2				123.1	41 - 136	n/a			07/26/12
Nitrobenzene-d5	4165-60-0				118.3	53 - 129	n/a			07/26/12
2-Methylnaphthalene-d10	7297-45-2				117.9	50 - 140	n/a			07/26/12
2-Fluorobiphenyl	321-60-8				118.9	36 - 141	n/a			07/26/12
2,4,6-Tribromophenol	118-79-6				100.4	17 - 142	n/a			07/26/12
Fluoranthene-d10	93951-69-0				118.8	50 - 140	n/a			07/26/12
Terphenyl-d14	98904-43-9				117.9	61 - 142	n/a			07/26/12

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

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
205218	205244	1	BLANK	78721	BLANK		SW-846 8270D Semivolatiles
205218	205244	2	LCS	78722	LCS		SW-846 8270D Semivolatiles
205218	205244	3	MS	78723	B2JDJ5(120900005MS)	120900005	SW-846 8270D Semivolatiles
205218	205244	4	MSD	78724	B2JDJ5(120900005MSD)	120900005	SW-846 8270D Semivolatiles
205218	205244	11	DUP	78725	B2LTY9(120902002DUP)	120902002	SW-846 8270D Semivolatiles
205218	205244	12	SAMPLE	120922007	B2JF44		SW-846 8270D Semivolatiles
205218	205244	13	SAMPLE	120922008	B2JDJ2		SW-846 8270D Semivolatiles
205218	205244	14	SAMPLE	120922009	B2JDK7		SW-846 8270D Semivolatiles
205281	205317	1	BLANK	78906	BLANK		PCBs by EPA SW-846 Method 8082
205281	205317	2	LCS	78907	LCS		PCBs by EPA SW-846 Method 8082
205281	205317	3	MS	78908	B2JDJ5(120900005MS)	120900005	PCBs by EPA SW-846 Method 8082
205281	205317	4	MSD	78909	B2JDJ5(120900005MSD)	120900005	PCBs by EPA SW-846 Method 8082
205281	205317	10	SAMPLE	120922007	B2JF44		PCBs by EPA SW-846 Method 8082
205281	205317	11	SAMPLE	120922008	B2JDJ2		PCBs by EPA SW-846 Method 8082
205281	205317	12	SAMPLE	120922009	B2JDK7		PCBs by EPA SW-846 Method 8082

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analytical Batch 205244 (QC Batch: 205218)
Associated Samples 120922007, 120922008, 120922009

Test SW-846 8270D Semivolatiles

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78721**							
4-Nitrophenol	100-02-7		<200	ug/kg					U	07/25/12
1,2,4-Trichlorobenzene	120-82-1		<200	ug/kg					U	07/25/12
Phenol	108-95-2		<200	ug/kg					U	07/25/12
1,4-Dichlorobenzene	106-46-7		<200	ug/kg					U	07/25/12
2,4-Dinitrotoluene	121-14-2		<200	ug/kg					U	07/25/12
4-Chloro-3-methylphenol	59-50-7		<200	ug/kg					U	07/25/12
n-Nitroso-di-n-propylamine	621-64-7		<200	ug/kg					U	07/25/12
Pentachlorophenol	87-86-5		<200	ug/kg					U	07/25/12
2-Chlorophenol	95-57-8		<200	ug/kg					U	07/25/12
4-Nitroaniline	100-01-6		<200	ug/kg					U	07/25/12
4-Bromophenyl-phenylether	101-55-3		<200	ug/kg					U	07/25/12
2,4-Dimethylphenol	105-67-9		<200	ug/kg					U	07/25/12
4-Chloroaniline	106-47-8		<200	ug/kg					U	07/25/12
Bis(1-Chloro-2-propyl)ether	108-60-1		<200	ug/kg					U	07/25/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Chloroethyl) ether	111-44-4		<200	ug/kg					U	07/25/12
Bis-(2-Chloroethoxy)methane	111-91-1		<200	ug/kg					U	07/25/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		<200	ug/kg					U	07/25/12
Di-n-octylphthalate	117-84-0		<200	ug/kg					U	07/25/12
Hexachlorobenzene	118-74-1		<200	ug/kg					U	07/25/12
2,4-Dichlorophenol	120-83-2		<200	ug/kg					U	07/25/12
Dimethylphthalate	131-11-3		<200	ug/kg					U	07/25/12
Dibenzofuran	132-64-9		<200	ug/kg					U	07/25/12
2,4-Dinitrophenol	51-28-5		<200	ug/kg					U	07/25/12
4,6-Dinitro-2-methylphenol	534-52-1		<200	ug/kg					U	07/25/12
1,3-Dichlorobenzene	541-73-1		<200	ug/kg					U	07/25/12
2,6-Dinitrotoluene	606-20-2		<200	ug/kg					U	07/25/12
4-Chlorophenyl-phenylether	7005-72-3		<200	ug/kg					U	07/25/12
Hexachlorocyclopentadiene	77-47-4		<200	ug/kg					U	07/25/12
Isophorone	78-59-1		<200	ug/kg					U	07/25/12
Diethyl phthalate	84-66-2		<200	ug/kg					U	07/25/12
Di-n-butylphthalate	84-74-2		<200	ug/kg					U	07/25/12
Butylbenzylphthalate	85-68-7		<200	ug/kg					U	07/25/12
n-Nitrosodiphenylamine	86-30-6		<200	ug/kg					U	07/25/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Carbazole	86-74-8		<200	ug/kg					U	07/25/12
Hexachlorobutadiene	87-68-3		<200	ug/kg					U	07/25/12
2-Nitroaniline	88-74-4		<200	ug/kg					U	07/25/12
2-Nitrophenol	88-75-5		<200	ug/kg					U	07/25/12
2-Chloronaphthalene	91-58-7		<200	ug/kg					U	07/25/12
3,3-Dichlorobenzidine	91-94-1		<200	ug/kg					U	07/25/12
2-Methylphenol	95-48-7		<200	ug/kg					U	07/25/12
1,2-Dichlorobenzene	95-50-1		<200	ug/kg					U	07/25/12
2,4,5-Trichlorophenol	95-95-4		<200	ug/kg					U	07/25/12
Nitrobenzene	98-95-3		<200	ug/kg					U	07/25/12
3-Nitroaniline	99-09-2		<200	ug/kg					U	07/25/12
Hexachloroethane	67-72-1		<200	ug/kg					U	07/25/12
2,4,6-Trichlorophenol	88-06-2		<200	ug/kg					U	07/25/12
LCS			**QC Sample #78722**							
4-Nitrophenol	100-02-7		6100	ug/kg	101.4	48 - 120				07/25/12
1,2,4-Trichlorobenzene	120-82-1		5700	ug/kg	94.4	69 - 114				07/25/12
Phenol	108-95-2		6300	ug/kg	105.2	70 - 119				07/25/12
1,4-Dichlorobenzene	106-46-7		4300	ug/kg	107.8	64 - 125				07/25/12
2,4-Dinitrotoluene	121-14-2		6200	ug/kg	103.4	58 - 124				07/25/12
4-Chloro-3-methylphenol	59-50-7		6400	ug/kg	107.1	73 - 121				07/25/12
n-Nitroso-di-n-propylamine	621-64-7		6400	ug/kg	106.3	72 - 119				07/25/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Pentachlorophenol	87-86-5		6000	ug/kg	100.2	28 - 127				07/25/12
2-Chlorophenol	95-57-8		6300	ug/kg	105.1	71 - 120				07/25/12
2-Methylphenol	95-48-7		6400	ug/kg	106.4	73 - 122				07/25/12
Hexachloroethane	67-72-1		5800	ug/kg	96.2	59 - 114				07/25/12
2-Nitrophenol	88-75-5		6300	ug/kg	104.9	56 - 124				07/25/12
2,4-Dimethylphenol	105-67-9		5700	ug/kg	94.6	75 - 124				07/25/12
2,4-Dichlorophenol	120-83-2		6000	ug/kg	100.7	68 - 118				07/25/12
2-Nitroaniline	88-74-4		6600	ug/kg	110	62 - 131				07/25/12
Dibenzofuran	132-64-9		6400	ug/kg	107.1	70 - 122				07/25/12
Hexachlorobenzene	118-74-1		6200	ug/kg	103.9	72 - 127				07/25/12
Carbazole	86-74-8		6600	ug/kg	109.7	46 - 121				07/25/12
Di-n-butylphthalate	84-74-2		6400	ug/kg	107.3	60 - 131				07/25/12
3,3-Dichlorobenzidine	91-94-1		5100	ug/kg	85.5	41 - 131				07/25/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		6900	ug/kg	114.2	68 - 131				07/25/12
Di-n-octylphthalate	117-84-0		6100	ug/kg	102.4	55 - 131				07/25/12
Bis(1-Chloro-2-propyl)ether	108-60-1		6600	ug/kg	109.9	70 - 120				07/25/12
4-Chloroaniline	106-47-8		5600	ug/kg	93.4	39 - 109				07/25/12
MS			**QC Sample #78723**							
			Original 120900005							
4-Nitrophenol	100-02-7		6000	ug/kg	101.4	40 - 126				07/26/12
1,2,4-Trichlorobenzene	120-82-1		5800	ug/kg	96.7	52 - 130				07/26/12
Phenol	108-95-2		6400	ug/kg	108	55 - 132				07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
1,4-Dichlorobenzene	106-46-7		4200	ug/kg	106.8	55 - 130				07/26/12
2,4-Dinitrotoluene	121-14-2		6100	ug/kg	102.9	56 - 125				07/26/12
4-Chloro-3-methylphenol	59-50-7		6400	ug/kg	107.6	62 - 128				07/26/12
n-Nitroso-di-n-propylamine	621-64-7		6500	ug/kg	108.5	56 - 130				07/26/12
Pentachlorophenol	87-86-5		5600	ug/kg	94.2	21 - 141				07/26/12
2-Chlorophenol	95-57-8		6400	ug/kg	107.3	61 - 129				07/26/12
2-Methylphenol	95-48-7		6400	ug/kg	107.7	61 - 129				07/26/12
Hexachloroethane	67-72-1		5800	ug/kg	97.3	38 - 132				07/26/12
2-Nitrophenol	88-75-5		6300	ug/kg	106.3	50 - 128				07/26/12
2,4-Dimethylphenol	105-67-9		5700	ug/kg	95.8	58 - 133				07/26/12
2,4-Dichlorophenol	120-83-2		6000	ug/kg	100.9	51 - 132				07/26/12
2-Nitroaniline	88-74-4		6500	ug/kg	108.7	60 - 131				07/26/12
Dibenzofuran	132-64-9		6500	ug/kg	108.2	61 - 127				07/26/12
Hexachlorobenzene	118-74-1		6100	ug/kg	103.1	57 - 133				07/26/12
Carbazole	86-74-8		6600	ug/kg	111.3	38 - 125				07/26/12
Di-n-butylphthalate	84-74-2		6500	ug/kg	108.5	62 - 129				07/26/12
3,3-Dichlorobenzidine	91-94-1		5500	ug/kg	92.3	24 - 141				07/26/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		6800	ug/kg	113.4	49 - 145				07/26/12
Di-n-octylphthalate	117-84-0		6400	ug/kg	106.7	53 - 144				07/26/12
Bis(1-Chloro-2-propyl)ether	108-60-1		6600	ug/kg	110.1	53 - 132				07/26/12
4-Chloroaniline	106-47-8		6100	ug/kg	102.6	23 - 152				07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #78724**							
			Original 120900005						**Paired 78723**	
4-Nitrophenol	100-02-7		5600	ug/kg	94.2	40 - 126	6.90	30		07/26/12
1,2,4-Trichlorobenzene	120-82-1		5400	ug/kg	90.3	52 - 130	7.10	30		07/26/12
Phenol	108-95-2		6000	ug/kg	101.7	55 - 132	6.50	30		07/26/12
1,4-Dichlorobenzene	106-46-7		4100	ug/kg	103.4	55 - 130	2.40	30		07/26/12
2,4-Dinitrotoluene	121-14-2		5800	ug/kg	97	56 - 125	5.00	30		07/26/12
4-Chloro-3-methylphenol	59-50-7		6100	ug/kg	102.6	62 - 128	4.80	30		07/26/12
n-Nitroso-di-n-propylamine	621-64-7		6100	ug/kg	103.2	56 - 130	6.30	30		07/26/12
Pentachlorophenol	87-86-5		5200	ug/kg	87.3	21 - 141	7.40	30		07/26/12
2-Chlorophenol	95-57-8		6000	ug/kg	101.4	61 - 129	6.50	30		07/26/12
2-Methylphenol	95-48-7		6100	ug/kg	103.2	61 - 129	4.80	30		07/26/12
Hexachloroethane	67-72-1		5500	ug/kg	92.9	38 - 132	5.30	30		07/26/12
2-Nitrophenol	88-75-5		5800	ug/kg	98.5	50 - 128	8.30	30		07/26/12
2,4-Dimethylphenol	105-67-9		5500	ug/kg	93.3	58 - 133	3.60	30		07/26/12
2,4-Dichlorophenol	120-83-2		5600	ug/kg	94.5	51 - 132	6.90	30		07/26/12
2-Nitroaniline	88-74-4		6100	ug/kg	103.2	60 - 131	6.30	30		07/26/12
Dibenzofuran	132-64-9		6000	ug/kg	100.8	61 - 127	8.00	30		07/26/12
Hexachlorobenzene	118-74-1		5900	ug/kg	99.2	57 - 133	3.30	30		07/26/12
Carbazole	86-74-8		6300	ug/kg	106.7	38 - 125	4.70	30		07/26/12
Di-n-butylphthalate	84-74-2		6100	ug/kg	103.1	62 - 129	6.30	30		07/26/12
3,3-Dichlorobenzidine	91-94-1		5300	ug/kg	89.4	24 - 141	3.70	30		07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Ethylhexyl)phthalate	117-81-7		6400	ug/kg	107.7	49 - 145	6.10	30		07/26/12
Di-n-octylphthalate	117-84-0		6000	ug/kg	101.9	53 - 144	6.50	30		07/26/12
Bis(1-Chloro-2-propyl)ether	108-60-1		6300	ug/kg	105.7	53 - 132	4.70	30		07/26/12
4-Chloroaniline	106-47-8		5800	ug/kg	97.5	23 - 152	5.00	30		07/26/12
DUP			**QC Sample #78725**							
			Original 120902002							
4-Nitrophenol	100-02-7		<300	ug/kg			0.00	30	U	07/26/12
1,4-Dichlorobenzene	106-46-7		<300	ug/kg			0.00	30	U	07/26/12
Phenol	108-95-2		<300	ug/kg			0.00	30	U	07/26/12
1,2,4-Trichlorobenzene	120-82-1		<300	ug/kg			0.00	30	U	07/26/12
2,4-Dinitrotoluene	121-14-2		<300	ug/kg			0.00	30	U	07/26/12
4-Chloro-3-methylphenol	59-50-7		<300	ug/kg			0.00	30	U	07/26/12
n-Nitroso-di-n-propylamine	621-64-7		<300	ug/kg			0.00	30	U	07/26/12
Pentachlorophenol	87-86-5		<300	ug/kg			0.00	30	U	07/26/12
2-Chlorophenol	95-57-8		<300	ug/kg			0.00	30	U	07/26/12
4-Nitroaniline	100-01-6		<300	ug/kg			0.00	30	U	07/26/12
4-Bromophenyl-phenylether	101-55-3		<300	ug/kg			0.00	30	U	07/26/12
2,4-Dimethylphenol	105-67-9		<300	ug/kg			0.00	30	U	07/26/12
4-Chloroaniline	106-47-8		<300	ug/kg			0.00	30	U	07/26/12
Bis(1-Chloro-2-propyl)ether	108-60-1		<300	ug/kg			0.00	30	U	07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
Bis-(2-Chloroethyl) ether	111-44-4		<300	ug/kg		0.00	30	U	07/26/12
Bis-(2-Chloroethoxy)methane	111-91-1		<300	ug/kg		0.00	30	U	07/26/12
Bis-(2-Ethylhexyl)phthalate	117-81-7		<300	ug/kg		0.00	30	U	07/26/12
Di-n-octylphthalate	117-84-0		<300	ug/kg		0.00	30	U	07/26/12
Hexachlorobenzene	118-74-1		<300	ug/kg		0.00	30	U	07/26/12
2,4-Dichlorophenol	120-83-2		<300	ug/kg		0.00	30	U	07/26/12
Dimethylphthalate	131-11-3		<300	ug/kg		0.00	30	U	07/26/12
Dibenzofuran	132-64-9		<300	ug/kg		0.00	30	U	07/26/12
2,4-Dinitrophenol	51-28-5		<300	ug/kg		0.00	30	U	07/26/12
4,6-Dinitro-2-methylphenol	534-52-1		<300	ug/kg		0.00	30	U	07/26/12
1,3-Dichlorobenzene	541-73-1		<300	ug/kg		0.00	30	U	07/26/12
2,6-Dinitrotoluene	606-20-2		<300	ug/kg		0.00	30	U	07/26/12
4-Chlorophenyl-phenylether	7005-72-3		<300	ug/kg		0.00	30	U	07/26/12
Hexachlorocyclopentadiene	77-47-4		<300	ug/kg		0.00	30	U	07/26/12
Isophorone	78-59-1		<300	ug/kg		0.00	30	U	07/26/12
Diethyl phthalate	84-66-2		<300	ug/kg		0.00	30	U	07/26/12
Di-n-butylphthalate	84-74-2		<300	ug/kg		0.00	30	U	07/26/12
Butylbenzylphthalate	85-68-7		<300	ug/kg		0.00	30	U	07/26/12
n-Nitrosodiphenylamine	86-30-6		<300	ug/kg		0.00	30	U	07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
Carbazole	86-74-8		<300	ug/kg		0.00	30	U	07/26/12
Hexachlorobutadiene	87-68-3		<300	ug/kg		0.00	30	U	07/26/12
2-Nitroaniline	88-74-4		<300	ug/kg		0.00	30	U	07/26/12
2-Nitrophenol	88-75-5		<300	ug/kg		0.00	30	U	07/26/12
2-Chloronaphthalene	91-58-7		<300	ug/kg		0.00	30	U	07/26/12
3,3-Dichlorobenzidine	91-94-1		<300	ug/kg		0.00	30	U	07/26/12
2-Methylphenol	95-48-7		<300	ug/kg		0.00	30	U	07/26/12
1,2-Dichlorobenzene	95-50-1		<300	ug/kg		0.00	30	U	07/26/12
2,4,5-Trichlorophenol	95-95-4		<300	ug/kg		0.00	30	U	07/26/12
Nitrobenzene	98-95-3		<300	ug/kg		0.00	30	U	07/26/12
3-Nitroaniline	99-09-2		<300	ug/kg		0.00	30	U	07/26/12
Hexachloroethane	67-72-1		2.7E4	ug/kg		3.80	30		07/26/12
2,4,6-Trichlorophenol	88-06-2		<300	ug/kg		0.00	30	U	07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analytical Batch 205244 (QC Batch: 205218)
Associated Samples 120922007, 120922008, 120922009

Test SW-846 8270D Semivolatiles

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120922007**							
2-Fluorophenol	367-12-4				97.5	44 - 135				07/26/12
Phenol-d5	4165-62-2				102.7	41 - 136				07/26/12
Nitrobenzene-d5	4165-60-0				99.4	53 - 129				07/26/12
2-Methylnaphthalene-d10	7297-45-2				100.5	50 - 140				07/26/12
2-Fluorobiphenyl	321-60-8				101.2	36 - 141				07/26/12
2,4,6-Tribromophenol	118-79-6				77.7	17 - 142				07/26/12
Fluoranthene-d10	93951-69-0				100.5	50 - 140				07/26/12
Terphenyl-d14	98904-43-9				101.8	61 - 142				07/26/12
SAMPLE			**Sample #120922008**							
2-Fluorophenol	367-12-4				110.1	44 - 135				07/26/12
Phenol-d5	4165-62-2				112.2	41 - 136				07/26/12
Nitrobenzene-d5	4165-60-0				109	53 - 129				07/26/12
2-Methylnaphthalene-d10	7297-45-2				110.7	50 - 140				07/26/12
2-Fluorobiphenyl	321-60-8				112	36 - 141				07/26/12
2,4,6-Tribromophenol	118-79-6				92.4	17 - 142				07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Fluoranthene-d10	93951-69-0				108.3	50 - 140				07/26/12
Terphenyl-d14	98904-43-9				110	61 - 142				07/26/12
SAMPLE			**Sample #120922009**							
2-Fluorophenol	367-12-4				112.3	44 - 135				07/26/12
Phenol-d5	4165-62-2				114	41 - 136				07/26/12
Nitrobenzene-d5	4165-60-0				111.5	53 - 129				07/26/12
2-Methylnaphthalene-d10	7297-45-2				111.7	50 - 140				07/26/12
2-Fluorobiphenyl	321-60-8				113.2	36 - 141				07/26/12
2,4,6-Tribromophenol	118-79-6				93.5	17 - 142				07/26/12
Fluoranthene-d10	93951-69-0				107.9	50 - 140				07/26/12
Terphenyl-d14	98904-43-9				118.9	61 - 142				07/26/12
BLANK			**QC Sample #78721**							
2-Fluorophenol	367-12-4				100.9	44 - 135				07/25/12
Phenol-d5	4165-62-2				103.2	41 - 136				07/25/12
Nitrobenzene-d5	4165-60-0				102.1	53 - 129				07/25/12
2-Methylnaphthalene-d10	7297-45-2				102.9	50 - 140				07/25/12
2-Fluorobiphenyl	321-60-8				103	36 - 141				07/25/12
2,4,6-Tribromophenol	118-79-6				80.3	17 - 142				07/25/12
Fluoranthene-d10	93951-69-0				99.1	50 - 140				07/25/12
Terphenyl-d14	98904-43-9				107.2	61 - 142				07/25/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #78722**							
2-Fluorophenol	367-12-4			ug/kg	113.6	38 - 151				07/25/12
Phenol-d5	4165-62-2			ug/kg	113.9	38 - 153				07/25/12
Nitrobenzene-d5	4165-60-0			ug/kg	110.8	42 - 153				07/25/12
2,4,6-Tribromophenol	118-79-6			ug/kg	108.5	21 - 147				07/25/12
2-Fluorobiphenyl	321-60-8			ug/kg	112.9	34 - 160				07/25/12
Terphenyl-d14	98904-43-9			ug/kg	115.5	51 - 155				07/25/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	110.6	27 - 197				07/25/12
Fluoranthene-d10	93951-69-0			ug/kg	108.2	39 - 168				07/25/12
MS			**QC Sample #78723**							
			Original 120900005							
2-Fluorophenol	367-12-4			ug/kg	113.4	38 - 151				07/26/12
Phenol-d5	4165-62-2			ug/kg	114.2	38 - 153				07/26/12
Nitrobenzene-d5	4165-60-0			ug/kg	112.4	42 - 153				07/26/12
2,4,6-Tribromophenol	118-79-6			ug/kg	106.2	21 - 147				07/26/12
2-Fluorobiphenyl	321-60-8			ug/kg	112.6	34 - 160				07/26/12
Terphenyl-d14	98904-43-9			ug/kg	111.8	51 - 155				07/26/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	112	27 - 197				07/26/12
Fluoranthene-d10	93951-69-0			ug/kg	111	39 - 168				07/26/12
MSD			**QC Sample #78724**							
			Original 120900005					**Paired**	**78723**	
2-Fluorophenol	367-12-4			ug/kg	107.8	38 - 151	n/a			07/26/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Phenol-d5	4165-62-2			ug/kg	108.8	38 - 153	n/a			07/26/12
Nitrobenzene-d5	4165-60-0			ug/kg	104.6	42 - 153	n/a			07/26/12
2,4,6-Tribromophenol	118-79-6			ug/kg	99.4	21 - 147	n/a			07/26/12
2-Fluorobiphenyl	321-60-8			ug/kg	105.4	34 - 160	n/a			07/26/12
Terphenyl-d14	98904-43-9			ug/kg	104.4	51 - 155	n/a			07/26/12
2-Methylnaphthalene-d10	7297-45-2			ug/kg	105.4	27 - 197	n/a			07/26/12
Fluoranthene-d10	93951-69-0			ug/kg	105.9	39 - 168	n/a			07/26/12
DUP			**QC Sample #78725**							
			Original 120902002							
2-Fluorophenol	367-12-4				119.7	44 - 135	n/a			07/26/12
Phenol-d5	4165-62-2				123.1	41 - 136	n/a			07/26/12
Nitrobenzene-d5	4165-60-0				118.3	53 - 129	n/a			07/26/12
2-Methylnaphthalene-d10	7297-45-2				117.9	50 - 140	n/a			07/26/12
2-Fluorobiphenyl	321-60-8				118.9	36 - 141	n/a			07/26/12
2,4,6-Tribromophenol	118-79-6				100.4	17 - 142	n/a			07/26/12
Fluoranthene-d10	93951-69-0				118.8	50 - 140	n/a			07/26/12
Terphenyl-d14	98904-43-9				117.9	61 - 142	n/a			07/26/12

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

Date: 10 August 2012
To: CH2M Hill (technical representative)
From: Analytical Quality Associates, Inc.
Project: 100-K
Subject: PAHs - Sample Data Groups (SDGs) SL1277 and SL1285

INTRODUCTION

This memorandum presents the results of data validation for SDGs SL1277 and SL1285 prepared by TestAmerica Laboratories, Inc. A list of samples validated along with the analytical methods is provided in the following table.

Sample ID	Sample Date	Media	Validation Level	Analytical Method
B2JDD9	06/18/12	Soil	C	8310
B2JDN8	07/11/12	Soil	C	8310
B2JDH4	07/10/12	Soil	C	8310
B2JDK2	07/11/12	Soil	C	8310
B2JDT5	06/12/12	Soil	C	8310
B2JDR3	07/11/12	Soil	C	8310
B2JDR6	06/12/12	Soil	C	8310
B2JDT2	06/12/12	Soil	C	8310
B2JDK5	06/12/12	Soil	C	8310
B2JDP4	07/11/12	Soil	C	8310
B2JF48	07/11/12	Soil	C	8310
B2JDP7	07/11/12	Soil	C	8310
B2JDJ6	06/12/12	Soil	C	8310
B2JF33	07/10/12	Soil	C	8310
B2JDP1	07/10/12	Soil	C	8310
B2JDJ9	07/10/12	Soil	C	8310
B2JDV4	07/11/12	Soil	C	8310
B2JDV1	06/12/12	Soil	C	8310
B2JF36	07/11/12	Soil	C	8310
B2JDT8	06/12/12	Soil	C	8310
B2JDJ0	07/10/12	Soil	C	8310
B2JDH7	07/10/12	Soil	C	8310
B2JDR9	06/12/12	Soil	C	8310
B2JDM9	07/11/12	Soil	C	8310
B2JDR0	07/11/12	Soil	C	8310
B2JDV7	07/11/12	Soil	C	8310
B2JDN2	07/11/12	Soil	C	8310
B2JDN5	07/11/12	Soil	C	8310
B2JDJ3	07/17/12	Soil	C	8310
B2JDK8	07/17/12	Soil	C	8310
B2JF45	07/17/12	Soil	C	8310

Data validation was conducted in accordance with the CHPRC validation statement of work and the 100 Area Remedial Action Sampling and Analysis Plan, DOE/RL-96-22, Rev. 5 (SAP). Appendices 1 through 6 provide the following information as indicated below:

Appendix 1. Glossary of Data Reporting Qualifiers
Appendix 2. Summary of Data Qualification
Appendix 3. Annotated Laboratory Reports
Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
Appendix 5. Data Validation Supporting Documentation
Appendix 6. Additional Documentation Requested By Client

DATA QUALITY OBJECTIVES

- **Holding Times and Sample Preservation**

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The holding time requirements for PAH are extraction within 14 days of sample collection and analysis within 40 days of sample extraction. Sample preservation requires chilling to 4 degrees Celsius.

The sample was extracted and analyzed within the prescribed holding times and properly preserved. See attached Sample Issue Resolution # SDR12-338.

- **Blanks**

The blank data results are reviewed to assess the extent of contamination introduced through sampling, sample preparation, and analysis.

Laboratory Blanks

All laboratory blank results were acceptable with the following exceptions.

For SDG SL1285, batch 6945, the laboratory blank results for anthracene and phenanthrene were > the method detection limits (MDLs) but < the required detection limits (RLs). All associated anthracene and phenanthrene sample results that were detects < the RLs should be qualified as non-detects at the RLs and flagged "U". See the table in Appendix 2 for a listing of all affected samples.

For SDG SL1285, batch 7042, the laboratory blank results for chrysene and phenanthrene were > the MDLs but < the RLs. All associated chrysene and phenanthrene sample results that were detects < the RL should be qualified as non-detect at the RLs and flagged "U." See the table in Appendix 2 for a listing of all affected samples.

Trip Blanks

No trip blanks were submitted for validation.

Field Blanks

No field blanks were submitted for validation.

Equipment Blanks

All equipment blank results were acceptable.

- **Accuracy**

Accuracy is evaluated by reviewing surrogate results, matrix spike sample results, and laboratory control sample results. According to the SAP, the laboratory control sample accuracy limits are 50% to 150% at a minimum, and the statistical ones established by the analytical laboratory if more stringent. The matrix spike sample accuracy limits are the ones specified by the DV procedure. The limits for reported analytes not listed in the SAP are specified by the DV procedure.

Surrogates

All surrogate recoveries were acceptable with the following exceptions:

For SDG SL1285, the p-terphenyl surrogate recovery for sample B2JDV2 was above the upper acceptance limit but ≤200%. All sample results that were detects should be qualified as estimates and flagged "J." See the table in Appendix 2 for a listing of all affected analytes.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Samples

All MS/MSD recoveries were acceptable with the following exceptions.

For SDG SL1277, the MS and/or MSD recoveries for all analytes except for acenaphthylene and fluorene were above the upper acceptance limits. The benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, chrysene, fluoranthene and pyrene results for sample B2JDD9 were detects and should be qualified as estimates and flagged "J."

For SDG SL1285, batch 7042, the MS recovery for chrysene was below the lower acceptance limit but ≥20%. All associated sample results should be qualified as estimates and flagged "UJ" for non-detects and flagged "J" for detects. See the table in Appendix 2 for a listing of all affected samples.

Laboratory Control Samples (LCSs)

All LCS recoveries were acceptable.

- **Precision**

Precision is evaluated by reviewing MS/MSD results, field duplicate sample results, and field split sample results. These QC results provide information on the laboratory reproducibility and whether sampling activities are adequate to acquire consistent sample results. According to the SAP, the relative percent difference (RPD) limits are ±30%.

MS/MSD Samples

All MS/MSD RPDs were acceptable with the following exceptions.

For SDG SL1277, the MS/MSD RPDs for chrysene, benzo(a)anthracene, benzo(a)pyrene and pyrene were above the acceptance limit. The B2JDD9 sample results for these analytes were detects and should be qualified as estimates and flagged "J."

Field Duplicate Samples

The RPD for field duplicate samples B2JDR0 and B2JF36 could not be evaluated because samples were analyzed at different dilutions.

Field Split Samples

No field splits were submitted for validation.

- **Detection Limits**

Reported MDLs are compared against the contractually required detection limits (CRDLs) to ensure that laboratory detection limits meet the required criteria.

All reported sample MDLs were above the requested calculated action level.

- **Completeness**

SDGs SL1277 and SL1285 were submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

Multiple minor deficiencies leading to qualification of sample results as estimates occurred due to blank contamination, high surrogate recovery and MS/MSD infractions. See the table in Appendix 2 for a listing of all affected sample results.

REFERENCES

GRP-GD-003, Rev. 0, Change 0, *Data Validation for Chemical Analyses*, August 2010.

DOE/RL-96-22, Rev. 5, *100 Area Remedial Action Sampling and Analysis Plan*, September 2009.

SAMPLE ISSUE RESOLUTION

SIR NUM	SDR12-338
REV NUM	0
DATE INITIATED	8/14/2012

SAMPLE EVENT INFORMATION

SAF NUM(S)	F12-005
OPERABLE UNIT(S)	100-KR-2
PROJECT(S)	100 K RA
SAMPLE EVENT TITLE(S)	100 K Remedial Action
LABORATORY	TestAmerica St. Louis

SAMPLING INFORMATION

NUMBER OF SAMPLES	8
SAMPLE NUMBERS	B2JDJ6, B2JDK5, B2JDR6, B2JDR9, B2JDT2, B2JDT5, B2JDT8, B2JDV1
SAMPLE MATRIX	SOIL
COLLECTION DATE	6/12/2012 - 6/12/2012
SDG NUM	SL1285

ISSUE BACKGROUND

CLASS	Chain of Custody Issue (Field)
TYPE	Sample Date/time is missing/incorrect/illegible
DESCRIPTION	For the listed samples, the sample collection date on the samples' chains of custody is incorrectly listed as 6/12/2012. The correct sample date, as confirmed in field sampling logbook HNF-N-507-25, is 7/12/2012.

DISPOSITION

DESCRIPTION	Proposed Disposition: Insert a copy of this Sample Issue Resolution form in the affected SDG listed above and close the SIR.
JUSTIFICATION	Accepted Disposition: Accept proposed disposition

Submitted by: Steve Trent / CHPRC Date: 8/14/2012
Accepted by: J. G. Douglas / CHPRC Date: 8/14/2012

Appendix 1

Glossary of Data Reporting Qualifiers

Qualifiers that may be applied by data validators in compliance with the CHPRC statement of work are as follows:

- **U** — The constituent was analyzed for, but was not detected. The data should be considered usable for decision-making purposes.

- **UJ** — The constituent was analyzed for and was not detected. Due to a quality control deficiency identified during data validation the value reported may not accurately reflect the RL. The data should be considered usable for decision-making purposes.

- **J** — Indicates the constituent was analyzed for and detected. The associated value is estimated due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J+** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected positive bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J-** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected negative bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **N** — The analysis indicates the presence of an analyte that has been tentatively identified.

- **NJ** — The analysis indicates the presence of an analyte that has been tentatively identified and the associated numerical value represents its approximate concentration.

- **NJ+** — The analysis indicates the presence of an analyte that has been tentatively identified. The associated value is estimated with a suspected positive bias due to a quality control deficiency identified during data validation.

- **NJ-** — The analysis indicates the presence of an analyte that has been tentatively identified. The associated value is estimated with a suspected negative bias due to a quality control deficiency identified during data validation.

- **C** — This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by Gas Chromatograph/Mass Spectrometer (GC/MS).

- **UR** — Indicates the constituent was analyzed for and not detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

- **R** — Indicates the constituent was analyzed for and detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

Appendix 2

Summary of Data Qualification

PAHs Data Qualification Summary			
SDGs: SL1277, SL1285	Reviewer: AQA	Project: 100-K	Page 1 of 1
Analyte(s)	**Qualifier**	**Samples Affected**	**Reason**
acenaphthene benzo(a)anthracene benzo(b)fluoranthene benzo(k)fluoranthene benzo(ghi)perylene benzo(a)pyrene chrysene dibenz(ah)anthracene fluoranthene fluorene indeno(1,2,3-cd)pyrene pyrene	J	B2JDV1	High surrogate recovery
chrysene	J	B2JDR9	Low matrix spike recovery
anthracene	31U	B2JDR3, B2JDJ6	Laboratory blank contamination
anthracene phenanthrene	30U	B2JDT5, B2JDP4	Laboratory blank contamination
anthracene	310U	B2JDV1, B2JDT2, B2JDP1	Laboratory blank contamination
chrysene	15UJ	B2JF33, B2JDJ0	Laboratory blank contamination and low matrix spike recovery
phenanthrene	31U	B2JDT8, B2JDK5, B2JDJ6, B2JDR3, B2JF33, B2JDJ9, B2JF36, B2JDJ0, B2JDH7, B2JDN2, B2JDN5	Laboratory blank contamination
phenanthrene	32U	B2JDV4	Laboratory blank contamination
phenanthrene	310U	B2JDR9, B2JDV1, B2JDT2, B2JDP1, B2JDM9, B2JDR0	Laboratory blank contamination
benzo(b)fluoranthene fluoranthene	J	B2JDD9	High matrix spike recoveries
benzo(a)anthracene benzo(a)pyrene	J	B2JDD9	High matrix spike recoveries and poor

chrysene pyrene			MS/MSD precision
chrysene	J	B2JDJ9, B2JDV4, B2JF36, B2JDH7, B2JDM9, B2JDR0, B2JDN2,	Low matrix spike recovery
chrysene	UJ	B2JDV7, B2JDN5	Low matrix spike recovery

Comments: None

Appendix 3

Annotated Laboratory Reports

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2JDD9

HPLC

Lot-Sample #...: F2F260419-001 **Work Order #...:** MVARR1AA **Matrix.....:** SOLID
Date Sampled...: 06/18/12 **Date Received..:** 06/26/12
Prep Date.....: 06/28/12 **Analysis Date..:** 07/06/12
Prep Batch #...: 2180125
Dilution Factor: 20
% Moisture.....: 4.4 **Method.....:** SW846 8310

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene		ND N	1000	ug/kg	400
Acenaphthylene		ND	2100	ug/kg	560
Anthracene		ND N	630	ug/kg	19
Benzo(a)anthracene	J	**57 J,D,N**	**310**	**ug/kg**	**43**
Benzo(b)fluoranthene	J	**67 J,D,N**	**310**	**ug/kg**	**36**
Benzo(k)fluoranthene		ND N	310	ug/kg	32
Benzo(ghi)perylene		ND N	630	ug/kg	54
Benzo(a)pyrene	J	**50 J,D,N**	**310**	**ug/kg**	**19**
Chrysene	J	**94 J,D,N**	**310**	**ug/kg**	**50**
Dibenz(a,h)anthracene		ND N	630	ug/kg	65
Fluoranthene	J	**95 J,D,N**	**630**	**ug/kg**	**76**
Fluorene		ND N	630	ug/kg	60
Indeno(1,2,3-cd)pyrene		ND N	310	ug/kg	25
Naphthalene		ND N	1000	ug/kg	460
Phenanthrene		ND N	630	ug/kg	84
Pyrene	J	**120 J,D,N**	**630**	**ug/kg**	**57**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
p-Terphenyl	111 *	(49 - 104)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

D Result was obtained from the analysis of a dilution.

N Spiked analyte recovery is outside stated control limits.

EH
08/10/12

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Client Sample ID: B2JDN8

Date Collected: 07/11/12 09:41
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-1
Matrix: Solid
Percent Solids: 97.5

Method: 8310 - PAHs (HPLC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	99	U	260	99	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5
Acenaphthylene	140	U	510	140	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5
Anthracene	4.7	U	150	4.7	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5
Benzo[a]anthracene	11	U	77	11	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5
Benzo[b]fluoranthene	7.9	U	77	7.9	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5
Benzo[k]fluoranthene	7.7	U	77	7.7	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5
Benzo[g,h,i]perylene	10	U	150	10	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5
Benzo[a]pyrene	3.4	U	77	3.4	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5
Chrysene	12	U	77	12	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5
Dibenz(a,h)anthracene	16	U	150	16	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5
Fluoranthene	19	U	150	19	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5
Fluorene	15	U	150	15	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5
Indeno[1,2,3-cd]pyrene	6.1	U	77	6.1	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5
Naphthalene	110	U	260	110	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5
Phenanthrene	20	U	150	20	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5
Pyrene	14	U	150	14	ug/Kg	☼	07/19/12 09:10	07/23/12 14:30	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*82*		*49 - 104*	*07/19/12 09:10*	*07/23/12 14:30*	*5*

Client Sample ID: B2JDH4

Date Collected: 07/10/12 07:30
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-2
Matrix: Solid
Percent Solids: 97.5

Method: 8310 - PAHs (HPLC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	200	U	510	200	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10
Acenaphthylene	270	U	1000	270	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10
Anthracene	9.5	U	310	9.5	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10
Benzo[a]anthracene	**49**	**J D**	150	21	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10
Benzo[b]fluoranthene	**50**	**J D**	150	16	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10
Benzo[k]fluoranthene	**25**	**J D**	150	15	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10
Benzo[g,h,i]perylene	**25**	**J D**	310	20	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10
Benzo[a]pyrene	**28**	**J D**	150	6.8	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10
Chrysene	**69**	**J D**	150	25	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10
Dibenz(a,h)anthracene	32	U	310	32	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10
Fluoranthene	**96**	**J D**	310	37	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10
Fluorene	29	U	310	29	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10
Indeno[1,2,3-cd]pyrene	**20**	**J D**	150	12	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10
Naphthalene	220	U	510	220	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10
Phenanthrene	41	U	310	41	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10
Pyrene	**66**	**J D**	310	28	ug/Kg	☼	07/19/12 09:10	07/20/12 21:17	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*90*		*49 - 104*	*07/19/12 09:10*	*07/20/12 21:17*	*10*

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Client Sample ID: B2JDK2

Date Collected: 07/11/12 09:58
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-3

Matrix: Solid
Percent Solids: 98.4

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	21	J	51	20	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1
Acenaphthylene	27	U	100	27	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1
Anthracene	0.94	U	30	0.94	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1
Benzo[a]anthracene	3.8	J	15	2.1	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1
Benzo[b]fluoranthene	4.9	J	15	1.6	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1
Benzo[k]fluoranthene	2.2	J	15	1.5	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1
Benzo[g,h,i]perylene	3.4	J	30	2.0	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1
Benzo[a]pyrene	3.7	J	15	0.68	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1
Chrysene	6.3	J	15	2.4	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1
Dibenz(a,h)anthracene	3.2	U	30	3.2	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1
Fluoranthene	10	J	30	3.7	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1
Fluorene	2.9	U	30	2.9	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1
Indeno[1,2,3-cd]pyrene	2.5	J	15	1.2	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1
Naphthalene	22	U	51	22	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1
Phenanthrene	6.6	J B	30	4.1	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1
Pyrene	7.1	J	30	2.8	ug/Kg	☼	07/19/12 09:10	07/23/12 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*84*		*49 - 104*	*07/19/12 09:10*	*07/23/12 15:58*	*1*

Client Sample ID: B2JDT5

Date Collected: 06/12/12 06:56
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-4

Matrix: Solid
Percent Solids: 98.4

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	27	J	51	20	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1
Acenaphthylene	27	U	100	27	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1
Anthracene	30U 2.8	J B	30	0.94	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1
Benzo[a]anthracene	5.3	J	15	2.1	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1
Benzo[b]fluoranthene	5.6	J	15	1.6	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1
Benzo[k]fluoranthene	1.9	J	15	1.5	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1
Benzo[g,h,i]perylene	5.6	J	30	2.0	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1
Benzo[a]pyrene	2.4	J	15	0.68	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1
Chrysene	9.3	J	15	2.4	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1
Dibenz(a,h)anthracene	3.2	U	30	3.2	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1
Fluoranthene	16	J	30	3.7	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1
Fluorene	2.9	U	30	2.9	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1
Indeno[1,2,3-cd]pyrene	1.4	J	15	1.2	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1
Naphthalene	22	U	51	22	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1
Phenanthrene	30U 13	J B	30	4.1	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1
Pyrene	9.1	J	30	2.8	ug/Kg	☼	07/19/12 09:10	07/23/12 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*80*		*49 - 104*	*07/19/12 09:10*	*07/23/12 16:27*	*1*

EH
08/10/12

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Client Sample ID: B2JDR3

Date Collected: 07/11/12 09:49
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-5
Matrix: Solid
Percent Solids: 96.5

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	64		52	20	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1
Acenaphthylene	28	U	100	28	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1
Anthracene	31U 2.5	J B	31	0.96	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1
Benzo[a]anthracene	13	J	16	2.1	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1
Benzo[b]fluoranthene	19		16	1.6	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1
Benzo[k]fluoranthene	8.1	J	16	1.6	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1
Benzo[g,h,i]perylene	12	J	31	2.1	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1
Benzo[a]pyrene	14	J	16	0.69	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1
Chrysene	21		16	2.5	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1
Dibenz(a,h)anthracene	3.2	U	31	3.2	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1
Fluoranthene	33		31	3.8	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1
Fluorene	4.4	J	31	3.0	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1
Indeno[1,2,3-cd]pyrene	7.7	J	16	1.2	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1
Naphthalene	43	J	52	23	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1
Phenanthrene	31U 20	J B	31	4.1	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1
Pyrene	23	J	31	2.8	ug/Kg	☼	07/19/12 09:10	07/23/12 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*82*		*49 - 104*	*07/19/12 09:10*	*07/23/12 16:56*	*1*

Client Sample ID: B2JDR6

Date Collected: 06/12/12 07:24
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-6
Matrix: Solid
Percent Solids: 97.2

Method: 8310 - PAHs (HPLC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	210	J D	510	200	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10
Acenaphthylene	270	U	1000	270	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10
Anthracene	9.5	U	310	9.5	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10
Benzo[a]anthracene	67	J D	150	21	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10
Benzo[b]fluoranthene	88	J D	150	16	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10
Benzo[k]fluoranthene	38	J D	150	16	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10
Benzo[g,h,i]perylene	42	J D	310	20	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10
Benzo[a]pyrene	62	J D	150	6.9	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10
Chrysene	81	J D	150	25	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10
Dibenz(a,h)anthracene	51	J D	310	32	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10
Fluoranthene	81	J D	310	38	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10
Fluorene	29	U	310	29	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10
Indeno[1,2,3-cd]pyrene	40	J D	150	12	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10
Naphthalene	220	U	510	220	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10
Phenanthrene	41	U	310	41	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10
Pyrene	77	J D	310	28	ug/Kg	☼	07/19/12 09:10	07/20/12 23:14	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*93*		*49 - 104*	*07/19/12 09:10*	*07/20/12 23:14*	*10*

EH
08/10/12

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Client Sample ID: B2JDT2

Date Collected: 06/12/12 07:07
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-7

Matrix: Solid
Percent Solids: 97.3

Method: 8310 - PAHs (HPLC) - DL

Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene		310	J D	510	200	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10
Acenaphthylene		270	U	1000	270	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10
Anthracene	310U	19	J B D	310	9.5	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10
Benzo[a]anthracene		65	J D	150	21	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10
Benzo[b]fluoranthene		57	J D	150	16	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10
Benzo[k]fluoranthene		25	J D	150	16	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10
Benzo[g,h,i]perylene		20	U	310	20	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10
Benzo[a]pyrene		31	J D	150	6.9	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10
Chrysene		87	J D	150	25	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10
Dibenz(a,h)anthracene		32	U	310	32	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10
Fluoranthene		150	J D	310	38	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10
Fluorene		29	U	310	29	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10
Indeno[1,2,3-cd]pyrene		22	J D	150	12	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10
Naphthalene		220	U	510	220	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10
Phenanthrene	310U	54	J B D	310	41	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10
Pyrene		100	J D	310	28	ug/Kg	☼	07/19/12 09:10	07/21/12 00:12	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*104*		*49 - 104*	*07/19/12 09:10*	*07/21/12 00:12*	*10*

Client Sample ID: B2JDK5

Date Collected: 06/12/12 07:55
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-8

Matrix: Solid
Percent Solids: 97.5

Method: 8310 - PAHs (HPLC)

Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene		20	U	51	20	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1
Acenaphthylene		27	U	100	27	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1
Anthracene		0.95	U	31	0.95	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1
Benzo[a]anthracene		2.7	J	15	2.1	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1
Benzo[b]fluoranthene		3.6	J	15	1.6	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1
Benzo[k]fluoranthene		1.5	J	15	1.5	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1
Benzo[g,h,i]perylene		3.8	J	31	2.0	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1
Benzo[a]pyrene		2.2	J	15	0.68	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1
Chrysene		5.2	J	15	2.5	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1
Dibenz(a,h)anthracene		3.2	U	31	3.2	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1
Fluoranthene		7.6	J	31	3.7	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1
Fluorene		2.9	U	31	2.9	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1
Indeno[1,2,3-cd]pyrene		1.7	J	15	1.2	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1
Naphthalene		22	U	51	22	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1
Phenanthrene	31U	6.9	J B	31	4.1	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1
Pyrene		4.9	J	31	2.8	ug/Kg	☼	07/19/12 09:10	07/23/12 17:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*80*		*49 - 104*	*07/19/12 09:10*	*07/23/12 17:25*	*1*

EH
08/10/12

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Client Sample ID: B2JDP4

Date Collected: 07/11/12 07:41
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-9
Matrix: Solid
Percent Solids: 98.6

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	58		51	20	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1
Acenaphthylene	27	U	100	27	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1
Anthracene	30U 4.5	J B	30	0.94	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1
Benzo[a]anthracene	12	J	15	2.1	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1
Benzo[b]fluoranthene	14	J	15	1.6	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1
Benzo[k]fluoranthene	6.9	J	15	1.5	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1
Benzo[g,h,i]perylene	8.5	J	30	2.0	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1
Benzo[a]pyrene	12	J	15	0.68	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1
Chrysene	18		15	2.4	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1
Dibenz(a,h)anthracene	3.2	U	30	3.2	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1
Fluoranthene	29	J	30	3.7	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1
Fluorene	4.5	J	30	2.9	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1
Indeno[1,2,3-cd]pyrene	7.4	J	15	1.2	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1
Naphthalene	29	J	51	22	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1
Phenanthrene	30U 14	J B	30	4.1	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1
Pyrene	23	J	30	2.8	ug/Kg	☼	07/19/12 09:10	07/23/12 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*85*		*49 - 104*	*07/19/12 09:10*	*07/23/12 17:54*	*1*

Client Sample ID: B2JF48

Date Collected: 07/11/12 08:08
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-10
Matrix: Solid
Percent Solids: 100.0

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	19	U	50	19	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1
Acenaphthylene	27	U	100	27	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1
Anthracene	0.92	U	30	0.92	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1
Benzo[a]anthracene	2.1	U	15	2.1	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1
Benzo[b]fluoranthene	1.6	U	15	1.6	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1
Benzo[k]fluoranthene	1.5	U	15	1.5	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1
Benzo[g,h,i]perylene	2.0	U	30	2.0	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1
Benzo[a]pyrene	0.67	U	15	0.67	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1
Chrysene	2.4	U	15	2.4	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1
Dibenz(a,h)anthracene	3.1	U	30	3.1	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1
Fluoranthene	3.7	U	30	3.7	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1
Fluorene	2.9	U	30	2.9	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1
Indeno[1,2,3-cd]pyrene	1.2	U	15	1.2	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1
Naphthalene	22	U	50	22	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1
Phenanthrene	4.0	U	30	4.0	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1
Pyrene	2.7	U	30	2.7	ug/Kg	☼	07/19/12 09:10	07/23/12 18:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*84*		*49 - 104*	*07/19/12 09:10*	*07/23/12 18:23*	*1*

EH
08/10/12

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Client Sample ID: B2JDP7

Date Collected: 07/11/12 07:52
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-11
Matrix: Solid
Percent Solids: 97.2

Method: 8310 - PAHs (HPLC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	200	U	510	200	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10
Acenaphthylene	270	U	1000	270	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10
Anthracene	9.5	U	310	9.5	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10
Benzo[a]anthracene	22	J D	150	21	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10
Benzo[b]fluoranthene	25	J D	150	16	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10
Benzo[k]fluoranthene	16	U	150	16	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10
Benzo[g,h,i]perylene	20	U	310	20	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10
Benzo[a]pyrene	18	J D	150	6.9	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10
Chrysene	29	J D	150	25	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10
Dibenz(a,h)anthracene	32	U	310	32	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10
Fluoranthene	48	J D	310	38	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10
Fluorene	29	U	310	29	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10
Indeno[1,2,3-cd]pyrene	14	J D	150	12	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10
Naphthalene	220	U	510	220	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10
Phenanthrene	41	U	310	41	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10
Pyrene	46	J D	310	28	ug/Kg	☼	07/19/12 09:10	07/21/12 02:09	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*85*		*49 - 104*	*07/19/12 09:10*	*07/21/12 02:09*	*10*

Client Sample ID: B2JDJ6

Date Collected: 06/12/12 08:19
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-12
Matrix: Solid
Percent Solids: 97.5

Method: 8310 - PAHs (HPLC)

Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene		22	J	51	20	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1
Acenaphthylene		27	U	100	27	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1
Anthracene	31U	1.8	J B	31	0.95	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1
Benzo[a]anthracene		2.9	J	15	2.1	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1
Benzo[b]fluoranthene		3.6	J	15	1.6	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1
Benzo[k]fluoranthene		1.9	J	15	1.5	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1
Benzo[g,h,i]perylene		2.4	J	31	2.0	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1
Benzo[a]pyrene		2.4	J	15	0.68	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1
Chrysene		4.2	J	15	2.5	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1
Dibenz(a,h)anthracene		3.2	U	31	3.2	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1
Fluoranthene		9.1	J	31	3.7	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1
Fluorene		2.9	J	31	2.9	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1
Indeno[1,2,3-cd]pyrene		1.6	J	15	1.2	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1
Naphthalene		22	U	51	22	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1
Phenanthrene	31U	5.9	J B	31	4.1	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1
Pyrene		6.8	J	31	2.8	ug/Kg	☼	07/19/12 09:10	07/23/12 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*81*		*49 - 104*	*07/19/12 09:10*	*07/23/12 18:52*	*1*

EH
08/10/12

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Client Sample ID: B2JF33

Date Collected: 07/10/12 07:50
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-13
Matrix: Solid
Percent Solids: 97.7

Method: 8310 - PAHs (HPLC)

Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene		42	J	51	20	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1
Acenaphthylene		27	U	100	27	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1
Anthracene		1.3	J B	31	0.94	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1
Benzo[a]anthracene		10	J	15	2.1	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1
Benzo[b]fluoranthene		11	J	15	1.6	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1
Benzo[k]fluoranthene		5.2	J	15	1.5	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1
Benzo[g,h,i]perylene		6.0	J	31	2.0	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1
Benzo[a]pyrene		8.7	J	15	0.68	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1
Chrysene	15UJ	11	J	15	2.4	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1
Dibenz(a,h)anthracene		3.2	U	31	3.2	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1
Fluoranthene		23	J	31	3.7	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1
Fluorene		2.9	U	31	2.9	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1
Indeno[1,2,3-cd]pyrene		5.2	J	15	1.2	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1
Naphthalene		25	J	51	22	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1
Phenanthrene	31U	9.2	J B	31	4.1	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1
Pyrene		18	J	31	2.8	ug/Kg	☼	07/19/12 09:10	07/24/12 09:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*82*		*49 - 104*	*07/19/12 09:10*	*07/24/12 09:36*	*1*

Client Sample ID: B2JDP1

Date Collected: 07/10/12 07:40
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-14
Matrix: Solid
Percent Solids: 97.5

Method: 8310 - PAHs (HPLC) - DL

Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene		200	U	510	200	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10
Acenaphthylene		270	U	1000	270	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10
Anthracene	310U	13	J B D	310	9.5	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10
Benzo[a]anthracene		36	J D	150	21	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10
Benzo[b]fluoranthene		35	J D	150	16	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10
Benzo[k]fluoranthene		15	J D	150	15	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10
Benzo[g,h,i]perylene		26	J D	310	20	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10
Benzo[a]pyrene		23	J D	150	6.8	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10
Chrysene		41	J D	150	25	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10
Dibenz(a,h)anthracene		32	U	310	32	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10
Fluoranthene		89	J D	310	37	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10
Fluorene		29	U	310	29	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10
Indeno[1,2,3-cd]pyrene		24	J D	150	12	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10
Naphthalene		220	U	510	220	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10
Phenanthrene	310U	44	J B D	310	41	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10
Pyrene		66	J D	310	28	ug/Kg	☼	07/19/12 09:10	07/21/12 03:36	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*87*		*49 - 104*	*07/19/12 09:10*	*07/21/12 03:36*	*10*

EH
08/10/12

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Client Sample ID: B2JDJ9

Date Collected: 07/10/12 07:50
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-15
Matrix: Solid
Percent Solids: 97.9

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	50	J	51	20	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1
Acenaphthylene	27	U	100	27	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1
Anthracene	1.4	J B	31	0.94	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1
Benzo[a]anthracene	13	J	15	2.1	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1
Benzo[b]fluoranthene	16		15	1.6	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1
Benzo[k]fluoranthene	7.5	J	15	1.5	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1
Benzo[g,h,i]perylene	8.5	J	31	2.0	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1
Benzo[a]pyrene	16		15	0.68	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1
Chrysene	J 16		15	2.4	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1
Dibenz(a,h)anthracene	6.4	J	31	3.2	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1
Fluoranthene	25	J	31	3.7	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1
Fluorene	3.0	J	31	2.9	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1
Indeno[1,2,3-cd]pyrene	6.7	J	15	1.2	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1
Naphthalene	24	J	51	22	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1
Phenanthrene	31U 9.9	J B	31	4.1	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1
Pyrene	21	J	31	2.8	ug/Kg	☼	07/19/12 09:10	07/24/12 10:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*85*		*49 - 104*	*07/19/12 09:10*	*07/24/12 10:06*	*1*

Client Sample ID: B2JDV4

Date Collected: 07/11/12 08:03
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-16
Matrix: Solid
Percent Solids: 93.8

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	31	J	53	21	ug/Kg	☼	07/19/12 09:10	07/24/12 11:04	1
Acenaphthylene	29	J	110	28	ug/Kg	☼	07/19/12 09:10	07/24/12 11:04	1
Anthracene	4.6	J B	32	0.98	ug/Kg	☼	07/19/12 09:10	07/24/12 11:04	1
Benzo[a]anthracene	7.9	J	16	2.2	ug/Kg	☼	07/19/12 09:10	07/24/12 11:04	1
Benzo[b]fluoranthene	11	J	16	1.7	ug/Kg	☼	07/19/12 09:10	07/24/12 11:04	1
Benzo[k]fluoranthene	4.5	J	16	1.6	ug/Kg	☼	07/19/12 09:10	07/24/12 11:04	1
Benzo[g,h,i]perylene	8.6	J	32	2.1	ug/Kg	☼	07/19/12 09:10	07/24/12 11:04	1
Benzo[a]pyrene	7.5	J	16	0.71	ug/Kg	☼	07/19/12 09:10	07/24/12 11:04	1
Dibenz(a,h)anthracene	3.3	U	32	3.3	ug/Kg	☼	07/19/12 09:10	07/24/12 11:04	1
Fluoranthene	24	J	32	3.9	ug/Kg	☼	07/19/12 09:10	07/24/12 11:04	1
Fluorene	4.1	J	32	3.0	ug/Kg	☼	07/19/12 09:10	07/24/12 11:04	1
Indeno[1,2,3-cd]pyrene	5.6	J	16	1.3	ug/Kg	☼	07/19/12 09:10	07/24/12 11:04	1
Naphthalene	23	U	53	23	ug/Kg	☼	07/19/12 09:10	07/24/12 11:04	1
Phenanthrene	32U 15	J B	32	4.3	ug/Kg	☼	07/19/12 09:10	07/24/12 11:04	1
Pyrene	59		32	2.9	ug/Kg	☼	07/19/12 09:10	07/24/12 11:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*72*		*49 - 104*	*07/19/12 09:10*	*07/24/12 11:04*	*1*

Method: 8310 - PAHs (HPLC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	J 1900	D	160	25	ug/Kg	☼	07/19/12 09:10	07/24/12 10:35	10

EH
08/10/12

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Client Sample ID: B2JDV1

Date Collected: 06/12/12 07:14
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-17
Matrix: Solid
Percent Solids: 98.0

Method: 8310 - PAHs (HPLC) - DL

Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	J	1400	D	510	200	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10
Acenaphthylene		270	U	1000	270	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10
Anthracene	310U	140	J B D	310	9.4	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10
Benzo[a]anthracene	J	280	D	150	21	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10
Benzo[b]fluoranthene	J	210	D	150	16	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10
Benzo[k]fluoranthene	J	96	J D	150	15	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10
Benzo[g,h,i]perylene	J	66	J D	310	20	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10
Benzo[a]pyrene	J	120	J D	150	6.8	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10
Chrysene	J	350	D	150	24	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10
Dibenz(a,h)anthracene	J	68	J D	310	32	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10
Fluoranthene	J	880	D	310	37	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10
Fluorene	J	100	J D	310	29	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10
Indeno[1,2,3-cd]pyrene	J	63	J D	150	12	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10
Naphthalene		220	U	510	220	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10
Phenanthrene	310U	450	B D	310	41	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10
Pyrene	J	590	D	310	28	ug/Kg	☼	07/19/12 09:52	07/21/12 05:33	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*192*	*	*49 - 104*	*07/19/12 09:52*	*07/21/12 05:33*	*10*

Client Sample ID: B2JF36

Date Collected: 07/11/12 08:55
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-18
Matrix: Solid
Percent Solids: 96.0

Method: 8310 - PAHs (HPLC)

Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene		70		52	20	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1
Acenaphthylene		28	U	100	28	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1
Anthracene		2.9	J B	31	0.96	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1
Benzo[a]anthracene		15	J	16	2.1	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1
Benzo[b]fluoranthene		19		16	1.6	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1
Benzo[k]fluoranthene		7.3	J	16	1.6	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1
Benzo[g,h,i]perylene		10	J	31	2.1	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1
Benzo[a]pyrene		10	J	16	0.69	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1
Chrysene	J	25		16	2.5	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1
Dibenz(a,h)anthracene		3.2	U	31	3.2	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1
Fluoranthene		33		31	3.8	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1
Fluorene		4.4	J	31	3.0	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1
Indeno[1,2,3-cd]pyrene		7.9	J	16	1.2	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1
Naphthalene		32	J	52	23	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1
Phenanthrene	31U	13	J B	31	4.2	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1
Pyrene		23	J	31	2.8	ug/Kg	☼	07/19/12 09:52	07/24/12 11:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*84*		*49 - 104*	*07/19/12 09:52*	*07/24/12 11:33*	*1*

EH
08/10/12

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Client Sample ID: B2JDT8

Date Collected: 06/12/12 07:31
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-19
Matrix: Solid
Percent Solids: 98.0

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	20	U	51	20	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1
Acenaphthylene	27	U	100	27	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1
Anthracene	0.94	U	31	0.94	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1
Benzo[a]anthracene	2.1	U	15	2.1	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1
Benzo[b]fluoranthene	1.6	U	15	1.6	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1
Benzo[k]fluoranthene	1.5	U	15	1.5	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1
Benzo[g,h,i]perylene	**2.4**	**J**	31	2.0	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1
Benzo[a]pyrene	**1.1**	**J**	15	0.68	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1
Chrysene	2.4	U	15	2.4	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1
Dibenz(a,h)anthracene	3.2	U	31	3.2	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1
Fluoranthene	**5.2**	**J**	31	3.7	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1
Fluorene	2.9	U	31	2.9	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1
Indeno[1,2,3-cd]pyrene	1.2	U	15	1.2	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1
Naphthalene	22	U	51	22	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1
Phenanthrene	31U **5.1**	**J B**	31	4.1	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1
Pyrene	**2.8**	**J**	31	2.8	ug/Kg	☼	07/19/12 09:52	07/24/12 12:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*81*		*49 - 104*	*07/19/12 09:52*	*07/24/12 12:02*	*1*

Client Sample ID: B2JDJ0

Date Collected: 07/10/12 09:23
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-20
Matrix: Solid
Percent Solids: 98.2

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**32**	**J**	51	20	ug/Kg	☼	07/19/12 09:52	07/24/12 12:32	1
Acenaphthylene	27	U	100	27	ug/Kg			07/24/12 12:32	1
Anthracene	**1.5**	**J B**	31	0.94	ug/Kg	☼	07/19/12 09:52	07/24/12 12:32	1
Benzo[a]anthracene	**7.6**	**J**	15	2.1	ug/Kg	☼	07/19/12 09:52	07/24/12 12:32	1
Benzo[b]fluoranthene	**7.3**	**J**	15	1.6	ug/Kg	☼	07/19/12 09:52	07/24/12 12:32	1
Benzo[k]fluoranthene	**3.6**	**J**	15	1.5	ug/Kg	☼	07/19/12 09:52	07/24/12 12:32	1
Benzo[g,h,i]perylene	**4.7**	**J**	31	2.0	ug/Kg	☼	07/19/12 09:52	07/24/12 12:32	1
Benzo[a]pyrene	**7.0**	**J**	15	0.68	ug/Kg	☼	07/19/12 09:52	07/24/12 12:32	1
Chrysene	15UJ **10**	**J**	15	2.4	ug/Kg	☼	07/19/12 09:52	07/24/12 12:32	1
Dibenz(a,h)anthracene	3.2	U	31	3.2	ug/Kg	☼	07/19/12 09:52	07/24/12 12:32	1
Fluoranthene	**20**	**J**	31	3.7	ug/Kg	☼	07/19/12 09:52	07/24/12 12:32	1
Fluorene	2.9	U	31	2.9	ug/Kg	☼	07/19/12 09:52	07/24/12 12:32	1
Indeno[1,2,3-cd]pyrene	**3.0**	**J**	15	1.2	ug/Kg	☼	07/19/12 09:52	07/24/12 12:32	1
Naphthalene	**26**	**J**	51	22	ug/Kg	☼	07/19/12 09:52	07/24/12 12:32	1
Phenanthrene	31U **12**	**J B**	31	4.1	ug/Kg	☼	07/19/12 09:52	07/24/12 12:32	1
Pyrene	**16**	**J**	31	2.8	ug/Kg	☼	07/19/12 09:52	07/24/12 12:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*83*		*49 - 104*	*07/19/12 09:52*	*07/24/12 12:32*	*1*

EH
08/10/12

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Client Sample ID: B2JDH7

Date Collected: 07/10/12 09:15
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-21

Matrix: Solid
Percent Solids: 98.0

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	160		51	20	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1
Acenaphthylene	27	U	100	27	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1
Anthracene	2.1	J	31	0.94	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1
Benzo[a]anthracene	42		15	2.1	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1
Benzo[b]fluoranthene	73		15	1.6	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1
Benzo[k]fluoranthene	32		15	1.5	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1
Benzo[g,h,i]perylene	28	J	31	2.0	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1
Benzo[a]pyrene	52		15	0.68	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1
Chrysene	J 75	N B	15	2.4	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1
Dibenz(a,h)anthracene	42		31	3.2	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1
Fluoranthene	45	N	31	3.7	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1
Fluorene	6.3	J	31	2.9	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1
Indeno[1,2,3-cd]pyrene	27		15	1.2	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1
Naphthalene	39	J	51	22	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1
Phenanthrene	31U 12	J N B	31	4.1	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1
Pyrene	48		31	2.8	ug/Kg	☼	07/19/12 09:57	07/24/12 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*86*		*49 - 104*	*07/19/12 09:57*	*07/24/12 17:52*	*1*

Client Sample ID: B2JDR9

Date Collected: 06/12/12 07:01
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-22

Matrix: Solid
Percent Solids: 96.6

Method: 8310 - PAHs (HPLC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	550	D	520	200	ug/Kg	☼	07/19/12 09:57	07/24/12 13:59	10
Acenaphthylene	280	U	1000	280	ug/Kg	☼	07/19/12 09:57	07/24/12 13:59	10
Anthracene	12	J D	310	9.6	ug/Kg	☼	07/19/12 09:57	07/24/12 13:59	10
Benzo[a]anthracene	99	J D	160	21	ug/Kg	☼	07/19/12 09:57	07/24/12 13:59	10
Benzo[b]fluoranthene	150	J D	160	16	ug/Kg	☼	07/19/12 09:57	07/24/12 13:59	10
Benzo[k]fluoranthene	63	J D	160	16	ug/Kg	☼	07/19/12 09:57	07/24/12 13:59	10
Benzo[g,h,i]perylene	82	J D	310	21	ug/Kg	☼	07/19/12 09:57		
Benzo[a]pyrene	110	J D	160	6.9	ug/Kg	☼	07/19/12 09:57	07/24/12 13:59	10
Chrysene	J 170	B D	160	25	ug/Kg	☼	07/19/12 09:57	07/24/12 13:59	10
Dibenz(a,h)anthracene	35	J D	310	32	ug/Kg	☼	07/19/12 09:57	07/24/12 13:59	10
Fluoranthene	210	J D	310	38	ug/Kg	☼	07/19/12 09:57	07/24/12 13:59	10
Fluorene	30	U	310	30	ug/Kg	☼	07/19/12 09:57	07/24/12 13:59	10
Indeno[1,2,3-cd]pyrene	73	J D	160	12	ug/Kg	☼	07/19/12 09:57	07/24/12 13:59	10
Naphthalene	230	U	520	230	ug/Kg	☼	07/19/12 09:57	07/24/12 13:59	10
Phenanthrene	310U 58	J B D	310	41	ug/Kg	☼	07/19/12 09:57	07/24/12 13:59	10
Pyrene	130	J D	310	28	ug/Kg	☼	07/19/12 09:57	07/24/12 13:59	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*104*		*49 - 104*	*07/19/12 09:57*	*07/24/12 13:59*	*10*

EH
08/10/12

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Client Sample ID: B2JDM9

Date Collected: 07/11/12 08:28
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-23
Matrix: Solid
Percent Solids: 98.1

Method: 8310 - PAHs (HPLC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	880	D	510	200	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10
Acenaphthylene	270	U	1000	270	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10
Anthracene	71	J D	310	9.4	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10
Benzo[a]anthracene	230	D	150	21	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10
Benzo[b]fluoranthene	220	D	150	16	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10
Benzo[k]fluoranthene	93	J D	150	15	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10
Benzo[g,h,i]perylene	130	J D	310	20	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10
Benzo[a]pyrene	160	D	150	6.8	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10
Chrysene	J 280	B D	150	24	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10
Dibenz(a,h)anthracene	130	J D	310	32	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10
Fluoranthene	480	D	310	37	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10
Fluorene	59	J D	310	29	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10
Indeno[1,2,3-cd]pyrene	120	J D	150	12	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10
Naphthalene	480	J D	510	220	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10
Phenanthrene	310U 250	J B D	310	41	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10
Pyrene	390	D	310	28	ug/Kg	☼	07/19/12 09:57	07/24/12 14:28	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*123*	*	*49 - 104*	*07/19/12 09:57*	*07/24/12 14:28*	*10*

Client Sample ID: B2JDR0

Date Collected: 07/11/12 08:55
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-24
Matrix: Solid
Percent Solids: 98.1

Method: 8310 - PAHs (HPLC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	410	J D	510	200	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10
Acenaphthylene	270	U	1000	270	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10
Anthracene	29	J D	310	9.4	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10
Benzo[a]anthracene	150	D	150	21	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10
Benzo[b]fluoranthene	120	J D	150	16	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10
Benzo[k]fluoranthene	56	J D	150	15	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10
Benzo[g,h,i]perylene	37	J D	310	20	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10
Benzo[a]pyrene	71	J D	150	6.8	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10
Chrysene	J 200	B D	150	24	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10
Dibenz(a,h)anthracene	32	U	310	32	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10
Fluoranthene	330	D	310	37	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10
Fluorene	29	U	310	29	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10
Indeno[1,2,3-cd]pyrene	32	J D	150	12	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10
Naphthalene	280	J D	510	220	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10
Phenanthrene	310U 110	J B D	310	41	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10
Pyrene	220	J D	310	28	ug/Kg	☼	07/19/12 09:57	07/24/12 14:57	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*114*	*	*49 - 104*	*07/19/12 09:57*	*07/24/12 14:57*	*10*

EH
08/10/12

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Client Sample ID: B2JDV7

Date Collected: 07/11/12 08:46
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-25
Matrix: Solid
Percent Solids: 97.1

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	20	U	52	20	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1
Acenaphthylene	28	U	100	28	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1
Anthracene	0.95	U	31	0.95	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1
Benzo[a]anthracene	2.1	U	15	2.1	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1
Benzo[b]fluoranthene	1.6	U	15	1.6	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1
Benzo[k]fluoranthene	1.6	U	15	1.6	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1
Benzo[g,h,i]perylene	2.0	U	31	2.0	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1
Benzo[a]pyrene	0.69	U	15	0.69	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1
Chrysene	UJ 2.5	U	15	2.5	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1
Dibenz(a,h)anthracene	3.2	U	31	3.2	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1
Fluoranthene	**5.7**	**J**	31	3.8	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1
Fluorene	2.9	U	31	2.9	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1
Indeno[1,2,3-cd]pyrene	1.2	U	15	1.2	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1
Naphthalene	22	U	52	22	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1
Phenanthrene	4.1	U	31	4.1	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1
Pyrene	2.8	U	31	2.8	ug/Kg	☼	07/19/12 09:57	07/24/12 19:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*79*		*49 - 104*	*07/19/12 09:57*	*07/24/12 19:20*	*1*

Client Sample ID: B2JDN2

Date Collected: 07/11/12 08:34
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-26
Matrix: Solid
Percent Solids: 97.5

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**49**	**J**	51	20	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1
Acenaphthylene	27	U	100	27	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1
Anthracene	0.95	U	31	0.95	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1
Benzo[a]anthracene	**11**	**J**	15	2.1	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1
Benzo[b]fluoranthene	**15**		15	1.6	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1
Benzo[k]fluoranthene	**7.6**	**J**	15	1.5	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1
Benzo[g,h,i]perylene	**18**	**J**	31	2.0	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1
Benzo[a]pyrene	**8.1**	**J**	15	0.68	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1
Chrysene	J **18**	**B**	15	2.5	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1
Dibenz(a,h)anthracene	3.2	U	31	3.2	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1
Fluoranthene	**24**	**J**	31	3.7	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1
Fluorene	2.9	U	31	2.9	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1
Indeno[1,2,3-cd]pyrene	**5.3**	**J**	15	1.2	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1
Naphthalene	**23**	**J**	51	22	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1
Phenanthrene	31U **9.6**	**J B**	31	4.1	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1
Pyrene	**19**	**J**	31	2.8	ug/Kg	☼	07/19/12 09:57	07/24/12 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*80*		*49 - 104*	*07/19/12 09:57*	*07/24/12 19:49*	*1*

EH
08/10/12

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Client Sample ID: B2JDN5

Date Collected: 07/11/12 08:38
Date Received: 07/17/12 09:20

Lab Sample ID: 160-305-27
Matrix: Solid
Percent Solids: 96.4

Method: 8310 - PAHs (HPLC)

Analyte		Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene		20	U	52	20	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1
Acenaphthylene		28	U	100	28	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1
Anthracene		0.96	U	31	0.96	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1
Benzo[a]anthracene		2.1	U	16	2.1	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1
Benzo[b]fluoranthene		1.6	U	16	1.6	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1
Benzo[k]fluoranthene		1.6	U	16	1.6	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1
Benzo[g,h,i]perylene		2.1	U	31	2.1	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1
Benzo[a]pyrene		**1.0**	**J**	16	0.69	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1
Chrysene	UJ	2.5	U	16	2.5	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1
Dibenz(a,h)anthracene		3.2	U	31	3.2	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1
Fluoranthene		**4.5**	**J**	31	3.8	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1
Fluorene		3.0	U	31	3.0	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1
Indeno[1,2,3-cd]pyrene		1.2	U	16	1.2	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1
Naphthalene		23	U	52	23	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1
Phenanthrene	31U	**5.5**	**J B**	31	4.2	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1
Pyrene		2.8	U	31	2.8	ug/Kg	☼	07/19/12 09:57	07/24/12 20:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*77*		*49 - 104*	*07/19/12 09:57*	*07/24/12 20:18*	*1*

Client Sample ID: B2JDJ3

Date Collected: 07/17/12 13:55
Date Received: 07/19/12 09:30

Lab Sample ID: 160-315-1
Matrix: Solid
Percent Solids: 96.4

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	20	U	52	20	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1
Acenaphthylene	28	U	100	28	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1
Anthracene	0.96	U	31	0.96	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1
Benzo[a]anthracene	**3.6**	**J**	16	2.1	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1
Benzo[b]fluoranthene	**4.1**	**J**	16	1.6	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1
Benzo[k]fluoranthene	**2.5**	**J**	16	1.6	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1
Benzo[g,h,i]perylene	2.0	U	31	2.0	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1
Benzo[a]pyrene	**2.9**	**J**	16	0.69	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1
Chrysene	**6.5**	**J**	16	2.5	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1
Dibenz(a,h)anthracene	3.2	U	31	3.2	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1
Fluoranthene	**8.2**	**J**	31	3.8	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1
Fluorene	3.0	U	31	3.0	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1
Indeno[1,2,3-cd]pyrene	**2.2**	**J**	16	1.2	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1
Naphthalene	23	U	52	23	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1
Phenanthrene	**4.9**	**J**	31	4.1	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1
Pyrene	**7.8**	**J**	31	2.8	ug/Kg	☼	07/24/12 09:37	07/25/12 11:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*68*		*49 - 104*	*07/24/12 09:37*	*07/25/12 11:39*	*1*

EH
08/10/12

Client Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Client Sample ID: B2JDK8

Date Collected: 07/17/12 13:08
Date Received: 07/19/12 09:30

Lab Sample ID: 160-315-2
Matrix: Solid
Percent Solids: 97.3

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	32	J	51	20	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1
Acenaphthylene	27	U	100	27	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1
Anthracene	0.95	U	31	0.95	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1
Benzo[a]anthracene	6.4	J	15	2.1	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1
Benzo[b]fluoranthene	9.0	J	15	1.6	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1
Benzo[k]fluoranthene	3.6	J	15	1.6	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1
Benzo[g,h,i]perylene	3.6	J	31	2.0	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1
Benzo[a]pyrene	4.7	J	15	0.69	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1
Chrysene	9.6	J	15	2.5	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1
Dibenz(a,h)anthracene	4.2	J	31	3.2	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1
Fluoranthene	13	J	31	3.8	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1
Fluorene	2.9	U	31	2.9	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1
Indeno[1,2,3-cd]pyrene	3.4	J	15	1.2	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1
Naphthalene	22	U	51	22	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1
Phenanthrene	6.2	J	31	4.1	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1
Pyrene	8.5	J	31	2.8	ug/Kg	☼	07/24/12 09:37	07/25/12 13:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*78*		*49 - 104*	*07/24/12 09:37*	*07/25/12 13:06*	*1*

Client Sample ID: B2JF45

Date Collected: 07/17/12 12:50
Date Received: 07/19/12 09:30

Lab Sample ID: 160-315-3
Matrix: Solid
Percent Solids: 100.0

Method: 8310 - PAHs (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	19	U	50	19	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1
Acenaphthylene	27	U	100	27	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1
Anthracene	0.92	U	30	0.92	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1
Benzo[a]anthracene	2.1	U	15	2.1	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1
Benzo[b]fluoranthene	1.6	U	15	1.6	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1
Benzo[k]fluoranthene	1.5	U	15	1.5	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1
Benzo[g,h,i]perylene	2.0	U	30	2.0	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1
Benzo[a]pyrene	0.67	U	15	0.67	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1
Chrysene	2.4	U	15	2.4	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1
Dibenz(a,h)anthracene	3.1	U	30	3.1	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1
Fluoranthene	3.7	U	30	3.7	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1
Fluorene	2.9	U	30	2.9	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1
Indeno[1,2,3-cd]pyrene	1.2	U	15	1.2	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1
Naphthalene	22	U	50	22	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1
Phenanthrene	4.0	U	30	4.0	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1
Pyrene	2.7	U	30	2.7	ug/Kg	☼	07/24/12 09:37	07/25/12 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*79*		*49 - 104*	*07/24/12 09:37*	*07/25/12 13:35*	*1*

Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CASE NARRATIVE

CH2MHill Plateau Remediation Company
P.O. Box 1600
MS B3-60
Richland, Washington 99352
July 10, 2012
Attention: Scot Fitzgerald

TestAmerica Laboratories, Inc.

SDG	: SL1277
Number of Samples	: sample
Sample Matrix	: Soil
Data Deliverable	: Summary
Date SDG Closed	: March 26, 2012

II. Introduction

On June 26, 2012, a soil sample was received by TestAmerica - St. Louis for chemical analysis. The sample was received within temperature criteria. See the COC and CUR forms for documentation of any variations on receipt conditions and temperature. Upon receipt, samples are given laboratory Ids to correspond with specific client Ids. Please refer to the Sample Summary sheets attached to this case narrative. This report is incomplete without the narrative.

The following SAFs are associated with this SDG: F12-005

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. All results are based upon samples as they were received, i.e. wet weight, unless otherwise noted on the data sheets. See the attached Methods Summary Form for the methods used in this SDG.

MS/MSD/Dup analysis was done per the client requirements. Analytical batches that did not contain matrix QC were analyzed with a LCS/LCS duplicate.

Deviation from Request: None

IV. Definitions

QCBLK-	Quality Control Blank, Method Blank
QCLCS-	Quality Control Laboratory Control Sample, Blank Spike
DUP-	Laboratory Duplicate
MS-	Matrix Spike
MSD-	Matrix Spike Duplicate

The term "Detection Limit" used in the analytical data report refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

13715 Rider Trail North Earth City, MO 63045 **tel** 314.298.8566 **fax** 314.298.8757 **www.testamericainc.com**

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CH2M Hill Plateau Remediation Company
July 10, 2012
SDG: SL1277

TestAmerica Laboratories, Inc.

The following data qualifiers may be applicable to the results in this report, as appropriate.

- **B** – For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- **B** – For organic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **J** – For organic analyses, the sample is estimated and less than the RL.
- **C** – For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **D** – For all analyses, the sample result was obtained from the analysis of a dilution.
- **N** – For inorganics and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- **T** – For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.

PAHs

Batch: 2180125

The sample was analyzed at a dilution due to the presence of matrix interferences. This sample was extremely cloudy and was brown. The reporting limit has been adjusted for the dilution. The analytes have been qualified accordingly with a "D" flag in the associated sample.
Affected Samples:
F2F260419 (1): B2JDD9

The MS/MSD recoveries for many targets are outside the established QC limits. The RPD values are not within method acceptance criteria. Matrix interference is physically evident in the sample. This sample was extremely cloudy and brown. Method performance is demonstrated by acceptable LCS recovery. The analytes have been qualified accordingly with an "N" flag in the associated sample.
Affected Samples:
F2F260419 (1): B2JDD9

Sample Surrogate recovery (111%) is outside established QC limits (104%). This excursion is attributed to a matrix interference which is physically evident in the sample. This sample was extremely cloudy and brown.
Affected Samples:
F2F260419 (1): B2JDD9

The Surrogate recovery (120%) for the MS and MSD is outside the established upper QC limit (104%). Matrix interference is physically evident in the sample. This sample was extremely cloudy and brown. Method performance is demonstrated by acceptable LCS recovery.
Affected Samples:
F2F260419 (1): B2JDD9

There were no observations or nonconformances for the following methods: Percent Moisture

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CH2M Hill Plateau Remediation Company

July 10, 2012

SDG: SL1277

TestAmerica Laboratories, Inc.

I certify that this Summary Package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

Chenise Y. Lambert-Sykes
St. Louis Project Manager

13715 Rider Trail North Earth City, MO 63045 **tel** 314.298.8566 **fax** 314.298.8757 **www.testamericainc.com**

SL1277

54lbs

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-014	PAGE 1 OF 1
COLLECTOR: Carl 179 Frank Hall	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #5	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005	AIR QUALITY: ☐	15 Days / 15 Days
ICE CHEST NO.: 6/25/12 (N/A) GWS-098	FIELD LOGBOOK NO.: HNF-N-507-25	ACTUAL SAMPLE DEPTH: 0-6"	COA: 302677ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7985 4820 0995 6/25/12		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDD9	SOIL	JUN 18 2012	1016	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: Frank Hall	DATE/TIME: JUN 18 2012 1300	RECEIVED BY/STORED IN: SSU #1	DATE/TIME: JUN 18 2012 1300	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: JUN 25 2012 0815	RECEIVED BY/STORED IN: L.D. Wall CHPRC L.D. Wall	DATE/TIME: JUN 25 2012 0815	
RELINQUISHED BY/REMOVED FROM: L.D. Wall L.D. Wall	DATE/TIME: JUN 25 2012 1400	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:	
RELINQUISHED BY/REMOVED FROM: FED EX	DATE/TIME:	RECEIVED BY/STORED IN: Nicholas Owens	DATE/TIME: 6/26/12 0940	
RELINQUISHED BY/REMOVED FROM:	DATE/TIME:	RECEIVED BY/STORED IN:	DATE/TIME:	
RELINQUISHED BY/REMOVED FROM:	DATE/TIME:	RECEIVED BY/STORED IN:	DATE/TIME:	
RELINQUISHED BY/REMOVED FROM:	DATE/TIME:	RECEIVED BY/STORED IN:	DATE/TIME:	

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CH2MHill Plateau Remediation Company
P.O. Box 1600
MS B3-60
Richland, Washington 99352
July 28, 2012
Attention: Scot Fitzgerald

TestAmerica Laboratories, Inc.

SDG	: SL1285
TASL Job #	:160-305-1
Number of Samples	: thirty samples
Sample Matrix	: Soil
Data Deliverable	: Summary
Date SDG Closed	: July 19, 2012

II. Introduction

From July 17, 2012 to July 19, 2012, thirty soil samples were received by TestAmerica - St. Louis for chemical analysis. The samples were received within temperature criteria. See the COC and CUR forms for documentation of any variations on receipt conditions and temperature. Upon receipt, the samples were given laboratory Ids to correspond with specific client Ids. Please refer to the Sample Summary sheets attached to this case narrative. This report is incomplete without the narrative.

The following SAFs are associated with this SDG: F12-005

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. All results are based upon samples as they were received, i.e. wet weight, unless otherwise noted on the data sheets. See the attached Methods Summary Form for the methods used in this SDG.

MS/MSD/Dup analysis was done per the client requirements. Analytical batches that did not contain matrix QC were analyzed with a LCS/LCS duplicate.

Deviation from Request: None

IV. Definitions

QCBLK-	Quality Control Blank, Method Blank
QCLCS-	Quality Control Laboratory Control Sample, Blank Spike
DUP-	Laboratory Duplicate
MS-	Matrix Spike
MSD-	Matrix Spike Duplicate

The term "Detection Limit" used in the analytical data report refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

The following data qualifiers may be applicable to the results in this report, as appropriate.

- **B** – For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- **B** – For organic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **J** – For organic analyses, the sample is estimated and less than the RL.
- **C** – For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **D** – For all analyses, the sample result was obtained from the analysis of a dilution.
- **N** – For inorganics and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- **T** – For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.

PAH (HPLC)

The following samples were diluted due to the nature of the sample matrix: B2JDM9 (160-305-23), B2JDR0 (160-305-24), B2JDR9 (160-305-22), (160-305-1 MS), (160-305-1 MSD), B2JDH4 (160-305-2), B2JDN8 (160-305-1), B2JDP1 (160-305-14), B2JDP7 (160-305-11), B2JDR6 (160-305-6), B2JDT2 (160-305-7), B2JDV1 (160-305-17). These samples were yellow and had small particles in the extract. Elevated reporting limits (RLs) are provided. The samples have been qualified accordingly with a "D" flag in the associated samples.

The following samples required dilution prior to analysis. The reporting limits have been adjusted accordingly. The analytes have been qualified accordingly with a "D" flag in the associated samples: B2JDN8 (160-305-1)[5X], B2JDH4 (160-305-2)[10X], B2JDR6 (160-305-6)[10X], B2JDT2 (160-305-7)[10X], B2JDP7 (160-305-11)[10X], B2JDP1 (160-305-14)[10X], B2JDV4 (160-305-16)[10X], B2JDV1 (160-305-17)[10X], B2JDR9 (160-305-22)[10X], B2JDM9 (160-305-23)[10X] and B2JDR0 (160-305-24)[10X]

The following sample was diluted to bring the concentration of target analyte Chrysene within the calibration range: B2JDV4 (160-305-16). Elevated reporting limits (RLs) are provided.

Batches: 6945, 6999, 7042

The Method Blank contained Phenanthrene and Anthracene greater than the MDL but less than one-half the reporting limit (RL). The data have been qualified and reported.

Anthracene and Phenanthrene were detected in method blank MB 160-6755/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Chrysene was detected in Method blank MB 160-6761/1-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Phenanthrene was detected in method blank MB 160-6761/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Batch: 7042

The Method Blank contained Chrysene and Phenanthrene just above the MDL and less than one-half the reporting limit (RL). These targets have been reported with a "J" flag. The data have been qualified and reported.

The Surrogate recovery for sample 17 - B2JDV1 (160-305-17), for sample 23 - B2JDM9 (160-305-23) and for sample 24 - B2JDR0 (160-305-24) is outside the upper acceptance limit. There is Chromatographic evidence of interference.

The (MS and/or MSD) recoveries for sample B2JDH7MS (160-305-21) in batch 7042 were outside lower control limits for Chrysene. The MSD recovery was outside upper control limits for Fluoranthene and Phenanthrene .The associated laboratory control sample (LCS) recovery met acceptance criteria. The analytes have been qualified accordingly with an "N" flag in the associated samples.

Batches: 6945, 6999, 7042

The software used to perform the confirmation of hits reviews an overlay of the sample and the reference library spectra. The software evaluates the differences in the spectra and assigns a "match" value. Values above 700 are considered a confirmation and results are reported. There are many target analytes for each of these samples that have a match value below 700 and appear questionable.

For sample 315-1 target analytes Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene and Indeno(123-cd)pyrene appear questionable. For sample 315-2 target analytes Acenaphthene, Benzo(a)anthracene ,Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Benzo(ghi)perylene, Dibenzo(ah)anthracene and Indeno(123-cd)pyrene appear questionable.

The software used to perform the confirmation of hits reviews an overlay of the sample and the reference library spectra. The software evaluates the differences in the spectra and assigns a "match" value. Values above 700 are considered a confirmation and results are reported.

No other difficulties were encountered during the HPLC analyses. No other difficulties were encountered during the HPLC analyses.

All other quality control parameters were within the acceptance limits. All other quality control parameters were within the acceptance limits.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

I certify that this Summary Package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

Chenise Y. Lambert-Sykes
St. Louis Project Manager

SL1285

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-083	PAGE 1 OF 1
COLLECTOR SL1285 John Fulton CUR459	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #28	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS 000	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDN8	SOIL	JUL 11 2012	0941	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

SL1285

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-029	PAGE 1 OF 1
COLLECTOR SL1285 KC Patterson CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #10	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS. 000	FIELD LOGBOOK NO. HNF-N-501-25	ACTUAL SAMPLE DEPTH 0"-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDH4	SOIL	JUL 10 2012	0730	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME JUL 10 2012 1315	RECEIVED BY/STORED IN SSutt	DATE/TIME JUL 10 2012 1315	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM SSutt	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200	
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-047	PAGE 1 OF 1
COLLECTOR SL1285 John Fulton	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #16	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS 000	FIELD LOGBOOK NO. ~~HNF-N-507-~~ 25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDK2	SOIL	JUL 1 1 2012	0958	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 1 1 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 1 1 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 1 6 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 1 6 2012 1200
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 1 6 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-110	PAGE 1 OF 1
COLLECTOR DJ Sparks SL1285 CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #37	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS - 000	FIELD LOGBOOK NO. HNF -N-507- 25	ACTUAL SAMPLE DEPTH 0-6 inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDT5	SOIL	JUN 12 2012	0656	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUN 12 2012 1100	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200	
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-098	PAGE 1 OF 1
COLLECTOR SL1285 John Fulton	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #33	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-000 ~~(N/A)~~ 7-10-12	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDR3	SOIL	JUL 11 2012	0949	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200	
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-101	PAGE 1 OF 1
COLLECTOR DJ Sparks SL1285 CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #34	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GW5-000	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6 inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7837 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDR6	SOIL	JUN 12 2012	0724	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SSLH#1	DATE/TIME JUN 12 2012 1100	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200	
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-107	PAGE 1 OF 1
COLLECTOR SL1285 DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #36	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-000	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0 to inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDT2	SOIL	JUN 12 2012	0707	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUN 12 2012 1100	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200	
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-050	PAGE 1 OF 1
COLLECTOR SL1285 DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #17	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GW5 000	FIELD LOGBOOK NO. HNF-N-507-25.	ACTUAL SAMPLE DEPTH 0-inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993).

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDK5	SOIL	JUN 12 2012	0755	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM DJ Sparks	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUN 12 2012 1100
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-089	PAGE 1 OF 1
COLLECTOR SL1285 John Fulton	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #30	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-000	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7837 8409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDP4	SOIL	JUL 11 2012	0741	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU#1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-203	PAGE 1 OF 1
COLLECTOR SL1285 John Fulton	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #68	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS - 000	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JF48	SOIL	JUL 11 2012	0808	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-092	PAGE 1 OF 1
COLLECTOR SL1285 John Fulton	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #31	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS 000	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or 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
		HOLDING TIME	14/40 Days
		TYPE OF CONTAINER	aG
		NO. OF CONTAINER(S)	1
		VOLUME	250mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDP7	SOIL	JUL 11 2012	0752	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU#1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-041	PAGE 1 OF 1
COLLECTOR DJ Sparks SL1285 CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #14	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GW5 - 000	FIELD LOGBOOK NO. ~~HNF-N-507-~~ 25.	ACTUAL SAMPLE DEPTH 0-6 inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 8409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDJ6	SOIL	JUN 12 2012	0819	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM DJ Sparks	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUN 12 2012 1100	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM ~~CHPRC~~ SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200	
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-188	PAGE 1 OF 1
COLLECTOR SL1285 KC Patterson CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #63	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-066	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0'-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JF33	SOIL	JUL 10 2012	0750	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME JUL 10 2012 1315	RECEIVED BY/STORED IN SSmith	DATE/TIME JUL 10 2012 1315	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM SSmith	DATE/TIME JUL 16 2012 1100	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 16 2012 1100	
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200	
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-086	PAGE 1 OF 1
COLLECTOR RC Patterson SL1285 CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #29	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS - 000	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0'-6'	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 8409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDP1	SOIL	JUL 10 2012	0746	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM RC Patterson CHPRC	DATE/TIME JUL 10 2012 1315	RECEIVED BY/STORED IN SSu#1	DATE/TIME JUL 10 2012 1315	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM SSu#1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200	
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

SL1285

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-044	PAGE 1 OF 1
COLLECTOR SL1285 KC Patterson CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #15	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS 000	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0'-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDJ9	SOIL	JUL 10 2012	0750	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME JUL 10 2012 1315	RECEIVED BY/STORED IN SSWH1	DATE/TIME JUL 10 2012 1315
RELINQUISHED BY/REMOVED FROM SSWH1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-119	PAGE 1 OF 1
COLLECTOR SL1285 John Fulton	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #40	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-000	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDV4	SOIL	JUL 11 2012	0803	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-116	PAGE 1 OF 1
COLLECTOR SL1285 DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #39	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS - 000	FIELD LOGBOOK NO. HNF -N-507-25	ACTUAL SAMPLE DEPTH 0-6 inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDV1	SOIL	JUN 12 2012	0714	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUN 12 2012 1100	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200	
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-191	PAGE 1 OF 1
COLLECTOR SL1285 John Fulton	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #64	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS - 062	FIELD LOGBOOK NO. -N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7837 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JF36	SOIL	JUL 11 2012	0855	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-113	PAGE 1 OF 1
COLLECTOR DJ Sparks SL1285 CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #38	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS - 000	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6 inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDT8	SOIL	JUN 12 2012	0731	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SL#1	DATE/TIME JUN 12 2012 1100
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/12/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-035	PAGE 1 OF 1
COLLECTOR KC Patterson SL1285 CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #12	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS 000	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0"-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDJ0	SOIL	JUL 10 2012	0923	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME JUL 10 2012 1315	RECEIVED BY/STORED IN SSwift	DATE/TIME JUL 10 2012 1315	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM SSwift	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200	
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 092	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

SL1285

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-032	PAGE 1 OF 1
COLLECTOR KC Patterson SL1285 CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #11	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS 600	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0"-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 8409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
2B2JDH7	SOIL	JUL 1 0 2012	0915	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME JUL 1 0 2012	RECEIVED BY/STORED IN SSW#1	DATE/TIME JUL 1 0 2012	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM SSW#1	DATE/TIME JUL 1 6 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 1 6 2012 1200	
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 1 6 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

SL1285

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-104	PAGE 1 OF 1
COLLECTOR SL1285 DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #35	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS - 000	FIELD LOGBOOK NO. HNF -~~N 507~~-25-	ACTUAL SAMPLE DEPTH 0-6 inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDR9	SOIL	JUN 12 2012	0701	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUN 12 2012 1100	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200	
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/17/12 0920	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-074	PAGE 1 OF 1
COLLECTOR SL1285 John Fulton	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #25	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS -000	FIELD LOGBOOK NO. HNF -N-507- 25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDM9	SOIL	JUL 11 2012	0828	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN Nicholas Owens	DATE/TIME 7/17/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-095	PAGE 1 OF 1
COLLECTOR SL1285 John Fulton	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #32	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-000	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDR0	SOIL	JUL 11 2012	0855	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 8/1/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-122	PAGE 1 OF 1
COLLECTOR SL1285 John Fulton	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #41	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS - 000	FIELD LOGBOOK NO. HNF -N-507- 25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDV7	SOIL	JUL 11 2012	0846	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSWHI	DATE/TIME JUL 11 2012 1430	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM SSWHI	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200	
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS BARRETT	DATE/TIME 7/17/12 0920	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-077	PAGE 1 OF 1
COLLECTOR SL1285 John Fulton	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #26	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS - 000	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 8409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
9B2JDN2	SOIL	JUL 11 2012	0834	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1495	RECEIVED BY/STORED IN SSU #1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU #1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN Nicholas Dubois	DATE/TIME 7/17/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-080	PAGE 1 OF 1
COLLECTOR SL1285 John Fulton	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #27	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GW0-000	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR 7937 9409 5341		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDN5	SOIL	JUL 11 2012	1638	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1200	RECEIVED BY/STORED IN Randy Ellingsworth	DATE/TIME JUL 16 2012 1200
RELINQUISHED BY/REMOVED FROM Randy Ellingsworth	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS BARNES	DATE/TIME 7/17/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

SL1285

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-038	PAGE 1 OF 1
COLLECTOR: DJ Sparks CUR168	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #13	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005	AIR QUALITY: ☐	
ICE CHEST NO.: GWS 150	FIELD LOGBOOK NO.: HNF -N-507-2	ACTUAL SAMPLE DEPTH: 0-6"	COA: 302677ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: SEE PTR 7938 0380 9772		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDJ3	SOIL	JUL 17 2012	1355	Y

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks	JUL 17 2012 1515	SSuth	JUL 17 2012 1515
SSuth	JUL 18 2012 0730	ARMSutton	JUL 18 2012 0730
ARMSutton	JUL 18 2012 1400	ARM	JUL 18 2012 7/18/12
ARMSutton 7/18/12	ARM	FED EX	
FEDEX		Nicholas Owens	7/19/12 0930

SPECIAL INSTRUCTIONS
The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

SL1285

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-053	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #18	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS 150	FIELD LOGBOOK NO. NF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7938 0380 9772		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C
HOLDING TIME	14/40 Days
TYPE OF CONTAINER	aG
NO. OF CONTAINER(S)	1
VOLUME	250mL
SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDK8	SOIL	JUL 17 2012	1328	X

CHAIN OF POSSESSION	SIGN/ PRINT NAMES		
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUL 17 2012 1515	RECEIVED BY/STORED IN	DATE/TIME JUL 17 2012 1515
RELINQUISHED BY/REMOVED FROM	DATE/TIME 7.18.12 0730	RECEIVED BY/STORED IN ARMSTRONG	DATE/TIME 7.18.12 0730
RELINQUISHED BY/REMOVED FROM ARMSTRONG	DATE/TIME 7.18.12 1900	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS OWENS	DATE/TIME 7/19/12 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

SL1285

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-200	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #67	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS 150	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH NA	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7938 0380 9772		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or 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
		HOLDING TIME	14/40 Days
		TYPE OF CONTAINER	aG
		NO. OF CONTAINER(S)	1
		VOLUME	250mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	PAHs - 8310;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JF45	SOIL	JUL 17 2012	1250	

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUL 17 2012 1515	RECEIVED BY/STORED IN	DATE/TIME JUL 17 2012 1515	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
RELINQUISHED BY/REMOVED FROM	DATE/TIME 7-18-12 0730	RECEIVED BY/STORED IN AFM Lutyre	DATE/TIME 7.18.12 0730	
RELINQUISHED BY/REMOVED FROM AFM Lutyre	DATE/TIME 7.18.12 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FEDEX	DATE/TIME	RECEIVED BY/STORED IN NICHOLAS DOUGLAS	DATE/TIME 7/19/12 0930	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Appendix 5

Data Validation Supporting Documentation

VALIDATION LEVEL:	A	B	C	D	E
PROJECT: 100-K			DATA PACKAGE: VSR12-021		
VALIDATOR: Eyda Hergenreder		LAB: TestAmerica		DATE: 08-10-2012	
			SDG: SL1277, SL1285		
ANALYSES PERFORMED					
SW-846 8081	SW-846 8081 (TCLP)	SW-846 8082	SW-846 8081 (TCLP)	SW-846 8310 X	

SAMPLES/MATRIX Soil samples

SDG SL1277: B2JDD9

SDG SL1285: B2JDN8, B2JDH4, B2JDK2, B2JDT5, B2JDR3, B2JDR6, B2JDT2, B2JDK5, B2JDP4, B2JF48, B2JDP7, B2JDJ6, B2JF33, B2JDP1, B2JDJ9, B2JDV4, B2JDV1, B2JF36, B2JDT8, B2JDJ0, B2JDH7, B2JDR9, B2JDM9, B2JDR0, B2JDV7, B2JDN2, B2JDN5, B2JDJ3, B2JDK8, B2JF45

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present? ..... Yes (No) N/A

Comments: None

2. INSTRUMENT PERFORMANCE AND CALIBRATIONS (Levels D and E)

Initial calibrations acceptable? ..... Yes No N/A

Continuing calibrations acceptable? ..... Yes No N/A

Standards traceable? ..... Yes No N/A

Standards expired? ..... Yes No N/A

Calculation check acceptable? ..... Yes No N/A

DDT and endrin breakdowns acceptable? ..... Yes No N/A

Comments:

3. BLANKS (Levels B, C, D, and E)

Calibration blanks analyzed? (Levels D, E) ..... Yes No N/A

Calibration blank results acceptable? (Levels D, E) ..... Yes No N/A

Laboratory blanks analyzed? ..... Yes No N/A

Laboratory blank results acceptable? ..... Yes No N/A

Field/trip blanks analyzed? (Levels C, D, E) ..... Yes No N/A

Field/trip blank results acceptable? (Levels C, D, E) ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Comments:

SDG SL1285:
batch 6945: anthracene 1.85 ug/kg; phenanthrene 5.45 ug/kg
batch 7042: chrysene 4.36 ug/kg; phenanthrene 4.22 ug/kg

4. ACCURACY (Levels C, D, and E)

Surrogates analyzed? ..... Yes No N/A

Surrogate recoveries acceptable? ..... Yes No N/A

Surrogates traceable? (Levels D, E) ..... Yes No N/A

Surrogates expired? (Levels D, E) ..... Yes No N/A

MS/MSD samples analyzed? ..... Yes No N/A

MS/MSD results acceptable? ..... Yes No N/A

MS/MSD standards NIST traceable? (Levels D, E) ..... Yes No N/A

MS/MSD standards expired? (Levels D, E) ..... Yes No N/A

LCS/BSS samples analyzed? ..... Yes No N/A

LCS/BSS results acceptable? ..... Yes No N/A

Standards traceable? (Levels D, E) ..... Yes No N/A

Standards expired? (Levels D, E) ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Performance audit sample(s) analyzed? ..... Yes No N/A

Performance audit sample results acceptable? ..... Yes No N/A

Comments:
Surrogates information:
SDG SL1285: surrogate p-terphenyl-d14 B2JDV1 192%

MS/MSD information
SDG SL1277: chrysene MSD%R 314%; benzo(a)anthracene MSD%R 270%;
benzo(b)fluoranthene MSD%R 169%; benzo(k)fluroanthene MS/MSDD%Rs 124%/197%;
benzo(a)pyrene MS/MSD%Rs 121%/218%; indeno(1,2,3-cd)pyrene MS/MSD%Rs 135%/179%;
naphthalene MSD%R 102%; acenaphthene MS%R 122%; fluorene MSD%R 100%;
phenanthrene MSD%R 167%; anthracene MSD%R 128%; fluroanthene MSD%R 161%;
pyrene MSD%R 362%; dibenz(ah)anthracene MS/MSD%Rs 119%/154%;
benzo(ghi)perylene MS/MSD%Rs 125%/154%
SDG SL1285: (batch 7042): chyrsene MS%R 40%;

5. PRECISION (Levels C, D, and E)

Duplicate RPD values acceptable?.....Yes No N/A

Duplicate results acceptable?..... Yes No N/A

MS/MSD standards NIST traceable? (Levels D, E)..... Yes No N/A

MS/MSD standards expired? (Levels D, E)..... Yes No N/A

Field duplicate RPD values acceptable?..... Yes No N/A

Field split RPD values acceptable?..... Yes No N/A

Transcription/calculation errors? (Levels D, E)..... Yes No N/A

Comments:

SDG SL1277: MS/MSD RPD: chrysene 64%; benzo(a)anthracene 59%; benzo(a)pyrene 58%; pyrene 76%

Field duplicate samples B2JDR0/B2JF36: results for sample B2JDR0 were based on 10X dilution and results for sample B2JF36 were based on 1X dilution

6. SYSTEM PERFORMANCE (Levels D and E)

Chromatographic performance acceptable?..... Yes No N/A

Positive results resolved acceptably?..... Yes No N/A

Comments:

7. HOLDING TIMES (all levels)

Samples properly preserved? ..... Yes No N/A

Sample holding times acceptable? ..... Yes No N/A

Comments:

8. COMPOUND IDENTIFICATION, QUANTITATION, AND DETECTION LIMITS (all levels)

Compound identification acceptable? (Levels D, E) ..... Yes No N/A

Compound quantitation acceptable? (Levels D, E) ..... Yes No N/A

Results reported for all requested analyses? ..... Yes No N/A

Results supported in the raw data? (Levels D, E) ..... Yes No N/A

Samples properly prepared? (Levels D, E) ..... Yes No N/A

Detection limits meet RDL? ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Comments:

All MDL for non-detects were > required DL.

9. SAMPLE CLEANUP (Levels D and E)

Fluorisil ® (or other absorbent) cleanup performed? ..... Yes No N/A

Lot check performed? ..... Yes No N/A

Check recoveries acceptable? ..... Yes No N/A

GPC cleanup performed? ..... Yes No N/A

GPC check performed? ..... Yes No N/A

GPC check recoveries acceptable? ..... Yes No N/A

GPC calibration performed? ..... Yes No N/A

GPC calibration check performed? ..... Yes No N/A

GPC calibration check retention times acceptable? ..... Yes No N/A

Check/calibration materials traceable? ..... Yes No N/A

Check/calibration materials Expired? ..... Yes No N/A

Analytical batch QC given similar cleanup? ..... Yes No N/A

Transcription/Calculation Errors? ..... Yes No N/A

Comments:

Comments:

More

Appendix 6

Additional Documentation Requested By Client

METHOD BLANK REPORT

HPLC

Client Lot #...: SL1277 **Work Order #...:** MVDCX1AA **Matrix.....:** SOLID
MB Lot-Sample #: F2F280000-125

Prep Date.....: 06/28/12
Analysis Date..: 07/06/12 **Prep Batch #...:** 2180125
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	50	ug/kg	SW846 8310
Acenaphthylene	ND	100	ug/kg	SW846 8310
Anthracene	ND	30	ug/kg	SW846 8310
Benzo(a)anthracene	ND	15	ug/kg	SW846 8310
Benzo(b)fluoranthene	ND	15	ug/kg	SW846 8310
Benzo(k)fluoranthene	ND	15	ug/kg	SW846 8310
Benzo(ghi)perylene	ND	30	ug/kg	SW846 8310
Benzo(a)pyrene	ND	15	ug/kg	SW846 8310
Chrysene	ND	15	ug/kg	SW846 8310
Dibenz(a,h)anthracene	ND	30	ug/kg	SW846 8310
Fluoranthene	ND	30	ug/kg	SW846 8310
Fluorene	ND	30	ug/kg	SW846 8310
Indeno(1,2,3-cd)pyrene	ND	15	ug/kg	SW846 8310
Naphthalene	ND	50	ug/kg	SW846 8310
Phenanthrene	ND	30	ug/kg	SW846 8310
Pyrene	ND	30	ug/kg	SW846 8310

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
p-Terphenyl	91	(49 - 104)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: SL1277 **Work Order #...:** MVDCX1AC **Matrix.....:** SOLID
LCS Lot-Sample#: F2F280000-125
Prep Date.....: 06/28/12 **Analysis Date..:** 07/06/12
Prep Batch #...: 2180125
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Chrysene	66.7	58.0	ug/kg	87	SW846 8310
Benzo(a)anthracene	66.7	59.1	ug/kg	89	SW846 8310
Benzo(b)fluoranthene	133	118	ug/kg	89	SW846 8310
Benzo(k)fluoranthene	66.7	59.4	ug/kg	89	SW846 8310
Benzo(a)pyrene	66.7	57.5	ug/kg	86	SW846 8310
Indeno(1,2,3-cd)pyrene	66.7	58.1	ug/kg	87	SW846 8310
Naphthalene	667	559	ug/kg	84	SW846 8310
Acenaphthylene	1330	1130	ug/kg	84	SW846 8310
Acenaphthene	667	569	ug/kg	85	SW846 8310
Fluorene	133	114	ug/kg	86	SW846 8310
Phenanthrene	66.7	57.1	ug/kg	86	SW846 8310
Anthracene	66.7	58.4	ug/kg	88	SW846 8310
Fluoranthene	133	114	ug/kg	86	SW846 8310
Pyrene	66.7	57.9	ug/kg	87	SW846 8310
Dibenz(a,h)anthracene	133	118	ug/kg	88	SW846 8310
Benzo(ghi)perylene	133	116	ug/kg	87	SW846 8310

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
p-Terphenyl	91	(65 - 98)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: SL1277 **Work Order #...:** MVARR1AE-MS **Matrix.....:** SOLID
MS Lot-Sample #: F2F260419-001 MVARR1AF-MSD
Date Sampled...: 06/18/12 **Date Received..:** 06/26/12
Prep Date.....: 06/28/12 **Analysis Date..:** 07/06/12
Prep Batch #...: 2180125
Dilution Factor: 20 **% Moisture.....:** 4.4

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Chrysene	94	69.8	162	ug/kg	98		SW846 8310
	94	69.3	313	ug/kg	317	64	SW846 8310
		Qualifiers:	N				
Benzo(a)anthracene	57	69.8	133	ug/kg	109		SW846 8310
	57	69.3	244	ug/kg	270	59	SW846 8310
		Qualifiers:	N				
Benzo(b)fluoranthene	67	140	186	ug/kg	85		SW846 8310
	67	139	301	ug/kg	169	47	SW846 8310
		Qualifiers:	N				
Benzo(k)fluoranthene	ND	69.8	86.2	ug/kg	124		SW846 8310
		Qualifiers:	N				
	ND	69.3	136	ug/kg	197	45	SW846 8310
		Qualifiers:	N				
Benzo(a)pyrene	50	69.8	134	ug/kg	121		SW846 8310
		Qualifiers:	N				
	50	69.3	244	ug/kg	281	58	SW846 8310
		Qualifiers:	N				
Indeno(1,2,3-cd)pyrene	ND	69.8	94.3	ug/kg	135		SW846 8310
		Qualifiers:	N				
	ND	69.3	124	ug/kg	179	27	SW846 8310
		Qualifiers:	N				
Naphthalene	ND	698	605	ug/kg	87		SW846 8310
	ND	693	708	ug/kg	102	16	SW846 8310
		Qualifiers:	N				
Acenaphthylene	ND	1400	1220	ug/kg	87		SW846 8310
	ND	1390	1310	ug/kg	95	7.2	SW846 8310
Acenaphthene	ND	698	853	ug/kg	122		SW846 8310
		Qualifiers:	N				
	ND	693	737	ug/kg	106	15	SW846 8310
Fluorene	ND	140	126	ug/kg	91		SW846 8310
	ND	139	138	ug/kg	100	8.9	SW846 8310
		Qualifiers:	N				
Phenanthrene	ND	69.8		ug/kg	118		SW846 8310
		Qualifiers:	N				
	ND	69.3	116	ug/kg	167	34	SW846 8310
		Qualifiers:	N				
Anthracene	ND	69.8	71.5	ug/kg	103		SW846 8310
	ND	69.3	88.4	ug/kg	128	21	SW846 8310
		Qualifiers:	N				

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: SL1277 **Work Order #...:** MVARR1AE-MS **Matrix.....:** SOLID
MS Lot-Sample #: F2F260419-001 MVARR1AF-MSD

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Fluoranthene	95	140	205	ug/kg	79		SW846 8310
	95	139	317	ug/kg	161	43	SW846 8310
	Qualifiers:		N				
Pyrene	120	69.8	169	ug/kg	65		SW846 8310
	120	69.3	374	ug/kg	362	76	SW846 8310
	Qualifiers:		N				
Dibenz(a,h)anthracene	ND	140	167	ug/kg	119		SW846 8310
	Qualifiers:		N				
	ND	139	213	ug/kg	154	24	SW846 8310
	Qualifiers:		N				
Benzo(ghi)perylene	ND	140	175	ug/kg	125		SW846 8310
	Qualifiers:		N				
	ND	139	192	ug/kg	138	9.2	SW846 8310
	Qualifiers:		N				

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
p-Terphenyl	114 *	(49 - 104)
	121 *	(49 - 104)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

* Surrogate recovery is outside stated control limits.

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

HPLC/IC

Prep Batch: 6755

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-305-1 - DL	B2JDN8	Total/NA	Solid	3550C	
160-305-1 MS - DL	B2JDN8	Total/NA	Solid	3550C	
160-305-1 MSD - DL	B2JDN8	Total/NA	Solid	3550C	
160-305-2 - DL	B2JDH4	Total/NA	Solid	3550C	
160-305-3	B2JDK2	Total/NA	Solid	3550C	
160-305-4	B2JDT5	Total/NA	Solid	3550C	
160-305-5	B2JDR3	Total/NA	Solid	3550C	
160-305-6 - DL	B2JDR6	Total/NA	Solid	3550C	
160-305-7 - DL	B2JDT2	Total/NA	Solid	3550C	
160-305-8	B2JDK5	Total/NA	Solid	3550C	
160-305-9	B2JDP4	Total/NA	Solid	3550C	
160-305-10	B2JF48	Total/NA	Solid	3550C	
160-305-11 - DL	B2JDP7	Total/NA	Solid	3550C	
160-305-12	B2JDJ6	Total/NA	Solid	3550C	
160-305-13	B2JF33	Total/NA	Solid	3550C	
160-305-14 - DL	B2JDP1	Total/NA	Solid	3550C	
160-305-15	B2JDJ9	Total/NA	Solid	3550C	
160-305-16 - DL	B2JDV4	Total/NA	Solid	3550C	
160-305-16	B2JDV4	Total/NA	Solid	3550C	
160-305-17 - DL	B2JDV1	Total/NA	Solid	3550C	
160-305-18	B2JF36	Total/NA	Solid	3550C	
160-305-19	B2JDT8	Total/NA	Solid	3550C	
160-305-20	B2JDJ0	Total/NA	Solid	3550C	
LCS 160-6755/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 160-6755/1-A	Method Blank	Total/NA	Solid	3550C	

Prep Batch: 6761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-305-21	B2JDH7	Total/NA	Solid	3550C	
160-305-21 MS	B2JDH7	Total/NA	Solid	3550C	
160-305-21 MSD	B2JDH7	Total/NA	Solid	3550C	
160-305-22 - DL	B2JDR9	Total/NA	Solid	3550C	
160-305-23 - DL	B2JDM9	Total/NA	Solid	3550C	
160-305-24 - DL	B2JDR0	Total/NA	Solid	3550C	
160-305-25	B2JDV7	Total/NA	Solid	3550C	
160-305-26	B2JDN2	Total/NA	Solid	3550C	
160-305-27	B2JDN5	Total/NA	Solid	3550C	
LCS 160-6761/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 160-6761/1-A	Method Blank	Total/NA	Solid	3550C	

Analysis Batch: 6945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-305-2 - DL	B2JDH4	Total/NA	Solid	8310	6755
160-305-6 - DL	B2JDR6	Total/NA	Solid	8310	6755
160-305-7 - DL	B2JDT2	Total/NA	Solid	8310	6755
160-305-11 - DL	B2JDP7	Total/NA	Solid	8310	6755
160-305-14 - DL	B2JDP1	Total/NA	Solid	8310	6755
160-305-17 - DL	B2JDV1	Total/NA	Solid	8310	6755
LCS 160-6755/2-A	Lab Control Sample	Total/NA	Solid	8310	6755
MB 160-6755/1-A	Method Blank	Total/NA	Solid	8310	6755

QC Association Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

HPLC/IC (Continued)

Analysis Batch: 6999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-305-1 - DL	B2JDN8	Total/NA	Solid	8310	6755
160-305-1 MS - DL	B2JDN8	Total/NA	Solid	8310	6755
160-305-1 MSD - DL	B2JDN8	Total/NA	Solid	8310	6755
160-305-3	B2JDK2	Total/NA	Solid	8310	6755
160-305-4	B2JDT5	Total/NA	Solid	8310	6755
160-305-5	B2JDR3	Total/NA	Solid	8310	6755
160-305-8	B2JDK5	Total/NA	Solid	8310	6755
160-305-9	B2JDP4	Total/NA	Solid	8310	6755
160-305-10	B2JF48	Total/NA	Solid	8310	6755
160-305-12	B2JDJ6	Total/NA	Solid	8310	6755

Analysis Batch: 7042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-305-13	B2JF33	Total/NA	Solid	8310	6755
160-305-15	B2JDJ9	Total/NA	Solid	8310	6755
160-305-16 - DL	B2JDV4	Total/NA	Solid	8310	6755
160-305-16	B2JDV4	Total/NA	Solid	8310	6755
160-305-18	B2JF36	Total/NA	Solid	8310	6755
160-305-19	B2JDT8	Total/NA	Solid	8310	6755
160-305-20	B2JDJ0	Total/NA	Solid	8310	6755
160-305-21	B2JDH7	Total/NA	Solid	8310	6761
160-305-21 MS	B2JDH7	Total/NA	Solid	8310	6761
160-305-21 MSD	B2JDH7	Total/NA	Solid	8310	6761
160-305-22 - DL	B2JDR9	Total/NA	Solid	8310	6761
160-305-23 - DL	B2JDM9	Total/NA	Solid	8310	6761
160-305-24 - DL	B2JDR0	Total/NA	Solid	8310	6761
160-305-25	B2JDV7	Total/NA	Solid	8310	6761
160-305-26	B2JDN2	Total/NA	Solid	8310	6761
160-305-27	B2JDN5	Total/NA	Solid	8310	6761
LCS 160-6761/2-A	Lab Control Sample	Total/NA	Solid	8310	6761
MB 160-6761/1-A	Method Blank	Total/NA	Solid	8310	6761

Prep Batch: 7045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-315-1	B2JDJ3	Total/NA	Solid	3550C	
160-315-1 MS	B2JDJ3	Total/NA	Solid	3550C	
160-315-1 MSD	B2JDJ3	Total/NA	Solid	3550C	
160-315-2	B2JDK8	Total/NA	Solid	3550C	
160-315-3	B2JF45	Total/NA	Solid	3550C	
LCS 160-7045/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 160-7045/1-A	Method Blank	Total/NA	Solid	3550C	

Analysis Batch: 7391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-315-1	B2JDJ3	Total/NA	Solid	8310	7045
160-315-1 MS	B2JDJ3	Total/NA	Solid	8310	7045
160-315-1 MSD	B2JDJ3	Total/NA	Solid	8310	7045
160-315-2	B2JDK8	Total/NA	Solid	8310	7045
160-315-3	B2JF45	Total/NA	Solid	8310	7045
LCS 160-7045/2-A	Lab Control Sample	Total/NA	Solid	8310	7045
MB 160-7045/1-A	Method Blank	Total/NA	Solid	8310	7045

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Method: 8310 - PAHs (HPLC)

Lab Sample ID: MB 160-6755/1-A
Matrix: Solid
Analysis Batch: 6945

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6755

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	19	U	50	19	ug/Kg		07/19/12 09:10	07/20/12 18:52	1
Acenaphthylene	27	U	100	27	ug/Kg		07/19/12 09:10	07/20/12 18:52	1
Anthracene	1.85	J	30	0.92	ug/Kg		07/19/12 09:10	07/20/12 18:52	1
Benzo[a]anthracene	2.1	U	15	2.1	ug/Kg		07/19/12 09:10	07/20/12 18:52	1
Benzo[b]fluoranthene	1.6	U	15	1.6	ug/Kg		07/19/12 09:10	07/20/12 18:52	1
Benzo[k]fluoranthene	1.5	U	15	1.5	ug/Kg		07/19/12 09:10	07/20/12 18:52	1
Benzo[g,h,i]perylene	2.0	U	30	2.0	ug/Kg		07/19/12 09:10	07/20/12 18:52	1
Benzo[a]pyrene	0.67	U	15	0.67	ug/Kg		07/19/12 09:10	07/20/12 18:52	1
Chrysene	2.4	U	15	2.4	ug/Kg		07/19/12 09:10	07/20/12 18:52	1
Dibenz(a,h)anthracene	3.1	U	30	3.1	ug/Kg		07/19/12 09:10	07/20/12 18:52	1
Fluoranthene	3.7	U	30	3.7	ug/Kg		07/19/12 09:10	07/20/12 18:52	1
Fluorene	2.9	U	30	2.9	ug/Kg		07/19/12 09:10	07/20/12 18:52	1
Indeno[1,2,3-cd]pyrene	1.2	U	15	1.2	ug/Kg		07/19/12 09:10	07/20/12 18:52	1
Naphthalene	22	U	50	22	ug/Kg		07/19/12 09:10	07/20/12 18:52	1
Phenanthrene	5.45	J	30	4.0	ug/Kg		07/19/12 09:10	07/20/12 18:52	1
Pyrene	2.7	U	30	2.7	ug/Kg		07/19/12 09:10	07/20/12 18:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*81*		*49 - 104*	*07/19/12 09:10*	*07/20/12 18:52*	*1*

Lab Sample ID: LCS 160-6755/2-A
Matrix: Solid
Analysis Batch: 6945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6755

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	667	573		ug/Kg		86	54 - 97
Acenaphthylene	1330	1130		ug/Kg		85	62 - 94
Anthracene	66.7	57.8		ug/Kg		87	60 - 106
Benzo[a]anthracene	66.7	59.1		ug/Kg		89	64 - 108
Benzo[b]fluoranthene	133	119		ug/Kg		89	66 - 103
Benzo[k]fluoranthene	66.7	59.6		ug/Kg		89	57 - 111
Benzo[g,h,i]perylene	133	123		ug/Kg		92	48 - 130
Benzo[a]pyrene	66.7	57.8		ug/Kg		87	59 - 112
Chrysene	66.7	60.1		ug/Kg		90	68 - 101
Dibenz(a,h)anthracene	133	119		ug/Kg		89	44 - 128
Fluoranthene	133	118		ug/Kg		88	63 - 104
Fluorene	133	116		ug/Kg		87	59 - 98
Indeno[1,2,3-cd]pyrene	66.7	57.5		ug/Kg		86	53 - 116
Naphthalene	667	560		ug/Kg		84	51 - 96
Phenanthrene	66.7	60.8		ug/Kg		91	58 - 107
Pyrene	66.7	61.3		ug/Kg		92	64 - 102

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl-d14	*81*		*49 - 104*

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Method: 8310 - PAHs (HPLC) (Continued)

Lab Sample ID: MB 160-6761/1-A
Matrix: Solid
Analysis Batch: 7042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 6761

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	19	U	50	19	ug/Kg		07/19/12 09:57	07/24/12 16:54	1
Acenaphthylene	27	U	100	27	ug/Kg		07/19/12 09:57	07/24/12 16:54	1
Anthracene	0.92	U	30	0.92	ug/Kg		07/19/12 09:57	07/24/12 16:54	1
Benzo[a]anthracene	2.1	U	15	2.1	ug/Kg		07/19/12 09:57	07/24/12 16:54	1
Benzo[b]fluoranthene	1.6	U	15	1.6	ug/Kg		07/19/12 09:57	07/24/12 16:54	1
Benzo[k]fluoranthene	1.5	U	15	1.5	ug/Kg		07/19/12 09:57	07/24/12 16:54	1
Benzo[g,h,i]perylene	2.0	U	30	2.0	ug/Kg		07/19/12 09:57	07/24/12 16:54	1
Benzo[a]pyrene	0.67	U	15	0.67	ug/Kg		07/19/12 09:57	07/24/12 16:54	1
Chrysene	4.36	J	15	2.4	ug/Kg		07/19/12 09:57	07/24/12 16:54	1
Dibenz(a,h)anthracene	3.1	U	30	3.1	ug/Kg		07/19/12 09:57	07/24/12 16:54	1
Fluoranthene	3.7	U	30	3.7	ug/Kg		07/19/12 09:57	07/24/12 16:54	1
Fluorene	2.9	U	30	2.9	ug/Kg		07/19/12 09:57	07/24/12 16:54	1
Indeno[1,2,3-cd]pyrene	1.2	U	15	1.2	ug/Kg		07/19/12 09:57	07/24/12 16:54	1
Naphthalene	22	U	50	22	ug/Kg		07/19/12 09:57	07/24/12 16:54	1
Phenanthrene	4.22	J	30	4.0	ug/Kg		07/19/12 09:57	07/24/12 16:54	1
Pyrene	2.7	U	30	2.7	ug/Kg		07/19/12 09:57	07/24/12 16:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*84*		*49 - 104*	*07/19/12 09:57*	*07/24/12 16:54*	*1*

Lab Sample ID: LCS 160-6761/2-A
Matrix: Solid
Analysis Batch: 7042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 6761

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	667	590		ug/Kg		88	54 - 97
Acenaphthylene	1330	1180		ug/Kg		89	62 - 94
Anthracene	66.7	58.5		ug/Kg		88	60 - 106
Benzo[a]anthracene	66.7	61.8		ug/Kg		93	64 - 108
Benzo[b]fluoranthene	133	125		ug/Kg		93	66 - 103
Benzo[k]fluoranthene	66.7	62.5		ug/Kg		94	57 - 111
Benzo[g,h,i]perylene	133	128		ug/Kg		96	48 - 130
Benzo[a]pyrene	66.7	54.9		ug/Kg		82	59 - 112
Chrysene	66.7	63.9		ug/Kg		96	68 - 101
Dibenz(a,h)anthracene	133	121		ug/Kg		91	44 - 128
Fluoranthene	133	124		ug/Kg		93	63 - 104
Fluorene	133	122		ug/Kg		92	59 - 98
Indeno[1,2,3-cd]pyrene	66.7	61.2		ug/Kg		92	53 - 116
Naphthalene	667	566		ug/Kg		85	51 - 96
Phenanthrene	66.7	62.9		ug/Kg		94	58 - 107
Pyrene	66.7	63.9		ug/Kg		96	64 - 102

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl-d14	*84*		*49 - 104*

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Method: 8310 - PAHs (HPLC) (Continued)

Lab Sample ID: 160-305-21 MS
Matrix: Solid
Analysis Batch: 7042

Client Sample ID: B2JDH7
Prep Type: Total/NA
Prep Batch: 6761

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	160		678	675		ug/Kg	☼	76	36 - 108
Acenaphthylene	27	U	1360	1180		ug/Kg	☼	87	48 - 100
Anthracene	2.1	J	67.8	63.0		ug/Kg	☼	90	45 - 112
Benzo[a]anthracene	42		67.8	88.0		ug/Kg	☼	68	44 - 118
Benzo[b]fluoranthene	73		136	156		ug/Kg	☼	62	46 - 112
Benzo[k]fluoranthene	32		67.8	80.1		ug/Kg	☼	71	42 - 113
Benzo[g,h,i]perylene	28	J	136	141		ug/Kg	☼	84	41 - 124
Benzo[a]pyrene	52		67.8	90.1		ug/Kg	☼	57	52 - 109
Chrysene	75	N B	67.8	102	N	ug/Kg	☼	40	58 - 101
Dibenz(a,h)anthracene	42		136	142		ug/Kg	☼	74	41 - 114
Fluoranthene	45	N	136	170		ug/Kg	☼	92	51 - 107
Fluorene	6.3	J	136	123		ug/Kg	☼	86	50 - 96
Indeno[1,2,3-cd]pyrene	27		67.8	76.6		ug/Kg	☼	73	44 - 112
Naphthalene	39	J	678	522		ug/Kg	☼	71	41 - 101
Phenanthrene	12	J N B	67.8	72.5		ug/Kg	☼	90	48 - 113
Pyrene	48		67.8	99.3		ug/Kg	☼	75	37 - 127

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
p-Terphenyl-d14	*87*		*49 - 104*

Lab Sample ID: 160-305-21 MSD
Matrix: Solid
Analysis Batch: 7042

Client Sample ID: B2JDH7
Prep Type: Total/NA
Prep Batch: 6761

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	160		680	756		ug/Kg	☼	87	36 - 108	11	30
Acenaphthylene	27	U	1360	1160		ug/Kg	☼	85	48 - 100	2	30
Anthracene	2.1	J	68.0	69.0		ug/Kg	☼	98	45 - 112	9	30
Benzo[a]anthracene	42		68.0	113		ug/Kg	☼	104	44 - 118	25	30
Benzo[b]fluoranthene	73		136	164		ug/Kg	☼	67	46 - 112	5	30
Benzo[k]fluoranthene	32		68.0	81.9		ug/Kg	☼	73	42 - 113	2	30
Benzo[g,h,i]perylene	28	J	136	137		ug/Kg	☼	80	41 - 124	3	30
Benzo[a]pyrene	52		68.0	89.1		ug/Kg	☼	55	52 - 109	1	30
Chrysene	75	N B	68.0	124		ug/Kg	☼	72	58 - 101	19	30
Dibenz(a,h)anthracene	42		136	143		ug/Kg	☼	74	41 - 114	1	30
Fluoranthene	45	N	136	211	N	ug/Kg	☼	122	51 - 107	22	30
Fluorene	6.3	J	136	125		ug/Kg	☼	87	50 - 96	1	30
Indeno[1,2,3-cd]pyrene	27		68.0	73.2		ug/Kg	☼	68	44 - 112	5	30
Naphthalene	39	J	680	525		ug/Kg	☼	71	41 - 101	1	30
Phenanthrene	12	J N B	68.0	90.0	N	ug/Kg	☼	115	48 - 113	22	30
Pyrene	48		68.0	128		ug/Kg	☼	117	37 - 127	25	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
p-Terphenyl-d14	*88*		*49 - 104*

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Method: 8310 - PAHs (HPLC) (Continued)

Lab Sample ID: MB 160-7045/1-A
Matrix: Solid
Analysis Batch: 7391

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 7045

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	19	U	50	19	ug/Kg		07/24/12 09:37	07/25/12 10:40	1
Acenaphthylene	27	U	100	27	ug/Kg		07/24/12 09:37	07/25/12 10:40	1
Anthracene	0.92	U	30	0.92	ug/Kg		07/24/12 09:37	07/25/12 10:40	1
Benzo[a]anthracene	2.1	U	15	2.1	ug/Kg		07/24/12 09:37	07/25/12 10:40	1
Benzo[b]fluoranthene	1.6	U	15	1.6	ug/Kg		07/24/12 09:37	07/25/12 10:40	1
Benzo[k]fluoranthene	1.5	U	15	1.5	ug/Kg		07/24/12 09:37	07/25/12 10:40	1
Benzo[g,h,i]perylene	2.0	U	30	2.0	ug/Kg		07/24/12 09:37	07/25/12 10:40	1
Benzo[a]pyrene	0.67	U	15	0.67	ug/Kg		07/24/12 09:37	07/25/12 10:40	1
Chrysene	2.4	U	15	2.4	ug/Kg		07/24/12 09:37	07/25/12 10:40	1
Dibenz(a,h)anthracene	3.1	U	30	3.1	ug/Kg		07/24/12 09:37	07/25/12 10:40	1
Fluoranthene	3.7	U	30	3.7	ug/Kg		07/24/12 09:37	07/25/12 10:40	1
Fluorene	2.9	U	30	2.9	ug/Kg		07/24/12 09:37	07/25/12 10:40	1
Indeno[1,2,3-cd]pyrene	1.2	U	15	1.2	ug/Kg		07/24/12 09:37	07/25/12 10:40	1
Naphthalene	22	U	50	22	ug/Kg		07/24/12 09:37	07/25/12 10:40	1
Phenanthrene	4.0	U	30	4.0	ug/Kg		07/24/12 09:37	07/25/12 10:40	1
Pyrene	2.7	U	30	2.7	ug/Kg		07/24/12 09:37	07/25/12 10:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
p-Terphenyl-d14	*75*		*49 - 104*	*07/24/12 09:37*	*07/25/12 10:40*	*1*

Lab Sample ID: LCS 160-7045/2-A
Matrix: Solid
Analysis Batch: 7391

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 7045

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	667	548		ug/Kg		82	54 - 97
Acenaphthylene	1330	1110		ug/Kg		83	62 - 94
Anthracene	66.7	55.6		ug/Kg		83	60 - 106
Benzo[a]anthracene	66.7	57.1		ug/Kg		86	64 - 108
Benzo[b]fluoranthene	133	114		ug/Kg		86	66 - 103
Benzo[k]fluoranthene	66.7	56.7		ug/Kg		85	57 - 111
Benzo[g,h,i]perylene	133	119		ug/Kg		89	48 - 130
Benzo[a]pyrene	66.7	52.9		ug/Kg		79	59 - 112
Chrysene	66.7	57.8		ug/Kg		87	68 - 101
Dibenz(a,h)anthracene	133	112		ug/Kg		84	44 - 128
Fluoranthene	133	116		ug/Kg		87	63 - 104
Fluorene	133	113		ug/Kg		84	59 - 98
Indeno[1,2,3-cd]pyrene	66.7	56.2		ug/Kg		84	53 - 116
Naphthalene	667	545		ug/Kg		82	51 - 96
Phenanthrene	66.7	57.2		ug/Kg		86	58 - 107
Pyrene	66.7	58.0		ug/Kg		87	64 - 102

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
p-Terphenyl-d14	*75*		*49 - 104*

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Method: 8310 - PAHs (HPLC) (Continued)

Lab Sample ID: 160-315-1 MS
Matrix: Solid
Analysis Batch: 7391

Client Sample ID: B2JDJ3
Prep Type: Total/NA
Prep Batch: 7045

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	20	U	692	582		ug/Kg	☼	84	36 - 108
Acenaphthylene	28	U	1380	1150		ug/Kg	☼	83	48 - 100
Anthracene	0.96	U	69.2	59.7		ug/Kg	☼	86	45 - 112
Benzo[a]anthracene	3.6	J	69.2	63.3		ug/Kg	☼	86	44 - 118
Benzo[b]fluoranthene	4.1	J	138	124		ug/Kg	☼	87	46 - 112
Benzo[k]fluoranthene	2.5	J	69.2	61.7		ug/Kg	☼	86	42 - 113
Benzo[g,h,i]perylene	2.0	U	138	121		ug/Kg	☼	88	41 - 124
Benzo[a]pyrene	2.9	J	69.2	60.2		ug/Kg	☼	83	52 - 109
Chrysene	6.5	J	69.2	66.1		ug/Kg	☼	86	58 - 101
Dibenz(a,h)anthracene	3.2	U	138	122		ug/Kg	☼	88	41 - 114
Fluoranthene	8.2	J	138	124		ug/Kg	☼	84	51 - 107
Fluorene	3.0	U	138	118		ug/Kg	☼	85	50 - 96
Indeno[1,2,3-cd]pyrene	2.2	J	69.2	61.6		ug/Kg	☼	86	44 - 112
Naphthalene	23	U	692	548		ug/Kg	☼	79	41 - 101
Phenanthrene	4.9	J	69.2	62.8		ug/Kg	☼	84	48 - 113
Pyrene	7.8	J	69.2	69.6		ug/Kg	☼	89	37 - 127

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
p-Terphenyl-d14	*76*		*49 - 104*

Lab Sample ID: 160-315-1 MSD
Matrix: Solid
Analysis Batch: 7391

Client Sample ID: B2JDJ3
Prep Type: Total/NA
Prep Batch: 7045

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	20	U	692	546		ug/Kg	☼	79	36 - 108	6	30
Acenaphthylene	28	U	1380	1050		ug/Kg	☼	76	48 - 100	9	30
Anthracene	0.96	U	69.2	56.5		ug/Kg	☼	82	45 - 112	6	30
Benzo[a]anthracene	3.6	J	69.2	66.4		ug/Kg	☼	91	44 - 118	5	30
Benzo[b]fluoranthene	4.1	J	138	125		ug/Kg	☼	87	46 - 112	0	30
Benzo[k]fluoranthene	2.5	J	69.2	61.7		ug/Kg	☼	86	42 - 113	0	30
Benzo[g,h,i]perylene	2.0	U	138	122		ug/Kg	☼	88	41 - 124	0	30
Benzo[a]pyrene	2.9	J	69.2	62.3		ug/Kg	☼	86	52 - 109	3	30
Chrysene	6.5	J	69.2	69.2		ug/Kg	☼	91	58 - 101	5	30
Dibenz(a,h)anthracene	3.2	U	138	124		ug/Kg	☼	90	41 - 114	2	30
Fluoranthene	8.2	J	138	126		ug/Kg	☼	85	51 - 107	2	30
Fluorene	3.0	U	138	108		ug/Kg	☼	78	50 - 96	9	30
Indeno[1,2,3-cd]pyrene	2.2	J	69.2	62.1		ug/Kg	☼	87	44 - 112	1	30
Naphthalene	23	U	692	493		ug/Kg	☼	71	41 - 101	11	30
Phenanthrene	4.9	J	69.2	60.3		ug/Kg	☼	80	48 - 113	4	30
Pyrene	7.8	J	69.2	70.0		ug/Kg	☼	90	37 - 127	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
p-Terphenyl-d14	*75*		*49 - 104*

QC Sample Results

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Method: 8310 - PAHs (HPLC) - DL

Lab Sample ID: 160-305-1 MS
Matrix: Solid
Analysis Batch: 6999

Client Sample ID: B2JDN8
Prep Type: Total/NA
Prep Batch: 6755

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene - DL	99	U	684	570	D	ug/Kg	☼	83	36 - 108
Acenaphthylene - DL	140	U	1370	1110	D	ug/Kg	☼	81	48 - 100
Anthracene - DL	4.7	U	68.4	59.1	J D	ug/Kg	☼	86	45 - 112
Benzo[a]anthracene - DL	11	U	68.4	61.7	J D	ug/Kg	☼	90	44 - 118
Benzo[b]fluoranthene - DL	7.9	U	137	121	D	ug/Kg	☼	88	46 - 112
Benzo[k]fluoranthene - DL	7.7	U	68.4	58.6	J D	ug/Kg	☼	86	42 - 113
Benzo[g,h,i]perylene - DL	10	U	137	113	J D	ug/Kg	☼	83	41 - 124
Benzo[a]pyrene - DL	3.4	U	68.4	57.6	J D	ug/Kg	☼	84	52 - 109
Chrysene - DL	12	U	68.4	64.3	J D	ug/Kg	☼	94	58 - 101
Dibenz(a,h)anthracene - DL	16	U	137	123	J D	ug/Kg	☼	90	41 - 114
Fluoranthene - DL	19	U	137	127	J D	ug/Kg	☼	93	51 - 107
Fluorene - DL	15	U	137	114	J D	ug/Kg	☼	83	50 - 96
Indeno[1,2,3-cd]pyrene - DL	6.1	U	68.4	59.8	J D	ug/Kg	☼	87	44 - 112
Naphthalene - DL	110	U	684	536	D	ug/Kg	☼	78	41 - 101
Phenanthrene - DL	20	U	68.4	64.2	J D	ug/Kg	☼	94	48 - 113
Pyrene - DL	14	U	68.4	65.8	J D	ug/Kg	☼	96	37 - 127

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
p-Terphenyl-d14 - DL	*80*		*49 - 104*

Lab Sample ID: 160-305-1 MSD
Matrix: Solid
Analysis Batch: 6999

Client Sample ID: B2JDN8
Prep Type: Total/NA
Prep Batch: 6755

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene - DL	99	U	684	563	D	ug/Kg	☼	82	36 - 108	1	30
Acenaphthylene - DL	140	U	1370	1130	D	ug/Kg	☼	82	48 - 100	2	30
Anthracene - DL	4.7	U	68.4	59.8	J D	ug/Kg	☼	87	45 - 112	1	30
Benzo[a]anthracene - DL	11	U	68.4	59.5	J D	ug/Kg	☼	87	44 - 118	4	30
Benzo[b]fluoranthene - DL	7.9	U	137	114	D	ug/Kg	☼	83	46 - 112	6	30
Benzo[k]fluoranthene - DL	7.7	U	68.4	59.0	J D	ug/Kg	☼	86	42 - 113	1	30
Benzo[g,h,i]perylene - DL	10	U	137	112	J D	ug/Kg	☼	82	41 - 124	1	30
Benzo[a]pyrene - DL	3.4	U	68.4	58.3	J D	ug/Kg	☼	85	52 - 109	1	30
Chrysene - DL	12	U	68.4	61.8	J D	ug/Kg	☼	90	58 - 101	4	30
Dibenz(a,h)anthracene - DL	16	U	137	110	J D	ug/Kg	☼	81	41 - 114	11	30
Fluoranthene - DL	19	U	137	127	J D	ug/Kg	☼	93	51 - 107	0	30
Fluorene - DL	15	U	137	114	J D	ug/Kg	☼	83	50 - 96	0	30
Indeno[1,2,3-cd]pyrene - DL	6.1	U	68.4	55.1	J D	ug/Kg	☼	81	44 - 112	8	30
Naphthalene - DL	110	U	684	550	D	ug/Kg	☼	80	41 - 101	3	30
Phenanthrene - DL	20	U	68.4	65.1	J D	ug/Kg	☼	95	48 - 113	1	30
Pyrene - DL	14	U	68.4	68.5	J D	ug/Kg	☼	100	37 - 127	4	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
p-Terphenyl-d14 - DL	*78*		*49 - 104*

Surrogate Summary

Client: CH2M Hill Plateau Remediation Company
Project/Site: F12-005

TestAmerica Job ID: 160-305-1
SDG: SL1285

Method: 8310 - PAHs (HPLC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)						
Lab Sample ID	Client Sample ID	TPH1 (49-104)						
160-305-1 - DL	B2JDN8	82						
160-305-1 MS - DL	B2JDN8	80						
160-305-1 MSD - DL	B2JDN8	78						
160-305-2 - DL	B2JDH4	90						
160-305-3	B2JDK2	84						
160-305-4	B2JDT5	80						
160-305-5	B2JDR3	82						
160-305-6 - DL	B2JDR6	93						
160-305-7 - DL	B2JDT2	104						
160-305-8	B2JDK5	80						
160-305-9	B2JDP4	85						
160-305-10	B2JF48	84						
160-305-11 - DL	B2JDP7	85						
160-305-12	B2JDJ6	81						
160-305-13	B2JF33	82						
160-305-14 - DL	B2JDP1	87						
160-305-15	B2JDJ9	85						
160-305-16	B2JDV4	72						
160-305-17 - DL	B2JDV1	192 *						
160-305-18	B2JF36	84						
160-305-19	B2JDT8	81						
160-305-20	B2JDJ0	83						
160-305-21	B2JDH7	86						
160-305-21 MS	B2JDH7	87						
160-305-21 MSD	B2JDH7	88						
160-305-22 - DL	B2JDR9	104						
160-305-23 - DL	B2JDM9	123 *						
160-305-24 - DL	B2JDR0	114 *						
160-305-25	B2JDV7	79						
160-305-26	B2JDN2	80						
160-305-27	B2JDN5	77						
160-315-1	B2JDJ3	68						
160-315-1 MS	B2JDJ3	76						
160-315-1 MSD	B2JDJ3	75						
160-315-2	B2JDK8	78						
160-315-3	B2JF45	79						
LCS 160-6755/2-A	Lab Control Sample	81						
LCS 160-6761/2-A	Lab Control Sample	84						
LCS 160-7045/2-A	Lab Control Sample	75						
MB 160-6755/1-A	Method Blank	81						
MB 160-6761/1-A	Method Blank	84						
MB 160-7045/1-A	Method Blank	75						

Surrogate Legend

TPH = p-Terphenyl-d14

Date: 13 August 2012
To: CH2M Hill (technical representative)
From: Analytical Quality Associates, Inc.
Project: 100 K RA
Subject: PCBs - Sample Data Groups (SDGs) WSCF120788, WSCF120894, WSCF120895, WSCF120900, and WSCF230922

INTRODUCTION

This memorandum presents the results of data validation for SDGs WSCF120788, WSCF120894, WSCF120895, WSCF120900, and WSCF120922 prepared by WSCF Analytical Laboratories. A list of samples validated along with the analytical methods is provided in the following table.

Sample ID	Sample Date	Media	Validation Level	Analytical Method
B2JDD8	6/18/12	Soil	C	8082
B2JDH9	7/10/12	Soil	C	8082
B2JDH6	7/10/12	Soil	C	8082
B2JDM8	7/11/12	Soil	C	8082
B2JDN1	7/11/12	Soil	C	8082
B2JDV3	7/11/12	Soil	C	8082
B2JDP6	7/11/12	Soil	C	8082
B2JDN7	7/11/12	Soil	C	8082
B2JDN4	7/11/12	Soil	C	8082
B2JDT7	7/12/12	Soil	C	8082
B2JDT4	7/12/12	Soil	C	8082
B2JDH3	7/10/12	Soil	C	8082
B2JDK4	7/12/12	Soil	C	8082
B2JDJ5	7/12/12	Soil	C	8082
B2JDV0	7/12/12	Soil	C	8082
B2JDP0	7/10/12	Soil	C	8082
B2JDR8	7/12/12	Soil	C	8082
B2JDT1	7/12/12	Soil	C	8082
B2JF32	7/10/12	Soil	C	8082
B2JDJ8	7/10/12	Soil	C	8082
B2JDR2	7/11/12	Soil	C	8082
B2JDR5	7/12/12	Soil	C	8082
B2JDP3	7/11/12	Soil	C	8082
B2JDP9	7/11/12	Soil	C	8082
B2JDV6	7/11/12	Soil	C	8082
B2JDK1	7/11/12	Soil	C	8082
B2JF35	7/11/12	Soil	C	8082
B2JF47	7/11/12	Soil	C	8082
B2JF44	7/17/12	Soil	C	8082
B2JDJ2	7/17/12	Soil	C	8082

B2JDK7	7/17/12	Soil	C	8082

Data validation was conducted in accordance with the CHPRC validation statement of work and the Sampling and Analysis Plan for the 100 Area Remedial Action Sampling and Analysis Plan, DOE/RL-96-22, Rev. 5 (SAP). Appendices 1 through 6 provide the following information as indicated below:

Appendix 1. Glossary of Data Reporting Qualifiers
Appendix 2. Summary of Data Qualification
Appendix 3. Annotated Laboratory Reports
Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
Appendix 5. Data Validation Supporting Documentation
Appendix 6. Additional Documentation Requested By Client

DATA QUALITY OBJECTIVES

- **Holding Times and Sample Preservation**

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The holding time requirements for PCBs are extraction within one year of sample collection and analysis within one year of sample extraction. Sample preservation requires chilling to 4 degrees Celsius.

The samples were extracted and analyzed within the prescribed holding times and properly preserved.

- **Blanks**

The blank data results are reviewed to assess the extent of contamination introduced through sampling, sample preparation, and analysis.

Laboratory Blanks

All laboratory blank results were acceptable.

Trip Blanks

No trip blanks were submitted for validation.

Field Blanks

No field blanks were submitted for validation.

Equipment Blanks

All equipment blanks results were acceptable.

- **Accuracy**

Accuracy is evaluated by reviewing surrogate results, matrix spike sample results, and laboratory control sample results. According to the SAP, the matrix spike and laboratory control sample accuracy limits are 50% to 150%.

Surrogates

For SDG WSCF120895, the decachlorobiphenyl surrogate %R or sample B2JDV3 was > the QC acceptance limit. However, the associated sample results were all NDs and, therefore, should not be qualified.

The other surrogate recoveries were acceptable.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Samples

All MS/MSD recoveries were acceptable. It should be noted that aroclor-1254 was the only analyte reported for the PCB MS/MSD. Method 8082 guidance specifies aroclor-1016 and aroclor-1260 for MS/MSD analyses. No sample data are qualified as a result.

Laboratory Control Samples (LCSs)

All LCS recoveries were acceptable. It should be noted that aroclor-1254 was the only analyte reported for the LCS. Method 8082 guidance specifies aroclor-1016 and aroclor-1260 for LCS analyses. No sample data are qualified as a result.

- **Precision**

Precision is evaluated by reviewing MS/MSD results, LCS/LCSD results, field duplicate sample results, and field split sample results. These QC results provide information on the laboratory reproducibility and whether sampling activities are adequate to acquire consistent sample results. According to the SAP, the relative percent difference (RPD) limit is 30%. When duplicate RPDs exceed the limits and have associated results <5X the SAP required detection limits with differences <2X the required detection limits no precision infraction occurred.

MS/MSD Samples

All MS/MSD RPD values were acceptable.

Field Duplicate Samples

All field duplicate results were acceptable.

Field Split Samples

No field splits were submitted for validation.

- **Detection Limits**

Reported MDLs are compared against the contractually required detection limits (CRDLs) to ensure that laboratory detection limits meet the required criteria.

All reported sample MDLs were below the CRDLs.

- **Completeness**

SDGs WSCF120788, WSCF120894, WSCF120895, WSCF120900, and WSCF120922 were submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

None found.

REFERENCES

GRP-GD-003, Rev. 0, Change 0, *Data Validation for Chemical Analyses*, August 2010.

DOE/RL-96-22, Rev. 5, *100 Area Remedial Action Sampling and Analysis Plan*, September 2009.

Appendix 1

Glossary of Data Reporting Qualifiers

Qualifiers that may be applied by data validators in compliance with the CHPRC statement of work are as follows:

- **U** — The constituent was analyzed for, but was not detected. The data should be considered usable for decision-making purposes.

- **UJ** — The constituent was analyzed for and was not detected. Due to a quality control deficiency identified during data validation the value reported may not accurately reflect the RL. The data should be considered usable for decision-making purposes.

- **J** — Indicates the constituent was analyzed for and detected. The associated value is estimated due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J+** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected positive bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J-** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected negative bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **N** — The analysis indicates the presence of an analyte that has been tentatively identified.

- **NJ** — The analysis indicates the presence of an analyte that has been tentatively identified and the associated numerical value represents its approximate concentration.

- **NJ+** — The analysis indicates the presence of an analyte that has been tentatively identified. The associated value is estimated with a suspected positive bias due to a quality control deficiency identified during data validation.

- **NJ-** — The analysis indicates the presence of an analyte that has been tentatively identified. The associated value is estimated with a suspected negative bias due to a quality control deficiency identified during data validation.

- **C** — This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by Gas Chromatograph/Mass Spectrometer (GC/MS).

- **X** — This qualifier applies to pesticide and Aroclor results when GC/MS analysis was attempted but was unsuccessful. The data should be considered unusable for decision-making purposes.

- **UR** — Indicates the constituent was analyzed for and not detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

- **R ─** Indicates the constituent was analyzed for and detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

Appendix 2

Summary of Data Qualification

PCB Data Qualification Summary			
SDGs: WSCF120788, WSCF120894, WSCF120895, WSCF120900, and WSCF120922	Reviewer: AQA	Project: 100 K RA	Page 1 of 1
Analyte(s)	**Qualifier**	**Samples Affected**	**Reason**
PCBs	None	N/A	N/A

Comments: None

Appendix 3

Annotated Laboratory Reports

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Sample # 120788001
SAF# F12-005
Sample ID B2JDD8

Matrix SOIL
Sampled 06/18/12
Received 06/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**06/21/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	06/26/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	06/26/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	06/26/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	06/26/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	06/26/12
Aroclor-1254	11097-69-1	LA-523-427		12		ug/kg	1	4	8	06/26/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	06/26/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	06/26/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	06/26/12
Preparation for 8270 (S) ASE										**06/19/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	800	06/21/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

REVISED120788 -

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Sample # 120894007
SAF# F12-005
Sample ID B2JDH9

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Sample # 120894008
SAF# F12-005
Sample ID B2JDH6

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427		17		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895001
SAF# F12-005
Sample ID B2JDM8

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	UD	<8		ug/kg	2	8	20	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	UD	<20		ug/kg	2	20	30	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	UD	<8		ug/kg	2	8	20	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	UD	<8		ug/kg	2	8	20	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	UD	<8		ug/kg	2	8	20	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	UD	<8		ug/kg	2	8	20	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	D	200		ug/kg	2	8	20	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	UD	<8		ug/kg	2	8	20	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	UD	<8		ug/kg	2	8	20	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895002
SAF# F12-005
Sample ID B2JDN1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427		12		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895003
SAF# F12-005
Sample ID B2JDV3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	UD	<400		ug/kg	50	400	800	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	UD	<200		ug/kg	50	200	400	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895004
SAF# F12-005
Sample ID B2JDP6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427		53		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895005
SAF# F12-005
Sample ID B2JDN7

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Sample # 120895006
SAF# F12-005
Sample ID B2JDN4

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900001
SAF# F12-005
Sample ID B2JDT7

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
~~**Preparation for 8270 (S) ASE**~~										~~**07/23/12**~~
~~**SW-846 8270D Semivolatiles**~~										
~~4-Nitrophenol~~	~~100-02-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/25/12~~
~~1,4-Dichlorobenzene~~	~~106-46-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/25/12~~
~~Phenol~~	~~108-95-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/25/12~~
~~1,2,4-Trichlorobenzene~~	~~120-82-1~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/25/12~~
~~2,4-Dinitrotoluene~~	~~121-14-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/25/12~~
~~4-Chloro-3-methylphenol~~	~~59-50-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/25/12~~

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900002
SAF# F12-005
Sample ID B2JDT4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900003
SAF# F12-005
Sample ID B2JDH3

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427		24		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900004
SAF# F12-005
Sample ID B2JDK4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900005
SAF# F12-005
Sample ID B2JDJ5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Preparation for 8270 (S) ASE										**07/24/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/25/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900006
SAF# F12-005
Sample ID B2JDV0

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
~~**Preparation for 8270 (S) ASE**~~										~~**07/24/12**~~
~~**SW-846 8270D Semivolatiles**~~										
~~4-Nitrophenol~~	~~100-02-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~1,4-Dichlorobenzene~~	~~106-46-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~Phenol~~	~~108-95-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~1,2,4-Trichlorobenzene~~	~~120-82-1~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~2,4-Dinitrotoluene~~	~~121-14-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~4-Chloro-3-methylphenol~~	~~59-50-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900007
SAF# F12-005
Sample ID B2JDP0

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427		250		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/17/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/18/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900008
SAF# F12-005
Sample ID B2JDR8

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Preparation for 8270 (S) ASE										**07/24/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900009
SAF# F12-005
Sample ID B2JDT1

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
~~**Preparation for 8270 (S) ASE**~~										~~**07/24/12**~~
~~**SW-846 8270D Semivolatiles**~~										
~~4-Nitrophenol~~	~~100-02-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~1,4-Dichlorobenzene~~	~~106-46-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~Phenol~~	~~108-95-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~1,2,4-Trichlorobenzene~~	~~120-82-1~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~2,4-Dinitrotoluene~~	~~121-14-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~4-Chloro-3-methylphenol~~	~~59-50-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900010
SAF# F12-005
Sample ID B2JF32

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427		17		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
~~**Preparation for 8270 (S) ASE**~~										~~**07/17/12**~~
~~**SW-846 8270D Semivolatiles**~~										
~~4-Nitrophenol~~	~~100-02-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/18/12~~
~~1,4-Dichlorobenzene~~	~~106-46-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/18/12~~
~~Phenol~~	~~108-95-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/18/12~~
~~1,2,4-Trichlorobenzene~~	~~120-82-1~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/18/12~~
~~2,4-Dinitrotoluene~~	~~121-14-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/18/12~~
~~4-Chloro-3-methylphenol~~	~~59-50-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/18/12~~

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900011
SAF# F12-005
Sample ID B2JDJ8

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/18/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	J	5.7		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427		18		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
~~**Preparation for 8270 (S) ASE**~~										~~**07/17/12**~~
~~**SW-846 8270D Semivolatiles**~~										
~~4-Nitrophenol~~	~~100-02-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/18/12~~
~~1,4-Dichlorobenzene~~	~~106-46-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/18/12~~
~~Phenol~~	~~108-95-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/18/12~~
~~1,2,4-Trichlorobenzene~~	~~120-82-1~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/18/12~~
~~2,4-Dinitrotoluene~~	~~121-14-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/18/12~~
~~4-Chloro-3-methylphenol~~	~~59-50-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/18/12~~

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900012
SAF# F12-005
Sample ID B2JDR2

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900013
SAF# F12-005
Sample ID B2JDR5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
~~**Preparation for 8270 (S) ASE**~~										~~**07/24/12**~~
~~**SW-846 8270D Semivolatiles**~~										
~~4-Nitrophenol~~	~~100-02-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~1,4-Dichlorobenzene~~	~~106-46-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~Phenol~~	~~108-95-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~1,2,4-Trichlorobenzene~~	~~120-82-1~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~2,4-Dinitrotoluene~~	~~121-14-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~4-Chloro-3-methylphenol~~	~~59-50-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~

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

B - Analyte was detected in both the BLANK and SAMPLE
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E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900014
SAF# F12-005
Sample ID B2JDP3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427		28		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900015
SAF# F12-005
Sample ID B2JDP9

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900016
SAF# F12-005
Sample ID B2JDV6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900017
SAF# F12-005
Sample ID B2JDK1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900018
SAF# F12-005
Sample ID B2JF35

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
~~**Preparation for 8270 (S) ASE**~~										~~**07/23/12**~~
~~**SW-846 8270D Semivolatiles**~~										
~~4-Nitrophenol~~	~~100-02-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/24/12~~
~~1,4-Dichlorobenzene~~	~~106-46-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/24/12~~
~~Phenol~~	~~108-95-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/24/12~~
~~1,2,4-Trichlorobenzene~~	~~120-82-1~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/24/12~~
~~2,4-Dinitrotoluene~~	~~121-14-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/24/12~~
~~4-Chloro-3-methylphenol~~	~~59-50-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/24/12~~

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Sample # 120900019
SAF# F12-005
Sample ID B2JF47

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/19/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	08/01/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	08/01/12
Preparation for 8270 (S) ASE										**07/23/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/24/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Sample # 120922007
SAF# F12-005
Sample ID B2JF44

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Preparation for 8270 (S) ASE										**07/24/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Sample # 120922008
SAF# F12-005
Sample ID B2JDJ2

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Preparation for 8270 (S) ASE										**07/24/12**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,4-Dichlorobenzene	106-46-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
Phenol	108-95-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
1,2,4-Trichlorobenzene	120-82-1	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
2,4-Dinitrotoluene	121-14-2	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<200		ug/kg	1	200	300	07/26/12

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Sample # 120922009
SAF# F12-005
Sample ID B2JDK7

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8082 (S) ASE										**07/26/12**
PCBs by EPA SW-846 Method 8082										
Aroclor-1016	12674-11-2	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1221	11104-28-2	LA-523-427	U	<8		ug/kg	1	8	20	07/31/12
Aroclor-1232	11141-16-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1242	53469-21-9	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1248	12672-29-6	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1254	11097-69-1	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1260	11096-82-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1262	37324-23-5	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
Aroclor-1268	11100-14-4	LA-523-427	U	<4		ug/kg	1	4	8	07/31/12
~~**Preparation for 8270 (S) ASE**~~										~~**07/24/12**~~
~~**SW-846 8270D Semivolatiles**~~										
~~4-Nitrophenol~~	~~100-02-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~1,4-Dichlorobenzene~~	~~106-46-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~Phenol~~	~~108-95-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~1,2,4-Trichlorobenzene~~	~~120-82-1~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~2,4-Dinitrotoluene~~	~~121-14-2~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~
~~4-Chloro-3-methylphenol~~	~~59-50-7~~	~~LA-523-456~~	~~U~~	~~<200~~		~~ug/kg~~	~~1~~	~~200~~	~~300~~	~~07/26/12~~

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

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary diltution factor.
E - The calibration exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

Attachment 2
Narrative Rev1
WSCF120788

Revision 1: P&D to correct 3-nitroaniline MDL and PQL – this case narrative replaces the prior in its entirety.

Introduction

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

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

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

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

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

Analytical Methodology for Requested Analyses

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

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Attachment 2
Narrative Rev1
WSCF120788

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

- All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Vanadium and Copper – Detected in the Blank and evaluated. No sample results in this batch were affected. "C" Flags not required.

- All other applicable QC controls are within the established limits.

Organic Comments

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

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- The Method Blank, LCS, MS, MSD and sample B2JDD8 (120788001) did not meet the acceptance limits for surrogate Nitrobenzene-d5. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.

- The Method Blank did not meet the acceptance limits for surrogate Terphenyl-d14. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.

- All other applicable QC controls are within the established limits.

Radiochemistry Comments

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

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gamma Energy Analysis:

Attachment 2
Narrative Rev1
WSCF120788

- Europium-155 - Duplicate Relative Percent Difference (RPD) could not be reported by the LIMS system because it cannot perform the calculation from a value divisible by zero.

- All applicable QC controls are within the established limits.

Americium-241:

- Americium-241 – The Blank is less than two times the RDL. "B" Flag not required.

- Americium-241 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results near the minimum detectable activity. No flags issued.

- All other applicable QC controls are within the established limits.

Isotopic Plutonium analysis:

- Plutonium-239/240 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results near the minimum detectable activity. No flags issued.

- All other applicable QC controls are within the established limits.

Isotopic Uranium analysis:

- Uranium-234 and Uranium-238 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.

- Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.

- All other applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

Attachment 2
Narrative Rev1
WSCF120788

Problem and Discrepancy Report

WSCF

SDG WSCF120788

07/26/2012

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1. The data package has the following issues:

a) The electronic data, as well as, the sample result, MDL and PQL is missing for 3-Nitroaniline page 23 of the hardcopy data package, sample B2JDD8.

Resolution: *Provide appropriate correction*

Lab Response: **The MDL and PQL have been added**

Please correct the issues and resubmit the electronic **and** hardcopy data packages.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-013

PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #5

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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
WT=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

120788

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS PCB	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am Au SR	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDD8 1	SOIL	JUN 18 2012	1016

6/13/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Frank Hall	JUN 18 2012 1300	TA Fowler	JUN 18 2012 1300

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

F12-005-013 — PAGE 2 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample 45	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N 507 - 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6002-618 (REV 2)

Attachment 2
Narrative
WSCF120894

Introduction

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

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

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

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

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

Analytical Methodology for Requested Analyses

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

Attachment 2
Narrative
WSCF120894

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

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

- All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Manganese Matrix Spike Duplicate recovery is outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- All other applicable QC controls are within the established limits.

Organic Comments

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

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Radiochemistry Comments

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

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gamma Energy Analysis:

- All applicable QC controls are within the established limits.

Attachment 2
Narrative
WSCF120894

Americium-241:

- All applicable QC controls are within the established limits.

Isotopic Plutonium analysis:

- Batch QC 204881
  - Plutonium-239/240 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - All other applicable QC controls are within the established limits.

Isotopic Uranium analysis:

- Batch QC 204881
  - Uranium-238 – The Blank is less than two times the RDL. "B" Flag not required.
  - Uranium-238 – The duplicate is outside of default RPD limits. RPD limit does not apply to results with greater than 20% counting uncertainty.
- Batch QC 204882
  - Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.
  - All other applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-184

PAGE 1 OF 2

COLLECTOR: Kevin Patterson

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #62

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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)

120894

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 y/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex /196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270 SVOA SP LOAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**
B2JF29	SOIL	JUL 09 2012	1018

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	[illegible]	7/16/12 0800
[illegible]	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-184

PAGE 2 OF 2

COLLECTOR: Kevin Patterson	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #62	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005	AIR QUALITY: ☐	
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N-507-25	ACTUAL SAMPLE DEPTH: 6"	COA: 302677ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9" 6/20/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-025 — PAGE 1 OF 2

COLLECTOR Kevin Patterson	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days	**SAMPLING LOCATION** Area AG Zone 2 Verification Sample #9	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil
SAF NO. F12-005	**AIR QUALITY** ☐	**ICE CHEST NO.** (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25
ACTUAL SAMPLE DEPTH 6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP EQUAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDH0	SOIL	JUL 09 2012	1109

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	ARMS Tech	7/16/12 0800
ARMS Tech	7/16/12 1100	TA Frazier	7/16/12 1100

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**

PRINTED ON 12/8/2011 — A 6003 618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-025 — PAGE 2 OF 2

COLLECTOR Kevin Patterson	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #9	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ JH 6/28/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-019 PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #7

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-28

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex -(Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDF4	3 SOIL	JUL 09 2012	1018

9H 07/20/12

9H 07/20/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	AKMcIntyre	7/16/12 0800
AKMcIntyre	7/16/12 1100		7/16/12 1100
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

F12-005-019 — PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #7	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE BC

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 12/8/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-022 PAGE 1 OF 2

COLLECTOR: Kevin Patterson

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #8

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP EDMA;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Rn U Ra SR	Tritium - Liq Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDF7	4	SOIL	JUL 09 2012	1049	✓	✓			✓	✓	✓	

JH 6/29/12 JH 6/29/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1100	SSU-1	JUL 09 2012 1110
SSU-1	7/16/12 0800	AR McIntyre	7/16/12 0800
AR McIntyre	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-022	PAGE 2 OF 2
COLLECTOR: Kevin Patterson	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: BC	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #8	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005	AIR QUALITY: ☐	
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N- 507-25	ACTUAL SAMPLE DEPTH: 6"	COA: 302677ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ gjt 12/12/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-196

PAGE 1 OF 2

COLLECTOR: Kevin Patterson

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #66

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: F-N-507-23.23

ACTUAL SAMPLE DEPTH: N/A

COA: 302677E510

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	3G	3G	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP EDAM;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - on Fe (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JF41	5	SOIL	JUL 09 2012	0910

9/12 9/12/12 9/12/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1410	SSU-1	JUL 09 2012 1410
SSU-1	7/16/12 0800	ARMS Entry	7/16/12 0800
ARMS Entry	7/16/12 1100	TA Frazier	7/16/12 1100

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**

PRINTED ON 12/8/2012

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-196	PAGE 2 OF 2
COLLECTOR Kevin Patterson	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #66	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. INF -N-507- 25-23	ACTUAL SAMPLE DEPTH N/A	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1260};~~ 4/23/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-016

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #6

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - /196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (1mLm);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDF1	6	SOIL	JUL 09 2012	0945	✓	✓	9H 6/29/12	9H 6/29/12	✓	✓	✓	9H 6/29/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	ARMGuitze	7/16/12 0800
ARMGuitze	7/16/12 1100	TAFrazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-016

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #6	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ GJK 6/28/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-034

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #12

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-502-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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 concentrat ons that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 7008	Chromium Hex - 7196	SEE ITEM (2) IN SPECIAL INSTRUCTIONS PCB	8270_SVOA_SPECIAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am U Pu Sr	Tritium - Liq Sc (Tritium)
SAMPLE NO. / MATRIX* / SAMPLE DATE / SAMPLE TIME								
B2JDH9 / 7 / SOIL / JUL 10 2012 0923	X	X	X	X	X	X	X	X

04/22/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	SS Wall	JUL 10 2012 1330
SS Wall	7/16/12 0800	Alm Cintyre	7/16/12 0800
Alm Cintyre	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A 6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-034** — **PAGE 2 OF 2**

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #12	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-[illegible]	**ACTUAL SAMPLE DEPTH** 0" - 6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-031 — PAGE 1 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE BC	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #11	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0'-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium Ion Ex (Tritium);

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**								
B2JDH6	8 SOIL	JUL 10 2012	0915	X	X	X	X	X	X	X	

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	SJ Trent	JUL 10 2012 1330
SJ Trent	7/16/12 0800	ARM Equipment	7/16/12 0800
ARM Equipment	7/16/12 1100	TA Processing	7/16/12 1100

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**

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-031

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRG	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #11	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soi.		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE BC

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120895

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

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

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

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

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

Analytical Methodology for Requested Analyses

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

Inorganic Comments

Attachment 2
Narrative
WSCF120895

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204913
  - Sulfate – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

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

  - All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204901
  - Manganese – Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

Organic Comments

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

  - B2JDV3 (120895003) did not meet the acceptance limits for surrogate Decachlorobiphenyl. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.
  - All other applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 205183
  - 3, 3-Dichlorobenzidine did not meet the LCS acceptance limits. Sample results for these analytes were "X" flagged.

Attachment 2
Narrative
WSCF120895

- All other applicable QC controls are within the established limits.

Radiochemistry Comments

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

- Americium-241:
  - Batch QC 204922
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
    - All other applicable QC controls are within the established limits.
- Gamma Energy Analysis:
    - All applicable QC controls are within the established limits.
- Isotopic Plutonium analysis:
  - Batch QC 204922
    - Plutonium 239/240—the blank is less than 2X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
    - Plutonium 239/240— Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
    - All other applicable QC controls are within the established limits.
- Isotopic Uranium analysis:
  - Batch QC 204882
    - Uranium-234 and Uranium-238 — The blank is less than 5X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
    - All other applicable QC controls are within the established limits.
- Strontium-89/90:
    - All applicable QC controls are within the established limits.

Narrative

Attachment 2
Narrative
WSCF120895

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-073 PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #25

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6'

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250ml	60ml	250ml	250ml	60ml	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS ICV	SEE ITEM (4) IN SPECIAL INSTRUCTIONS CEIZV	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Liq Ex (Tritium);

120895

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDM8	SOIL	JUL 11 2012	0828	✓	✓	✓	✓	✓	✓	✓	

7/16/2012

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: John Fulton	DATE/TIME: JUL 11 2012 1430	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: 7/16/12 0800	RECEIVED BY/STORED IN: ARMCIntyre	DATE/TIME: 7/16/12 0800
RELINQUISHED BY/REMOVED FROM: ARMCIntyre	DATE/TIME: 7/16/12 1100	RECEIVED BY/STORED IN: TA Pinzin	DATE/TIME: 7/16/12 1100
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION RECEIVED BY | TITLE | DATE/TIME

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-073** | **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #25	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY ☐	**ICE CHEST NO.** (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"
COA 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**	
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-076 — PAGE 1 OF 2

COLLECTOR: John Fulton
COMPANY CONTACT: TRENT, SJ
TELEPHONE NO.: 373-5869
PROJECT COORDINATOR: TRENT, SJ
PRICE CODE: 8C
DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #26
PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil
SAF NO.: F12-005
AIR QUALITY: ☐
ICE CHEST NO.: (N/A)
FIELD LOGBOOK NO.: HNF-N-507 25
ACTUAL SAMPLE DEPTH: 0-6'
COA: 302677ES10
METHOD OF SHIPMENT: GOVERNMENT VEHICLE
ORIGINAL
SHIPPED TO: Waste Sampling & Characterization
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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250ml	250ml	60ml	500ml	120mL	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDN1 2	SOIL	JUL 11 2012	0834

9K 7/20/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1130	SSU-1	JUL 11 2012 1130
SSU-1	7/16/12 0800	ARMCIUTYRE	7/16/12 0800
ARMCIUTYRE	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-076** | **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #26	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY ☐			
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-118 PAGE 1 OF 2

COLLECTOR John Fulton

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #40

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY [ ]

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF -N-507- 25

ACTUAL SAMPLE DEPTH 0-6"

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/18 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196,	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SvOA_SPECIAL,	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDV3	SOIL	JUL 11 2012	0803	✓	✓	✓	✓	✓	✓	✓	

OK 6/29/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-118** — **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #40	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-61'	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-091

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #31

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium (Low Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDP6	4	SOIL	JUL 11 2012	0752	✓	✓	✓	✓	✓	✓	✓	

07/31/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSintyre	7/16/12 0800
ARMSintyre	7/16/12 1100		7/16/12 1100

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

PRINTED ON 12/8/2011

A 6003 618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-091 | **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #31	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY [ ]

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-082

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #28

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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, Sd=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270 SVOA SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDN7 5	SOIL	JUL 11 2012	0941

✓ ✓ ✓ ✓ ✓ ✓ ✓

WH 6/26/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM Guthrie	7/16/12 0800
ARM Guthrie	7/16/12 1100		7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-082** — **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #28	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-2.5	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-079

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #27

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: | |

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF -N-507- 25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196,	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL,	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDN4	SOIL	JUL 11 2012	0838

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM Cintyre	7/16/12 0800
ARM Cintyre	7/16/12 1100		7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-079 — PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #27	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY			
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** 1F-N-507-2.5	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120900

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

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

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

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

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

Analytical Methodology for Requested Analyses

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

Inorganic Comments

Attachment 2
Narrative
WSCF120900

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204923
  - Chloride and Sulfate – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

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

  - All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204901
  - Manganese – Matrix Spike Duplicate recovery was outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- Batch QC 204902
  - Manganese, Barium and Strontium – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

Organic Comments

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

  - All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 205183

Attachment 2
Narrative
WSCF120900

- 3, 3-Dichlorobenzidine did not meet the LCS acceptance limits. Sample results for these analytes were "X" flagged.
- All other applicable QC controls are within the established limits.

Radiochemistry Comments

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

- Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.
- Americium-241:
  - Batch QC 204922
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
  - Batch QC 204884
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - Batch QC 204884
    - Americium-243 Tracer for sample B2JDJ8—tracer recovery was slightly above the established laboratory limits. No flags issued.
    - All other applicable QC controls are within the established limits.
- Gamma Energy Analysis:
    - All applicable QC controls are within the established limits.
- Isotopic Plutonium analysis:
  - Batch QC 204884
    - Plutonium 239/240—the blank is less than 2X the MDC and is acceptable, per S&GRP SOW.
  - Batch QC 204922

Attachment 2
Narrative
WSCF120900

- Plutonium 239/240—the blank is less than 2X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
- Plutonium 239/240— Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
- All other applicable QC controls are within the established limits.

- Isotopic Uranium analysis:
  - Batch QC 204882
    - Uranium-234 and Uranium-238—the blank is less than 5X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
  - Batch QC 204883
    - Uranium-234—the blank is less than 5X the MDC and is acceptable, per S&GRP SOW.
    - Uranium-235— Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
  - Batch QC 204884
    - Uranium-234— the blank is less than 5X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
    - All other applicable QC controls are within the established limits.
- Strontium-89/90:
    - All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-112

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #38

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35.

ACTUAL SAMPLE DEPTH

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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)

140900

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 3008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS PCB	B270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am U Pu SR	Tritium - Ton Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDT7	SOIL	JUN 12 2012	0931	✓	✓	✓	✓	✓	✓	✓

gk 7/20/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU#1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMCulture	7/16/12 0800
ARMCulture	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-112

PAGE 2 OF 2

COLLECTOR
DJ Sparks
CHPRC

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND
15 Days / 15 Days

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #38

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.
F12-005

AIR QUALITY

ICE CHEST NO.
(N/A)

FIELD LOGBOOK NO.
HNF-N-507-25

ACTUAL SAMPLE DEPTH
0-6 inches

COA
302677FS10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO
Waste Sampling & Characterization

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-109

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #37

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION		Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME		6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER		G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)		1	1	1	1	1	1	1	1
VOLUME		250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	ntium - on Ex (Tritium);
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
B2JDT4 2	SOIL	JUN 12 2012	0656	✓	✓	✓	✓	✓	✓

GK 7/12/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	AMCintyre	7/16/12 0800
AMCintyre	7/16/12 1100		7/16/12 1100
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

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-109** — **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days	**SAMPLING LOCATION** Area AG Zone 2 Verification Sample #37	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil
SAF NO. F12-005	**AIR QUALITY** ☐	**ICE CHEST NO.** (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-20
ACTUAL SAMPLE DEPTH 0-6 inches	**COA** 302677E510	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-028

PAGE 1 OF 2

COLLECTOR KC Patterson CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #10

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-25

ACTUAL SAMPLE DEPTH 0'-6'

COA 3026//ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

OFFSITE PROPERTY NO. N/A

BILL OF LADING/AIR BILL NO. N/A

MATRIX*
A=Air
DI=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium).

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDH3	3	SOIL	JUL 10 2012	0730

7/16/2012

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	KC Patterson CHPRC	JUL 10 2012 1330
Sample #1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12		7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-028** | **PAGE 2 OF 2**

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #10	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0"-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-049

PAGE 1 OF 2

COLLECTOR
DJ Sparks
CHPRC

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND
15 Days / 15 Days

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #17

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.
F12-005

AIR QUALITY ☐

ICE CHEST NO.

FIELD LOGBOOK NO.
HNF-N-507-25.

ACTUAL SAMPLE DEPTH
0-6 inches

COA
302677ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO
Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7199;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Thorium - Ion Ex (Thorium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDK4	4	SOIL	JUN 12 2012	0755	✓	✓	✓	✓	✓	✓	✓	

OH 6/12/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU#1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMSEntyre	7/16/12 0800
ARMSEntyre	7/16/12 1100	TA Pnozin	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-049** — **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #17	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-807-25.	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-040

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #14

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.:

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: C-Lunches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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:

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDJ5	5	SOIL	JUN 12 2012	0819	✓	✓	✓	✓	✓	✓	✓	

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks	JUN 12 2012 1000	SSU#1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMELLITTE	7/16/12 0800
ARMELLITTE	7/16/12 1100	TA Amazin Jones	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-040** | **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #14	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-115

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #39

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);
SAMPLE NO. / MATRIX* / SAMPLE DATE / SAMPLE TIME								
B2JDV0 6 SOIL	JUN 12 2012 0714	✓	✓	✓	✓	✓	✓	✓

ok 7/16/2012

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU#1	JUN 12 2012 1100
SSU#1	7/16/12 0800	ARMSmith	7/16/12 0800
ARMSmith	7/16/12 1100	TA Pnazim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6008-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-115

PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #39	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-085 — PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ — **TELEPHONE NO.:** 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #29

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: 1

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25 — **ACTUAL SAMPLE DEPTH:** 0"-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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:

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/10 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);
SAMPLE NO. B2JDP0 7	**MATRIX*** SOIL	**SAMPLE DATE SAMPLE TIME** JUL 10 2012 0740	X	X	X	X	X	X	X

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1331	Sutt!	JUL 10 2012 1331
Sutt!	7/16/12 0800	APM Courier	7/16/12 0800
APM Courier	7/16/12 1100	TA Rnazim Jerez Arjon	7/16/12 1100

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

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-085

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample 429	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-[illegible]-23	**ACTUAL SAMPLE DEPTH** 0'-6'	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-103

PAGE 1 OF 2

COLLECTOR DJ Sparks CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #35

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-35.

ACTUAL SAMPLE DEPTH 0-6 inches

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDR8	8	SOIL	JUN 12 2012	0701	✓	✓	✓	✓	✓	✓	✓	

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSJ #1	JUN 12 2012 1100
SSJ #1	7/16/12 0800	Ahmentuge	7/16/12 0800
Ahmentuge	7/16/12 1100	TA Fraizer	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-103

PAGE 2 OF 2

COLLECTOR
DJ Sparks
CHPRC

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND
15 Days / 15 Days

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #35

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.
F12-005

AIR QUALITY

ICE CHEST NO.
(N/A)

FIELD LOGBOOK NO.
HNF-N-507-25

ACTUAL SAMPLE DEPTH
0-6 inches

COA
302677ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO
Waste Sampling & Characterization

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium 155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-106

PAGE 1 OF 2

COLLECTOR: DJ Sparks, CHPRC

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #36

ICE CHEST NO.: (N/A)

SHIPPED TO: Waste Sampling & Characterization

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6 inches

OFFSITE PROPERTY NO.: N/A

PROJECT COORDINATOR: TRENT, SJ

SAF NO.: F12-005

COA: 302677ES10

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

PRICE CODE: 8C

AIR QUALITY: ☐

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

DATA TURNAROUND: 15 Days / 15 Days

ORIGINAL

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SF=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDT1	9 SOIL	JUN 12 2012	0707	✓	✓	✓	✓	✓	✓	✓

9d 6/22/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMCintyre	7/16/12 0800
ARMCintyre	7/16/12 1100	JA Frazim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-106

PAGE 2 OF 2

COLLECTOR: DJ Sparks CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days		
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #36	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005
AIR QUALITY: ☐	ORIGINAL		
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N-507-25	ACTUAL SAMPLE DEPTH: 0-6 inches	COA: 302677ES10
METHOD OF SHIPMENT: GOVERNMENT VEHICLE			
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A	BILL OF LADING/AIR BILL NO.: N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium 154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-187

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #63

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0'-6'

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250ml	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270 SVOA SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - ion ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JF32	10 SOIL	JUL 10 2012	0750	X	X	X	X	X	X	X

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	3Sutt1	JUL 10 2012 1336
3Sutt1	7/16/12 0800	ARMCintyre	7/16/12 0800
ARMCintyre	7/16/12 1100	TA Pmzim	7/16/12 1100

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	

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-187	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #63	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	
ICE CHEST NO. (N/A)	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 6'-6'	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-043

PAGE 1 OF 2

COLLECTOR
KC Patterson
CHPRC

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND
15 Days / 15 Days

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #15

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.
F12-005

AIR QUALITY ☐

ICE CHEST NO.
(N/A)

FIELD LOGBOOK NO.
HNF-N- 507-25

ACTUAL SAMPLE DEPTH
0"-6"

COA
302677ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO
Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDJ8	11	SOIL	JUL 10 2012	0750	X	X	X	X	X	X	X	

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1315	3Smith	JUL 10 2012 1315
3Smith	7/16/12 0800	ARMcIntyre	7/16/12 0800
ARMcIntyre	7/16/12 1100	TA Rivera	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-043

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #15	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-567-25	**ACTUAL SAMPLE DEPTH** 0"- 6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium 152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-097

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #33

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDR2	12 SOIL	JUL 11 2012	0949	✓	✓	✓	✓	✓	✓	✓

JK 6/28/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM Dutyee	7/16/12 0800
ARM Dutyee	7/16/12 1100	TA Fnazim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-097

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #33	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-100 | PAGE 1 OF 2

COLLECTOR: DJ Sparks, CHPRC

COMPANY CONTACT: TRENT, SJ | TELEPHONE NO.: 373-5869 | PROJECT COORDINATOR: TRENT, SJ | PRICE CODE: 8C | DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #34

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soi | SAF NO.: F12-005 | AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25. | ACTUAL SAMPLE DEPTH: 0-6 inches | COA: 302677ES10 | METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDR5	13 SOIL	JUN 12 2012	0724	✓	✓	✓	✓	✓	✓	✓

7/16/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12 1100	TA FRAZIER	7/16/12 1100

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

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-100

PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #34

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-25

ACTUAL SAMPLE DEPTH 0-6 inches

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

OFFSITE PROPERTY NO. N/A

BILL OF LADING/AIR BILL NO. N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-613 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-088 | PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #30

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);
SAMPLE NO. B2JDP3	14	**MATRIX*** SOIL	**SAMPLE DATE** JUL 11 2012	**SAMPLE TIME** 0741	✓	✓	✓	✓	✓	✓	✓	

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSLL-1	JUL 11 2012 1830
SSLL-1	7/16/12 0800	ARMS Entry	7/16/12 0800
ARMS Entry	7/16/12 1100	TA Mazim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-088

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #30	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soi		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-094 — PAGE 1 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**AIR QUALITY** ☐	**DATA TURNAROUND** 15 Days / 15 Days	
SAMPLING LOCATION Area AG Zone 2 Verification Sample #32	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/18 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium Ion Ex (Tritium);

SAMPLE NO.		**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**
B2JDP9	15	SOIL	JUL 11 2012	0855

7/16/2012

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSchutze	7/16/12 0800
ARMSchutze	7/16/12 1100	TA Frazier	7/16/12 1100

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**

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-094 — PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #32	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12 005	**AIR QUALITY** [ ]
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** WMSJ-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A 6003 618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-121

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: BC

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #41

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDV6	16 SOIL	JUL 11 2012	0846	✓	✓	✓	✓	✓	✓	✓	

GH 7/25/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMS Entry	7/16/12 0800
ARMS Entry	7/16/12 1100	TA Fnazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-121

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #41	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6'	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-046 — PAGE 1 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #16	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**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, SF=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**								
B2JDK1	17	SOIL	JUL 11 2012	0954	✓	✓	✓	✓	✓	✓	✓	

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSTUTYRE	7/16/12 0800
ARMSTUTYRE	7/16/12 1100	TA FNAZIM	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-046

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #16	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY ☐	**ORIGINAL**		
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium 155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-190

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #64

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY:

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JF35	18 SOIL	JUL 11 2012	0855	✓	✓	✓	✓	✓	✓	✓

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSchutyre	7/16/12 0800
ARMSchutyre	7/16/12 1100	TAFrazian	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-190

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #64	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT FEDERAL EXPRESS

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A 6003 618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-202 PAGE 1 OF 2

COLLECTOR John Fulton

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #68

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF -N-507- 25

ACTUAL SAMPLE DEPTH 0-6"

COA 302677ES10

METHOD OF SHIPMENT FEDERAL EXPRESS

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - /196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270, SVOA SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JF47	19	SOIL	JUL 11 2012	0808	✓	✓	✓	✓	✓	✓	✓	

7/16/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430		JUL 11 2012 1430
SSU #1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12 1100	TA FRAZIER	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-202 — PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #68	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY ☐			
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507-75	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT FEDERAL EXPRESS	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120922

Introduction

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

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

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

- Sample Issue Resolution Form SDR12-308 regarding missing sample collector on COC is attached to this report.

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

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

Analytical Methodology for Requested Analyses

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

Attachment 2
Narrative
WSCF120922

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

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

- All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Vanadium, Strontium, Zinc and Barium – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- Vanadium and Manganese were detected in the Blank and evaluated.
- Manganese – Exceeded spiking levels by a factor of 4. Spike recoveries and associated RPDs are not valid.
- All other applicable QC controls are within the established limits.

Organic Comments

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

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Radiochemistry Comments

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

Attachment 2
Narrative
WSCF120922

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gamma Energy Analysis:

- All applicable QC controls are within the established limits.

Americium-241:

- The Blank is less than two times the RDL. "B" Flag not required.
- Americium-243 - Tracer recovery did not meet the established laboratory limits. No flags issued on sample results. The quality control report was flagged for the failure.
- All other applicable QC controls are within the established limits.

Isotopic Plutonium analysis:

- All applicable QC controls are within the established limits.

Isotopic Uranium analysis:

- Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.
- All other applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-055

PAGE 1 OF 2

COLLECTOR: DJ Sparks

SAMPLING LOCATION: Area AG Zone 2 Verificaton Sample #19

ICE CHEST NO.: (N/A)

SHIPPED TO: Waste Sampling & Characterization

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

FIELD LOGBOOK NO.: HNF-N-507-22

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

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

120922

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2DSE	Chromium Hex 7196:	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL:	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am U Pu Sr	Tritium - Ion Ex (Tritium).

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDL0	/ SOIL	JUL 17 2012	1413	X	X	X	7/17/12	X	X	X	7/18/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU-1	JUL 17 2012 1515
[redacted]	7-18-12 0730	ARMCINTYRE	7/18/12 0730
ARMCINTYRE	7/18/12 0800	TA Fraziin	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-055** — **PAGE 2 OF 2**

COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8C	**DATA TURNAROUND**
	TRENT, SJ	373-5869	TRENT, SJ		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	**15 Days / 15 Days**
Area AG Zone 2 Verification Sample #19	Area AG Zone 2 Sampling Verification Sampling Soil		F12-005		
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 6-6'	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Waste Sampling & Characterization	N/A		N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ GH 4/29/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-058 — PAGE 1 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5859	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #20	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507 D.	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDL3	2 SOIL	JUL 17 2012	1420	X	X			X	X	X	

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU-1	JUL 17 2012 1515
SSU-1	JUL 18 2012 0730	Randy Ellingsworth	JUL 18 2012 0730
Randy Ellingsworth	JUL 18 2012 0800	TA Frazier	JUL 18 2012 0800

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

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-058** — **PAGE 2 OF 2**

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #20	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9/4/2012

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-061

PAGE 1 OF 2

COLLECTOR
DJ Sparks
CHPRC

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #21

ICE CHEST NO.
(N/A)

SHIPPED TO
Waste Sampling & Characterization

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

FIELD LOGBOOK NO.
HNF -N-507-25

ACTUAL SAMPLE DEPTH
6-6"

OFFSITE PROPERTY NO.
N/A

PROJECT COORDINATOR
TRENT, SJ

SAF NO.
F12-005

COA
302677ES10

BILL OF LADING/AIR BILL NO.
N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

DATA TURNAROUND
15 Days / 15 Days

ORIGINAL

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 y/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	RCRA_SVOA_SP EC/AL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Non Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDL6	3	SOIL	JUL 17 2012	1313	X	X	X	X	X	X	X	

7-23-12 9H 7/29/12

9H 8/27/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	550 #1	JUL 17 2012 1515
550 #1	7.18.12 0730	ARM Intyre	7.18.12 0730
AR McIntyre	7.18.12 0800	TA Knazian	7/18/12 0800

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**

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-061 PAGE 2 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #21	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ -- 8H 6/29/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-064

PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #22

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool--4C	Cool--4C	Cool--4C	Cool--4C	Cool--4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	B2VU_SVOA_SP FETAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDL9	4	SOIL	JUN 16 2012	0954

7/4 6/20/12

7/4 6/20/12

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: Frank Hall	DATE/TIME: JUN 16 2012 1515	RECEIVED BY/STORED IN: SSU #1	DATE/TIME: JUN 16 2012 1515
RELINQUISHED BY/REMOVED FROM: SSU #1	DATE/TIME: 7-18-12 0730	RECEIVED BY/STORED IN: ARM Stutzo	DATE/TIME: 7-18-12 0730
RELINQUISHED BY/REMOVED FROM: ARM Stutzo	DATE/TIME: 7/18/12 0800	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 7/18/12 0800
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-064 **PAGE 2 OF 2**

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #22	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9/17/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-067

PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #23

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF -N-507- 25

ACTUAL SAMPLE DEPTH: 0 - 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDM2 5	SOIL	JUN 16 2012	1024

JGH 6/29/12

JGH 6/28/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Frank Hall	JUN 16 2012 1515	SSU #1	JUN 16 2012 1515
SSU #1	7.18.12 0730	ARM Courier	7.18.12 0730
ARM Courier	7.18.12 0820	TA Frazier	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-067 **PAGE 2 OF 2**

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #23	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 4/29/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-070 — PAGE 1 OF 2

COLLECTOR: Frank Hall	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #24	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: YNF-N-507- 25	ACTUAL SAMPLE DEPTH: 0-6"	COA: 302677ES10
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A

PRICE CODE: 8C
AIR QUALITY: ☐
DATA TURNAROUND: 15 Days / 15 Days
METHOD OF SHIPMENT: GOVERNMENT VEHICLE
ORIGINAL

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Gen Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDM5	6	SOIL	JUN 16 2012	0940

9/4 6/28/12

9/4 6/29/12

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: Frank Hall	DATE/TIME: JUN 16 2012 1500	RECEIVED BY/STORED IN: SSL #1	DATE/TIME: JUN 16 2012 1500
RELINQUISHED BY/REMOVED FROM: SSL-1	DATE/TIME: JUL 18 2012 0730	RECEIVED BY/STORED IN: Randy Ellingsworth	DATE/TIME: JUL 18 2012 0730
RELINQUISHED BY/REMOVED FROM: Randy Ellingsworth	DATE/TIME: JUL 18 2012 0800	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: JUL 18 2012 0800
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-070

PAGE 2 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #24	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677E510
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY [ ]

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9H 6/29/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-199 — PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #67

ICE CHEST NO.: NA

SHIPPED TO: Waste Sampling & Characterization NA

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: NA

OFFSITE PROPERTY NO.: N/A

PROJECT COORDINATOR: TRENT, SJ

SAF NO.: F12-005

COA: 302677ES10

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

PRICE CODE: 8C

AIR QUALITY: ☐

METHOD OF SHIPMENT: FEDERAL EXPRESS

DATA TURNAROUND: 15 Days / 15 Days

ORIGINAL

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - (3196);	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP &CEAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - (in Fe (Tritium);
SAMPLE NO. / MATRIX* / SAMPLE DATE / SAMPLE TIME								
B2JF44 7 / SOIL / JUL 17 2012 1250	X	X	X	X	X	X	X	

PJK 7/23/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	CSU #1	JUL 17 2012 1515
SSU #1	7.18.12 0730	AHM Sulgre	7.18.12 0730
AHM Sulgre	7.18.12 0800	TA Fnazisa	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-199

PAGE 2 OF 2

COLLECTOR	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #67	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF -N-507-25	ACTUAL SAMPLE DEPTH: N/A	COA: 302677ES10
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-037 — PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #13

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6'

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Inorganic - Ion Ex (Thallium);
SAMPLE NO.	B2JDJ2							
MATRIX*	SOIL							
SAMPLE DATE	JUL 17 2012							
SAMPLE TIME	1355							
	X	X	X	X	X	X	X	

Qt Metallic

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU #1	JUL 17 2012 1515
SSU #1	7.18.12 0730	ARM Eastyre	7.18.12 0730
ARM Eastyre	7.18.12 0800	TA Franzim	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-037** | **PAGE 2 OF 2**

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #13	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-052

PAGE 1 OF 2

COLLECTOR DJ Sparks CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #18

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. N/A

FIELD LOGBOOK NO. HNF -N-507-23

ACTUAL SAMPLE DEPTH 0 - 6"

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION		Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME		6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER		G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)		1	1	1	1	1	1	1	1
VOLUME		250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Gas Ex (Tritium);
SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**						
B2JDK7	9 SOIL	JUL 17 2012	1308	X	X	X	X	X	X

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU #1	JUL 17 2012 1515
SSU #1	7.18.12 0730	ARM CENTURE	7.18.12 0730
ARM CENTURE	7.18.12 0830	TA FRAZIER	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

F12-005-052 — PAGE 2 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #18	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. NA	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C — **DATA TURNAROUND** 15 Days / 15 Days

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Appendix 5

Data Validation Supporting Documentation

VALIDATION LEVEL:	A	B	C	D	E
PROJECT: 100 K RA			DATA PACKAGE: VSR12-021		
VALIDATOR: Ken Salaz		LAB: WSCF		DATE: 8/13/12	
			SDG: WSCF120788, WSCF120894, WSCF120895, WSCF120900, WSCF120922		
ANALYSES PERFORMED					
SW-846/ICP	SW-846/GFAA	SW-846/Hg	SW-846 Cyanide	EPA 200.8 X	
SAMPLES/MATRIX Soil Samples					

SDG WSCF120788: B2JDD8
SDG WSCF120894: B2JF29, B2JDH0, B2JDF4, B2JKF7, B2JF41, B2JDF1, B2JDH9, B2JDH6
SDG WSCF120895: B2JDM8, B2JDN1, B2JDV3, B2JDP6, B2JDN7, B2JDN4
SDG WSCF120900: B2JDT7, B2JDT4, B2JDH3, B2JDK4, B2JDJ5, B2JDV0, B2JDP0, B2JDR8, B2JDT1, B2JF32, B2JDJ8, B2JDR2, B2JDR5, B2JDP3, B2JDP9, B2JDV6, B2JDK1, B2JF35, B2JF47
SDG WSCF120922: B2JDL0, B2JDL3, B2JDL6, B2JDL9, B2JDM2, B2JDM5, B2JF44, BJDJ2, B2JDK7

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present?..... Yes (No) N/A

Comments: None

2. INSTRUMENT PERFORMANCE AND CALIBRATIONS (Levels D and E)

Initial calibrations performed on all instruments? ..... Yes No N/A

Initial calibrations acceptable? ..... Yes No N/A

ICP interference checks acceptable? ..... Yes No N/A

ICV and CCV checks performed on all instruments? ..... Yes No N/A

ICV and CCV checks acceptable? ..... Yes No N/A

Standards traceable? ..... Yes No N/A

Standards expired? ..... Yes No N/A

Calculation check acceptable? ..... Yes No N/A

Comments:

3. BLANKS (Levels B, C, D, and E)

ICB and CCB checks performed for all applicable analyses? (Levels D, E) ..... Yes No N/A

ICB and CCB results acceptable? (Levels D, E) ..... Yes No N/A

Laboratory blanks analyzed? ..... Yes No N/A

Laboratory blank results acceptable? ..... Yes No N/A

Field blanks analyzed? (Levels C, D, E) ..... Yes No N/A

Field blank results acceptable? (Levels C, D, E) ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Comments:

SDG WSCF120788: MB Sample 77239: Cu 0.164 mg/kg; V 0.14 mg/kg

SDG WSCF120894: EB Sample B2JF41: Mn 3.89 mg/kg (>PQL); Ba 1.78 mg/kg; Zn 1.62 mg/kg; Pb 0.265 mg/kg; Sr 0.329 mg/kg; U 0.0557 mg/kg

SDGs WSCF120895 & WSCF120900: EB sample B2JF47 (7/11/12 samples only): Mn 5.81 mg/kg (>PQL); Ba 2.47 mg/kg (>PQL); Co 0.0871 mg/kg; Zn 1.28 mg/kg; Pb 0.392 mg/kg; Sr 0.623 mg/kg; U 0.0903 mg/kg

SDG WSCF120922: MB sample 78760: Mn 0.509 mg/kg

EB sample B2JF44 (7/17/12 samples only): (all mg/kg) Mn 7.6(>PQL), Ni 0.35, Ba 3.08(>PQL), Be 0.103, Cr 0.231, Co 0.231(>PQL), Cu 0.765(>PQL), V 1.31(>PQL), Zn 5.25(>PQL), Pb 0.631(>PQL), Mo 0.983 (>PQL), Sr 0.456, Sn 0.0475, U 0.247(>PQL), Se 0.513

4. ACCURACY (Levels C, D, and E)

MS/MSD samples analyzed? ..... Yes No N/A

MS/MSD results acceptable? ..... Yes No N/A

MS/MSD standards NIST traceable? (Levels D, E) ..... Yes No N/A

MS/MSD standards expired? (Levels D, E) ..... Yes No N/A

LCS/BSS samples analyzed? ..... Yes No N/A

LCS/BSS results acceptable? ..... Yes No N/A

Standards traceable? (Levels D, E) ..... Yes No N/A

Standards expired? (Levels D, E) ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Performance audit sample(s) analyzed? ..... Yes No N/A

Performance audit sample results acceptable? ..... Yes No N/A

Comments:
SDGs WSCF120894 & WSCF120895: MS/MSD Samples 78175/6: Mn MSD %R=146%
SDG WSCF120900 Batch 204927: MS/MSD samples: Ba 175.1/237.5, Mn 173.1/143.1, Sr 147.9/207.4
Batch 204928: MSD %R Mn 148.5
SDG WSCF120922: MS/MSD Samples: Ba MS/MSD=0.4/-1.2, V=46/37, Sr MSD=48, Zn MS/MSD=57/58

5. PRECISION (Levels C, D, and E)

Duplicate RPD values acceptable?..... Yes No N/A

Duplicate results acceptable? ..... Yes No N/A

MS/MSD standards NIST traceable? (Levels D, E) ..... Yes No N/A

MS/MSD standards expired? (Levels D, E) ..... Yes No N/A

Field duplicate RPD values acceptable? ..... Yes No N/A

Field split RPD values acceptable? ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Comments:_

6. ICP QUALITY CONTROL (Levels D and E)

ICP serial dilution samples analyzed? ..... Yes No N/A

ICP serial dilution %D values acceptable? ..... Yes No N/A

ICP post digestion spike required? ..... Yes No N/A

ICP post digestion spike values acceptable? ..... Yes No N/A

Standards traceable? ..... Yes No N/A

Standards expired? ..... Yes No N/A

Transcription/calculation errors? ..... Yes No N/A

Comments:

7. HOLDING TIMES (all levels)

Samples properly preserved? ..... Yes No N/A

Sample holding times acceptable? ..... Yes No N/A

Comments: None

8. RESULT QUANTITATION AND DETECTION LIMITS (all levels)

Results reported for all requested analyses?..... Yes No N/A

Results supported in the raw data? (Levels D, E) ..... Yes No N/A

Samples properly prepared? (Levels D, E)..... Yes No N/A

Detection limits meet RDL?..... Yes No N/A

Transcription/calculation errors? (Levels D, E)..... Yes No N/A

Comments:_ None

Comments (attach additional sheets as necessary):

Appendix 6

Additional Documentation Requested By Client

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
203580	203660	1	BLANK	77149	BLANK		SW-846 8270D Semivolatiles
203580	203660	2	LCS	77150	LCS		SW-846 8270D Semivolatiles
203580	203660	3	MS	77151	B2JDD8(120788001MS)	120788001	SW-846 8270D Semivolatiles
203580	203660	4	MSD	77152	B2JDD8(120788001MSD)	120788001	SW-846 8270D Semivolatiles
203580	203660	5	SAMPLE	120788001	B2JDD8		SW-846 8270D Semivolatiles
203676	203852	1	BLANK	77290	BLANK		PCBs by EPA SW-846 Method 8082
203676	203852	2	LCS	77291	LCS		PCBs by EPA SW-846 Method 8082
203676	203852	3	MS	77292	B2JDD8(120788001MS)	120788001	PCBs by EPA SW-846 Method 8082
203676	203852	4	MSD	77293	B2JDD8(120788001MSD)	120788001	PCBs by EPA SW-846 Method 8082
203676	203852	5	SAMPLE	120788001	B2JDD8		PCBs by EPA SW-846 Method 8082

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Analytical Batch 203852 (QC Batch: 203676)
Associated Samples 120788001

Test PCBs by EPA SW-846 Method 8082

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #77290**							
Aroclor-1016	12674-11-2		<4	ug/kg					U	06/26/12
Aroclor-1221	11104-28-2		<8	ug/kg					U	06/26/12
Aroclor-1232	11141-16-5		<4	ug/kg					U	06/26/12
Aroclor-1242	53469-21-9		<4	ug/kg					U	06/26/12
Aroclor-1248	12672-29-6		<4	ug/kg					U	06/26/12
Aroclor-1254	11097-69-1		<4	ug/kg					U	06/26/12
Aroclor-1260	11096-82-5		<4	ug/kg					U	06/26/12
Aroclor-1262	37324-23-5		<4	ug/kg					U	06/26/12
Aroclor-1268	11100-14-4		<4	ug/kg					U	06/26/12
LCS			**QC Sample #77291**							
Aroclor-1254	11097-69-1		65	ug/kg	81.1	75 - 128				06/26/12
MS			**QC Sample #77292**							
			Original 120788001							
Aroclor-1254	11097-69-1	12	61	ug/kg	76.5	62 - 140				06/26/12
MSD			**QC Sample #77293**							
			Original 120788001					**Paired 77292**		
Aroclor-1254	11097-69-1	12	64	ug/kg	82.7	62 - 140	4.00	30		06/26/12

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

REVISED120788 -

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120788

Analytical Batch 203852 (QC Batch: 203676)
Associated Samples 120788001

Test PCBs by EPA SW-846 Method 8082

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120788001**							
Tetrachloro-m-xylene	877-09-8				90.7	60 - 140				06/26/12
Decachlorobiphenyl	2051-24-3				88.1	60 - 140				06/26/12
BLANK			**QC Sample #77290**							
Tetrachloro-m-xylene	877-09-8				84.8	60 - 140				06/26/12
Decachlorobiphenyl	2051-24-3				78.4	60 - 140				06/26/12
LCS			**QC Sample #77291**							
Tetrachloro-m-xylene	877-09-8				91	60 - 124				06/26/12
Decachlorobiphenyl	2051-24-3				86.3	72 - 125				06/26/12
MS			**QC Sample #77292**							
			Original 120788001							
Tetrachloro-m-xylene	877-09-8				87.1	51 - 120				06/26/12
Decachlorobiphenyl	2051-24-3				80	66 - 126				06/26/12
MSD			**QC Sample #77293**							
			Original 120788001					**Paired**	**77292**	
Tetrachloro-m-xylene	877-09-8				84.7	51 - 120	n/a			06/26/12
Decachlorobiphenyl	2051-24-3				82.6	66 - 126	n/a			06/26/12

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

REVISED120788 -

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204887	204946	1	BLANK	78136	BLANK		SW-846 8270D Semivolatiles
204887	204946	2	LCS	78137	LCS		SW-846 8270D Semivolatiles
204887	204946	3	MS	78138	B2JDH9(120894007MS)	120894007	SW-846 8270D Semivolatiles
204887	204946	4	MSD	78139	B2JDH9(120894007MSD)	120894007	SW-846 8270D Semivolatiles
204887	204946	5	SAMPLE	120894007	B2JDH9		SW-846 8270D Semivolatiles
204887	204946	6	SAMPLE	120894008	B2JDH6		SW-846 8270D Semivolatiles
204926	205318	1	BLANK	78281	BLANK		PCBs by EPA SW-846 Method 8082
204926	205318	2	LCS	78282	LCS		PCBs by EPA SW-846 Method 8082
204926	205318	3	MS	78283	B2JDH6(120894008MS)	120894008	PCBs by EPA SW-846 Method 8082
204926	205318	4	MSD	78284	B2JDH6(120894008MSD)	120894008	PCBs by EPA SW-846 Method 8082
204926	205318	5	SAMPLE	120894007	B2JDH9		PCBs by EPA SW-846 Method 8082
204926	205318	6	SAMPLE	120894008	B2JDH6		PCBs by EPA SW-846 Method 8082

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Analytical Batch 205318 (QC Batch: 204926)
Associated Samples 120894007, 120894008

Test PCBs by EPA SW-846 Method 8082

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78281**							
Aroclor-1016	12674-11-2		<4	ug/kg					U	08/01/12
Aroclor-1221	11104-28-2		<8	ug/kg					U	08/01/12
Aroclor-1232	11141-16-5		<4	ug/kg					U	08/01/12
Aroclor-1242	53469-21-9		<4	ug/kg					U	08/01/12
Aroclor-1248	12672-29-6		<4	ug/kg					U	08/01/12
Aroclor-1254	11097-69-1		<4	ug/kg					U	08/01/12
Aroclor-1260	11096-82-5		<4	ug/kg					U	08/01/12
Aroclor-1262	37324-23-5		<4	ug/kg					U	08/01/12
Aroclor-1268	11100-14-4		<4	ug/kg					U	08/01/12
LCS			**QC Sample #78282**							
Aroclor-1254	11097-69-1		76	ug/kg	94.9	75 - 128				08/01/12
MS			**QC Sample #78283**							
			Original 120894008							
Aroclor-1254	11097-69-1	17	63	ug/kg	79.1	62 - 140				08/01/12
MSD			**QC Sample #78284**							
			Original 120894008					**Paired 78283**		
Aroclor-1254	11097-69-1	17	69	ug/kg	86.8	62 - 140	7.20	30		08/01/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Analytical Batch 205318 (QC Batch: 204926)
Associated Samples 120894007, 120894008

Test PCBs by EPA SW-846 Method 8082

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120894007**							
Tetrachloro-m-xylene	877-09-8				105.4	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				101	60 - 140				08/01/12
SAMPLE			**Sample #120894008**							
Tetrachloro-m-xylene	877-09-8				90	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				87.8	60 - 140				08/01/12
BLANK			**QC Sample #78281**							
Tetrachloro-m-xylene	877-09-8				103.2	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				99.7	60 - 140				08/01/12
LCS			**QC Sample #78282**							
Tetrachloro-m-xylene	877-09-8				101.2	60 - 124				08/01/12
Decachlorobiphenyl	2051-24-3				99.6	72 - 125				08/01/12
MS			**QC Sample #78283**							
			Original 120894008							
Tetrachloro-m-xylene	877-09-8				107.6	51 - 120				08/01/12
Decachlorobiphenyl	2051-24-3				98.3	66 - 126				08/01/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD			**QC Sample #78284**							
			Original	**120894008**				**Paired**	**78283**	
Tetrachloro-m-xylene	877-09-8				103.8	51 - 120	n/a			08/01/12
Decachlorobiphenyl	2051-24-3				99.7	66 - 126	n/a			08/01/12

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

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204887	204946	1	BLANK	78136	BLANK		SW-846 8270D Semivolatiles
204887	204946	2	LCS	78137	LCS		SW-846 8270D Semivolatiles
204887	204946	3	MS	78138	B2JDH9(120894007MS)	120894007	SW-846 8270D Semivolatiles
204887	204946	4	MSD	78139	B2JDH9(120894007MSD)	120894007	SW-846 8270D Semivolatiles
204887	204946	7	SAMPLE	120895001	B2JDM8		SW-846 8270D Semivolatiles
204887	204946	8	SAMPLE	120895002	B2JDN1		SW-846 8270D Semivolatiles
204887	204946	9	SAMPLE	120895003	B2JDV3		SW-846 8270D Semivolatiles
204887	204946	10	SAMPLE	120895004	B2JDP6		SW-846 8270D Semivolatiles
204887	204946	11	SAMPLE	120895005	B2JDN7		SW-846 8270D Semivolatiles
204926	205318	1	BLANK	78281	BLANK		PCBs by EPA SW-846 Method 8082
204926	205318	2	LCS	78282	LCS		PCBs by EPA SW-846 Method 8082
204926	205318	3	MS	78283	B2JDH6(120894008MS)	120894008	PCBs by EPA SW-846 Method 8082
204926	205318	4	MSD	78284	B2JDH6(120894008MSD)	120894008	PCBs by EPA SW-846 Method 8082
204926	205318	7	SAMPLE	120895001	B2JDM8		PCBs by EPA SW-846 Method 8082
204926	205318	8	SAMPLE	120895002	B2JDN1		PCBs by EPA SW-846 Method 8082
204926	205318	9	SAMPLE	120895003	B2JDV3		PCBs by EPA SW-846 Method 8082
204926	205318	10	SAMPLE	120895004	B2JDP6		PCBs by EPA SW-846 Method 8082
204926	205318	11	SAMPLE	120895005	B2JDN7		PCBs by EPA SW-846 Method 8082
204971	205314	1	BLANK	78402	BLANK		PCBs by EPA SW-846 Method 8082
204971	205314	2	LCS	78403	LCS		PCBs by EPA SW-846 Method 8082
204971	205314	3	MS	78404	B2JDN4(120895006MS)	120895006	PCBs by EPA SW-846 Method 8082
204971	205314	4	MSD	78405	B2JDN4(120895006MSD)	120895006	PCBs by EPA SW-846 Method 8082
204971	205314	5	SAMPLE	120895006	B2JDN4		PCBs by EPA SW-846 Method 8082

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analytical Batch 205314 (QC Batch: 204971) **Test** PCBs by EPA SW-846 Method 8082
Associated Samples 120895006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78402**							
Aroclor-1016	12674-11-2		<4	ug/kg					U	08/01/12
Aroclor-1221	11104-28-2		<8	ug/kg					U	08/01/12
Aroclor-1232	11141-16-5		<4	ug/kg					U	08/01/12
Aroclor-1242	53469-21-9		<4	ug/kg					U	08/01/12
Aroclor-1248	12672-29-6		<4	ug/kg					U	08/01/12
Aroclor-1254	11097-69-1		<4	ug/kg					U	08/01/12
Aroclor-1260	11096-82-5		<4	ug/kg					U	08/01/12
Aroclor-1262	37324-23-5		<4	ug/kg					U	08/01/12
Aroclor-1268	11100-14-4		<4	ug/kg					U	08/01/12
LCS			**QC Sample #78403**							
Aroclor-1254	11097-69-1		68	ug/kg	85.5	75 - 128				08/01/12
MS			**QC Sample #78404**							
			Original 120895006							
Aroclor-1254	11097-69-1	<4	92	ug/kg	116.2	62 - 140				08/01/12
MSD			**QC Sample #78405**							
			Original 120895006					**Paired 78404**		
Aroclor-1254	11097-69-1	<4	81	ug/kg	100.8	62 - 140	12.70	30		08/01/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analytical Batch 205318 (QC Batch: 204926) **Test** PCBs by EPA SW-846 Method 8082
Associated Samples 120895001, 120895002, 120895003, 120895004, 120895005

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78281**							
Aroclor-1016	12674-11-2		<4	ug/kg					U	08/01/12
Aroclor-1221	11104-28-2		<8	ug/kg					U	08/01/12
Aroclor-1232	11141-16-5		<4	ug/kg					U	08/01/12
Aroclor-1242	53469-21-9		<4	ug/kg					U	08/01/12
Aroclor-1248	12672-29-6		<4	ug/kg					U	08/01/12
Aroclor-1254	11097-69-1		<4	ug/kg					U	08/01/12
Aroclor-1260	11096-82-5		<4	ug/kg					U	08/01/12
Aroclor-1262	37324-23-5		<4	ug/kg					U	08/01/12
Aroclor-1268	11100-14-4		<4	ug/kg					U	08/01/12
LCS			**QC Sample #78282**							
Aroclor-1254	11097-69-1		76	ug/kg	94.9	75 - 128				08/01/12
MS			**QC Sample #78283**							
			Original 120894008							
Aroclor-1254	11097-69-1		63	ug/kg	79.1	62 - 140				08/01/12
MSD			**QC Sample #78284**							
			Original 120894008					**Paired 78283**		
Aroclor-1254	11097-69-1		69	ug/kg	86.8	62 - 140	7.20	30		08/01/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analytical Batch 205314 (QC Batch: 204971)
Associated Samples 120895006

Test PCBs by EPA SW-846 Method 8082

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120895006**							
Tetrachloro-m-xylene	877-09-8				86.1	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				84.4	60 - 140				08/01/12
BLANK			**QC Sample #78402**							
Tetrachloro-m-xylene	877-09-8				98.7	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				98.7	60 - 140				08/01/12
LCS			**QC Sample #78403**							
Tetrachloro-m-xylene	877-09-8				95.5	60 - 124				08/01/12
Decachlorobiphenyl	2051-24-3				94	72 - 125				08/01/12
MS			**QC Sample #78404**							
			Original 120895006							
Tetrachloro-m-xylene	877-09-8				106.7	51 - 120				08/01/12
Decachlorobiphenyl	2051-24-3				117.3	66 - 126				08/01/12
MSD			**QC Sample #78405**							
			Original 120895006					**Paired**	**78404**	
Tetrachloro-m-xylene	877-09-8				93	51 - 120	n/a			08/01/12
Decachlorobiphenyl	2051-24-3				103.5	66 - 126	n/a			08/01/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analytical Batch 205318 (QC Batch: 204926) **Test** PCBs by EPA SW-846 Method 8082
Associated Samples 120895001, 120895002, 120895003, 120895004, 120895005

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120895001**							
Tetrachloro-m-xylene	877-09-8				98.5	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				94.8	60 - 140				08/01/12
SAMPLE			**Sample #120895002**							
Tetrachloro-m-xylene	877-09-8				106	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				99	60 - 140				08/01/12
SAMPLE			**Sample #120895003**							
Tetrachloro-m-xylene	877-09-8				122.8	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				326.2	60 - 140			X	08/01/12
SAMPLE			**Sample #120895004**							
Tetrachloro-m-xylene	877-09-8				101	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				93.8	60 - 140				08/01/12
SAMPLE			**Sample #120895005**							
Tetrachloro-m-xylene	877-09-8				102.4	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				97.6	60 - 140				08/01/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78281**							
Tetrachloro-m-xylene	877-09-8				103.2	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				99.7	60 - 140				08/01/12
LCS			**QC Sample #78282**							
Tetrachloro-m-xylene	877-09-8				101.2	60 - 124				08/01/12
Decachlorobiphenyl	2051-24-3				99.6	72 - 125				08/01/12
MS			**QC Sample #78283**							
			Original	**120894008**						
Tetrachloro-m-xylene	877-09-8				107.6	51 - 120				08/01/12
Decachlorobiphenyl	2051-24-3				98.3	66 - 126				08/01/12
MSD			**QC Sample #78284**							
			Original	**120894008**				**Paired**	**78283**	
Tetrachloro-m-xylene	877-09-8				103.8	51 - 120	n/a			08/01/12
Decachlorobiphenyl	2051-24-3				99.7	66 - 126	n/a			08/01/12

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

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204887	204946	1	BLANK	78136	BLANK		SW-846 8270D Semivolatiles
204887	204946	2	LCS	78137	LCS		SW-846 8270D Semivolatiles
204887	204946	3	MS	78138	B2JDH9(120894007MS)	120894007	SW-846 8270D Semivolatiles
204887	204946	4	MSD	78139	B2JDH9(120894007MSD)	120894007	SW-846 8270D Semivolatiles
204887	204946	12	SAMPLE	120900003	B2JDH3		SW-846 8270D Semivolatiles
204887	204946	13	SAMPLE	120900007	B2JDP0		SW-846 8270D Semivolatiles
204887	204946	14	SAMPLE	120900010	B2JF32		SW-846 8270D Semivolatiles
204887	204946	15	SAMPLE	120900011	B2JDJ8		SW-846 8270D Semivolatiles
204926	205318	1	BLANK	78281	BLANK		PCBs by EPA SW-846 Method 8082
204926	205318	2	LCS	78282	LCS		PCBs by EPA SW-846 Method 8082
204926	205318	3	MS	78283	B2JDH6(120894008MS)	120894008	PCBs by EPA SW-846 Method 8082
204926	205318	4	MSD	78284	B2JDH6(120894008MSD)	120894008	PCBs by EPA SW-846 Method 8082
204926	205318	12	SAMPLE	120900003	B2JDH3		PCBs by EPA SW-846 Method 8082
204926	205318	13	SAMPLE	120900007	B2JDP0		PCBs by EPA SW-846 Method 8082
204926	205318	14	SAMPLE	120900010	B2JF32		PCBs by EPA SW-846 Method 8082
204926	205318	15	SAMPLE	120900011	B2JDJ8		PCBs by EPA SW-846 Method 8082
204971	205314	1	BLANK	78402	BLANK		PCBs by EPA SW-846 Method 8082
204971	205314	2	LCS	78403	LCS		PCBs by EPA SW-846 Method 8082
204971	205314	3	MS	78404	B2JDN4(120895006MS)	120895006	PCBs by EPA SW-846 Method 8082
204971	205314	4	MSD	78405	B2JDN4(120895006MSD)	120895006	PCBs by EPA SW-846 Method 8082
204971	205314	6	SAMPLE	120900001	B2JDT7		PCBs by EPA SW-846 Method 8082
204971	205314	7	SAMPLE	120900002	B2JDT4		PCBs by EPA SW-846 Method 8082
204971	205314	8	SAMPLE	120900004	B2JDK4		PCBs by EPA SW-846 Method 8082

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204971	205314	9	SAMPLE	120900012	B2JDR2		PCBs by EPA SW-846 Method 8082
204971	205314	10	SAMPLE	120900014	B2JDP3		PCBs by EPA SW-846 Method 8082
204971	205314	11	SAMPLE	120900015	B2JDP9		PCBs by EPA SW-846 Method 8082
204971	205314	12	SAMPLE	120900016	B2JDV6		PCBs by EPA SW-846 Method 8082
204971	205314	13	SAMPLE	120900017	B2JDK1		PCBs by EPA SW-846 Method 8082
204971	205314	14	SAMPLE	120900018	B2JF35		PCBs by EPA SW-846 Method 8082
204971	205314	15	SAMPLE	120900019	B2JF47		PCBs by EPA SW-846 Method 8082
205183	205198	1	BLANK	78657	BLANK		SW-846 8270D Semivolatiles
205183	205198	2	LCS	78658	LCS		SW-846 8270D Semivolatiles
205183	205198	3	MS	78659	B2JDN4(120895006MS)	120895006	SW-846 8270D Semivolatiles
205183	205198	4	MSD	78660	B2JDN4(120895006MSD)	120895006	SW-846 8270D Semivolatiles
205183	205198	6	SAMPLE	120900001	B2JDT7		SW-846 8270D Semivolatiles
205183	205198	7	SAMPLE	120900002	B2JDT4		SW-846 8270D Semivolatiles
205183	205198	8	SAMPLE	120900004	B2JDK4		SW-846 8270D Semivolatiles
205183	205198	9	SAMPLE	120900012	B2JDR2		SW-846 8270D Semivolatiles
205183	205198	10	SAMPLE	120900014	B2JDP3		SW-846 8270D Semivolatiles
205183	205198	11	SAMPLE	120900015	B2JDP9		SW-846 8270D Semivolatiles
205183	205198	12	SAMPLE	120900016	B2JDV6		SW-846 8270D Semivolatiles
205183	205198	13	SAMPLE	120900017	B2JDK1		SW-846 8270D Semivolatiles
205183	205198	14	SAMPLE	120900018	B2JF35		SW-846 8270D Semivolatiles
205183	205198	15	SAMPLE	120900019	B2JF47		SW-846 8270D Semivolatiles
205218	205244	1	BLANK	78721	BLANK		SW-846 8270D Semivolatiles
205218	205244	2	LCS	78722	LCS		SW-846 8270D Semivolatiles

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
205218	205244	3	MS	78723	B2JDJ5(120900005MS)	120900005	SW-846 8270D Semivolatiles
205218	205244	4	MSD	78724	B2JDJ5(120900005MSD)	120900005	SW-846 8270D Semivolatiles
205218	205244	5	SAMPLE	120900005	B2JDJ5		SW-846 8270D Semivolatiles
205218	205244	6	SAMPLE	120900006	B2JDV0		SW-846 8270D Semivolatiles
205218	205244	7	SAMPLE	120900008	B2JDR8		SW-846 8270D Semivolatiles
205218	205244	8	SAMPLE	120900009	B2JDT1		SW-846 8270D Semivolatiles
205218	205244	9	SAMPLE	120900013	B2JDR5		SW-846 8270D Semivolatiles
205218	205244	11	DUP	78725	B2LTY9(120902002DUP)	120902002	SW-846 8270D Semivolatiles
205281	205317	1	BLANK	78906	BLANK		PCBs by EPA SW-846 Method 8082
205281	205317	2	LCS	78907	LCS		PCBs by EPA SW-846 Method 8082
205281	205317	3	MS	78908	B2JDJ5(120900005MS)	120900005	PCBs by EPA SW-846 Method 8082
205281	205317	4	MSD	78909	B2JDJ5(120900005MSD)	120900005	PCBs by EPA SW-846 Method 8082
205281	205317	5	SAMPLE	120900005	B2JDJ5		PCBs by EPA SW-846 Method 8082
205281	205317	6	SAMPLE	120900006	B2JDV0		PCBs by EPA SW-846 Method 8082
205281	205317	7	SAMPLE	120900008	B2JDR8		PCBs by EPA SW-846 Method 8082
205281	205317	8	SAMPLE	120900009	B2JDT1		PCBs by EPA SW-846 Method 8082
205281	205317	9	SAMPLE	120900013	B2JDR5		PCBs by EPA SW-846 Method 8082

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analytical Batch 205314 (QC Batch: 204971) **Test** PCBs by EPA SW-846 Method 8082
Associated Samples 120900001, 120900002, 120900004, 120900012, 120900014, 120900015, 120900016, 120900017, 120900018, 120900019

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78402**							
Aroclor-1016	12674-11-2		<4	ug/kg					U	08/01/12
Aroclor-1221	11104-28-2		<8	ug/kg					U	08/01/12
Aroclor-1232	11141-16-5		<4	ug/kg					U	08/01/12
Aroclor-1242	53469-21-9		<4	ug/kg					U	08/01/12
Aroclor-1248	12672-29-6		<4	ug/kg					U	08/01/12
Aroclor-1254	11097-69-1		<4	ug/kg					U	08/01/12
Aroclor-1260	11096-82-5		<4	ug/kg					U	08/01/12
Aroclor-1262	37324-23-5		<4	ug/kg					U	08/01/12
Aroclor-1268	11100-14-4		<4	ug/kg					U	08/01/12
LCS			**QC Sample #78403**							
Aroclor-1254	11097-69-1		68	ug/kg	85.5	75 - 128				08/01/12
MS			**QC Sample #78404**							
			Original 120895006							
Aroclor-1254	11097-69-1		92	ug/kg	116.2	62 - 140				08/01/12
MSD			**QC Sample #78405**							
			Original 120895006					**Paired 78404**		
Aroclor-1254	11097-69-1		81	ug/kg	100.8	62 - 140	12.70	30		08/01/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analytical Batch 205317 (QC Batch: 205281) **Test** PCBs by EPA SW-846 Method 8082
Associated Samples 120900005, 120900006, 120900008, 120900009, 120900013

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78906**							
Aroclor-1016	12674-11-2		<4	ug/kg					U	07/31/12
Aroclor-1221	11104-28-2		<8	ug/kg					U	07/31/12
Aroclor-1232	11141-16-5		<4	ug/kg					U	07/31/12
Aroclor-1242	53469-21-9		<4	ug/kg					U	07/31/12
Aroclor-1248	12672-29-6		<4	ug/kg					U	07/31/12
Aroclor-1254	11097-69-1		<4	ug/kg					U	07/31/12
Aroclor-1260	11096-82-5		<4	ug/kg					U	07/31/12
Aroclor-1262	37324-23-5		<4	ug/kg					U	07/31/12
Aroclor-1268	11100-14-4		<4	ug/kg					U	07/31/12
LCS			**QC Sample #78907**							
Aroclor-1254	11097-69-1		70	ug/kg	87.7	75 - 128				07/31/12
MS			**QC Sample #78908**							
			Original 120900005							
Aroclor-1254	11097-69-1	<4	67	ug/kg	84.3	62 - 140				07/31/12
MSD			**QC Sample #78909**							
			Original 120900005					**Paired 78908**		
Aroclor-1254	11097-69-1	<4	73	ug/kg	91.8	62 - 140	8.60	30		07/31/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analytical Batch 205318 (QC Batch: 204926)
Associated Samples 120900003, 120900007, 120900010, 120900011

Test PCBs by EPA SW-846 Method 8082

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78281**							
Aroclor-1016	12674-11-2		<4	ug/kg					U	08/01/12
Aroclor-1221	11104-28-2		<8	ug/kg					U	08/01/12
Aroclor-1232	11141-16-5		<4	ug/kg					U	08/01/12
Aroclor-1242	53469-21-9		<4	ug/kg					U	08/01/12
Aroclor-1248	12672-29-6		<4	ug/kg					U	08/01/12
Aroclor-1254	11097-69-1		<4	ug/kg					U	08/01/12
Aroclor-1260	11096-82-5		<4	ug/kg					U	08/01/12
Aroclor-1262	37324-23-5		<4	ug/kg					U	08/01/12
Aroclor-1268	11100-14-4		<4	ug/kg					U	08/01/12
LCS			**QC Sample #78282**							
Aroclor-1254	11097-69-1		76	ug/kg	94.9	75 - 128				08/01/12
MS			**QC Sample #78283**							
			Original 120894008							
Aroclor-1254	11097-69-1		63	ug/kg	79.1	62 - 140				08/01/12
MSD			**QC Sample #78284**							
			Original 120894008					**Paired 78283**		
Aroclor-1254	11097-69-1		69	ug/kg	86.8	62 - 140	7.20	30		08/01/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analytical Batch 205314 (QC Batch: 204971) **Test** PCBs by EPA SW-846 Method 8082
Associated Samples 120900001, 120900002, 120900004, 120900012, 120900014, 120900015, 120900016, 120900017, 120900018, 120900019

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900001**							
Tetrachloro-m-xylene	877-09-8				83.2	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				81.9	60 - 140				08/01/12
SAMPLE			**Sample #120900002**							
Tetrachloro-m-xylene	877-09-8				89.3	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				86.2	60 - 140				08/01/12
SAMPLE			**Sample #120900004**							
Tetrachloro-m-xylene	877-09-8				85.9	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				85.5	60 - 140				08/01/12
SAMPLE			**Sample #120900012**							
Tetrachloro-m-xylene	877-09-8				94.2	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				95.9	60 - 140				08/01/12
SAMPLE			**Sample #120900014**							
Tetrachloro-m-xylene	877-09-8				95	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				93.7	60 - 140				08/01/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900015**							
Tetrachloro-m-xylene	877-09-8				88.3	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				87.3	60 - 140				08/01/12
SAMPLE			**Sample #120900016**							
Tetrachloro-m-xylene	877-09-8				87	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				85.7	60 - 140				08/01/12
SAMPLE			**Sample #120900017**							
Tetrachloro-m-xylene	877-09-8				88.3	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				86.3	60 - 140				08/01/12
SAMPLE			**Sample #120900018**							
Tetrachloro-m-xylene	877-09-8				91.4	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				89.8	60 - 140				08/01/12
SAMPLE			**Sample #120900019**							
Tetrachloro-m-xylene	877-09-8				79.3	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				79.5	60 - 140				08/01/12
BLANK			**QC Sample #78402**							
Tetrachloro-m-xylene	877-09-8				98.7	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				98.7	60 - 140				08/01/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #78403**							
Tetrachloro-m-xylene	877-09-8				95.5	60 - 124				08/01/12
Decachlorobiphenyl	2051-24-3				94	72 - 125				08/01/12
MS			**QC Sample #78404**							
			Original	**120895006**						
Tetrachloro-m-xylene	877-09-8				106.7	51 - 120				08/01/12
Decachlorobiphenyl	2051-24-3				117.3	66 - 126				08/01/12
MSD			**QC Sample #78405**							
			Original	**120895006**				**Paired**	**78404**	
Tetrachloro-m-xylene	877-09-8				93	51 - 120	n/a			08/01/12
Decachlorobiphenyl	2051-24-3				103.5	66 - 126	n/a			08/01/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analytical Batch 205317 (QC Batch: 205281) **Test** PCBs by EPA SW-846 Method 8082
Associated Samples 120900005, 120900006, 120900008, 120900009, 120900013

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900005**							
Tetrachloro-m-xylene	877-09-8				100	60 - 140				07/31/12
Decachlorobiphenyl	2051-24-3				97.2	60 - 140				07/31/12
SAMPLE			**Sample #120900006**							
Tetrachloro-m-xylene	877-09-8				95.2	60 - 140				07/31/12
Decachlorobiphenyl	2051-24-3				89.8	60 - 140				07/31/12
SAMPLE			**Sample #120900008**							
Tetrachloro-m-xylene	877-09-8				94.5	60 - 140				07/31/12
Decachlorobiphenyl	2051-24-3				92.1	60 - 140				07/31/12
SAMPLE			**Sample #120900009**							
Tetrachloro-m-xylene	877-09-8				92	60 - 140				07/31/12
Decachlorobiphenyl	2051-24-3				89.5	60 - 140				07/31/12
SAMPLE			**Sample #120900013**							
Tetrachloro-m-xylene	877-09-8				94.1	60 - 140				07/31/12
Decachlorobiphenyl	2051-24-3				90.4	60 - 140				07/31/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78906**							
Tetrachloro-m-xylene	877-09-8				100.4	60 - 140				07/31/12
Decachlorobiphenyl	2051-24-3				96.7	60 - 140				07/31/12
LCS			**QC Sample #78907**							
Tetrachloro-m-xylene	877-09-8				93.8	60 - 124				07/31/12
Decachlorobiphenyl	2051-24-3				91	72 - 125				07/31/12
MS			**QC Sample #78908**							
			Original	**120900005**						
Tetrachloro-m-xylene	877-09-8				88.6	51 - 120				07/31/12
Decachlorobiphenyl	2051-24-3				86.1	66 - 126				07/31/12
MSD			**QC Sample #78909**							
			Original	**120900005**				**Paired**	**78908**	
Tetrachloro-m-xylene	877-09-8				99.2	51 - 120	n/a			07/31/12
Decachlorobiphenyl	2051-24-3				95.6	66 - 126	n/a			07/31/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analytical Batch 205318 (QC Batch: 204926)
Associated Samples 120900003, 120900007, 120900010, 120900011

Test PCBs by EPA SW-846 Method 8082

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900003**							
Tetrachloro-m-xylene	877-09-8				94.4	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				88.4	60 - 140				08/01/12
SAMPLE			**Sample #120900007**							
Tetrachloro-m-xylene	877-09-8				98.1	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				97.6	60 - 140				08/01/12
SAMPLE			**Sample #120900010**							
Tetrachloro-m-xylene	877-09-8				92.4	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				87.6	60 - 140				08/01/12
SAMPLE			**Sample #120900011**							
Tetrachloro-m-xylene	877-09-8				100.8	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				94.1	60 - 140				08/01/12
BLANK			**QC Sample #78281**							
Tetrachloro-m-xylene	877-09-8				103.2	60 - 140				08/01/12
Decachlorobiphenyl	2051-24-3				99.7	60 - 140				08/01/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #78282**							
Tetrachloro-m-xylene	877-09-8				101.2	60 - 124				08/01/12
Decachlorobiphenyl	2051-24-3				99.6	72 - 125				08/01/12
MS			**QC Sample #78283**							
			Original	**120894008**						
Tetrachloro-m-xylene	877-09-8				107.6	51 - 120				08/01/12
Decachlorobiphenyl	2051-24-3				98.3	66 - 126				08/01/12
MSD			**QC Sample #78284**							
			Original	**120894008**				**Paired**	**78283**	
Tetrachloro-m-xylene	877-09-8				103.8	51 - 120	n/a			08/01/12
Decachlorobiphenyl	2051-24-3				99.7	66 - 126	n/a			08/01/12

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

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
205218	205244	1	BLANK	78721	BLANK		SW-846 8270D Semivolatiles
205218	205244	2	LCS	78722	LCS		SW-846 8270D Semivolatiles
205218	205244	3	MS	78723	B2JDJ5(120900005MS)	120900005	SW-846 8270D Semivolatiles
205218	205244	4	MSD	78724	B2JDJ5(120900005MSD)	120900005	SW-846 8270D Semivolatiles
205218	205244	11	DUP	78725	B2LTY9(120902002DUP)	120902002	SW-846 8270D Semivolatiles
205218	205244	12	SAMPLE	120922007	B2JF44		SW-846 8270D Semivolatiles
205218	205244	13	SAMPLE	120922008	B2JDJ2		SW-846 8270D Semivolatiles
205218	205244	14	SAMPLE	120922009	B2JDK7		SW-846 8270D Semivolatiles
205281	205317	1	BLANK	78906	BLANK		PCBs by EPA SW-846 Method 8082
205281	205317	2	LCS	78907	LCS		PCBs by EPA SW-846 Method 8082
205281	205317	3	MS	78908	B2JDJ5(120900005MS)	120900005	PCBs by EPA SW-846 Method 8082
205281	205317	4	MSD	78909	B2JDJ5(120900005MSD)	120900005	PCBs by EPA SW-846 Method 8082
205281	205317	10	SAMPLE	120922007	B2JF44		PCBs by EPA SW-846 Method 8082
205281	205317	11	SAMPLE	120922008	B2JDJ2		PCBs by EPA SW-846 Method 8082
205281	205317	12	SAMPLE	120922009	B2JDK7		PCBs by EPA SW-846 Method 8082

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analytical Batch 205317 (QC Batch: 205281)
Associated Samples 120922007, 120922008, 120922009

Test PCBs by EPA SW-846 Method 8082

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78906**							
Aroclor-1016	12674-11-2		<4	ug/kg					U	07/31/12
Aroclor-1221	11104-28-2		<8	ug/kg					U	07/31/12
Aroclor-1232	11141-16-5		<4	ug/kg					U	07/31/12
Aroclor-1242	53469-21-9		<4	ug/kg					U	07/31/12
Aroclor-1248	12672-29-6		<4	ug/kg					U	07/31/12
Aroclor-1254	11097-69-1		<4	ug/kg					U	07/31/12
Aroclor-1260	11096-82-5		<4	ug/kg					U	07/31/12
Aroclor-1262	37324-23-5		<4	ug/kg					U	07/31/12
Aroclor-1268	11100-14-4		<4	ug/kg					U	07/31/12
LCS			**QC Sample #78907**							
Aroclor-1254	11097-69-1		70	ug/kg	87.7	75 - 128				07/31/12
MS			**QC Sample #78908**							
			Original 120900005							
Aroclor-1254	11097-69-1		67	ug/kg	84.3	62 - 140				07/31/12
MSD			**QC Sample #78909**							
			Original 120900005					**Paired 78908**		
Aroclor-1254	11097-69-1		73	ug/kg	91.8	62 - 140	8.60	30		07/31/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analytical Batch 205317 (QC Batch: 205281)
Associated Samples 120922007, 120922008, 120922009

Test PCBs by EPA SW-846 Method 8082

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120922007**							
Tetrachloro-m-xylene	877-09-8				96.4	60 - 140				07/31/12
Decachlorobiphenyl	2051-24-3				93.6	60 - 140				07/31/12
SAMPLE			**Sample #120922008**							
Tetrachloro-m-xylene	877-09-8				97.1	60 - 140				07/31/12
Decachlorobiphenyl	2051-24-3				98.4	60 - 140				07/31/12
SAMPLE			**Sample #120922009**							
Tetrachloro-m-xylene	877-09-8				87.6	60 - 140				07/31/12
Decachlorobiphenyl	2051-24-3				86.7	60 - 140				07/31/12
BLANK			**QC Sample #78906**							
Tetrachloro-m-xylene	877-09-8				100.4	60 - 140				07/31/12
Decachlorobiphenyl	2051-24-3				96.7	60 - 140				07/31/12
LCS			**QC Sample #78907**							
Tetrachloro-m-xylene	877-09-8				93.8	60 - 124				07/31/12
Decachlorobiphenyl	2051-24-3				91	72 - 125				07/31/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MS			**QC Sample #78908**							
			Original	**120900005**						
Tetrachloro-m-xylene	877-09-8				88.6	51 - 120				07/31/12
Decachlorobiphenyl	2051-24-3				86.1	66 - 126				07/31/12
MSD			**QC Sample #78909**							
			Original	**120900005**				**Paired**	**78908**	
Tetrachloro-m-xylene	877-09-8				99.2	51 - 120	n/a			07/31/12
Decachlorobiphenyl	2051-24-3				95.6	66 - 126	n/a			07/31/12

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

Date: 13 August 2012
To: CH2M Hill (technical representative)
From: Analytical Quality Associates, Inc.
Project: 100 K RA
Subject: Inorganics - Sample Data Groups (SDGs) WSCF120788, WSCF120894, WSCF120895, WSCF120900, and WSCF230922

INTRODUCTION

This memorandum presents the results of data validation for SDGs WSCF120788, WSCF120894, WSCF120895, WSCF120900, and WSCF230922 prepared by WSCF Analytical Laboratories. A list of samples validated along with the analytical methods is provided in the following table.

Sample ID	Sample Date	Media	Validation Level	Analytical Methods
B2JDD8	6/18/12	Soil	C	200.8
B2JF29	7/9/12	Soil	C	200.8
B2JDH0	7/9/12	Soil	C	200.8
B2JDF4	7/9/12	Soil	C	200.8
B2JDF7	7/9/12	Soil	C	200.8
B2JF41	7/9/12	Soil	C	200.8
B2JDF1	7/9/12	Soil	C	200.8
B2JDH9	7/10/12	Soil	C	200.8
B2JDH6	7/10/12	Soil	C	200.8
B2JDM8	7/11/12	Soil	C	200.8
B2JDN1	7/11/12	Soil	C	200.8
B2JDV3	7/11/12	Soil	C	200.8
B2JDP6	7/11/12	Soil	C	200.8
B2JDN7	7/11/12	Soil	C	200.8
B2JDN4	7/11/12	Soil	C	200.8
B2JDT7	7/12/12	Soil	C	200.8
B2JDT4	7/12/12	Soil	C	200.8
B2JDH3	7/10/12	Soil	C	200.8
B2JDK4	7/12/12	Soil	C	200.8
B2JDJ5	7/12/12	Soil	C	200.8
B2JDV0	7/12/12	Soil	C	200.8
B2JDP0	7/10/12	Soil	C	200.8
B2JDR8	7/12/12	Soil	C	200.8
B2JDT1	7/12/12	Soil	C	200.8
B2JF32	7/10/12	Soil	C	200.8
B2JDJ8	7/10/12	Soil	C	200.8
B2JDR2	7/11/12	Soil	C	200.8
B2JDR5	7/12/12	Soil	C	200.8
B2JDP3	7/11/12	Soil	C	200.8
B2JDP9	7/11/12	Soil	C	200.8

B2JDV6	7/11/12	Soil	C	200.8
B2JDK1	7/11/12	Soil	C	200.8
B2JF35	7/11/12	Soil	C	200.8
B2JF47	7/11/12	Soil	C	200.8
B2JDL0	7/17/12	Soil	C	200.8
B2JDL3	7/17/12	Soil	C	200.8
B2JDL6	7/17/12	Soil	C	200.8
B2JDL9	7/16/12	Soil	C	200.8
B2JDM2	7/16/12	Soil	C	200.8
B2JDM5	7/16/12	Soil	C	200.8
B2JF44	7/17/12	Soil	C	200.8
B2JDJ2	7/17/12	Soil	C	200.8
B2JDK7	7/17/12	Soil	C	200.8

Data validation was conducted in accordance with the CHPRC validation statement of work and the 100 Area Remedial Action Sampling and Analysis Plan, DOE/RL-96-22, Rev. 5 (SAP). Appendices 1 through 6 provide the following information as indicated below:

Appendix 1. Glossary of Data Reporting Qualifiers
Appendix 2. Summary of Data Qualification
Appendix 3. Annotated Laboratory Reports
Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
Appendix 5. Data Validation Supporting Documentation
Appendix 6. Additional Documentation Requested By Client

DATA QUALITY OBJECTIVES

- **Holding Times and Sample Preservation**

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The holding time requirement for ICP metals are analysis within 180 days of sample collection, and the holding time requirement for mercury is analysis within 28 days of sample collection. There were no specific preservation required for the inorganic soil sample analysis.

The samples were analyzed within the prescribed holding times.

- **Blanks**

The blank data results are reviewed to assess the extent of contamination introduced through sampling, sample preparation, and analysis.

Laboratory Blanks

All laboratory blank results were acceptable with the following exceptions.

For SDG WSCF120788, Cu and V were detected in the method blank but < the PQL. However, the associated sample results were all much > the RL and should not be qualified.

For SDG WSCF120922, Mn and V were detected in the method blank but < the PQL. However, the associated sample results were all much > the RL and should not be qualified.

Trip Blanks

No trip blanks were submitted for validation.

Field Blanks

No field blanks were submitted for validation.

Equipment Blanks (EBs)

All equipment blank results were acceptable with the following exceptions.

For SDG WSCF120894, Mn, Ba, Zn, Pb, and U were detected in EB B2JF41. The Mn EB result was > the PQL, but all others were < the PQL. The associated Mn sample results were all >10X the EB concentration. The associated Ba, Zn, Pb, and Sr sample results were all much > the PQL. The U sample results were only slightly > the PQL. No sample data should be qualified based on EB contamination.

For SDGs WSCF120895 & WSCF120900 (samples collected 7/11/12 only), Mn, Ba, Co, Zn, Pb, Sr, and U were detected in EB B2JF47. The Mn and Ba EB results were > the PQL, but all others were < the PQL. The associated Co, Zn, Pb, and Sr sample results were all much > the PQL. The U sample results were only slightly > the PQL. No sample data should be qualified based on EB contamination.

For SDG WSCF120922 (samples collected 7/17/12 only), Mn, Ni, Ba, Be, Cr, Co, Cu, V, Zn, Pb, Mo, Sr, and Sn were detected in EB B2JF44. The Mn, Ba, Co, Cu, V, Zn, Pb, Mo, and U EB results were > the PQL, but all others were < the PQL. Several of the associated Zn, Pb, Mo, and Zn results were <10X the EB concentration. Several of the Be and all Se results were < the PQL. The other associated sample results were all either >10X the EB concentration or > the PQL. No sample data should be qualified based on EB contamination.

- **Accuracy**

Accuracy is evaluated by reviewing matrix spike sample results, and laboratory control sample results. According to the SAP, the matrix spike sample accuracy limits are 70% to 130% and the laboratory control sample accuracy limits are ones specified by the DV procedure. The limits for reported analytes not listed in the SAP are specified by the DV procedure.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Samples

All MS/MSD recoveries were acceptable with the following exceptions.

For SDGs WSCF120894 and WSCF120895, the MSD percent recovery (%R) for Mn was > the QC acceptance limit. The associated sample results were all detects and, therefore, should be qualified as estimates and flagged "J+."

For SDG WSCF120900 (batch 204927), the MS/MSD %Rs for Mn, Ba, and Sr were > the QC acceptance limit. For batch 204928, the MSD %R for Mn was > the QC acceptance limit. The associated sample results were all detects and, therefore, should be qualified as estimates and flagged "J+."

For SDG WSCF120922, the MS and/or MSD %Rs for Ba, V, Sr, and Zn were < the QC acceptance limits. The associated sample results were all detects and, therefore, should be qualified as estimates and flagged "J-"

Laboratory Control Samples (LCSs)

All LCS recoveries were acceptable.

- **Precision**

Precision is evaluated by reviewing MS/MSD results, field duplicate sample results, and field split sample results. These QC results provide information on the laboratory reproducibility and whether sampling activities are adequate to acquire consistent sample results. According to the SAP, the relative percent difference (RPD) limit is 30%. The limits for reported analytes not listed in the SAP are specified by the DV procedure. When duplicate RPDs exceed the limits and associated results are <5X the reporting limit (RL) with absolute differences <2X the RL, no precision infraction occurred.

MS/MSD Samples

All MS/MSD RPD values were acceptable.

Field Duplicate Samples

All field duplicate results were acceptable.

Field Split Samples

All field split results were acceptable.

- **Detection Limits**

Reported MDLs are compared against the contractually required detection limits (CRDLs) to ensure that laboratory detection limits meet the required criteria.

All reported sample MDLs with associated non-detected sample results were below the CRDLs.

- **Completeness**

SDGs WSCF120788, WSCF120894, WSCF120895, WSCF120900, and WSCF120922 were submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

Minor deficiencies leading to qualification of Mn, Ba, V, and Sr sample results as estimates were due to MS and/or MSD %Rs outside the QC acceptance limits. See the table in Appendix 2 for a listing of all affected sample results.

REFERENCES

GRP-GD-003, Rev. 0, Change 0, *Data Validation for Chemical Analyses*, August 2010.

DOE/RL-96-22, Rev. 5, *100 Area Remedial Action Sampling and Analysis Plan*, September 2009.

Appendix 1

Glossary of Data Reporting Qualifiers

Qualifiers that may be applied by data validators in compliance with the CHPRC statement of work are as follows:

- **U** — The constituent was analyzed for, but was not detected. The data should be considered usable for decision-making purposes.

- **UJ** — The constituent was analyzed for and was not detected. Due to a quality control deficiency identified during data validation the value reported may not accurately reflect the RL. The data should be considered usable for decision-making purposes.

- **J** — Indicates the constituent was analyzed for and detected. The associated value is estimated due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J+** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected positive bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J-** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected negative bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **N** — The analysis indicates the presence of an analyte that has been tentatively identified.

- **NJ** — The analysis indicates the presence of an analyte that has been tentatively identified and the associated numerical value represents its approximate concentration.

- **NJ+** — The analysis indicates the presence of an analyte that has been tentatively identified. The associated value is estimated with a suspected positive bias due to a quality control deficiency identified during data validation.

- **NJ-** — The analysis indicates the presence of an analyte that has been tentatively identified. The associated value is estimated with a suspected negative bias due to a quality control deficiency identified during data validation.

- **UR** — Indicates the constituent was analyzed for and not detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

- **R** — Indicates the constituent was analyzed for and detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

Appendix 2

Summary of Data Qualification

Inorganic Data Qualification Summary			
SDGs: WSCF120894, WSCF120895, WSCF120900, & WSCF120922	Reviewer: AQA	Project: 100 K RA	Page 1 of 1
Analyte(s)	**Qualifier**	**Samples Affected**	**Reason**
Ba, Sr	J+	B2JDP0, B2JDR8, B2JDT1, B2JF32, B2JDJ8, B2JDR2, B2JDR5, B2JDP3, B2JDP9, B2JDV6, B2JDK1, B2JF35, B2JF47	High MS and/or MSD recoveries
Ba, V, Sr, Zn	J-	B2JDL0, B2JDL3, B2JDL6, B2JDL9, B2JDM2, B2JDM5, B2JF44, B2JDJ2, B2JDK7	Low MS and/or MSD recoveries
Mn	J+	B2JF29, B2JDH0, B2JDF4, B2JDF7, B2JF41, B2JDF1, B2JDH9, B2JDH6, B2JDM8, B2JDN1, B2JDV3, B2JDP6, B2JDN7, B2JDN4, B2JDT7, B2JDT4, B2JDH3, B2JDK4, B2JDJ5, B2JDV0, B2JDP0, B2JDR8, B2JDT1, B2JF32, B2JDJ8, B2JDR2, B2JDR5, B2JDP3, B2JDP9, B2JDV6, B2JDK1, B2JF35, B2JF47	High MS and/or MSD recoveries

Comments: None

Appendix 3

Annotated Laboratory Reports

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120788

Sample # 120788001
SAF# F12-005
Sample ID B2JDD8

Matrix SOIL
Sampled 06/18/12
Received 06/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**06/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	4.22		mg/kg	1	3.0	21	06/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.99		mg/kg	1	0.99	5.1	06/20/12
Nitrate-N	NO3-N	LA-533-410	B	1.04		mg/kg	1	0.96	5.1	06/20/12
Sulfate	14808-79-8	LA-533-410	B	37.2		mg/kg	1	5.7	54	06/20/12
ICPMS Prep (S)										**06/25/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		335		mg/kg	0.5	0.049	0.49	06/26/12
Nickel	7440-02-0	LA-505-412		10.1		mg/kg	0.5	0.049	0.49	06/26/12
Silver	7440-22-4	LA-505-412	B	0.0765		mg/kg	0.5	0.024	0.24	06/26/12
Antimony	7440-36-0	LA-505-412		1.52		mg/kg	0.5	0.15	1.5	06/26/12
Barium	7440-39-3	LA-505-412		72.2		mg/kg	0.5	0.097	0.97	06/26/12
Beryllium	7440-41-7	LA-505-412	B	0.299		mg/kg	0.5	0.049	0.49	06/26/12
Cadmium	7440-43-9	LA-505-412	B	0.104		mg/kg	0.5	0.024	0.24	06/26/12
Chromium	7440-47-3	LA-505-412		7.50		mg/kg	0.5	0.049	0.49	06/26/12
Cobalt	7440-48-4	LA-505-412		10.8		mg/kg	0.5	0.024	0.12	06/26/12
Copper	7440-50-8	LA-505-412		20.3		mg/kg	0.5	0.049	0.49	06/26/12
Vanadium	7440-62-2	LA-505-412		59.4		mg/kg	0.5	0.097	0.97	06/26/12

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

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

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

REVISED120788 -

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120788

Sample # 120788001
SAF# F12-005
Sample ID B2JDD8

Matrix SOIL
Sampled 06/18/12
Received 06/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		53.4		mg/kg	0.5	0.49	4.9	06/26/12
Lead	7439-92-1	LA-505-412		6.62		mg/kg	0.5	0.024	0.24	06/26/12
Mercury	7439-97-6	LA-505-412	B	0.0283		mg/kg	0.5	0.024	0.097	06/26/12
Molybdenum	7439-98-7	LA-505-412		0.491		mg/kg	0.5	0.024	0.24	06/26/12
Strontium	7440-24-6	LA-505-412		37.9		mg/kg	0.5	0.049	0.49	06/26/12
Tin	7440-31-5	LA-505-412		0.758		mg/kg	0.5	0.024	0.24	06/26/12
Uranium	7440-61-1	LA-505-412		0.640		mg/kg	0.5	0.024	0.12	06/26/12
Arsenic	7440-38-2	LA-505-412		4.89		mg/kg	0.5	0.097	0.97	06/26/12
Selenium	7782-49-2	LA-505-412	B	0.285		mg/kg	0.5	0.24	2.4	06/26/12
Boron	7440-42-8	LA-505-412	B	0.925		mg/kg	0.5	0.24	2.4	06/26/12
Preparation for Cr6 (SO)										**06/26/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.52	06/26/12

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

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

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

REVISED120788 -

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894001
SAF# F12-005
Sample ID B2JF29

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	8.36		mg/kg	1	2.9	21	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	4.29		mg/kg	1	0.94	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410	B	45.2		mg/kg	1	5.5	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	300	J+	mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		9.06		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.054		mg/kg	1	0.054	0.54	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.32		mg/kg	1	0.32	3.2	07/19/12
Barium	7440-39-3	LA-505-412		63.4		mg/kg	1	0.21	2.1	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.289		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.106		mg/kg	1	0.054	0.54	07/19/12
Chromium	7440-47-3	LA-505-412		6.87		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		7.94		mg/kg	1	0.054	0.27	07/19/12
Copper	7440-50-8	LA-505-412		15.6		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		38.9		mg/kg	1	0.21	2.1	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894001
SAF# F12-005
Sample ID B2JF29

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		41.4		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		6.84		mg/kg	1	0.054	0.54	07/19/12
Mercury	7439-97-6	LA-505-412	B	0.0626		mg/kg	1	0.054	0.21	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.345		mg/kg	1	0.054	0.54	07/19/12
Strontium	7440-24-6	LA-505-412		27.8		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.420		mg/kg	1	0.054	0.54	07/19/12
Uranium	7440-61-1	LA-505-412		0.388		mg/kg	1	0.054	0.27	07/19/12
Arsenic	7440-38-2	LA-505-412		3.06		mg/kg	1	0.21	2.1	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	B	1.94		mg/kg	1	0.54	5.4	07/19/12
~~**Preparation for Cr6 (SO)**~~										~~**07/23/12**~~
~~**Hexavalent chromium**~~										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	~~07/23/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894002
SAF# F12-005
Sample ID B2JDH0

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	3.33		mg/kg	1	2.9	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	2.44		mg/kg	1	0.94	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410	B	25.0		mg/kg	1	5.5	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	305	J+	mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		11.5		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.054		mg/kg	1	0.054	0.54	07/19/12
Antimony	7440-36-0	LA-505-412	B	0.374		mg/kg	1	0.32	3.2	07/19/12
Barium	7440-39-3	LA-505-412		66.1		mg/kg	1	0.21	2.1	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.241		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.112		mg/kg	1	0.054	0.54	07/19/12
Chromium	7440-47-3	LA-505-412		8.69		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		8.63		mg/kg	1	0.054	0.27	07/19/12
Copper	7440-50-8	LA-505-412		16.7		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		48.9		mg/kg	1	0.21	2.1	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894002
SAF# F12-005
Sample ID B2JDH0

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		45.3		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		9.11		mg/kg	1	0.054	0.54	07/19/12
Mercury	7439-97-6	LA-505-412	B	0.0633		mg/kg	1	0.054	0.21	07/19/12
Molybdenum	7439-98-7	LA-505-412		1.15		mg/kg	1	0.054	0.54	07/19/12
Strontium	7440-24-6	LA-505-412		28.1		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.527		mg/kg	1	0.054	0.54	07/19/12
Uranium	7440-61-1	LA-505-412		0.399		mg/kg	1	0.054	0.27	07/19/12
Arsenic	7440-38-2	LA-505-412		3.19		mg/kg	1	0.21	2.1	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	B	2.61		mg/kg	1	0.54	5.4	07/19/12
~~**Preparation for Cr6 (SO)**~~										~~**07/23/12**~~
~~**Hexavalent chromium**~~										
Hexavalent chromium	18540-29-9	LA-265-403	B	0.102		ug/g	1	0.099	0.49	~~07/23/12~~

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894003
SAF# F12-005
Sample ID B2JDF4

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	11.8		mg/kg	1	3.0	21	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.98		mg/kg	1	0.98	5.0	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	3.86		mg/kg	1	0.95	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410	B	46.9		mg/kg	1	5.6	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	315	J+	mg/kg	1	0.10	1.0	07/19/12
Nickel	7440-02-0	LA-505-412		9.75		mg/kg	1	0.10	1.0	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.051		mg/kg	1	0.051	0.51	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/19/12
Barium	7440-39-3	LA-505-412		68.9		mg/kg	1	0.20	2.0	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.294		mg/kg	1	0.10	1.0	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0962		mg/kg	1	0.051	0.51	07/19/12
Chromium	7440-47-3	LA-505-412		7.29		mg/kg	1	0.10	1.0	07/19/12
Cobalt	7440-48-4	LA-505-412		8.40		mg/kg	1	0.051	0.25	07/19/12
Copper	7440-50-8	LA-505-412		16.8		mg/kg	1	0.10	1.0	07/19/12
Vanadium	7440-62-2	LA-505-412		36.5		mg/kg	1	0.20	2.0	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894003
SAF# F12-005
Sample ID B2JDF4

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		42.4		mg/kg	1	1.0	10	07/19/12
Lead	7439-92-1	LA-505-412		7.10		mg/kg	1	0.051	0.51	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.051		mg/kg	1	0.051	0.20	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.368		mg/kg	1	0.051	0.51	07/19/12
Strontium	7440-24-6	LA-505-412		29.5		mg/kg	1	0.10	1.0	07/19/12
Tin	7440-31-5	LA-505-412	B	0.425		mg/kg	1	0.051	0.51	07/19/12
Uranium	7440-61-1	LA-505-412		0.414		mg/kg	1	0.051	0.25	07/19/12
Arsenic	7440-38-2	LA-505-412		2.95		mg/kg	1	0.20	2.0	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.25		mg/kg	0.5	0.25	2.5	07/19/12
Boron	7440-42-8	LA-505-412	B	1.56		mg/kg	1	0.51	5.1	07/19/12
~~**Preparation for Cr6 (SO)**~~										~~**07/23/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.10~~		~~ug/g~~	~~1~~	~~0.10~~	~~0.50~~	~~07/23/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894004
SAF# F12-005
Sample ID B2JDF7

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	4.21		mg/kg	1	2.9	21	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	1.97		mg/kg	1	0.94	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410	B	30.9		mg/kg	1	5.5	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	289	J+	mg/kg	1	0.10	1.0	07/19/12
Nickel	7440-02-0	LA-505-412		9.56		mg/kg	1	0.10	1.0	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.050		mg/kg	1	0.050	0.50	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.30		mg/kg	1	0.30	3.0	07/19/12
Barium	7440-39-3	LA-505-412		61.7		mg/kg	1	0.20	2.0	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.273		mg/kg	1	0.10	1.0	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0815		mg/kg	1	0.050	0.50	07/19/12
Chromium	7440-47-3	LA-505-412		6.75		mg/kg	1	0.10	1.0	07/19/12
Cobalt	7440-48-4	LA-505-412		7.16		mg/kg	1	0.050	0.25	07/19/12
Copper	7440-50-8	LA-505-412		13.9		mg/kg	1	0.10	1.0	07/19/12
Vanadium	7440-62-2	LA-505-412		28.9		mg/kg	1	0.20	2.0	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894004
SAF# F12-005
Sample ID B2JDF7

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		35.3		mg/kg	1	1.0	10	07/19/12
Lead	7439-92-1	LA-505-412		4.70		mg/kg	1	0.050	0.50	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.050		mg/kg	1	0.050	0.20	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.259		mg/kg	1	0.050	0.50	07/19/12
Strontium	7440-24-6	LA-505-412		29.6		mg/kg	1	0.10	1.0	07/19/12
Tin	7440-31-5	LA-505-412	B	0.279		mg/kg	1	0.050	0.50	07/19/12
Uranium	7440-61-1	LA-505-412		0.363		mg/kg	1	0.050	0.25	07/19/12
Arsenic	7440-38-2	LA-505-412		2.52		mg/kg	1	0.20	2.0	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.25		mg/kg	0.5	0.25	2.5	07/19/12
Boron	7440-42-8	LA-505-412	B	1.67		mg/kg	1	0.50	5.0	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.49	07/23/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894005
SAF# F12-005
Sample ID B2JF41

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	U	<0.92		mg/kg	1	0.92	4.9	07/17/12
Sulfate	14808-79-8	LA-533-410	U	<5.5		mg/kg	1	5.5	52	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	3.89	J+	mg/kg	1	0.10	1.0	07/19/12
Nickel	7440-02-0	LA-505-412	U	<0.10		mg/kg	1	0.10	1.0	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/19/12
Barium	7440-39-3	LA-505-412	B	1.78		mg/kg	1	0.21	2.1	07/19/12
Beryllium	7440-41-7	LA-505-412	U	<0.10		mg/kg	1	0.10	1.0	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/19/12
Chromium	7440-47-3	LA-505-412	U	<0.10		mg/kg	1	0.10	1.0	07/19/12
Cobalt	7440-48-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.26	07/19/12
Copper	7440-50-8	LA-505-412	U	<0.10		mg/kg	1	0.10	1.0	07/19/12
Vanadium	7440-62-2	LA-505-412	U	<0.21		mg/kg	1	0.21	2.1	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894005
SAF# F12-005
Sample ID B2JF41

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	B	1.62		mg/kg	1	1.0	10	07/19/12
Lead	7439-92-1	LA-505-412	B	0.265		mg/kg	1	0.052	0.52	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.052		mg/kg	1	0.052	0.21	07/19/12
Molybdenum	7439-98-7	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/19/12
Strontium	7440-24-6	LA-505-412	B	0.329		mg/kg	1	0.10	1.0	07/19/12
Tin	7440-31-5	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/19/12
Uranium	7440-61-1	LA-505-412	B	0.0557		mg/kg	1	0.052	0.26	07/19/12
Arsenic	7440-38-2	LA-505-412	U	<0.21		mg/kg	1	0.21	2.1	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.52		mg/kg	1	0.52	5.2	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.098		ug/g	1	0.098	0.49	07/23/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894006
SAF# F12-005
Sample ID B2JDF1

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	3.81		mg/kg	1	2.9	21	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.98		mg/kg	1	0.98	5.0	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	1.81		mg/kg	1	0.95	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410	U	<5.6		mg/kg	1	5.6	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	354	J+	mg/kg	1	0.10	1.0	07/19/12
Nickel	7440-02-0	LA-505-412		10.5		mg/kg	1	0.10	1.0	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.051		mg/kg	1	0.051	0.51	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/19/12
Barium	7440-39-3	LA-505-412		71.6		mg/kg	1	0.20	2.0	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.298		mg/kg	1	0.10	1.0	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0966		mg/kg	1	0.051	0.51	07/19/12
Chromium	7440-47-3	LA-505-412		7.37		mg/kg	1	0.10	1.0	07/19/12
Cobalt	7440-48-4	LA-505-412		9.00		mg/kg	1	0.051	0.25	07/19/12
Copper	7440-50-8	LA-505-412		17.9		mg/kg	1	0.10	1.0	07/19/12
Vanadium	7440-62-2	LA-505-412		44.7		mg/kg	1	0.20	2.0	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894006
SAF# F12-005
Sample ID B2JDF1

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		59.6		mg/kg	1	1.0	10	07/19/12
Lead	7439-92-1	LA-505-412		7.96		mg/kg	1	0.051	0.51	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.051		mg/kg	1	0.051	0.20	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.359		mg/kg	1	0.051	0.51	07/19/12
Strontium	7440-24-6	LA-505-412		31.3		mg/kg	1	0.10	1.0	07/19/12
Tin	7440-31-5	LA-505-412	B	0.455		mg/kg	1	0.051	0.51	07/19/12
Uranium	7440-61-1	LA-505-412		0.431		mg/kg	1	0.051	0.25	07/19/12
Arsenic	7440-38-2	LA-505-412		3.71		mg/kg	1	0.20	2.0	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.25		mg/kg	0.5	0.25	2.5	07/19/12
Boron	7440-42-8	LA-505-412	B	1.22		mg/kg	1	0.51	5.1	07/19/12
~~**Preparation for Cr6 (SO)**~~										~~**07/23/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.10~~		~~ug/g~~	~~1~~	~~0.10~~	~~0.50~~	~~07/23/12~~

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894007
SAF# F12-005
Sample ID B2JDH9

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	10.4		mg/kg	1	3.0	21	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.98		mg/kg	1	0.98	5.0	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	1.25		mg/kg	1	0.95	5.1	07/17/12
Sulfate	14808-79-8	LA-533-410	B	23.4		mg/kg	1	5.6	54	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	241	J+	mg/kg	1	0.10	1.0	07/19/12
Nickel	7440-02-0	LA-505-412		7.43		mg/kg	1	0.10	1.0	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/19/12
Barium	7440-39-3	LA-505-412		45.4		mg/kg	1	0.21	2.1	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.205		mg/kg	1	0.10	1.0	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/19/12
Chromium	7440-47-3	LA-505-412		5.26		mg/kg	1	0.10	1.0	07/19/12
Cobalt	7440-48-4	LA-505-412		6.65		mg/kg	1	0.052	0.26	07/19/12
Copper	7440-50-8	LA-505-412		13.5		mg/kg	1	0.10	1.0	07/19/12
Vanadium	7440-62-2	LA-505-412		31.4		mg/kg	1	0.21	2.1	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894007
SAF# F12-005
Sample ID B2JDH9

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		31.3		mg/kg	1	1.0	10	07/19/12
Lead	7439-92-1	LA-505-412		3.53		mg/kg	1	0.052	0.52	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.052		mg/kg	1	0.052	0.21	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.256		mg/kg	1	0.052	0.52	07/19/12
Strontium	7440-24-6	LA-505-412		22.1		mg/kg	1	0.10	1.0	07/19/12
Tin	7440-31-5	LA-505-412	B	0.346		mg/kg	1	0.052	0.52	07/19/12
Uranium	7440-61-1	LA-505-412		0.342		mg/kg	1	0.052	0.26	07/19/12
Arsenic	7440-38-2	LA-505-412	B	2.01		mg/kg	1	0.21	2.1	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	B	0.692		mg/kg	1	0.52	5.2	07/19/12
~~**Preparation for Cr6 (SO)**~~										~~**07/23/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.10~~		~~ug/g~~	~~1~~	~~0.10~~	~~0.50~~	~~07/23/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894008
SAF# F12-005
Sample ID B2JDH6

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410		192		mg/kg	1	2.9	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	2.53		mg/kg	1	0.92	4.9	07/17/12
Sulfate	14808-79-8	LA-533-410	B	35.3		mg/kg	1	5.5	52	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	368	J+	mg/kg	1	0.095	0.95	07/19/12
Nickel	7440-02-0	LA-505-412		10.0		mg/kg	1	0.095	0.95	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.048		mg/kg	1	0.048	0.48	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.29		mg/kg	1	0.29	2.9	07/19/12
Barium	7440-39-3	LA-505-412		72.8		mg/kg	1	0.19	1.9	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.290		mg/kg	1	0.095	0.95	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.048		mg/kg	1	0.048	0.48	07/19/12
Chromium	7440-47-3	LA-505-412		7.60		mg/kg	1	0.095	0.95	07/19/12
Cobalt	7440-48-4	LA-505-412		9.78		mg/kg	1	0.048	0.24	07/19/12
Copper	7440-50-8	LA-505-412		18.6		mg/kg	1	0.095	0.95	07/19/12
Vanadium	7440-62-2	LA-505-412		54.0		mg/kg	1	0.19	1.9	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894008
SAF# F12-005
Sample ID B2JDH6

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		47.3		mg/kg	1	0.95	9.5	07/19/12
Lead	7439-92-1	LA-505-412		6.89		mg/kg	1	0.048	0.48	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.048		mg/kg	1	0.048	0.19	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.389		mg/kg	1	0.048	0.48	07/19/12
Strontium	7440-24-6	LA-505-412		31.3		mg/kg	1	0.095	0.95	07/19/12
Tin	7440-31-5	LA-505-412		0.518		mg/kg	1	0.048	0.48	07/19/12
Uranium	7440-61-1	LA-505-412		0.543		mg/kg	1	0.048	0.24	07/19/12
Arsenic	7440-38-2	LA-505-412		2.96		mg/kg	1	0.19	1.9	07/19/12
Selenium	7782-49-2	LA-505-412	B	0.261		mg/kg	0.5	0.24	2.4	07/19/12
Boron	7440-42-8	LA-505-412	B	0.938		mg/kg	1	0.48	4.8	07/19/12
~~**Preparation for Cr6 (SO)**~~										~~**07/23/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.099~~		~~ug/g~~	~~1~~	~~0.099~~	~~0.50~~	~~07/23/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895001
SAF# F12-005
Sample ID B2JDM8

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	2.73		mg/kg	1	0.93	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410	B	11.5		mg/kg	1	5.5	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	217	J+	mg/kg	1	0.10	1.0	07/19/12
Nickel	7440-02-0	LA-505-412		7.01		mg/kg	1	0.10	1.0	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.051		mg/kg	1	0.051	0.51	07/19/12
Antimony	7440-36-0	LA-505-412	B	0.597		mg/kg	1	0.31	3.1	07/19/12
Barium	7440-39-3	LA-505-412		42.6		mg/kg	1	0.21	2.1	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.133		mg/kg	1	0.10	1.0	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0798		mg/kg	1	0.051	0.51	07/19/12
Chromium	7440-47-3	LA-505-412		4.12		mg/kg	1	0.10	1.0	07/19/12
Cobalt	7440-48-4	LA-505-412		6.60		mg/kg	1	0.051	0.26	07/19/12
Copper	7440-50-8	LA-505-412		15.8		mg/kg	1	0.10	1.0	07/19/12
Vanadium	7440-62-2	LA-505-412		28.7		mg/kg	1	0.21	2.1	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895001
SAF# F12-005
Sample ID B2JDM8

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		31.5		mg/kg	1	1.0	10	07/19/12
Lead	7439-92-1	LA-505-412		4.43		mg/kg	1	0.051	0.51	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.051		mg/kg	1	0.051	0.21	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.331		mg/kg	1	0.051	0.51	07/19/12
Strontium	7440-24-6	LA-505-412		23.3		mg/kg	1	0.10	1.0	07/19/12
Tin	7440-31-5	LA-505-412		0.808		mg/kg	1	0.051	0.51	07/19/12
Uranium	7440-61-1	LA-505-412		0.308		mg/kg	1	0.051	0.26	07/19/12
Arsenic	7440-38-2	LA-505-412		2.80		mg/kg	1	0.21	2.1	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	B	0.707		mg/kg	1	0.51	5.1	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.49	07/23/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895002
SAF# F12-005
Sample ID B2JDN1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	1.96		mg/kg	1	0.94	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410	B	10.6		mg/kg	1	5.5	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	258	J+	mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		6.37		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.054		mg/kg	1	0.054	0.54	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.32		mg/kg	1	0.32	3.2	07/19/12
Barium	7440-39-3	LA-505-412		48.8		mg/kg	1	0.22	2.2	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.197		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.054		mg/kg	1	0.054	0.54	07/19/12
Chromium	7440-47-3	LA-505-412		2.90		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		8.12		mg/kg	1	0.054	0.27	07/19/12
Copper	7440-50-8	LA-505-412		14.7		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		30.7		mg/kg	1	0.22	2.2	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895002
SAF# F12-005
Sample ID B2JDN1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		33.6		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		3.19		mg/kg	1	0.054	0.54	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.054		mg/kg	1	0.054	0.22	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.224		mg/kg	1	0.054	0.54	07/19/12
Strontium	7440-24-6	LA-505-412		24.0		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.345		mg/kg	1	0.054	0.54	07/19/12
Uranium	7440-61-1	LA-505-412		0.369		mg/kg	1	0.054	0.27	07/19/12
Arsenic	7440-38-2	LA-505-412	B	1.64		mg/kg	1	0.22	2.2	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.54		mg/kg	1	0.54	5.4	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/23/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895003
SAF# F12-005
Sample ID B2JDV3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	6.78		mg/kg	1	3.1	21	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.2	07/18/12
Nitrate-N	NO3-N	LA-533-410	U	<0.98		mg/kg	1	0.98	5.2	07/18/12
Sulfate	14808-79-8	LA-533-410	N	1320		mg/kg	1	5.8	55	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	331	J+	mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		10.5		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.055		mg/kg	1	0.055	0.55	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.33		mg/kg	1	0.33	3.3	07/19/12
Barium	7440-39-3	LA-505-412		66.0		mg/kg	1	0.22	2.2	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.229		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0636		mg/kg	1	0.055	0.55	07/19/12
Chromium	7440-47-3	LA-505-412		6.52		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		9.36		mg/kg	1	0.055	0.27	07/19/12
Copper	7440-50-8	LA-505-412		18.8		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		35.1		mg/kg	1	0.22	2.2	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895003
SAF# F12-005
Sample ID B2JDV3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		39.2		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		3.69		mg/kg	1	0.055	0.55	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.055		mg/kg	1	0.055	0.22	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.244		mg/kg	1	0.055	0.55	07/19/12
Strontium	7440-24-6	LA-505-412		32.0		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.431		mg/kg	1	0.055	0.55	07/19/12
Uranium	7440-61-1	LA-505-412		0.528		mg/kg	1	0.055	0.27	07/19/12
Arsenic	7440-38-2	LA-505-412		2.70		mg/kg	1	0.22	2.2	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.55		mg/kg	1	0.55	5.5	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.52	07/23/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895004
SAF# F12-005
Sample ID B2JDP6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	21	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/18/12
Nitrate-N	NO3-N	LA-533-410	B	1.81		mg/kg	1	0.94	5.0	07/18/12
Sulfate	14808-79-8	LA-533-410	BN	18.4		mg/kg	1	5.5	53	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	265	J+	mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		7.50		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.053		mg/kg	1	0.053	0.53	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.32		mg/kg	1	0.32	3.2	07/19/12
Barium	7440-39-3	LA-505-412		48.0		mg/kg	1	0.21	2.1	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.214		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0557		mg/kg	1	0.053	0.53	07/19/12
Chromium	7440-47-3	LA-505-412		4.16		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		8.18		mg/kg	1	0.053	0.27	07/19/12
Copper	7440-50-8	LA-505-412		16.0		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		30.5		mg/kg	1	0.21	2.1	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895004
SAF# F12-005
Sample ID B2JDP6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		34.1		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		2.86		mg/kg	1	0.053	0.53	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.053		mg/kg	1	0.053	0.21	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.195		mg/kg	1	0.053	0.53	07/19/12
Strontium	7440-24-6	LA-505-412		24.5		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.372		mg/kg	1	0.053	0.53	07/19/12
Uranium	7440-61-1	LA-505-412		0.344		mg/kg	1	0.053	0.27	07/19/12
Arsenic	7440-38-2	LA-505-412	B	2.00		mg/kg	1	0.21	2.1	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	B	0.664		mg/kg	1	0.53	5.3	07/19/12
~~**Preparation for Cr6 (SO)**~~										~~**07/23/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.099~~		~~ug/g~~	~~1~~	~~0.099~~	~~0.50~~	~~07/23/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895005
SAF# F12-005
Sample ID B2JDN7

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	21	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/18/12
Nitrate-N	NO3-N	LA-533-410	U	<0.94		mg/kg	1	0.94	5.0	07/18/12
Sulfate	14808-79-8	LA-533-410	UN	<5.5		mg/kg	1	5.5	53	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	266	J+	mg/kg	1	0.10	1.0	07/19/12
Nickel	7440-02-0	LA-505-412		7.71		mg/kg	1	0.10	1.0	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/19/12
Barium	7440-39-3	LA-505-412		56.8		mg/kg	1	0.21	2.1	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.283		mg/kg	1	0.10	1.0	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0563		mg/kg	1	0.052	0.52	07/19/12
Chromium	7440-47-3	LA-505-412		4.96		mg/kg	1	0.10	1.0	07/19/12
Cobalt	7440-48-4	LA-505-412		8.13		mg/kg	1	0.052	0.26	07/19/12
Copper	7440-50-8	LA-505-412		15.7		mg/kg	1	0.10	1.0	07/19/12
Vanadium	7440-62-2	LA-505-412		35.6		mg/kg	1	0.21	2.1	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895005
SAF# F12-005
Sample ID B2JDN7

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		33.8		mg/kg	1	1.0	10	07/19/12
Lead	7439-92-1	LA-505-412		2.94		mg/kg	1	0.052	0.52	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.052		mg/kg	1	0.052	0.21	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.222		mg/kg	1	0.052	0.52	07/19/12
Strontium	7440-24-6	LA-505-412		25.5		mg/kg	1	0.10	1.0	07/19/12
Tin	7440-31-5	LA-505-412	B	0.404		mg/kg	1	0.052	0.52	07/19/12
Uranium	7440-61-1	LA-505-412		0.408		mg/kg	1	0.052	0.26	07/19/12
Arsenic	7440-38-2	LA-505-412		2.10		mg/kg	1	0.21	2.1	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.52		mg/kg	1	0.52	5.2	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/23/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895006
SAF# F12-005
Sample ID B2JDN4

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<3.0		mg/kg	1	3.0	21	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.98		mg/kg	1	0.98	5.0	07/18/12
Nitrate-N	NO3-N	LA-533-410	U	<0.95		mg/kg	1	0.95	5.1	07/18/12
Sulfate	14808-79-8	LA-533-410	BN	6.45		mg/kg	1	5.6	53	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	335	J+	mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		11.1		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.057		mg/kg	1	0.057	0.57	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.34		mg/kg	1	0.34	3.4	07/19/12
Barium	7440-39-3	LA-505-412		68.9		mg/kg	1	0.23	2.3	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.303		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.057		mg/kg	1	0.057	0.57	07/19/12
Chromium	7440-47-3	LA-505-412		6.92		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		9.86		mg/kg	1	0.057	0.28	07/19/12
Copper	7440-50-8	LA-505-412		18.9		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		42.4		mg/kg	1	0.23	2.3	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895006
SAF# F12-005
Sample ID B2JDN4

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		42.5		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		3.52		mg/kg	1	0.057	0.57	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.057		mg/kg	1	0.057	0.23	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.242		mg/kg	1	0.057	0.57	07/19/12
Strontium	7440-24-6	LA-505-412		31.6		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.446		mg/kg	1	0.057	0.57	07/19/12
Uranium	7440-61-1	LA-505-412		0.485		mg/kg	1	0.057	0.28	07/19/12
Arsenic	7440-38-2	LA-505-412	B	2.11		mg/kg	1	0.23	2.3	07/19/12
Selenium	7782-49-2	LA-505-412	B	0.300		mg/kg	0.5	0.28	2.8	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.57		mg/kg	1	0.57	5.7	07/19/12
~~**Preparation for Cr6 (SO)**~~										~~**07/23/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.10~~		~~ug/g~~	~~1~~	~~0.10~~	~~0.51~~	~~07/23/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900001
SAF# F12-005
Sample ID B2JDT7

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	N	87.4		mg/kg	1	2.8	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.93		mg/kg	1	0.93	4.7	07/19/12
Nitrate-N	NO3-N	LA-533-410	B	3.94		mg/kg	1	0.90	4.8	07/19/12
Sulfate	14808-79-8	LA-533-410	N	64.8		mg/kg	1	5.3	51	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	324	J+	mg/kg	1	0.094	0.94	07/19/12
Nickel	7440-02-0	LA-505-412		11.1		mg/kg	1	0.094	0.94	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.047		mg/kg	1	0.047	0.47	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.28		mg/kg	1	0.28	2.8	07/19/12
Barium	7440-39-3	LA-505-412		64.2		mg/kg	1	0.19	1.9	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.272		mg/kg	1	0.094	0.94	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0869		mg/kg	1	0.047	0.47	07/19/12
Chromium	7440-47-3	LA-505-412		8.67		mg/kg	1	0.094	0.94	07/19/12
Cobalt	7440-48-4	LA-505-412		8.26		mg/kg	1	0.047	0.24	07/19/12
Copper	7440-50-8	LA-505-412		16.8		mg/kg	1	0.094	0.94	07/19/12
Vanadium	7440-62-2	LA-505-412		35.8		mg/kg	1	0.19	1.9	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900001
SAF# F12-005
Sample ID B2JDT7

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		40.2		mg/kg	1	0.94	9.4	07/19/12
Lead	7439-92-1	LA-505-412		24.1		mg/kg	1	0.047	0.47	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.047		mg/kg	1	0.047	0.19	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.272		mg/kg	1	0.047	0.47	07/19/12
Strontium	7440-24-6	LA-505-412		29.9		mg/kg	1	0.094	0.94	07/19/12
Tin	7440-31-5	LA-505-412	B	0.399		mg/kg	1	0.047	0.47	07/19/12
Uranium	7440-61-1	LA-505-412		0.529		mg/kg	1	0.047	0.24	07/19/12
Arsenic	7440-38-2	LA-505-412		3.09		mg/kg	1	0.19	1.9	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.24		mg/kg	0.5	0.24	2.4	07/19/12
Boron	7440-42-8	LA-505-412	B	0.806		mg/kg	1	0.47	4.7	07/19/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900002
SAF# F12-005
Sample ID B2JDT4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	BN	9.82		mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/19/12
Nitrate-N	NO3-N	LA-533-410	U	<0.93		mg/kg	1	0.93	5.0	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	21.1		mg/kg	1	5.5	53	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	290	J+	mg/kg	1	0.096	0.96	07/19/12
Nickel	7440-02-0	LA-505-412		8.65		mg/kg	1	0.096	0.96	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.048		mg/kg	1	0.048	0.48	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.29		mg/kg	1	0.29	2.9	07/19/12
Barium	7440-39-3	LA-505-412		62.2		mg/kg	1	0.19	1.9	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.311		mg/kg	1	0.096	0.96	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.048		mg/kg	1	0.048	0.48	07/19/12
Chromium	7440-47-3	LA-505-412		4.71		mg/kg	1	0.096	0.96	07/19/12
Cobalt	7440-48-4	LA-505-412		8.77		mg/kg	1	0.048	0.24	07/19/12
Copper	7440-50-8	LA-505-412		18.4		mg/kg	1	0.096	0.96	07/19/12
Vanadium	7440-62-2	LA-505-412		30.6		mg/kg	1	0.19	1.9	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900002
SAF# F12-005
Sample ID B2JDT4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		38.0		mg/kg	1	0.96	9.6	07/19/12
Lead	7439-92-1	LA-505-412		4.02		mg/kg	1	0.048	0.48	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.048		mg/kg	1	0.048	0.19	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.215		mg/kg	1	0.048	0.48	07/19/12
Strontium	7440-24-6	LA-505-412		30.0		mg/kg	1	0.096	0.96	07/19/12
Tin	7440-31-5	LA-505-412	B	0.376		mg/kg	1	0.048	0.48	07/19/12
Uranium	7440-61-1	LA-505-412		0.436		mg/kg	1	0.048	0.24	07/19/12
Arsenic	7440-38-2	LA-505-412		2.83		mg/kg	1	0.19	1.9	07/19/12
Selenium	7782-49-2	LA-505-412	B	0.301		mg/kg	0.5	0.24	2.4	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.48		mg/kg	1	0.48	4.8	07/19/12
~~**Preparation for Cr6 (SO)**~~										~~**07/18/12**~~
~~**Hexavalent chromium**~~										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.50	~~07/19/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900003
SAF# F12-005
Sample ID B2JDH3

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	BN	8.58		mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.9	07/19/12
Nitrate-N	NO3-N	LA-533-410	B	0.930		mg/kg	1	0.92	4.9	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	8.94		mg/kg	1	5.5	52	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	318	J+	mg/kg	1	0.096	0.96	07/19/12
Nickel	7440-02-0	LA-505-412		9.33		mg/kg	1	0.096	0.96	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.048		mg/kg	1	0.048	0.48	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.29		mg/kg	1	0.29	2.9	07/19/12
Barium	7440-39-3	LA-505-412		65.1		mg/kg	1	0.19	1.9	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.253		mg/kg	1	0.096	0.96	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0817		mg/kg	1	0.048	0.48	07/19/12
Chromium	7440-47-3	LA-505-412		6.46		mg/kg	1	0.096	0.96	07/19/12
Cobalt	7440-48-4	LA-505-412		8.56		mg/kg	1	0.048	0.24	07/19/12
Copper	7440-50-8	LA-505-412		16.9		mg/kg	1	0.096	0.96	07/19/12
Vanadium	7440-62-2	LA-505-412		34.8		mg/kg	1	0.19	1.9	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900003
SAF# F12-005
Sample ID B2JDH3

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		40.7		mg/kg	1	0.96	9.6	07/19/12
Lead	7439-92-1	LA-505-412		6.64		mg/kg	1	0.048	0.48	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.048		mg/kg	1	0.048	0.19	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.270		mg/kg	1	0.048	0.48	07/19/12
Strontium	7440-24-6	LA-505-412		30.1		mg/kg	1	0.096	0.96	07/19/12
Tin	7440-31-5	LA-505-412	B	0.438		mg/kg	1	0.048	0.48	07/19/12
Uranium	7440-61-1	LA-505-412		0.418		mg/kg	1	0.048	0.24	07/19/12
Arsenic	7440-38-2	LA-505-412		3.69		mg/kg	1	0.19	1.9	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.24		mg/kg	0.5	0.24	2.4	07/19/12
Boron	7440-42-8	LA-505-412	B	1.17		mg/kg	1	0.48	4.8	07/19/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900004
SAF# F12-005
Sample ID B2JDK4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	BN	3.44		mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/19/12
Nitrate-N	NO3-N	LA-533-410	U	<0.93		mg/kg	1	0.93	4.9	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	7.56		mg/kg	1	5.5	52	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	319	J+	mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		9.28		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.056		mg/kg	1	0.056	0.56	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.34		mg/kg	1	0.34	3.4	07/19/12
Barium	7440-39-3	LA-505-412		58.5		mg/kg	1	0.22	2.2	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.219		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.056		mg/kg	1	0.056	0.56	07/19/12
Chromium	7440-47-3	LA-505-412		5.89		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		7.93		mg/kg	1	0.056	0.28	07/19/12
Copper	7440-50-8	LA-505-412		15.4		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		29.9		mg/kg	1	0.22	2.2	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900004
SAF# F12-005
Sample ID B2JDK4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		35.0		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		3.88		mg/kg	1	0.056	0.56	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.056		mg/kg	1	0.056	0.22	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.253		mg/kg	1	0.056	0.56	07/19/12
Strontium	7440-24-6	LA-505-412		24.9		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.334		mg/kg	1	0.056	0.56	07/19/12
Uranium	7440-61-1	LA-505-412		0.355		mg/kg	1	0.056	0.28	07/19/12
Arsenic	7440-38-2	LA-505-412		2.58		mg/kg	1	0.22	2.2	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.28		mg/kg	0.5	0.28	2.8	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.56		mg/kg	1	0.56	5.6	07/19/12
~~**Preparation for Cr6 (SO)**~~										~~**07/18/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.099~~		~~ug/g~~	~~1~~	~~0.099~~	~~0.50~~	~~07/19/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900005
SAF# F12-005
Sample ID B2JDJ5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	UN	<2.9		mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.94		mg/kg	1	0.94	4.8	07/19/12
Nitrate-N	NO3-N	LA-533-410	U	<0.91		mg/kg	1	0.91	4.9	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	8.15		mg/kg	1	5.4	52	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	271	J+	mg/kg	1	0.099	0.99	07/19/12
Nickel	7440-02-0	LA-505-412		7.65		mg/kg	1	0.099	0.99	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.050		mg/kg	1	0.050	0.50	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.30		mg/kg	1	0.30	3.0	07/19/12
Barium	7440-39-3	LA-505-412		76.5		mg/kg	1	0.20	2.0	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.231		mg/kg	1	0.099	0.99	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0572		mg/kg	1	0.050	0.50	07/19/12
Chromium	7440-47-3	LA-505-412		5.32		mg/kg	1	0.099	0.99	07/19/12
Cobalt	7440-48-4	LA-505-412		7.56		mg/kg	1	0.050	0.25	07/19/12
Copper	7440-50-8	LA-505-412		14.8		mg/kg	1	0.099	0.99	07/19/12
Vanadium	7440-62-2	LA-505-412		35.4		mg/kg	1	0.20	2.0	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900005
SAF# F12-005
Sample ID B2JDJ5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		34.2		mg/kg	1	0.99	9.9	07/19/12
Lead	7439-92-1	LA-505-412		3.45		mg/kg	1	0.050	0.50	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.050		mg/kg	1	0.050	0.20	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.223		mg/kg	1	0.050	0.50	07/19/12
Strontium	7440-24-6	LA-505-412		26.8		mg/kg	1	0.099	0.99	07/19/12
Tin	7440-31-5	LA-505-412	B	0.354		mg/kg	1	0.050	0.50	07/19/12
Uranium	7440-61-1	LA-505-412		0.369		mg/kg	1	0.050	0.25	07/19/12
Arsenic	7440-38-2	LA-505-412		2.07		mg/kg	1	0.20	2.0	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.25		mg/kg	0.5	0.25	2.5	07/19/12
Boron	7440-42-8	LA-505-412	B	0.668		mg/kg	1	0.50	5.0	07/19/12
~~**Preparation for Cr6 (SO)**~~										~~**07/18/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.099~~		~~ug/g~~	~~1~~	~~0.099~~	~~0.49~~	~~07/19/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900006
SAF# F12-005
Sample ID B2JDV0

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	BN	3.07		mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/19/12
Nitrate-N	NO3-N	LA-533-410	B	1.03		mg/kg	1	0.93	4.9	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	18.3		mg/kg	1	5.5	52	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	306	J+	mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		9.50		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.056		mg/kg	1	0.056	0.56	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.34		mg/kg	1	0.34	3.4	07/19/12
Barium	7440-39-3	LA-505-412		58.0		mg/kg	1	0.22	2.2	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.296		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.056		mg/kg	1	0.056	0.56	07/19/12
Chromium	7440-47-3	LA-505-412		6.70		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		8.15		mg/kg	1	0.056	0.28	07/19/12
Copper	7440-50-8	LA-505-412		16.5		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		38.2		mg/kg	1	0.22	2.2	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900006
SAF# F12-005
Sample ID B2JDV0

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		38.2		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		4.78		mg/kg	1	0.056	0.56	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.056		mg/kg	1	0.056	0.22	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.250		mg/kg	1	0.056	0.56	07/19/12
Strontium	7440-24-6	LA-505-412		26.5		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.403		mg/kg	1	0.056	0.56	07/19/12
Uranium	7440-61-1	LA-505-412		0.370		mg/kg	1	0.056	0.28	07/19/12
Arsenic	7440-38-2	LA-505-412		2.61		mg/kg	1	0.22	2.2	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.28		mg/kg	0.5	0.28	2.8	07/19/12
Boron	7440-42-8	LA-505-412	B	4.99		mg/kg	1	0.56	5.6	07/19/12
~~**Preparation for Cr6 (SO)**~~										~~**07/18/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.098~~		~~ug/g~~	~~1~~	~~0.098~~	~~0.49~~	~~07/19/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900007
SAF# F12-005
Sample ID B2JDP0

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	BN	3.07		mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.8	07/19/12
Nitrate-N	NO3-N	LA-533-410	B	1.05		mg/kg	1	0.92	4.9	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	9.81		mg/kg	1	5.4	52	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	321	J+	mg/kg	1	0.11	1.1	07/18/12
Nickel	7440-02-0	LA-505-412		9.75		mg/kg	1	0.11	1.1	07/18/12
Silver	7440-22-4	LA-505-412	B	0.0587		mg/kg	1	0.053	0.53	07/18/12
Antimony	7440-36-0	LA-505-412	B	0.392		mg/kg	1	0.32	3.2	07/18/12
Barium	7440-39-3	LA-505-412	N	72.6	J+	mg/kg	1	0.21	2.1	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.357		mg/kg	1	0.11	1.1	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.104		mg/kg	1	0.053	0.53	07/18/12
Chromium	7440-47-3	LA-505-412		6.60		mg/kg	1	0.11	1.1	07/18/12
Cobalt	7440-48-4	LA-505-412		9.67		mg/kg	1	0.053	0.27	07/18/12
Copper	7440-50-8	LA-505-412		18.4		mg/kg	1	0.11	1.1	07/18/12
Vanadium	7440-62-2	LA-505-412		44.4		mg/kg	1	0.21	2.1	07/18/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900007
SAF# F12-005
Sample ID B2JDP0

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		45.6		mg/kg	1	1.1	11	07/18/12
Lead	7439-92-1	LA-505-412		6.84		mg/kg	1	0.053	0.53	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.053		mg/kg	1	0.053	0.21	07/18/12
Molybdenum	7439-98-7	LA-505-412		0.625		mg/kg	1	0.053	0.53	07/18/12
Strontium	7440-24-6	LA-505-412	N	34.9	J+	mg/kg	1	0.11	1.1	07/18/12
Tin	7440-31-5	LA-505-412		0.572		mg/kg	1	0.053	0.53	07/18/12
Uranium	7440-61-1	LA-505-412		0.548		mg/kg	1	0.053	0.27	07/18/12
Arsenic	7440-38-2	LA-505-412		3.83		mg/kg	1	0.21	2.1	07/18/12
Selenium	7782-49-2	LA-505-412	B	0.273		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	B	1.45		mg/kg	1	0.53	5.3	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.096		ug/g	1	0.096	0.48	07/19/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900008
SAF# F12-005
Sample ID B2JDR8

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	BN	4.06		mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.9	07/19/12
Nitrate-N	NO3-N	LA-533-410	U	<0.92		mg/kg	1	0.92	4.9	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	21.0		mg/kg	1	5.5	52	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	275	J+	mg/kg	1	0.095	0.95	07/18/12
Nickel	7440-02-0	LA-505-412		19.1		mg/kg	1	0.095	0.95	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.047		mg/kg	1	0.047	0.47	07/18/12
Antimony	7440-36-0	LA-505-412	B	0.319		mg/kg	1	0.28	2.8	07/18/12
Barium	7440-39-3	LA-505-412	N	55.2	J+	mg/kg	1	0.19	1.9	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.291		mg/kg	1	0.095	0.95	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0626		mg/kg	1	0.047	0.47	07/18/12
Chromium	7440-47-3	LA-505-412		8.39		mg/kg	1	0.095	0.95	07/18/12
Cobalt	7440-48-4	LA-505-412		8.39		mg/kg	1	0.047	0.24	07/18/12
Copper	7440-50-8	LA-505-412		16.5		mg/kg	1	0.095	0.95	07/18/12
Vanadium	7440-62-2	LA-505-412		23.9		mg/kg	1	0.19	1.9	07/18/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900008
SAF# F12-005
Sample ID B2JDR8

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		32.7		mg/kg	1	0.95	9.5	07/18/12
Lead	7439-92-1	LA-505-412		42.2		mg/kg	1	0.047	0.47	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.047		mg/kg	1	0.047	0.19	07/18/12
Molybdenum	7439-98-7	LA-505-412		0.483		mg/kg	1	0.047	0.47	07/18/12
Strontium	7440-24-6	LA-505-412	N	30.5	J+	mg/kg	1	0.095	0.95	07/18/12
Tin	7440-31-5	LA-505-412		0.983		mg/kg	1	0.047	0.47	07/18/12
Uranium	7440-61-1	LA-505-412		0.437		mg/kg	1	0.047	0.24	07/18/12
Arsenic	7440-38-2	LA-505-412		3.70		mg/kg	1	0.19	1.9	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.24		mg/kg	0.5	0.24	2.4	07/19/12
Boron	7440-42-8	LA-505-412	B	2.97		mg/kg	1	0.47	4.7	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.098		ug/g	1	0.098	0.49	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900009
SAF# F12-005
Sample ID B2JDT1

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	BN	2.97		mg/kg	1	2.9	21	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/19/12
Nitrate-N	NO3-N	LA-533-410	U	<0.94		mg/kg	1	0.94	5.0	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	14.5		mg/kg	1	5.5	53	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	308	J+	mg/kg	1	0.11	1.1	07/18/12
Nickel	7440-02-0	LA-505-412		10.2		mg/kg	1	0.11	1.1	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.055		mg/kg	1	0.055	0.55	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.33		mg/kg	1	0.33	3.3	07/18/12
Barium	7440-39-3	LA-505-412	N	61.6	J+	mg/kg	1	0.22	2.2	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.342		mg/kg	1	0.11	1.1	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0716		mg/kg	1	0.055	0.55	07/18/12
Chromium	7440-47-3	LA-505-412		7.71		mg/kg	1	0.11	1.1	07/18/12
Cobalt	7440-48-4	LA-505-412		8.67		mg/kg	1	0.055	0.28	07/18/12
Copper	7440-50-8	LA-505-412		15.6		mg/kg	1	0.11	1.1	07/18/12
Vanadium	7440-62-2	LA-505-412		35.2		mg/kg	1	0.22	2.2	07/18/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900009
SAF# F12-005
Sample ID B2JDT1

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		38.6		mg/kg	1	1.1	11	07/18/12
Lead	7439-92-1	LA-505-412		5.71		mg/kg	1	0.055	0.55	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.055		mg/kg	1	0.055	0.22	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.282		mg/kg	1	0.055	0.55	07/18/12
Strontium	7440-24-6	LA-505-412	N	31.2	J+	mg/kg	1	0.11	1.1	07/18/12
Tin	7440-31-5	LA-505-412	B	0.412		mg/kg	1	0.055	0.55	07/18/12
Uranium	7440-61-1	LA-505-412		0.484		mg/kg	1	0.055	0.28	07/18/12
Arsenic	7440-38-2	LA-505-412		2.68		mg/kg	1	0.22	2.2	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.28		mg/kg	0.5	0.28	2.8	07/19/12
Boron	7440-42-8	LA-505-412	B	1.60		mg/kg	1	0.55	5.5	07/18/12
~~**Preparation for Cr6 (SO)**~~										~~**07/18/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.10~~		~~ug/g~~	~~1~~	~~0.10~~	~~0.50~~	~~07/19/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900010
SAF# F12-005
Sample ID B2JF32

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	UN	<2.9		mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/19/12
Nitrate-N	NO3-N	LA-533-410	U	<0.93		mg/kg	1	0.93	4.9	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	12.3		mg/kg	1	5.5	52	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	287	J+	mg/kg	1	0.094	0.94	07/18/12
Nickel	7440-02-0	LA-505-412		8.74		mg/kg	1	0.094	0.94	07/18/12
Silver	7440-22-4	LA-505-412	B	0.0546		mg/kg	1	0.047	0.47	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.28		mg/kg	1	0.28	2.8	07/18/12
Barium	7440-39-3	LA-505-412	N	63.0	J+	mg/kg	1	0.19	1.9	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.216		mg/kg	1	0.094	0.94	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0819		mg/kg	1	0.047	0.47	07/18/12
Chromium	7440-47-3	LA-505-412		5.21		mg/kg	1	0.094	0.94	07/18/12
Cobalt	7440-48-4	LA-505-412		9.12		mg/kg	1	0.047	0.24	07/18/12
Copper	7440-50-8	LA-505-412		16.2		mg/kg	1	0.094	0.94	07/18/12
Vanadium	7440-62-2	LA-505-412		30.7		mg/kg	1	0.19	1.9	07/18/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900010
SAF# F12-005
Sample ID B2JF32

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		35.7		mg/kg	1	0.94	9.4	07/18/12
Lead	7439-92-1	LA-505-412		5.19		mg/kg	1	0.047	0.47	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.047		mg/kg	1	0.047	0.19	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.226		mg/kg	1	0.047	0.47	07/18/12
Strontium	7440-24-6	LA-505-412	N	32.2	J+	mg/kg	1	0.094	0.94	07/18/12
Tin	7440-31-5	LA-505-412	B	0.392		mg/kg	1	0.047	0.47	07/18/12
Uranium	7440-61-1	LA-505-412		0.531		mg/kg	1	0.047	0.24	07/18/12
Arsenic	7440-38-2	LA-505-412		2.34		mg/kg	1	0.19	1.9	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.24		mg/kg	0.5	0.24	2.4	07/19/12
Boron	7440-42-8	LA-505-412	B	0.865		mg/kg	1	0.47	4.7	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900011
SAF# F12-005
Sample ID B2JDJ8

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	1.22		mg/kg	1	0.93	4.9	07/17/12
Sulfate	14808-79-8	LA-533-410	B	15.0		mg/kg	1	5.5	52	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	267	J+	mg/kg	1	0.10	1.0	07/18/12
Nickel	7440-02-0	LA-505-412		7.95		mg/kg	1	0.10	1.0	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.051		mg/kg	1	0.051	0.51	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/18/12
Barium	7440-39-3	LA-505-412	N	59.1	J+	mg/kg	1	0.20	2.0	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.317		mg/kg	1	0.10	1.0	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0787		mg/kg	1	0.051	0.51	07/18/12
Chromium	7440-47-3	LA-505-412		5.19		mg/kg	1	0.10	1.0	07/18/12
Cobalt	7440-48-4	LA-505-412		8.72		mg/kg	1	0.051	0.26	07/18/12
Copper	7440-50-8	LA-505-412		15.8		mg/kg	1	0.10	1.0	07/18/12
Vanadium	7440-62-2	LA-505-412		30.4		mg/kg	1	0.20	2.0	07/18/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900011
SAF# F12-005
Sample ID B2JDJ8

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		35.4		mg/kg	1	1.0	10	07/18/12
Lead	7439-92-1	LA-505-412		5.25		mg/kg	1	0.051	0.51	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.051		mg/kg	1	0.051	0.20	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.234		mg/kg	1	0.051	0.51	07/18/12
Strontium	7440-24-6	LA-505-412	N	29.3	J+	mg/kg	1	0.10	1.0	07/18/12
Tin	7440-31-5	LA-505-412	B	0.363		mg/kg	1	0.051	0.51	07/18/12
Uranium	7440-61-1	LA-505-412		0.465		mg/kg	1	0.051	0.26	07/18/12
Arsenic	7440-38-2	LA-505-412		2.17		mg/kg	1	0.20	2.0	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	B	0.896		mg/kg	1	0.51	5.1	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900012
SAF# F12-005
Sample ID B2JDR2

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410		25.6		mg/kg	1	2.9	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	U	<0.92		mg/kg	1	0.92	4.9	07/17/12
Sulfate	14808-79-8	LA-533-410	B	14.3		mg/kg	1	5.5	52	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	303	J+	mg/kg	1	0.11	1.1	07/18/12
Nickel	7440-02-0	LA-505-412		9.52		mg/kg	1	0.11	1.1	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.056		mg/kg	1	0.056	0.56	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.33		mg/kg	1	0.33	3.3	07/18/12
Barium	7440-39-3	LA-505-412	N	62.5	J+	mg/kg	1	0.22	2.2	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.267		mg/kg	1	0.11	1.1	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0703		mg/kg	1	0.056	0.56	07/18/12
Chromium	7440-47-3	LA-505-412		5.90		mg/kg	1	0.11	1.1	07/18/12
Cobalt	7440-48-4	LA-505-412		8.03		mg/kg	1	0.056	0.28	07/18/12
Copper	7440-50-8	LA-505-412		14.8		mg/kg	1	0.11	1.1	07/18/12
Vanadium	7440-62-2	LA-505-412		28.8		mg/kg	1	0.22	2.2	07/18/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900012
SAF# F12-005
Sample ID B2JDR2

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		36.7		mg/kg	1	1.1	11	07/18/12
Lead	7439-92-1	LA-505-412		5.15		mg/kg	1	0.056	0.56	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.056		mg/kg	1	0.056	0.22	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.223		mg/kg	1	0.056	0.56	07/18/12
Strontium	7440-24-6	LA-505-412	N	30.7	J+	mg/kg	1	0.11	1.1	07/18/12
Tin	7440-31-5	LA-505-412	B	0.341		mg/kg	1	0.056	0.56	07/18/12
Uranium	7440-61-1	LA-505-412		0.506		mg/kg	1	0.056	0.28	07/18/12
Arsenic	7440-38-2	LA-505-412		2.83		mg/kg	1	0.22	2.2	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.28		mg/kg	0.5	0.28	2.8	07/19/12
Boron	7440-42-8	LA-505-412	B	0.958		mg/kg	1	0.56	5.6	07/18/12
~~**Preparation for Cr6 (SO)**~~										~~**07/18/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.10~~		~~ug/g~~	~~1~~	~~0.10~~	~~0.51~~	~~07/19/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900013
SAF# F12-005
Sample ID B2JDR5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	8.87		mg/kg	1	2.9	21	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	1.13		mg/kg	1	0.94	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410		61.5		mg/kg	1	5.6	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	318	J+	mg/kg	1	0.11	1.1	07/18/12
Nickel	7440-02-0	LA-505-412		10.3		mg/kg	1	0.11	1.1	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.055		mg/kg	1	0.055	0.55	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.33		mg/kg	1	0.33	3.3	07/18/12
Barium	7440-39-3	LA-505-412	N	69.7	J+	mg/kg	1	0.22	2.2	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.277		mg/kg	1	0.11	1.1	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0752		mg/kg	1	0.055	0.55	07/18/12
Chromium	7440-47-3	LA-505-412		8.67		mg/kg	1	0.11	1.1	07/18/12
Cobalt	7440-48-4	LA-505-412		8.98		mg/kg	1	0.055	0.27	07/18/12
Copper	7440-50-8	LA-505-412		16.9		mg/kg	1	0.11	1.1	07/18/12
Vanadium	7440-62-2	LA-505-412		36.0		mg/kg	1	0.22	2.2	07/18/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900013
SAF# F12-005
Sample ID B2JDR5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		38.8		mg/kg	1	1.1	11	07/18/12
Lead	7439-92-1	LA-505-412		6.08		mg/kg	1	0.055	0.55	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.055		mg/kg	1	0.055	0.22	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.273		mg/kg	1	0.055	0.55	07/18/12
Strontium	7440-24-6	LA-505-412	N	34.1	J+	mg/kg	1	0.11	1.1	07/18/12
Tin	7440-31-5	LA-505-412	B	0.398		mg/kg	1	0.055	0.55	07/18/12
Uranium	7440-61-1	LA-505-412		0.506		mg/kg	1	0.055	0.27	07/18/12
Arsenic	7440-38-2	LA-505-412		2.99		mg/kg	1	0.22	2.2	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	B	1.70		mg/kg	1	0.55	5.5	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900014
SAF# F12-005
Sample ID B2JDP3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.8		mg/kg	1	2.8	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.93		mg/kg	1	0.93	4.7	07/17/12
Nitrate-N	NO3-N	LA-533-410	U	<0.90		mg/kg	1	0.90	4.8	07/17/12
Sulfate	14808-79-8	LA-533-410	U	<5.3		mg/kg	1	5.3	51	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	218	J+	mg/kg	1	0.10	1.0	07/18/12
Nickel	7440-02-0	LA-505-412		5.65		mg/kg	1	0.10	1.0	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.051		mg/kg	1	0.051	0.51	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.30		mg/kg	1	0.30	3.0	07/18/12
Barium	7440-39-3	LA-505-412	N	45.4	J+	mg/kg	1	0.20	2.0	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.189		mg/kg	1	0.10	1.0	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0828		mg/kg	1	0.051	0.51	07/18/12
Chromium	7440-47-3	LA-505-412		2.37		mg/kg	1	0.10	1.0	07/18/12
Cobalt	7440-48-4	LA-505-412		7.92		mg/kg	1	0.051	0.25	07/18/12
Copper	7440-50-8	LA-505-412		15.6		mg/kg	1	0.10	1.0	07/18/12
Vanadium	7440-62-2	LA-505-412		28.1		mg/kg	1	0.20	2.0	07/18/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900014
SAF# F12-005
Sample ID B2JDP3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		30.9		mg/kg	1	1.0	10	07/18/12
Lead	7439-92-1	LA-505-412		3.33		mg/kg	1	0.051	0.51	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.051		mg/kg	1	0.051	0.20	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.234		mg/kg	1	0.051	0.51	07/18/12
Strontium	7440-24-6	LA-505-412	N	23.2	J+	mg/kg	1	0.10	1.0	07/18/12
Tin	7440-31-5	LA-505-412	B	0.318		mg/kg	1	0.051	0.51	07/18/12
Uranium	7440-61-1	LA-505-412		0.408		mg/kg	1	0.051	0.25	07/18/12
Arsenic	7440-38-2	LA-505-412	B	1.71		mg/kg	1	0.20	2.0	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.25		mg/kg	0.5	0.25	2.5	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.51		mg/kg	1	0.51	5.1	07/18/12
~~**Preparation for Cr6 (SO)**~~										~~**07/18/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.097~~		~~ug/g~~	~~1~~	~~0.097~~	~~0.49~~	~~07/19/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900015
SAF# F12-005
Sample ID B2JDP9

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	13.4		mg/kg	1	2.9	20	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/18/12
Nitrate-N	NO3-N	LA-533-410	B	0.992		mg/kg	1	0.93	5.0	07/18/12
Sulfate	14808-79-8	LA-533-410		73.3		mg/kg	1	5.5	53	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	247	J+	mg/kg	1	0.11	1.1	07/18/12
Nickel	7440-02-0	LA-505-412		8.64		mg/kg	1	0.11	1.1	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.053		mg/kg	1	0.053	0.53	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.32		mg/kg	1	0.32	3.2	07/18/12
Barium	7440-39-3	LA-505-412	N	51.5	J+	mg/kg	1	0.21	2.1	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.247		mg/kg	1	0.11	1.1	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0622		mg/kg	1	0.053	0.53	07/18/12
Chromium	7440-47-3	LA-505-412		7.09		mg/kg	1	0.11	1.1	07/18/12
Cobalt	7440-48-4	LA-505-412		6.51		mg/kg	1	0.053	0.26	07/18/12
Copper	7440-50-8	LA-505-412		12.5		mg/kg	1	0.11	1.1	07/18/12
Vanadium	7440-62-2	LA-505-412		23.4		mg/kg	1	0.21	2.1	07/18/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900015
SAF# F12-005
Sample ID B2JDP9

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		29.3		mg/kg	1	1.1	11	07/18/12
Lead	7439-92-1	LA-505-412		5.07		mg/kg	1	0.053	0.53	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.053		mg/kg	1	0.053	0.21	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.179		mg/kg	1	0.053	0.53	07/18/12
Strontium	7440-24-6	LA-505-412	N	29.1	J+	mg/kg	1	0.11	1.1	07/18/12
Tin	7440-31-5	LA-505-412	B	0.251		mg/kg	1	0.053	0.53	07/18/12
Uranium	7440-61-1	LA-505-412		0.371		mg/kg	1	0.053	0.26	07/18/12
Arsenic	7440-38-2	LA-505-412		2.34		mg/kg	1	0.21	2.1	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	B	0.828		mg/kg	1	0.53	5.3	07/18/12
~~**Preparation for Cr6 (SO)**~~										~~**07/18/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.10~~		~~ug/g~~	~~1~~	~~0.10~~	~~0.51~~	~~07/19/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900016
SAF# F12-005
Sample ID B2JDV6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<3.0		mg/kg	1	3.0	21	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.98		mg/kg	1	0.98	5.0	07/18/12
Nitrate-N	NO3-N	LA-533-410	U	<0.95		mg/kg	1	0.95	5.0	07/18/12
Sulfate	14808-79-8	LA-533-410	U	<5.6		mg/kg	1	5.6	53	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	205	J+	mg/kg	1	0.11	1.1	07/18/12
Nickel	7440-02-0	LA-505-412		5.20		mg/kg	1	0.11	1.1	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.054		mg/kg	1	0.054	0.54	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.32		mg/kg	1	0.32	3.2	07/18/12
Barium	7440-39-3	LA-505-412	N	40.0	J+	mg/kg	1	0.22	2.2	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.175		mg/kg	1	0.11	1.1	07/18/12
Cadmium	7440-43-9	LA-505-412	U	<0.054		mg/kg	1	0.054	0.54	07/18/12
Chromium	7440-47-3	LA-505-412		1.45		mg/kg	1	0.11	1.1	07/18/12
Cobalt	7440-48-4	LA-505-412		7.83		mg/kg	1	0.054	0.27	07/18/12
Copper	7440-50-8	LA-505-412		14.4		mg/kg	1	0.11	1.1	07/18/12
Vanadium	7440-62-2	LA-505-412		24.7		mg/kg	1	0.22	2.2	07/18/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900016
SAF# F12-005
Sample ID B2JDV6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		27.3		mg/kg	1	1.1	11	07/18/12
Lead	7439-92-1	LA-505-412		2.07		mg/kg	1	0.054	0.54	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.054		mg/kg	1	0.054	0.22	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.175		mg/kg	1	0.054	0.54	07/18/12
Strontium	7440-24-6	LA-505-412	N	21.6	J+	mg/kg	1	0.11	1.1	07/18/12
Tin	7440-31-5	LA-505-412	B	0.283		mg/kg	1	0.054	0.54	07/18/12
Uranium	7440-61-1	LA-505-412		0.373		mg/kg	1	0.054	0.27	07/18/12
Arsenic	7440-38-2	LA-505-412	B	1.29		mg/kg	1	0.22	2.2	07/18/12
Selenium	7782-49-2	LA-505-412	B	0.282		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	B	0.549		mg/kg	1	0.54	5.4	07/18/12
~~**Preparation for Cr6 (SO)**~~										~~**07/18/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.10~~		~~ug/g~~	~~1~~	~~0.10~~	~~0.50~~	~~07/19/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900017
SAF# F12-005
Sample ID B2JDK1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	17.1		mg/kg	1	2.9	20	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/18/12
Nitrate-N	NO3-N	LA-533-410	B	1.27		mg/kg	1	0.93	5.0	07/18/12
Sulfate	14808-79-8	LA-533-410	B	18.5		mg/kg	1	5.5	52	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	253	J+	mg/kg	1	0.10	1.0	07/18/12
Nickel	7440-02-0	LA-505-412		6.69		mg/kg	1	0.10	1.0	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/18/12
Barium	7440-39-3	LA-505-412	N	45.4	J+	mg/kg	1	0.21	2.1	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.155		mg/kg	1	0.10	1.0	07/18/12
Cadmium	7440-43-9	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/18/12
Chromium	7440-47-3	LA-505-412		3.25		mg/kg	1	0.10	1.0	07/18/12
Cobalt	7440-48-4	LA-505-412		8.47		mg/kg	1	0.052	0.26	07/18/12
Copper	7440-50-8	LA-505-412		14.9		mg/kg	1	0.10	1.0	07/18/12
Vanadium	7440-62-2	LA-505-412		23.6		mg/kg	1	0.21	2.1	07/18/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900017
SAF# F12-005
Sample ID B2JDK1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		30.7		mg/kg	1	1.0	10	07/18/12
Lead	7439-92-1	LA-505-412		3.31		mg/kg	1	0.052	0.52	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.052		mg/kg	1	0.052	0.21	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.187		mg/kg	1	0.052	0.52	07/18/12
Strontium	7440-24-6	LA-505-412	N	24.0	J+	mg/kg	1	0.10	1.0	07/18/12
Tin	7440-31-5	LA-505-412	B	0.313		mg/kg	1	0.052	0.52	07/18/12
Uranium	7440-61-1	LA-505-412		0.396		mg/kg	1	0.052	0.26	07/18/12
Arsenic	7440-38-2	LA-505-412	B	1.95		mg/kg	1	0.21	2.1	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	B	1.43		mg/kg	1	0.52	5.2	07/18/12
~~**Preparation for Cr6 (SO)**~~										~~**07/18/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.098~~		~~ug/g~~	~~1~~	~~0.098~~	~~0.49~~	~~07/19/12~~

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900018
SAF# F12-005
Sample ID B2JF35

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	11.8		mg/kg	1	2.9	20	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.8	07/18/12
Nitrate-N	NO3-N	LA-533-410	U	<0.92		mg/kg	1	0.92	4.9	07/18/12
Sulfate	14808-79-8	LA-533-410		53.0		mg/kg	1	5.4	52	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	242	J+	mg/kg	1	0.10	1.0	07/18/12
Nickel	7440-02-0	LA-505-412		7.53		mg/kg	1	0.10	1.0	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/18/12
Barium	7440-39-3	LA-505-412	N	51.8	J+	mg/kg	1	0.21	2.1	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.230		mg/kg	1	0.10	1.0	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0566		mg/kg	1	0.052	0.52	07/18/12
Chromium	7440-47-3	LA-505-412		5.47		mg/kg	1	0.10	1.0	07/18/12
Cobalt	7440-48-4	LA-505-412		6.86		mg/kg	1	0.052	0.26	07/18/12
Copper	7440-50-8	LA-505-412		13.8		mg/kg	1	0.10	1.0	07/18/12
Vanadium	7440-62-2	LA-505-412		23.7		mg/kg	1	0.21	2.1	07/18/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900018
SAF# F12-005
Sample ID B2JF35

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		31.1		mg/kg	1	1.0	10	07/18/12
Lead	7439-92-1	LA-505-412		4.49		mg/kg	1	0.052	0.52	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.052		mg/kg	1	0.052	0.21	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.211		mg/kg	1	0.052	0.52	07/18/12
Strontium	7440-24-6	LA-505-412	N	29.8	J+	mg/kg	1	0.10	1.0	07/18/12
Tin	7440-31-5	LA-505-412	B	0.284		mg/kg	1	0.052	0.52	07/18/12
Uranium	7440-61-1	LA-505-412		0.365		mg/kg	1	0.052	0.26	07/18/12
Arsenic	7440-38-2	LA-505-412		2.39		mg/kg	1	0.21	2.1	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	B	2.01		mg/kg	1	0.52	5.2	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900019
SAF# F12-005
Sample ID B2JF47

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.8		mg/kg	1	2.8	20	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.94		mg/kg	1	0.94	4.8	07/18/12
Nitrate-N	NO3-N	LA-533-410	U	<0.91		mg/kg	1	0.91	4.8	07/18/12
Sulfate	14808-79-8	LA-533-410	U	<5.4		mg/kg	1	5.4	51	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	5.81	J+	mg/kg	1	0.11	1.1	07/18/12
Nickel	7440-02-0	LA-505-412	U	<0.11		mg/kg	1	0.11	1.1	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.053		mg/kg	1	0.053	0.53	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.32		mg/kg	1	0.32	3.2	07/18/12
Barium	7440-39-3	LA-505-412	N	2.47	J+	mg/kg	1	0.21	2.1	07/18/12
Beryllium	7440-41-7	LA-505-412	U	<0.11		mg/kg	1	0.11	1.1	07/18/12
Cadmium	7440-43-9	LA-505-412	U	<0.053		mg/kg	1	0.053	0.53	07/18/12
Chromium	7440-47-3	LA-505-412	U	<0.11		mg/kg	1	0.11	1.1	07/18/12
Cobalt	7440-48-4	LA-505-412	B	0.0871		mg/kg	1	0.053	0.27	07/18/12
Copper	7440-50-8	LA-505-412	U	<0.11		mg/kg	1	0.11	1.1	07/18/12
Vanadium	7440-62-2	LA-505-412	U	<0.21		mg/kg	1	0.21	2.1	07/18/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900019
SAF# F12-005
Sample ID B2JF47

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	B	1.28		mg/kg	1	1.1	11	07/18/12
Lead	7439-92-1	LA-505-412	B	0.392		mg/kg	1	0.053	0.53	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.053		mg/kg	1	0.053	0.21	07/18/12
Molybdenum	7439-98-7	LA-505-412	U	<0.053		mg/kg	1	0.053	0.53	07/18/12
Strontium	7440-24-6	LA-505-412	BN	0.623	J+	mg/kg	1	0.11	1.1	07/18/12
Tin	7440-31-5	LA-505-412	U	<0.053		mg/kg	1	0.053	0.53	07/18/12
Uranium	7440-61-1	LA-505-412	B	0.0903		mg/kg	1	0.053	0.27	07/18/12
Arsenic	7440-38-2	LA-505-412	U	<0.21		mg/kg	1	0.21	2.1	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.53		mg/kg	1	0.53	5.3	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.49	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922001
SAF# F12-005
Sample ID B2JDL0

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	10.3		mg/kg	1	2.9	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	5.0	07/20/12
Nitrate-N	NO3-N	LA-533-410	B	0.960		mg/kg	1	0.94	5.0	07/20/12
Sulfate	14808-79-8	LA-533-410		79.4		mg/kg	1	5.6	53	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		672		mg/kg	0.5	0.052	0.52	07/30/12
Nickel	7440-02-0	LA-505-412		20.0		mg/kg	0.5	0.052	0.52	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0937		mg/kg	0.5	0.026	0.26	07/30/12
Antimony	7440-36-0	LA-505-412	B	0.315		mg/kg	0.5	0.16	1.6	07/30/12
Barium	7440-39-3	LA-505-412	N	169	J-	mg/kg	0.5	0.10	1.0	07/30/12
Beryllium	7440-41-7	LA-505-412		0.766		mg/kg	0.5	0.052	0.52	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.175		mg/kg	0.5	0.026	0.26	07/30/12
Chromium	7440-47-3	LA-505-412		16.7		mg/kg	0.5	0.052	0.52	07/30/12
Cobalt	7440-48-4	LA-505-412		17.9		mg/kg	0.5	0.026	0.13	07/30/12
Copper	7440-50-8	LA-505-412		32.5		mg/kg	0.5	0.052	0.52	07/30/12
Vanadium	7440-62-2	LA-505-412	N	102	J-	mg/kg	0.5	0.10	1.0	07/30/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922001
SAF# F12-005
Sample ID B2JDL0

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	81.0		mg/kg	0.5	0.52	5.2	07/30/12
Lead	7439-92-1	LA-505-412		13.5		mg/kg	0.5	0.026	0.26	07/30/12
Mercury	7439-97-6	LA-505-412	B	0.0266		mg/kg	0.5	0.026	0.10	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.852		mg/kg	0.5	0.026	0.26	07/30/12
Strontium	7440-24-6	LA-505-412	N	83.2	J-	mg/kg	0.5	0.052	0.52	07/30/12
Tin	7440-31-5	LA-505-412		1.21		mg/kg	0.5	0.026	0.26	07/30/12
Uranium	7440-61-1	LA-505-412		1.19		mg/kg	0.5	0.026	0.13	07/30/12
Arsenic	7440-38-2	LA-505-412		6.99		mg/kg	0.5	0.10	1.0	07/30/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/27/12
Boron	7440-42-8	LA-505-412	B	2.32		mg/kg	0.5	0.26	2.6	07/30/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/23/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922002
SAF# F12-005
Sample ID B2JDL3

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	9.44		mg/kg	1	2.9	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	5.0	07/20/12
Nitrate-N	NO3-N	LA-533-410	B	4.26		mg/kg	1	0.94	5.0	07/20/12
Sulfate	14808-79-8	LA-533-410		129		mg/kg	1	5.6	53	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		288		mg/kg	0.5	0.050	0.50	07/30/12
Nickel	7440-02-0	LA-505-412		10.3		mg/kg	0.5	0.050	0.50	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0357		mg/kg	0.5	0.025	0.25	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.15		mg/kg	0.5	0.15	1.5	07/30/12
Barium	7440-39-3	LA-505-412	N	74.3	J-	mg/kg	0.5	0.099	0.99	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.303		mg/kg	0.5	0.050	0.50	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.0773		mg/kg	0.5	0.025	0.25	07/30/12
Chromium	7440-47-3	LA-505-412		8.31		mg/kg	0.5	0.050	0.50	07/30/12
Cobalt	7440-48-4	LA-505-412		8.02		mg/kg	0.5	0.025	0.12	07/30/12
Copper	7440-50-8	LA-505-412		14.6		mg/kg	0.5	0.050	0.50	07/30/12
Vanadium	7440-62-2	LA-505-412	N	45.5	J-	mg/kg	0.5	0.099	0.99	07/30/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922002
SAF# F12-005
Sample ID B2JDL3

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	42.8		mg/kg	0.5	0.50	5.0	07/30/12
Lead	7439-92-1	LA-505-412		3.98		mg/kg	0.5	0.025	0.25	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.025		mg/kg	0.5	0.025	0.099	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.419		mg/kg	0.5	0.025	0.25	07/30/12
Strontium	7440-24-6	LA-505-412	N	32.5	J-	mg/kg	0.5	0.050	0.50	07/30/12
Tin	7440-31-5	LA-505-412		0.452		mg/kg	0.5	0.025	0.25	07/30/12
Uranium	7440-61-1	LA-505-412		0.461		mg/kg	0.5	0.025	0.12	07/30/12
Arsenic	7440-38-2	LA-505-412		2.44		mg/kg	0.5	0.099	0.99	07/30/12
Selenium	7782-49-2	LA-505-412	U	<0.25		mg/kg	0.5	0.25	2.5	07/27/12
Boron	7440-42-8	LA-505-412	B	1.01		mg/kg	0.5	0.25	2.5	07/30/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/23/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922003
SAF# F12-005
Sample ID B2JDL6

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	5.30		mg/kg	1	2.9	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	5.0	07/20/12
Nitrate-N	NO3-N	LA-533-410	U	<0.94		mg/kg	1	0.94	5.0	07/20/12
Sulfate	14808-79-8	LA-533-410	B	15.6		mg/kg	1	5.6	53	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		298		mg/kg	0.5	0.049	0.49	07/30/12
Nickel	7440-02-0	LA-505-412		10.6		mg/kg	0.5	0.049	0.49	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0350		mg/kg	0.5	0.025	0.25	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.15		mg/kg	0.5	0.15	1.5	07/30/12
Barium	7440-39-3	LA-505-412	N	77.1	J-	mg/kg	0.5	0.099	0.99	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.264		mg/kg	0.5	0.049	0.49	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.0819		mg/kg	0.5	0.025	0.25	07/30/12
Chromium	7440-47-3	LA-505-412		8.42		mg/kg	0.5	0.049	0.49	07/30/12
Cobalt	7440-48-4	LA-505-412		8.23		mg/kg	0.5	0.025	0.12	07/30/12
Copper	7440-50-8	LA-505-412		15.0		mg/kg	0.5	0.049	0.49	07/30/12
Vanadium	7440-62-2	LA-505-412	N	46.6	J-	mg/kg	0.5	0.099	0.99	07/30/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922003
SAF# F12-005
Sample ID B2JDL6

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	44.4		mg/kg	0.5	0.49	4.9	07/30/12
Lead	7439-92-1	LA-505-412		3.94		mg/kg	0.5	0.025	0.25	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.025		mg/kg	0.5	0.025	0.099	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.379		mg/kg	0.5	0.025	0.25	07/30/12
Strontium	7440-24-6	LA-505-412	N	32.9	J-	mg/kg	0.5	0.049	0.49	07/30/12
Tin	7440-31-5	LA-505-412		0.400		mg/kg	0.5	0.025	0.25	07/30/12
Uranium	7440-61-1	LA-505-412		0.473		mg/kg	0.5	0.025	0.12	07/30/12
Arsenic	7440-38-2	LA-505-412		2.51		mg/kg	0.5	0.099	0.99	07/30/12
Selenium	7782-49-2	LA-505-412	U	<0.25		mg/kg	0.5	0.25	2.5	07/27/12
Boron	7440-42-8	LA-505-412	B	0.803		mg/kg	0.5	0.25	2.5	07/30/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/23/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922004
SAF# F12-005
Sample ID B2JDL9

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<3.0		mg/kg	1	3.0	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.1	07/20/12
Nitrate-N	NO3-N	LA-533-410	B	1.43		mg/kg	1	0.96	5.1	07/20/12
Sulfate	14808-79-8	LA-533-410	B	18.7		mg/kg	1	5.7	54	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		301		mg/kg	0.5	0.052	0.52	07/30/12
Nickel	7440-02-0	LA-505-412		9.11		mg/kg	0.5	0.052	0.52	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0345		mg/kg	0.5	0.026	0.26	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.16		mg/kg	0.5	0.16	1.6	07/30/12
Barium	7440-39-3	LA-505-412	N	70.1	J-	mg/kg	0.5	0.10	1.0	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.308		mg/kg	0.5	0.052	0.52	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.0831		mg/kg	0.5	0.026	0.26	07/30/12
Chromium	7440-47-3	LA-505-412		6.54		mg/kg	0.5	0.052	0.52	07/30/12
Cobalt	7440-48-4	LA-505-412		9.10		mg/kg	0.5	0.026	0.13	07/30/12
Copper	7440-50-8	LA-505-412		17.4		mg/kg	0.5	0.052	0.52	07/30/12
Vanadium	7440-62-2	LA-505-412	N	51.0	J-	mg/kg	0.5	0.10	1.0	07/30/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922004
SAF# F12-005
Sample ID B2JDL9

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	45.0		mg/kg	0.5	0.52	5.2	07/30/12
Lead	7439-92-1	LA-505-412		5.46		mg/kg	0.5	0.026	0.26	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.026		mg/kg	0.5	0.026	0.10	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.394		mg/kg	0.5	0.026	0.26	07/30/12
Strontium	7440-24-6	LA-505-412	N	32.4	J-	mg/kg	0.5	0.052	0.52	07/30/12
Tin	7440-31-5	LA-505-412		0.481		mg/kg	0.5	0.026	0.26	07/30/12
Uranium	7440-61-1	LA-505-412		0.522		mg/kg	0.5	0.026	0.13	07/30/12
Arsenic	7440-38-2	LA-505-412		3.73		mg/kg	0.5	0.10	1.0	07/30/12
Selenium	7782-49-2	LA-505-412	B	0.262		mg/kg	0.5	0.26	2.6	07/27/12
Boron	7440-42-8	LA-505-412	B	0.833		mg/kg	0.5	0.26	2.6	07/30/12
~~**Preparation for Cr6 (SO)**~~										~~**07/23/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.10~~		~~ug/g~~	~~1~~	~~0.10~~	~~0.50~~	~~07/23/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922005
SAF# F12-005
Sample ID B2JDM2

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	12.9		mg/kg	1	3.0	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.99		mg/kg	1	0.99	5.1	07/20/12
Nitrate-N	NO3-N	LA-533-410	B	1.38		mg/kg	1	0.96	5.1	07/20/12
Sulfate	14808-79-8	LA-533-410	B	24.7		mg/kg	1	5.7	54	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		294		mg/kg	0.5	0.053	0.53	07/30/12
Nickel	7440-02-0	LA-505-412		8.50		mg/kg	0.5	0.053	0.53	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0345		mg/kg	0.5	0.027	0.27	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.16		mg/kg	0.5	0.16	1.6	07/30/12
Barium	7440-39-3	LA-505-412	N	65.6	J-	mg/kg	0.5	0.11	1.1	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.334		mg/kg	0.5	0.053	0.53	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.0833		mg/kg	0.5	0.027	0.27	07/30/12
Chromium	7440-47-3	LA-505-412		6.02		mg/kg	0.5	0.053	0.53	07/30/12
Cobalt	7440-48-4	LA-505-412		9.08		mg/kg	0.5	0.027	0.13	07/30/12
Copper	7440-50-8	LA-505-412		16.6		mg/kg	0.5	0.053	0.53	07/30/12
Vanadium	7440-62-2	LA-505-412	N	53.7	J-	mg/kg	0.5	0.11	1.1	07/30/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922005
SAF# F12-005
Sample ID B2JDM2

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	43.1		mg/kg	0.5	0.53	5.3	07/30/12
Lead	7439-92-1	LA-505-412		5.44		mg/kg	0.5	0.027	0.27	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.027		mg/kg	0.5	0.027	0.11	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.377		mg/kg	0.5	0.027	0.27	07/30/12
Strontium	7440-24-6	LA-505-412	N	32.5	J-	mg/kg	0.5	0.053	0.53	07/30/12
Tin	7440-31-5	LA-505-412		0.467		mg/kg	0.5	0.027	0.27	07/30/12
Uranium	7440-61-1	LA-505-412		0.465		mg/kg	0.5	0.027	0.13	07/30/12
Arsenic	7440-38-2	LA-505-412		3.40		mg/kg	0.5	0.11	1.1	07/30/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/27/12
Boron	7440-42-8	LA-505-412	B	0.770		mg/kg	0.5	0.27	2.7	07/30/12
~~**Preparation for Cr6 (SO)**~~										~~**07/23/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.10~~		~~ug/g~~	~~1~~	~~0.10~~	~~0.51~~	~~07/23/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922006
SAF# F12-005
Sample ID B2JDM5

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410		26.1		mg/kg	1	3.0	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.1	07/20/12
Nitrate-N	NO3-N	LA-533-410	U	<0.97		mg/kg	1	0.97	5.1	07/20/12
Sulfate	14808-79-8	LA-533-410	B	6.56		mg/kg	1	5.7	54	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		258		mg/kg	0.5	0.051	0.51	07/30/12
Nickel	7440-02-0	LA-505-412		9.59		mg/kg	0.5	0.051	0.51	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0307		mg/kg	0.5	0.026	0.26	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.15		mg/kg	0.5	0.15	1.5	07/30/12
Barium	7440-39-3	LA-505-412	N	50.4	J-	mg/kg	0.5	0.10	1.0	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.246		mg/kg	0.5	0.051	0.51	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.0533		mg/kg	0.5	0.026	0.26	07/30/12
Chromium	7440-47-3	LA-505-412		6.45		mg/kg	0.5	0.051	0.51	07/30/12
Cobalt	7440-48-4	LA-505-412		7.45		mg/kg	0.5	0.026	0.13	07/30/12
Copper	7440-50-8	LA-505-412		13.8		mg/kg	0.5	0.051	0.51	07/30/12
Vanadium	7440-62-2	LA-505-412	N	41.9	J-	mg/kg	0.5	0.10	1.0	07/30/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922006
SAF# F12-005
Sample ID B2JDM5

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	35.9		mg/kg	0.5	0.51	5.1	07/30/12
Lead	7439-92-1	LA-505-412		3.35		mg/kg	0.5	0.026	0.26	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.026		mg/kg	0.5	0.026	0.10	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.334		mg/kg	0.5	0.026	0.26	07/30/12
Strontium	7440-24-6	LA-505-412	N	29.0	J-	mg/kg	0.5	0.051	0.51	07/30/12
Tin	7440-31-5	LA-505-412		0.323		mg/kg	0.5	0.026	0.26	07/30/12
Uranium	7440-61-1	LA-505-412		0.409		mg/kg	0.5	0.026	0.13	07/30/12
Arsenic	7440-38-2	LA-505-412		2.31		mg/kg	0.5	0.10	1.0	07/30/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/27/12
Boron	7440-42-8	LA-505-412	B	0.733		mg/kg	0.5	0.26	2.6	07/30/12
~~**Preparation for Cr6 (SO)**~~										~~**07/23/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.10~~		~~ug/g~~	~~1~~	~~0.10~~	~~0.51~~	~~07/23/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922007
SAF# F12-005
Sample ID B2JF44

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	20	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/20/12
Nitrate-N	NO3-N	LA-533-410	U	<0.93		mg/kg	1	0.93	4.9	07/20/12
Sulfate	14808-79-8	LA-533-410	U	<5.5		mg/kg	1	5.5	52	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		7.60		mg/kg	0.5	0.052	0.52	07/30/12
Nickel	7440-02-0	LA-505-412	B	0.350		mg/kg	0.5	0.052	0.52	07/30/12
Silver	7440-22-4	LA-505-412	U	<0.026		mg/kg	0.5	0.026	0.26	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.16		mg/kg	0.5	0.16	1.6	07/30/12
Barium	7440-39-3	LA-505-412	N	3.08	J-	mg/kg	0.5	0.10	1.0	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.103		mg/kg	0.5	0.052	0.52	07/30/12
Cadmium	7440-43-9	LA-505-412	U	<0.026		mg/kg	0.5	0.026	0.26	07/30/12
Chromium	7440-47-3	LA-505-412	B	0.231		mg/kg	0.5	0.052	0.52	07/30/12
Cobalt	7440-48-4	LA-505-412		0.139		mg/kg	0.5	0.026	0.13	07/30/12
Copper	7440-50-8	LA-505-412		0.765		mg/kg	0.5	0.052	0.52	07/30/12
Vanadium	7440-62-2	LA-505-412	CN	1.31	J-	mg/kg	0.5	0.10	1.0	07/30/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922007
SAF# F12-005
Sample ID B2JF44

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	5.25		mg/kg	0.5	0.52	5.2	07/30/12
Lead	7439-92-1	LA-505-412		0.631		mg/kg	0.5	0.026	0.26	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.026		mg/kg	0.5	0.026	0.10	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.983		mg/kg	0.5	0.026	0.26	07/30/12
Strontium	7440-24-6	LA-505-412	BN	0.456	J-	mg/kg	0.5	0.052	0.52	07/30/12
Tin	7440-31-5	LA-505-412	B	0.0475		mg/kg	0.5	0.026	0.26	07/30/12
Uranium	7440-61-1	LA-505-412		0.247		mg/kg	0.5	0.026	0.13	07/30/12
Arsenic	7440-38-2	LA-505-412	B	0.513		mg/kg	0.5	0.10	1.0	07/30/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/27/12
Boron	7440-42-8	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/30/12
~~**Preparation for Cr6 (SO)**~~										~~**07/25/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.097~~		~~ug/g~~	~~1~~	~~0.097~~	~~0.49~~	~~07/25/12~~

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922008
SAF# F12-005
Sample ID B2JDJ2

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	5.00		mg/kg	1	3.0	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.99		mg/kg	1	0.99	5.1	07/20/12
Nitrate-N	NO3-N	LA-533-410	B	2.15		mg/kg	1	0.96	5.1	07/20/12
Sulfate	14808-79-8	LA-533-410	B	44.2		mg/kg	1	5.7	54	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		350		mg/kg	0.5	0.050	0.50	07/30/12
Nickel	7440-02-0	LA-505-412		9.20		mg/kg	0.5	0.050	0.50	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0363		mg/kg	0.5	0.025	0.25	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.15		mg/kg	0.5	0.15	1.5	07/30/12
Barium	7440-39-3	LA-505-412	N	63.9	J-	mg/kg	0.5	0.099	0.99	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.374		mg/kg	0.5	0.050	0.50	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.0706		mg/kg	0.5	0.025	0.25	07/30/12
Chromium	7440-47-3	LA-505-412		6.61		mg/kg	0.5	0.050	0.50	07/30/12
Cobalt	7440-48-4	LA-505-412		9.34		mg/kg	0.5	0.025	0.12	07/30/12
Copper	7440-50-8	LA-505-412		16.5		mg/kg	0.5	0.050	0.50	07/30/12
Vanadium	7440-62-2	LA-505-412	N	57.7	J-	mg/kg	0.5	0.099	0.99	07/30/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922008
SAF# F12-005
Sample ID B2JDJ2

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	44.7		mg/kg	0.5	0.50	5.0	07/30/12
Lead	7439-92-1	LA-505-412		5.08		mg/kg	0.5	0.025	0.25	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.025		mg/kg	0.5	0.025	0.099	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.467		mg/kg	0.5	0.025	0.25	07/30/12
Strontium	7440-24-6	LA-505-412	N	30.4	J-	mg/kg	0.5	0.050	0.50	07/30/12
Tin	7440-31-5	LA-505-412		0.541		mg/kg	0.5	0.025	0.25	07/30/12
Uranium	7440-61-1	LA-505-412		0.469		mg/kg	0.5	0.025	0.12	07/30/12
Arsenic	7440-38-2	LA-505-412		2.82		mg/kg	0.5	0.099	0.99	07/30/12
Selenium	7782-49-2	LA-505-412	B	0.270		mg/kg	0.5	0.25	2.5	07/27/12
Boron	7440-42-8	LA-505-412	B	1.67		mg/kg	0.5	0.25	2.5	07/30/12
Preparation for Cr6 (SO)										**07/25/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	07/25/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922009
SAF# F12-005
Sample ID B2JDK7

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	3.88		mg/kg	1	2.9	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	5.0	07/20/12
Nitrate-N	NO3-N	LA-533-410	B	1.99		mg/kg	1	0.94	5.0	07/20/12
Sulfate	14808-79-8	LA-533-410		63.8		mg/kg	1	5.6	53	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		276		mg/kg	0.5	0.053	0.53	07/30/12
Nickel	7440-02-0	LA-505-412		9.10		mg/kg	0.5	0.053	0.53	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0365		mg/kg	0.5	0.026	0.26	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.16		mg/kg	0.5	0.16	1.6	07/30/12
Barium	7440-39-3	LA-505-412	N	65.9	J-	mg/kg	0.5	0.11	1.1	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.306		mg/kg	0.5	0.053	0.53	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.0655		mg/kg	0.5	0.026	0.26	07/30/12
Chromium	7440-47-3	LA-505-412		7.17		mg/kg	0.5	0.053	0.53	07/30/12
Cobalt	7440-48-4	LA-505-412		8.00		mg/kg	0.5	0.026	0.13	07/30/12
Copper	7440-50-8	LA-505-412		16.1		mg/kg	0.5	0.053	0.53	07/30/12
Vanadium	7440-62-2	LA-505-412	N	44.5	J-	mg/kg	0.5	0.11	1.1	07/30/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922009
SAF# F12-005
Sample ID B2JDK7

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	40.1		mg/kg	0.5	0.53	5.3	07/30/12
Lead	7439-92-1	LA-505-412		4.49		mg/kg	0.5	0.026	0.26	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.026		mg/kg	0.5	0.026	0.11	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.313		mg/kg	0.5	0.026	0.26	07/30/12
Strontium	7440-24-6	LA-505-412	N	32.2	J-	mg/kg	0.5	0.053	0.53	07/30/12
Tin	7440-31-5	LA-505-412		0.417		mg/kg	0.5	0.026	0.26	07/30/12
Uranium	7440-61-1	LA-505-412		0.499		mg/kg	0.5	0.026	0.13	07/30/12
Arsenic	7440-38-2	LA-505-412		2.70		mg/kg	0.5	0.11	1.1	07/30/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/27/12
Boron	7440-42-8	LA-505-412	B	0.752		mg/kg	0.5	0.26	2.6	07/30/12
~~**Preparation for Cr6 (SO)**~~										~~**07/25/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.099~~		~~ug/g~~	~~1~~	~~0.099~~	~~0.50~~	~~07/25/12~~

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

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

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

KS
08/13/12

Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

Attachment 2
Narrative Rev1
WSCF120788

Revision 1: P&D to correct 3-nitroaniline MDL and PQL – this case narrative replaces the prior in its entirety.

Introduction

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

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

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

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

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

Analytical Methodology for Requested Analyses

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

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Attachment 2
Narrative Rev1
WSCF120788

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

- All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Vanadium and Copper – Detected in the Blank and evaluated. No sample results in this batch were affected. "C" Flags not required.
- All other applicable QC controls are within the established limits.

Organic Comments

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

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- The Method Blank, LCS, MS, MSD and sample B2JDD8 (120788001) did not meet the acceptance limits for surrogate Nitrobenzene-d5. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.
- The Method Blank did not meet the acceptance limits for surrogate Terphenyl-d14. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.
- All other applicable QC controls are within the established limits.

Radiochemistry Comments

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

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gamma Energy Analysis:

Attachment 2
Narrative Rev1
WSCF120788

- Europium-155 - Duplicate Relative Percent Difference (RPD) could not be reported by the LIMS system because it cannot perform the calculation from a value divisible by zero.

- All applicable QC controls are within the established limits.

Americium-241:

- Americium-241 – The Blank is less than two times the RDL. "B" Flag not required.

- Americium-241 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results near the minimum detectable activity. No flags issued.

- All other applicable QC controls are within the established limits.

Isotopic Plutonium analysis:

- Plutonium-239/240 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results near the minimum detectable activity. No flags issued.

- All other applicable QC controls are within the established limits.

Isotopic Uranium analysis:

- Uranium-234 and Uranium-238 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.

- Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.

- All other applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

Attachment 2
Narrative Rev1
WSCF120788

Problem and Discrepancy Report

WSCF

SDG WSCF120788

07/26/2012

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1. The data package has the following issues:

a) The electronic data, as well as, the sample result, MDL and PQL is missing for 3-Nitroaniline page 23 of the hardcopy data package, sample B2JDD8.

Resolution: *Provide appropriate correction*

Lab Response: **The MDL and PQL have been added**

Please correct the issues and resubmit the electronic **and** hardcopy data packages.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-013

PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #5

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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
WT=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

120788

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS PCB	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am Au SR	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDD8 1	SOIL	JUN 18 2012	1016

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Frank Hall	JUN 18 2012 1300	TA Fowler	JUN 18 2012 1300

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

F12-005-013 — PAGE 2 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample 45	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N 507 - 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6002-618 (REV 2)

REVISED120788 -

Attachment 2
Narrative
WSCF120894

Introduction

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

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

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

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

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

Analytical Methodology for Requested Analyses

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

Attachment 2
Narrative
WSCF120894

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

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

- All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Manganese Matrix Spike Duplicate recovery is outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- All other applicable QC controls are within the established limits.

Organic Comments

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

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Radiochemistry Comments

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

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gamma Energy Analysis:

- All applicable QC controls are within the established limits.

Attachment 2
Narrative
WSCF120894

Americium-241:

- All applicable QC controls are within the established limits.

Isotopic Plutonium analysis:

- Batch QC 204881
  - Plutonium-239/240 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - All other applicable QC controls are within the established limits.

Isotopic Uranium analysis:

- Batch QC 204881
  - Uranium-238 – The Blank is less than two times the RDL. "B" Flag not required.
  - Uranium-238 – The duplicate is outside of default RPD limits. RPD limit does not apply to results with greater than 20% counting uncertainty.
- Batch QC 204882
  - Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.
  - All other applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-184

PAGE 1 OF 2

COLLECTOR: Kevin Patterson

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #62

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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)

120894

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 y/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex (196)	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270 SVOA SP LOAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium)

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**
B2JF29	SOIL	JUL 09 2012	1018

7/16/12

Gil Gravelle

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	[illegible]	7/16/12 0800
[illegible]	7/16/12 1100	[illegible]	7/16/12 1100

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**

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-184

PAGE 2 OF 2

COLLECTOR Kevin Patterson	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #62	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	
ICE CHEST NO. (N/A)	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9/11 6/20/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-025 — PAGE 1 OF 2

COLLECTOR Kevin Patterson	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days	**SAMPLING LOCATION** Area AG Zone 2 Verification Sample #9	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil
SAF NO. F12-005	**AIR QUALITY** ☐	**ICE CHEST NO.** (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25
ACTUAL SAMPLE DEPTH 6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP EQUAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDH0	SOIL	JUL 09 2012	1109

✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓

9A 7/20/12 — 9A 7/20/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12 1100	TA Frazier	7/16/12 1100

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**

PRINTED ON 12/8/2011

A 6003 618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-025 — PAGE 2 OF 2

COLLECTOR Kevin Patterson	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #9	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 6/28/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-019 PAGE 1 OF 2

COLLECTOR KC Patterson CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #7

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-28

ACTUAL SAMPLE DEPTH 6"

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex -(Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDF4	3 SOIL	JUL 09 2012	1018

9H 07/20/12

9H 07/20/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	AKMcIntyre	7/16/12 0800
AKMcIntyre	7/16/12 1100		7/16/12 1100
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-019 — PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #7	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE BC

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 12/8/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-022

PAGE 1 OF 2

COLLECTOR: Kevin Patterson

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #8

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP EDMA;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Rn U P SR	Tritium - Liq Ex (Tritium);

SAMPLE NO.		**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**								
B2JDF7	4	SOIL	JUL 09 2012	1049	✓	✓			✓	✓	✓	

JH 6/29/12 JH 6/29/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1100	SSU-1	JUL 09 2012 1110
SSU-1	7/16/12 0800	AR McIntyre	7/16/12 0800
AR McIntyre	7/16/12 1100		7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-022	PAGE 2 OF 2
COLLECTOR: Kevin Patterson	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: BC	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #8	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005	AIR QUALITY: ☐	
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N- 507-25	ACTUAL SAMPLE DEPTH: 6"	COA: 302677ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ gjt 12/12/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-196

PAGE 1 OF 2

COLLECTOR: Kevin Patterson

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #66

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: F-N-507-23.23

ACTUAL SAMPLE DEPTH: N/A

COA: 302677E510

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	3G	3G	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP EDAM;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - on Fe (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JF41	S	SOIL	JUL 09 2012	0910

9/12/12

9/12/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	ARMS Entry	7/16/12 0800
ARMS Entry	7/16/12 1100	TA Frazier	7/16/12 1100

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

PRINTED ON 12/8/2012

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-196	PAGE 2 OF 2
COLLECTOR: Kevin Patterson	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #66	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005	AIR QUALITY: ☐	ORIGINAL
ICE CHEST NO.	FIELD LOGBOOK NO.: INF -N-507- 25-23	ACTUAL SAMPLE DEPTH: N/A	COA: 302677ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS	
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 4/23/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-016

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #6

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - /196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (1mLm);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDF1	6	SOIL	JUL 09 2012	0945	✓	✓	9H 6/29/12	9H 6/29/12	✓	✓	✓	9H 6/29/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	ARMGritzke	7/16/12 0800
ARMGritzke	7/16/12 1100	TAFrazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-016	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #6	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F17-005	AIR QUALITY ☐	
ICE CHEST NO. (N/A)	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 6"	COA 302677ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ GJK 6/28/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-034

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #12

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-502-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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 concentrat ons that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 7008	Chromium Hex - 7196	SEE ITEM (2) IN SPECIAL INSTRUCTIONS PCB	8270_SVOA_SPECIAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am U Pu Sr	Tritium - Liq Sc (Tritium)
SAMPLE NO. / MATRIX* / SAMPLE DATE / SAMPLE TIME								
B2JDH9 / 7 / SOIL / JUL 10 2012 0923	X	X	X	X	X	X	X	X

04/22/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	SS Wall	JUL 10 2012 1330
SS Wall	7/16/12 0800	AM McIntyre	7/16/12 0800
AM McIntyre	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A 6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-034

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #12	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-[illegible]	**ACTUAL SAMPLE DEPTH** 0" - 6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-031 PAGE 1 OF 2

COLLECTOR: KC Patterson, CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: BC

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #11

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0'-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium Gas Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDH6	8 SOIL	JUL 10 2012	0915	X	X	X	X	X	X	X	

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	SJ Trent	JUL 10 2012 1330
SJ Trent	7/16/12 0800	ARM Equipment	7/16/12 0800
ARM Equipment	7/16/12 1100	TA Processing	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-031

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRG	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #11	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soi.		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120895

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

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

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

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

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

Analytical Methodology for Requested Analyses

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

Inorganic Comments

Attachment 2
Narrative
WSCF120895

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204913
  - Sulfate – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

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

  - All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204901
  - Manganese – Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

Organic Comments

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

  - B2JDV3 (120895003) did not meet the acceptance limits for surrogate Decachlorobiphenyl. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.
  - All other applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 205183
  - 3, 3-Dichlorobenzidine did not meet the LCS acceptance limits. Sample results for these analytes were "X" flagged.

Attachment 2
Narrative
WSCF120895

- All other applicable QC controls are within the established limits.

Radiochemistry Comments

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

- Americium-241:
  - Batch QC 204922
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
    - All other applicable QC controls are within the established limits.
- Gamma Energy Analysis:
    - All applicable QC controls are within the established limits.
- Isotopic Plutonium analysis:
  - Batch QC 204922
    - Plutonium 239/240—the blank is less than 2X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
    - Plutonium 239/240— Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
    - All other applicable QC controls are within the established limits.
- Isotopic Uranium analysis:
  - Batch QC 204882
    - Uranium-234 and Uranium-238 — The blank is less than 5X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
    - All other applicable QC controls are within the established limits.
- Strontium-89/90:
    - All applicable QC controls are within the established limits.

Narrative

Attachment 2
Narrative
WSCF120895

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-073 PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #25

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6'

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250ml	60ml	250ml	250ml	60ml	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008 ✓	Chromium Hex - 7196; ✓	SEE ITEM (2) IN SPECIAL INSTRUCTIONS ✓	8270_SVOA_SPECIAL; ✓	SEE ITEM (3) IN SPECIAL INSTRUCTIONS ICV	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEIZV	SEE ITEM (5) IN SPECIAL INSTRUCTIONS ✓	Tritium - Liq Ex (Tritium);

120895

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDM8	SOIL	JUL 11 2012	0828	✓	✓	✓	✓	✓	✓	✓	

7/16/2012

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMCIntyre	7/16/12 0800
ARMCIntyre	7/16/12 1100	TA Pmzim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-073** | **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #25	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY ☐	**ICE CHEST NO.** (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"
COA 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**	
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-076

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #26

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507 25

ACTUAL SAMPLE DEPTH: 0-6'

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250ml	250ml	60ml	500ml	120mL	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDN1 2	SOIL	JUL 11 2012	0834	✓	✓	✓	✓	✓	✓	✓

9K 7/20/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMCIUTYRE	7/16/12 0800
ARMCIUTYRE	7/16/12 1100	[illegible]	7/16/12 1100

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**

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-076** — **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #26	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-118 PAGE 1 OF 2

COLLECTOR John Fulton

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #40

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY [ ]

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF -N-507- 25

ACTUAL SAMPLE DEPTH 0-6"

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196,	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SvOA_SPECIAL,	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDV3 3	SOIL	JUL 11 2012	0803	✓	✓	✓	✓	✓	✓	✓	

OK 6/29/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-118** | **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #40	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY ☐			
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-61'	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-091

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #31

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium (Low Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDP6	4	SOIL	JUL 11 2012	0752	✓	✓	✓	✓	✓	✓	✓	

07/31/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSitze	7/16/12 0800
ARMSitze	7/16/12 1100		7/16/12 1100

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:

PRINTED ON 12/8/2011

A 6003 618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-091 | **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #31	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY [ ]

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-082

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #28

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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, Sd=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270 SVOA SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDN7	SOIL	JUL 11 2012	0941	✓	✓	✓	✓	✓	✓	✓

7/16 6/26/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM Guthrie	7/16/12 0800
ARM Guthrie	7/16/12 1100		7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-082** — **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #28	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-2.5	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-079

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #27

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: | |

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF -N-507- 25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196,	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL,	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDN4	SOIL	JUL 11 2012	0838

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM Chitwood	7/16/12 0800
ARM Chitwood	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-079 — PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #27	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY	**ORIGINAL**		
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** 1F-N-507-2.5	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120900

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

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

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

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

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

Analytical Methodology for Requested Analyses

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

Inorganic Comments

Attachment 2
Narrative
WSCF120900

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204923
  - Chloride and Sulfate – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

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

  - All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204901
  - Manganese – Matrix Spike Duplicate recovery was outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- Batch QC 204902
  - Manganese, Barium and Strontium – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

Organic Comments

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

  - All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 205183

Attachment 2
Narrative
WSCF120900

- 3, 3-Dichlorobenzidine did not meet the LCS acceptance limits. Sample results for these analytes were "X" flagged.
- All other applicable QC controls are within the established limits.

Radiochemistry Comments

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

- Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.
- Americium-241:
  - Batch QC 204922
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
  - Batch QC 204884
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - Batch QC 204884
    - Americium-243 Tracer for sample B2JDJ8—tracer recovery was slightly above the established laboratory limits. No flags issued.
    - All other applicable QC controls are within the established limits.
- Gamma Energy Analysis:
    - All applicable QC controls are within the established limits.
- Isotopic Plutonium analysis:
  - Batch QC 204884
    - Plutonium 239/240—the blank is less than 2X the MDC and is acceptable, per S&GRP SOW.
  - Batch QC 204922

- Plutonium 239/240—the blank is less than 2X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
- Plutonium 239/240— Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
- All other applicable QC controls are within the established limits.

- Isotopic Uranium analysis:
  - Batch QC 204882
    - Uranium-234 and Uranium-238—the blank is less than 5X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
  - Batch QC 204883
    - Uranium-234—the blank is less than 5X the MDC and is acceptable, per S&GRP SOW.
    - Uranium-235— Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
  - Batch QC 204884
    - Uranium-234— the blank is less than 5X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
    - All other applicable QC controls are within the established limits.
- Strontium-89/90:
    - All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-112

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #38

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35.

ACTUAL SAMPLE DEPTH

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

OFFSITE PROPERTY NO.: N/A

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

MATRIX*: A=Air, DC=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

120900

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 3008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS PCB	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am U Pu SR	Tritium - Ton Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDT7 /	SOIL	JUN 12 2012	0731

gk 7/20/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU#1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARM Culture	7/16/12 0800
ARM Culture	7/16/12 1100		7/16/12 1100
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION — RECEIVED BY — TITLE — DATE/TIME

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-112

PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #38	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677FS10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-109

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #37

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION		Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME		6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER		G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)		1	1	1	1	1	1	1	1
VOLUME		250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	ntium - on Ex (Tritium);
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
B2JDT4 2	SOIL	JUN 12 2012	0656	✓	✓	✓	✓	✓	✓

GK 7/12/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	AMCintyre	7/16/12 0800
AMCintyre	7/16/12 1100		7/16/12 1100
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

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-109** — **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C
SAMPLING LOCATION Area AG Zone 2 Verification Sample #37	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677E510	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-028

PAGE 1 OF 2

COLLECTOR KC Patterson CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #10

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-25

ACTUAL SAMPLE DEPTH 0'-6'

COA 3026//ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

OFFSITE PROPERTY NO. N/A

BILL OF LADING/AIR BILL NO. N/A

MATRIX*
A=Air
DI=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium).

SAMPLE NO.		**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**								
B2JDH3	3	SOIL	JUL 10 2012	0730	✓	✓	✓	✓	✓	✓	✓	

7/16/2012

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	KC Patterson CHPRC	JUL 10 2012 1330
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Sample #1	7/16/12 0800	ARMS Entry	7/16/12 0800
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
ARMS Entry	7/16/12		7/16/12 1100
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION RECEIVED BY | TITLE | DATE/TIME

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-028** | **PAGE 2 OF 2**

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #10	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0"-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-049

PAGE 1 OF 2

COLLECTOR DJ Sparks CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #17

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO.

FIELD LOGBOOK NO. HNF-N-507-25.

ACTUAL SAMPLE DEPTH 6-6 inches

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120m
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7199;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Thium - ion Ex (Thium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDK4	4	SOIL	JUN 12 2012	0755	✓	✓	✓	✓	✓	✓	✓	

OH 6/12/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU#1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMSEntyre	7/16/12 0800
ARMSEntyre	7/16/12 1100	TA Pnazin	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-049 **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #17	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-807-25.	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-040

PAGE 1 OF 2

COLLECTOR: DJ Sparks, CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #14

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.:

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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:

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);
SAMPLE NO.	B2JDJ5	5						
MATRIX*	SOIL							
SAMPLE DATE / SAMPLE TIME	JUN 12 2012 0819							
	✓	✓	✓	✓	✓	✓	✓	

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks	JUN 12 2012 1000	SSU#1	JUN 12 2012 1100
SSU#1	7/16/12 0800	ALMELITYRE	7/16/12 0800
ALMELITYRE	7/16/12 1100	TA Amazin Jones	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-040** | **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #14	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-115

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #39

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME					
B2JDV0 6	SOIL	JUN 12 2012	0714	✓	✓	✓	✓	✓	✓	✓

ok 7/16/2012

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU#1	JUN 12 2012 1100
SSU#1	7/16/12 0800	ARMENTA	7/16/12 0800
ARMENTA	7/16/12 1100	TA Pnazim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-613 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-115

PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #39	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-085

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #29

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: 1

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0"-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/10 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDP0	7	SOIL	JUL 10 2012	0740	X	X	X	X	X	X	X	

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1331	Sutt!	JUL 10 2012 1331
Sutt!	7/16/12 0800	APM Courier	7/16/12 0800
APM Courier	7/16/12 1100	TA Rnazim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-085

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample 429	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-22-23	**ACTUAL SAMPLE DEPTH** 0'-6'	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-103

PAGE 1 OF 2

COLLECTOR DJ Sparks CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #35

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-35.

ACTUAL SAMPLE DEPTH 0-6 inches

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDR8	8	SOIL	JUN 12 2012	0701	✓	✓	✓	✓	✓	✓	✓	

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSJ #1	JUN 12 2012 1100
SSJ #1	7/16/12 0800	AMKeintze	7/16/12 0800
AMKeintze	7/16/12 1100	TA Fraizer	7/16/12 1100

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**

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-103

PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #35

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-25

ACTUAL SAMPLE DEPTH 0-6 inches

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

OFFSITE PROPERTY NO. N/A

BILL OF LADING/AIR BILL NO. N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium 155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-106

PAGE 1 OF 2

COLLECTOR: DJ Sparks, CHPRC

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #36

ICE CHEST NO.: (N/A)

SHIPPED TO: Waste Sampling & Characterization

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6 inches

OFFSITE PROPERTY NO.: N/A

PROJECT COORDINATOR: TRENT, SJ

SAF NO.: F12-005

COA: 302677ES10

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

PRICE CODE: 8C

AIR QUALITY: ☐

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

DATA TURNAROUND: 15 Days / 15 Days

ORIGINAL

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SF=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDT1	9	SOIL	JUN 12 2012	0707	✓	✓	✓	✓	✓	✓	✓	

9 7/12/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMCintyre	7/16/12 0800
ARMCintyre	7/16/12 1100	JA Frazim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-106** — **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #36	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium 154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-187

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #63

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0"-6"

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool<4C	Cool<4C	Cool<4C	Cool<4C	Cool<4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250ml	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270 SVOA SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - ion ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JF32	10 SOIL	JUL 10 2012	0750	X	X	X	X	X	X	X

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	3Sutt1	JUL 10 2012 1330
3Sutt1	7/16/12 0800	ARMCintyre	7/16/12 0800
ARMCintyre	7/16/12 1100	TA Pmzim	7/16/12 1100

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	

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-187	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #63	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	
ICE CHEST NO. (N/A)	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 6'-6'	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-043 PAGE 1 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #15	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N- 507-25	**ACTUAL SAMPLE DEPTH** 0"-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C
AIR QUALITY ☐
DATA TURNAROUND 15 Days / 15 Days
METHOD OF SHIPMENT GOVERNMENT VEHICLE
ORIGINAL

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Lim Ex (Tritium);

SAMPLE NO.		**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**								
B2JDJ8	11	SOIL	JUL 10 2012	0750	X	X	X	X	X	X	X	

Gill 7/16/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1315	3Smith	JUL 10 2012 1315
3Smith	7/16/12 0800	ARMcIntyre	7/16/12 0800
ARMcIntyre	7/16/12 1100	TARizzim	7/16/12 1100

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**

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-043

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #15	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-567-25	**ACTUAL SAMPLE DEPTH** 0"- 6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium 152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-097

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #33

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDR2	12 SOIL	JUL 11 2012	0949	✓	✓	✓	✓	✓	✓	✓

JK 6/28/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM Eutyce	7/16/12 0800
ARM Eutyce	7/16/12 1100	TA Frazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-097

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #33	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-100 | PAGE 1 OF 2

COLLECTOR: DJ Sparks, CHPRC

COMPANY CONTACT: TRENT, SJ | TELEPHONE NO.: 373-5869 | PROJECT COORDINATOR: TRENT, SJ | PRICE CODE: 8C | DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #34

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soi | SAF NO.: F12-005 | AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25. | ACTUAL SAMPLE DEPTH: 0-6 inches | COA: 302677ES10 | METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDR5	13 SOIL	JUN 12 2012	0724	✓	✓	✓	✓	✓	✓	✓

JH 6/28/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12 1100	TA FRAZIER	7/16/12 1100

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

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-100

PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #34	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-613 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-088 PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #30

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);
SAMPLE NO. / MATRIX* / SAMPLE DATE / SAMPLE TIME								
B2JDP3 14 SOIL JUL 11 2012 0741	✓	✓	✓	✓	✓	✓	✓	

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSLL-1	JUL 11 2012 1830
SSLL-1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12 1100	TASMAZIAN	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-088

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #30	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soi		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-094 — PAGE 1 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**AIR QUALITY** ☐	**DATA TURNAROUND** 15 Days / 15 Days	
SAMPLING LOCATION Area AG Zone 2 Verification Sample #32	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/18 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium Ion Ex (Tritium);

SAMPLE NO.		**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**
B2JDP9	15	SOIL	JUL 11 2012	0855

7/16/2012

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSchutze	7/16/12 0800
ARMSchutze	7/16/12 1100	TA Frazier	7/16/12 1100

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**

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-094

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #32	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12 005
AIR QUALITY [ ]			
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** WMSJ-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A 6003 618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-121

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #41

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDV6	16 SOIL	JUL 11 2012	0846	✓	✓	✓	✓	✓	✓	✓	

GH 7/25/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMS Intake	7/16/12 0800
ARMS Intake	7/16/12 1100	TA Fnazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-121

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #41	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-046 — PAGE 1 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #16	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**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, SF=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool<4C	Cool<4C	Cool<4C	Cool<4C	Cool<4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDK1	17	SOIL	JUL 11 2012	0954	✓	✓	✓	✓	✓	✓	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSTUTYRE	7/16/12 0800
ARMSTUTYRE	7/16/12 1100	TA FNAZIM	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-046

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #16	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY ☐	**ORIGINAL**		
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium 155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-190

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #64

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY:

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium-Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JF35	18 SOIL	JUL 11 2012	0855	✓	✓	✓	✓	✓	✓	✓

7/16/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSchutyre	7/16/12 0800
ARMSchutyre	7/16/12 1100	TAFrazian	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-190

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #64	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT FEDERAL EXPRESS

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A 6003 618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-202 PAGE 1 OF 2

COLLECTOR John Fulton

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #68

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF -N-507- 25

ACTUAL SAMPLE DEPTH 0-6"

COA 302677ES10

METHOD OF SHIPMENT FEDERAL EXPRESS

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - /196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270, SVOA SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JF47	19	SOIL	JUL 11 2012	0808	✓	✓	✓	✓	✓	✓	✓	

7/16/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430		JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
SSU #1	7/16/12 0800	ARMSTRYE	7/16/12 0800
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
ARMSTRYE	7/16/12 1100	TA FRAZIER	7/16/12 1100
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-202

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #68	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507- 75	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT FEDERAL EXPRESS

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120922

Introduction

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

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

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

- Sample Issue Resolution Form SDR12-308 regarding missing sample collector on COC is attached to this report.

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

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

Analytical Methodology for Requested Analyses

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

Attachment 2
Narrative
WSCF120922

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

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

- All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Vanadium, Strontium, Zinc and Barium – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- Vanadium and Manganese were detected in the Blank and evaluated.
- Manganese – Exceeded spiking levels by a factor of 4. Spike recoveries and associated RPDs are not valid.
- All other applicable QC controls are within the established limits.

Organic Comments

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

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Radiochemistry Comments

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

Attachment 2
Narrative
WSCF120922

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gamma Energy Analysis:

- All applicable QC controls are within the established limits.

Americium-241:

- The Blank is less than two times the RDL. "B" Flag not required.
- Americium-243 - Tracer recovery did not meet the established laboratory limits. No flags issued on sample results. The quality control report was flagged for the failure.
- All other applicable QC controls are within the established limits.

Isotopic Plutonium analysis:

- All applicable QC controls are within the established limits.

Isotopic Uranium analysis:

- Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.
- All other applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-055

PAGE 1 OF 2

COLLECTOR: DJ Sparks

SAMPLING LOCATION: Area AG Zone 2 Verificaton Sample #19

ICE CHEST NO.: (N/A)

SHIPPED TO: Waste Sampling & Characterization

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

FIELD LOGBOOK NO.: HNF-N-507-32

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

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: 120922

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2DS2	Chromium Hex 7196	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am U Pu Sr	Tritium - Ion Ex (Tritium)

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDL0	SOIL	JUL 17 2012	1413	X	X	X	X	X	X	X	

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU-1	JUL 17 2012 1515
[illegible]	7-18-12 0730	ARMCINTYRE	7/18/12 0730
ARMCINTYRE	7/18/12 0800	TA Engineering	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-055** — **PAGE 2 OF 2**

COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8C	**DATA TURNAROUND**
	TRENT, SJ	373-5869	TRENT, SJ		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	**15 Days / 15 Days**
Area AG Zone 2 Verification Sample #19	Area AG Zone 2 Sampling Verification Sampling Soil		F12-005		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	**ORIGINAL**
(N/A)	HNF-N-507-25	6-6'	302677ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Waste Sampling & Characterization	N/A		N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ GH 4/29/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-058 PAGE 1 OF 2

COLLECTOR

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5859

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #20

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507 D.

ACTUAL SAMPLE DEPTH 0-6"

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDL3	2 SOIL	JUL 17 2012	1420	X	X			X	X	X	

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU-1	JUL 17 2012 1515
SSU-1	JUL 18 2012 0730	Randy Ellingsworth	JUL 18 2012 0730
Randy Ellingsworth	JUL 18 2012 0800	TA Frazier	JUL 18 2012 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-058** — **PAGE 2 OF 2**

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #20	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9/4/2012

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-061 — PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days		
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #21	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil	SAF NO.: F12-005	AIR QUALITY: ☐
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF -N-507-25	ACTUAL SAMPLE DEPTH: 6-6"	COA: 302677ES10
METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL		
SHIPPED TO: Waste Sampling & Characterization	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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 y/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	RCRA_SVOA_SP EC/AL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Non Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDL6	3	SOIL	JUL 17 2012	1313	X	X	X	X	X	X	X	

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	550 #1	JUL 17 2012 1515
550 #1	7.18.12 0730	ARM Intyre	7.18.12 0730
AR McIntyre	7.18.12 0800	TA Kazien	7/18/12 0800

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

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-061 | **PAGE 2 OF 2**

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #21	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ -- 8H 6/29/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-064

PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #22

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool--4C	Cool--4C	Cool--4C	Cool--4C	Cool--4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	B2VU_SVOA_SP FETAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDL9	4	SOIL	JUN 16 2012	0954

7/4 6/20/12

7/4 6/20/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Frank Hall	JUN 16 2012 1515	SSU #1	JUN 16 2012 1515
SSU #1	7.18.12 0730	ARM Stutzo	7.18.12 0730
ARM Stutzo	7/18/12 0800	TA Frazier	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-064 **PAGE 2 OF 2**

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #22	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9/17/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-067

PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #23

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDM2	5	SOIL	JUN 16 2012	1024

JGH 6/29/12

JGH 6/28/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Frank Hall	JUN 16 2012 1515	SSU #1	JUN 16 2012 1515
SSU #1	7.18.12 0730	ARM Courier	7.18.12 0730
ARM Courier	7.18.12 0820	TA Frazier	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-067

PAGE 2 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #23	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY ☐			
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ GH 4/29/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-070 — PAGE 1 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #24	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** YNF-N-507- 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C — **AIR QUALITY** ☐ — **DATA TURNAROUND** 15 Days / 15 Days — **METHOD OF SHIPMENT** GOVERNMENT VEHICLE — **ORIGINAL**

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Gen Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDM5	6	SOIL	JUN 16 2012	0940

9/4 6/29/12 — 9/4 6/28/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Frank Hall	JUN 16 2012 1500	SSL #1	JUN 16 2012 1500
SSL-1	JUL 18 2012 0730	Randy Ellingsworth	JUL 18 2012 0730
Randy Ellingsworth	JUL 18 2012 0800	TA Frazier	JUL 18 2012 0800
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-070

PAGE 2 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #24	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677E510
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY [ ]

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9H 6/29/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-199

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #67

ICE CHEST NO.: NA

SHIPPED TO: Waste Sampling & Characterization NA

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: NA

OFFSITE PROPERTY NO.: N/A

PROJECT COORDINATOR: TRENT, SJ

SAF NO.: F12-005

COA: 302677ES10

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

PRICE CODE: 8C

AIR QUALITY: ☐

METHOD OF SHIPMENT: FEDERAL EXPRESS

DATA TURNAROUND: 15 Days / 15 Days

ORIGINAL

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - (3196);	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP &CEAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - (in Fe (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JF44	7	SOIL	JUL 17 2012	1250	X	X	X	X	X	X	X	

PJK 07/23/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	CSU #1	JUL 17 2012 1515
SSU #1	7.18.12 0730	ARM Sulgre	7.18.12 0730
ARM Sulgre	7.18.12 0800	TA Fnazisa	7/18/12 0800

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	

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-199

PAGE 2 OF 2

COLLECTOR	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #67	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF -N-507-25	ACTUAL SAMPLE DEPTH: N/A	COA: 302677ES10
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-037 — PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #13

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6'

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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:

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Inorganic - Ion Ex (Thallium);
SAMPLE NO.	B2JDJ2							
MATRIX*	S SOIL							
SAMPLE DATE / SAMPLE TIME	JUL 17 2012 1355							
	X	X	X	X	X	X	X	

Qt Metallic

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU #1	JUL 17 2012 1515
SSU #1	7.18.12 0730	ARM Eastyre	7.18.12 0730
ARM Eastyre	7.18.12 0800	TA Franzim	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-037

PAGE 2 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #13	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-052

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #18

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: N/A

FIELD LOGBOOK NO.: HNF -N-507-23

ACTUAL SAMPLE DEPTH: 0 - 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDK7	9 SOIL	JUL 17 2012	1308	X	X	X	X	X	X	X

QK 7/20/12

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU #1	JUL 17 2012 1515
SSU #1	7.18.12 0730	ARM CENTURE	7.18.12 0730
ARM CENTURE	7.18.12 0830	TA FRAZIER	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-052 — PAGE 2 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #18	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. NA	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C — **AIR QUALITY** ☐ — **METHOD OF SHIPMENT** GOVERNMENT VEHICLE — **DATA TURNAROUND** 15 Days / 15 Days — **ORIGINAL**

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Appendix 5

Data Validation Supporting Documentation

VALIDATION LEVEL:	A	B	C	D	E
PROJECT: 100 K RA			DATA PACKAGE: VSR12-021		
VALIDATOR: Ken Salaz		LAB: WSCF		DATE: 8/13/12	
			SDG: WSCF120788, WSCF120894, WSCF120895, WSCF120900, WSCF120922		
ANALYSES PERFORMED					
SW-846/ICP	SW-846/GFAA	SW-846/Hg	SW-846 Cyanide	EPA 200.8 X	
SAMPLES/MATRIX Soil Samples					

SDG WSCF120788: B2JDD8
SDG WSCF120894: B2JF29, B2JDH0, B2JDF4, B2JKF7, B2JF41, B2JDF1, B2JDH9, B2JDH6
SDG WSCF120895: B2JDM8, B2JDN1, B2JDV3, B2JDP6, B2JDN7, B2JDN4
SDG WSCF120900: B2JDT7, B2JDT4, B2JDH3, B2JDK4, B2JDJ5, B2JDV0, B2JDP0, B2JDR8, B2JDT1, B2JF32, B2JDJ8, B2JDR2, B2JDR5, B2JDP3, B2JDP9, B2JDV6, B2JDK1, B2JF35, B2JF47
SDG WSCF120922: B2JDL0, B2JDL3, B2JDL6, B2JDL9, B2JDM2, B2JDM5, B2JF44, B2JDJ2, B2JDK7

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present?..... Yes (No) N/A

Comments: None

2. INSTRUMENT PERFORMANCE AND CALIBRATIONS (Levels D and E)

Initial calibrations performed on all instruments? ..... Yes No N/A

Initial calibrations acceptable? ..... Yes No N/A

ICP interference checks acceptable? ..... Yes No N/A

ICV and CCV checks performed on all instruments? ..... Yes No N/A

ICV and CCV checks acceptable? ..... Yes No N/A

Standards traceable? ..... Yes No N/A

Standards expired? ..... Yes No N/A

Calculation check acceptable? ..... Yes No N/A

Comments:

3. BLANKS (Levels B, C, D, and E)

ICB and CCB checks performed for all applicable analyses? (Levels D, E) ..... Yes No N/A

ICB and CCB results acceptable? (Levels D, E) ..... Yes No N/A

Laboratory blanks analyzed? ..... Yes No N/A

Laboratory blank results acceptable? ..... Yes No N/A

Field blanks analyzed? (Levels C, D, E) ..... Yes No N/A

Field blank results acceptable? (Levels C, D, E) ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Comments:

SDG WSCF120788: MB Sample 77239: Cu 0.164 mg/kg; V 0.14 mg/kg

SDG WSCF120894: EB Sample B2JF41: Mn 3.89 mg/kg (>PQL); Ba 1.78 mg/kg; Zn 1.62 mg/kg; Pb 0.265 mg/kg; Sr 0.329 mg/kg; U 0.0557 mg/kg

SDGs WSCF120895 & WSCF120900: EB sample B2JF47 (7/11/12 samples only): Mn 5.81 mg/kg (>PQL); Ba 2.47 mg/kg (>PQL); Co 0.0871 mg/kg; Zn 1.28 mg/kg; Pb 0.392 mg/kg; Sr 0.623 mg/kg; U 0.0903 mg/kg

SDG WSCF120922: MB sample 78760: Mn 0.509 mg/kg

EB sample B2JF44 (7/17/12 samples only): (all mg/kg) Mn 7.6(>PQL), Ni 0.35, Ba 3.08(>PQL), Be 0.103, Cr 0.231, Co 0.231(>PQL), Cu 0.765(>PQL), V 1.31(>PQL), Zn 5.25(>PQL), Pb 0.631(>PQL), Mo 0.983 (>PQL), Sr 0.456, Sn 0.0475, U 0.247(>PQL), Se 0.513

4. ACCURACY (Levels C, D, and E)

MS/MSD samples analyzed? ..... Yes No N/A

MS/MSD results acceptable? ..... Yes No N/A

MS/MSD standards NIST traceable? (Levels D, E) ..... Yes No N/A

MS/MSD standards expired? (Levels D, E) ..... Yes No N/A

LCS/BSS samples analyzed? ..... Yes No N/A

LCS/BSS results acceptable? ..... Yes No N/A

Standards traceable? (Levels D, E) ..... Yes No N/A

Standards expired? (Levels D, E) ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Performance audit sample(s) analyzed? ..... Yes No N/A

Performance audit sample results acceptable? ..... Yes No N/A

Comments:
SDGs WSCF120894 & WSCF120895: MS/MSD Samples 78175/6: Mn MSD %R=146%
SDG WSCF120900 Batch 204927: MS/MSD samples: Ba 175.1/237.5, Mn 173.1/143.1, Sr 147.9/207.4
Batch 204928: MSD %R Mn 148.5
SDG WSCF120922: MS/MSD Samples: Ba MS/MSD=0.4/-1.2, V=46/37, Sr MSD=48, Zn MS/MSD=57/58

5. PRECISION (Levels C, D, and E)

Duplicate RPD values acceptable?..... Yes No N/A

Duplicate results acceptable? ..... Yes No N/A

MS/MSD standards NIST traceable? (Levels D, E) ..... Yes No N/A

MS/MSD standards expired? (Levels D, E) ..... Yes No N/A

Field duplicate RPD values acceptable? ..... Yes No N/A

Field split RPD values acceptable? ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Comments:_

6. ICP QUALITY CONTROL (Levels D and E)

ICP serial dilution samples analyzed? ..... Yes No N/A

ICP serial dilution %D values acceptable? ..... Yes No N/A

ICP post digestion spike required? ..... Yes No N/A

ICP post digestion spike values acceptable? ..... Yes No N/A

Standards traceable? ..... Yes No N/A

Standards expired? ..... Yes No N/A

Transcription/calculation errors? ..... Yes No N/A

Comments:

7. HOLDING TIMES (all levels)

Samples properly preserved? ..... Yes No N/A

Sample holding times acceptable? ..... Yes No N/A

Comments: None

8. RESULT QUANTITATION AND DETECTION LIMITS (all levels)

Results reported for all requested analyses?..... Yes No N/A

Results supported in the raw data? (Levels D, E) ..... Yes No N/A

Samples properly prepared? (Levels D, E)..... Yes No N/A

Detection limits meet RDL?..... Yes No N/A

Transcription/calculation errors? (Levels D, E)..... Yes No N/A

Comments:_ None

Comments (attach additional sheets as necessary):

Appendix 6

Additional Documentation Requested By Client

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120788

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
203599	203600	3	BLANK	77190	BLANK		Anions by Ion Chromatography (Solid)
203599	203600	4	LCS	77191	LCS		Anions by Ion Chromatography (Solid)
203599	203600	5	MS	77192	B2JDD8(120788001MS)	120788001	Anions by Ion Chromatography (Solid)
203599	203600	6	MSD	77193	B2JDD8(120788001MSD)	120788001	Anions by Ion Chromatography (Solid)
203599	203600	7	DUP	77194	B2JDD8(120788001DUP)	120788001	Anions by Ion Chromatography (Solid)
203599	203600	8	SAMPLE	120788001	B2JDD8		Anions by Ion Chromatography (Solid)
203662	203697	4	BLANK	77239	BLANK		ICP-2008 MS All possible metal
203662	203697	5	LCS	77240	LCS		ICP-2008 MS All possible metal
203662	203697	7	MS	77241	B2LPX0(120787001MS)	120787001	ICP-2008 MS All possible metal
203662	203697	8	MSD	77242	B2LPX0(120787001MSD)	120787001	ICP-2008 MS All possible metal
203662	203697	11	SAMPLE	120788001	B2JDD8		ICP-2008 MS All possible metal
203662	203876	1	LCS	77240	LCS		ICP-2008 MS All possible metal
203662	203876	2	BLANK	77239	BLANK		ICP-2008 MS All possible metal
203662	203876	10	SAMPLE	120788001	B2JDD8		ICP-2008 MS All possible metal
203662	203876	13	MSD	77242	B2LPX0(120787001MSD)	120787001	ICP-2008 MS All possible metal
203662	203876	14	MS	77241	B2LPX0(120787001MS)	120787001	ICP-2008 MS All possible metal
203867	203868	1	BLANK	77470	BLANK		Hexavalent chromium
203867	203868	4	LCS	77471	LCS		Hexavalent chromium
203867	203868	5	DUP	77472	B2LPX0(120787001DUP)	120787001	Hexavalent chromium
203867	203868	6	MS	77473	B2LPX0(120787001MS)	120787001	Hexavalent chromium
203867	203868	7	PSTSPK	77474	PSTSPK		Hexavalent chromium
203867	203868	8	IMS	77475	B2LPX0(120787001IMS)	120787001	Hexavalent chromium
203867	203868	12	SAMPLE	120788001	B2JDD8		Hexavalent chromium

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Quality Control Report

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Department Inorganic

Group # WSCF120788

Analytical Batch 203697 (QC Batch: 203662)
Associated Samples 120788001

Test ICP-2008 MS All possible metal

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #77239**						
Manganese	7439-96-5		<0.050	ug/L				U	06/26/12
Nickel	7440-02-0		<0.050	ug/L				U	06/26/12
Silver	7440-22-4		<0.025	ug/L				U	06/26/12
Antimony	7440-36-0		<0.15	ug/L				U	06/26/12
Barium	7440-39-3		<0.10	ug/L				U	06/26/12
Beryllium	7440-41-7		<0.050	ug/L				U	06/26/12
Cadmium	7440-43-9		<0.025	ug/L				U	06/26/12
Chromium	7440-47-3		<0.050	ug/L				U	06/26/12
Cobalt	7440-48-4		<0.025	ug/L				U	06/26/12
Copper	7440-50-8		0.164	ug/L				B	06/26/12
Vanadium	7440-62-2		0.140	ug/L				B	06/26/12
Zinc	7440-66-6		<0.50	ug/L				U	06/26/12
Lead	7439-92-1		<0.025	ug/L				U	06/26/12
Mercury	7439-97-6		<0.025	ug/L				U	06/26/12
Molybdenum	7439-98-7		<0.025	ug/L				U	06/26/12
Strontium	7440-24-6		<0.050	ug/L				U	06/26/12
Tin	7440-31-5		<0.025	ug/L				U	06/26/12

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

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Quality Control Report

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Department Inorganic

Group # WSCF120788

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Uranium	7440-61-1		<0.025	ug/L					U	06/26/12
Arsenic	7440-38-2		<0.10	ug/L					U	06/26/12
LCS			**QC Sample #77240**							
Manganese	7439-96-5		278	mg/kg	97.4	75 - 121				06/26/12
Nickel	7440-02-0		59.9	mg/kg	101.4	74 - 122				06/26/12
Silver	7440-22-4		37.5	mg/kg	109	83 - 127				06/26/12
Antimony	7440-36-0		132	mg/kg	107.9	62 - 205				06/26/12
Barium	7440-39-3		172	mg/kg	101.9	78 - 118				06/26/12
Beryllium	7440-41-7		65.8	mg/kg	105.4	77 - 120				06/26/12
Cadmium	7440-43-9		63.4	mg/kg	102.6	76 - 129				06/26/12
Chromium	7440-47-3		71.4	mg/kg	100.1	68 - 119				06/26/12
Cobalt	7440-48-4		108	mg/kg	105.1	77 - 122				06/26/12
Copper	7440-50-8		79.7	mg/kg	98.1	67 - 120				06/26/12
Vanadium	7440-62-2		61.4	mg/kg	103.8	67 - 122				06/26/12
Zinc	7440-66-6		141	mg/kg	99.7	73 - 131				06/26/12
Lead	7439-92-1		95.6	mg/kg	103.5	79 - 124				06/26/12
Mercury	7439-97-6		4.27	mg/kg	113.2	69 - 124				06/26/12
Molybdenum	7439-98-7		47.3	mg/kg	111.1	80 - 125				06/26/12
Strontium	7440-24-6		73.5	mg/kg	101.5	78 - 119				06/26/12
Tin	7440-31-5		115	mg/kg	107.5	84 - 130				06/26/12
Uranium	7440-61-1		426	mg/kg	105.9	86 - 113				06/26/12
Arsenic	7440-38-2		97.6	mg/kg	105.4	79 - 125				06/26/12

* - QC result out of range

n/a - Not Applicable

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Quality Control Report

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Department Inorganic

Group # WSCF120788

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MS			**QC Sample #77241**							
			Original	**120787001**						
Manganese	7439-96-5		112	mg/kg	104.6	70 - 130				06/26/12
Nickel	7440-02-0		110	mg/kg	103.2	70 - 130				06/26/12
Silver	7440-22-4		108	mg/kg	100.8	70 - 130				06/26/12
Antimony	7440-36-0		107	mg/kg	100.7	70 - 130				06/26/12
Barium	7440-39-3		111	mg/kg	103.5	70 - 130				06/26/12
Beryllium	7440-41-7		106	mg/kg	99.2	70 - 130				06/26/12
Cadmium	7440-43-9		108	mg/kg	101	70 - 130				06/26/12
Chromium	7440-47-3		110	mg/kg	103.5	70 - 130				06/26/12
Cobalt	7440-48-4		111	mg/kg	104.2	70 - 130				06/26/12
Copper	7440-50-8		109	mg/kg	101.7	70 - 130				06/26/12
Vanadium	7440-62-2		113	mg/kg	105.5	70 - 130				06/26/12
Zinc	7440-66-6		108	mg/kg	101.6	70 - 130				06/26/12
Lead	7439-92-1		107	mg/kg	100	70 - 130				06/26/12
Mercury	7439-97-6		2.43	mg/kg	114	70 - 130				06/26/12
Molybdenum	7439-98-7		111	mg/kg	104	70 - 130				06/26/12
Strontium	7440-24-6		109	mg/kg	102.2	70 - 130				06/26/12
Tin	7440-31-5		110	mg/kg	102.7	70 - 130				06/26/12
Uranium	7440-61-1		111	mg/kg	104.1	70 - 130				06/26/12
Arsenic	7440-38-2		107	mg/kg	99.8	70 - 130				06/26/12
MSD			**QC Sample #77242**							
			Original	**120787001**					**Paired**	**77241**
Manganese	7439-96-5		98.5	mg/kg	101.7	70 - 130	11.60	30		06/26/12

* - QC result out of range

n/a - Not Applicable

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Group # WSCF120788

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Nickel	7440-02-0		98.8	mg/kg	102.1	70 - 130	10.60	30		06/26/12
Silver	7440-22-4		101	mg/kg	104.4	70 - 130	6.70	30		06/26/12
Antimony	7440-36-0		99.8	mg/kg	103.1	70 - 130	7.00	30		06/26/12
Barium	7440-39-3		102	mg/kg	105	70 - 130	8.30	30		06/26/12
Beryllium	7440-41-7		101	mg/kg	104.6	70 - 130	4.80	30		06/26/12
Cadmium	7440-43-9		99.6	mg/kg	102.9	70 - 130	8.10	30		06/26/12
Chromium	7440-47-3		98.7	mg/kg	102	70 - 130	11.60	30		06/26/12
Cobalt	7440-48-4		99.7	mg/kg	103	70 - 130	10.60	30		06/26/12
Copper	7440-50-8		97.6	mg/kg	100.8	70 - 130	10.60	30		06/26/12
Vanadium	7440-62-2		99.5	mg/kg	102.8	70 - 130	12.10	30		06/26/12
Zinc	7440-66-6		96.0	mg/kg	99.2	70 - 130	11.90	30		06/26/12
Lead	7439-92-1		98.2	mg/kg	101.4	70 - 130	8.10	30		06/26/12
Mercury	7439-97-6		2.24	mg/kg	115.5	70 - 130	8.10	30		06/26/12
Molybdenum	7439-98-7		103	mg/kg	106.4	70 - 130	7.50	30		06/26/12
Strontium	7440-24-6		102	mg/kg	105	70 - 130	7.50	30		06/26/12
Tin	7440-31-5		101	mg/kg	104.3	70 - 130	8.50	30		06/26/12
Uranium	7440-61-1		102	mg/kg	105.4	70 - 130	8.50	30		06/26/12
Arsenic	7440-38-2		98.1	mg/kg	101.4	70 - 130	8.30	30		06/26/12

* - QC result out of range

n/a - Not Applicable

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Batch QC List

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Department Inorganic

Group # WSCF120894

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204901	204928	4	BLANK	78173	BLANK		ICP-2008 MS All possible metal
204901	204928	5	LCS	78174	LCS		ICP-2008 MS All possible metal
204901	204928	6	SAMPLE	120894001	B2JF29		ICP-2008 MS All possible metal
204901	204928	7	MS	78175	B2JF29(120894001MS)	120894001	ICP-2008 MS All possible metal
204901	204928	8	MSD	78176	B2JF29(120894001MSD)	120894001	ICP-2008 MS All possible metal
204901	204928	9	SAMPLE	120894002	B2JDH0		ICP-2008 MS All possible metal
204901	204928	10	SAMPLE	120894003	B2JDF4		ICP-2008 MS All possible metal
204901	204928	11	SAMPLE	120894004	B2JDF7		ICP-2008 MS All possible metal
204901	204928	12	SAMPLE	120894005	B2JF41		ICP-2008 MS All possible metal
204901	204928	13	SAMPLE	120894006	B2JDF1		ICP-2008 MS All possible metal
204901	204928	14	SAMPLE	120894007	B2JDH9		ICP-2008 MS All possible metal
204901	204928	15	SAMPLE	120894008	B2JDH6		ICP-2008 MS All possible metal
204901	204979	1	LCS	78174	LCS		ICP-2008 MS All possible metal
204901	204979	2	BLANK	78173	BLANK		ICP-2008 MS All possible metal
204901	204979	15	MSD	78176	B2JF29(120894001MSD)	120894001	ICP-2008 MS All possible metal
204901	204979	19	MS	78175	B2JF29(120894001MS)	120894001	ICP-2008 MS All possible metal
204901	204979	20	SAMPLE	120894002	B2JDH0		ICP-2008 MS All possible metal
204901	204979	23	SAMPLE	120894001	B2JF29		ICP-2008 MS All possible metal
204901	204979	25	SAMPLE	120894008	B2JDH6		ICP-2008 MS All possible metal
204901	204979	27	SAMPLE	120894007	B2JDH9		ICP-2008 MS All possible metal
204901	204979	28	SAMPLE	120894006	B2JDF1		ICP-2008 MS All possible metal
204901	204979	30	SAMPLE	120894005	B2JF41		ICP-2008 MS All possible metal
204901	204979	31	SAMPLE	120894004	B2JDF7		ICP-2008 MS All possible metal

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204901	204979	32	SAMPLE	120894003	B2JDF4		ICP-2008 MS All possible metal
204909	204935	3	BLANK	78225	BLANK		Anions by Ion Chromatography (Solid)
204909	204935	4	LCS	78226	LCS		Anions by Ion Chromatography (Solid)
204909	204935	5	MS	78227	B2JDM8(120895001MS)	120895001	Anions by Ion Chromatography (Solid)
204909	204935	6	MSD	78228	B2JDM8(120895001MSD	120895001	Anions by Ion Chromatography (Solid)
204909	204935	7	DUP	78229	B2JDM8(120895001DUP)	120895001	Anions by Ion Chromatography (Solid)
204909	204935	8	SAMPLE	120894001	B2JF29		Anions by Ion Chromatography (Solid)
204909	204935	9	SAMPLE	120894002	B2JDH0		Anions by Ion Chromatography (Solid)
204909	204935	10	SAMPLE	120894003	B2JDF4		Anions by Ion Chromatography (Solid)
204909	204935	11	SAMPLE	120894004	B2JDF7		Anions by Ion Chromatography (Solid)
204909	204935	12	SAMPLE	120894005	B2JF41		Anions by Ion Chromatography (Solid)
204909	204935	13	SAMPLE	120894006	B2JDF1		Anions by Ion Chromatography (Solid)
204909	204935	14	SAMPLE	120894007	B2JDH9		Anions by Ion Chromatography (Solid)
204909	204935	15	SAMPLE	120894008	B2JDH6		Anions by Ion Chromatography (Solid)
205245	205247	3	BLANK	78769	BLANK		Hexavalent chromium
205245	205247	4	LCS	78770	LCS		Hexavalent chromium
205245	205247	5	DUP	78771	B2JF29(120894001DUP)	120894001	Hexavalent chromium
205245	205247	6	MS	78772	B2JF29(120894001MS)	120894001	Hexavalent chromium
205245	205247	7	PSTSPK	78773	PSTSPK		Hexavalent chromium
205245	205247	8	IMS	78774	B2JF29(120894001IMS)	120894001	Hexavalent chromium
205245	205247	9	SAMPLE	120894001	B2JF29		Hexavalent chromium
205245	205247	10	SAMPLE	120894002	B2JDH0		Hexavalent chromium
205245	205247	11	SAMPLE	120894003	B2JDF4		Hexavalent chromium

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Analytical Batch 204928 (QC Batch: 204901) **Test** ICP-2008 MS All possible metal
Associated Samples 120894001, 120894002, 120894003, 120894004, 120894005, 120894006, 120894007, 120894008

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78173**						
Manganese	7439-96-5		<0.10	ug/L				U	07/19/12
Nickel	7440-02-0		<0.10	ug/L				U	07/19/12
Silver	7440-22-4		<0.050	ug/L				U	07/19/12
Antimony	7440-36-0		<0.30	ug/L				U	07/19/12
Barium	7440-39-3		<0.20	ug/L				U	07/19/12
Beryllium	7440-41-7		<0.10	ug/L				U	07/19/12
Cadmium	7440-43-9		<0.050	ug/L				U	07/19/12
Chromium	7440-47-3		<0.10	ug/L				U	07/19/12
Cobalt	7440-48-4		<0.050	ug/L				U	07/19/12
Copper	7440-50-8		<0.10	ug/L				U	07/19/12
Vanadium	7440-62-2		<0.20	ug/L				U	07/19/12
Zinc	7440-66-6		<1.0	ug/L				U	07/19/12
Lead	7439-92-1		<0.050	ug/L				U	07/19/12
Mercury	7439-97-6		<0.050	ug/L				U	07/19/12
Molybdenum	7439-98-7		<0.050	ug/L				U	07/19/12
Strontium	7440-24-6		<0.10	ug/L				U	07/19/12
Tin	7440-31-5		<0.050	ug/L				U	07/19/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Uranium	7440-61-1		<0.050	ug/L					U	07/19/12
Arsenic	7440-38-2		<0.20	ug/L					U	07/19/12
LCS			**QC Sample #78174**							
Manganese	7439-96-5		266	mg/kg	93.1	75 - 121				07/19/12
Nickel	7440-02-0		54.6	mg/kg	92.5	74 - 122				07/19/12
Silver	7440-22-4		33.3	mg/kg	96.7	83 - 127				07/19/12
Antimony	7440-36-0		117	mg/kg	96.1	62 - 205				07/19/12
Barium	7440-39-3		161	mg/kg	95.1	78 - 118				07/19/12
Beryllium	7440-41-7		59.1	mg/kg	94.7	77 - 120				07/19/12
Cadmium	7440-43-9		58.5	mg/kg	94.6	76 - 129				07/19/12
Chromium	7440-47-3		62.7	mg/kg	88	68 - 119				07/19/12
Cobalt	7440-48-4		101	mg/kg	98.1	77 - 122				07/19/12
Copper	7440-50-8		72.6	mg/kg	89.4	67 - 120				07/19/12
Vanadium	7440-62-2		51.8	mg/kg	87.4	67 - 122				07/19/12
Zinc	7440-66-6		130	mg/kg	92.2	73 - 131				07/19/12
Lead	7439-92-1		89.0	mg/kg	96.3	79 - 124				07/19/12
Mercury	7439-97-6		3.55	mg/kg	94.2	69 - 124				07/19/12
Molybdenum	7439-98-7		41.6	mg/kg	97.6	80 - 125				07/19/12
Strontium	7440-24-6		67.6	mg/kg	93.4	78 - 119				07/19/12
Tin	7440-31-5		106	mg/kg	99.3	84 - 130				07/19/12
Uranium	7440-61-1		355	mg/kg	97.2	86 - 113				07/19/12
Arsenic	7440-38-2		90.7	mg/kg	97.9	79 - 125				07/19/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MS			**QC Sample #78175**							
			Original	**120894001**						
Manganese	7439-96-5	300	92.3	mg/kg	91.1	70 - 130				07/19/12
Nickel	7440-02-0	9.06	94.1	mg/kg	92.8	70 - 130				07/19/12
Silver	7440-22-4	<0.054	101	mg/kg	99.9	70 - 130				07/19/12
Antimony	7440-36-0	<0.32	91.7	mg/kg	90.5	70 - 130				07/19/12
Barium	7440-39-3	63.4	105	mg/kg	103.1	70 - 130				07/19/12
Beryllium	7440-41-7	0.289	98.7	mg/kg	97.4	70 - 130				07/19/12
Cadmium	7440-43-9	0.106	99.1	mg/kg	97.8	70 - 130				07/19/12
Chromium	7440-47-3	6.87	97.8	mg/kg	96.5	70 - 130				07/19/12
Cobalt	7440-48-4	7.94	96.8	mg/kg	95.5	70 - 130				07/19/12
Copper	7440-50-8	15.6	92.5	mg/kg	91.3	70 - 130				07/19/12
Vanadium	7440-62-2	38.9	105	mg/kg	103.2	70 - 130				07/19/12
Zinc	7440-66-6	41.4	91.1	mg/kg	89.9	70 - 130				07/19/12
Lead	7439-92-1	6.84	99.0	mg/kg	97.7	70 - 130				07/19/12
Mercury	7439-97-6	0.0626	1.95	mg/kg	96	70 - 130				07/19/12
Molybdenum	7439-98-7	0.345	104	mg/kg	102.5	70 - 130				07/19/12
Strontium	7440-24-6	27.8	99.1	mg/kg	97.8	70 - 130				07/19/12
Tin	7440-31-5	0.420	101	mg/kg	99.5	70 - 130				07/19/12
Uranium	7440-61-1	0.388	104	mg/kg	102.2	70 - 130				07/19/12
Arsenic	7440-38-2	3.06	97.8	mg/kg	96.5	70 - 130				07/19/12
MSD			**QC Sample #78176**							
			Original	**120894001**				**Paired**	**78175**	
Manganese	7439-96-5	300	160	mg/kg	145.8	70 - 130	16.30	30	N	07/19/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Nickel	7440-02-0	9.06	111	mg/kg	100.9	70 - 130	15.20	30		07/19/12
Silver	7440-22-4	<0.054	114	mg/kg	103.7	70 - 130	12.10	30		07/19/12
Antimony	7440-36-0	<0.32	105	mg/kg	95.2	70 - 130	13.50	30		07/19/12
Barium	7440-39-3	63.4	129	mg/kg	117.2	70 - 130	13.50	30		07/19/12
Beryllium	7440-41-7	0.289	115	mg/kg	104.4	70 - 130	15.10	30		07/19/12
Cadmium	7440-43-9	0.106	113	mg/kg	103.1	70 - 130	13.00	30		07/19/12
Chromium	7440-47-3	6.87	116	mg/kg	105.3	70 - 130	15.90	30		07/19/12
Cobalt	7440-48-4	7.94	115	mg/kg	104.9	70 - 130	16.70	30		07/19/12
Copper	7440-50-8	15.6	110	mg/kg	100.1	70 - 130	14.60	30		07/19/12
Vanadium	7440-62-2	38.9	128	mg/kg	116.1	70 - 130	15.00	30		07/19/12
Zinc	7440-66-6	41.4	113	mg/kg	102.4	70 - 130	15.50	30		07/19/12
Lead	7439-92-1	6.84	115	mg/kg	104.7	70 - 130	14.00	30		07/19/12
Mercury	7439-97-6	0.0626	2.28	mg/kg	103.7	70 - 130	15.20	30		07/19/12
Molybdenum	7439-98-7	0.345	118	mg/kg	107.8	70 - 130	13.50	30		07/19/12
Strontium	7440-24-6	27.8	119	mg/kg	108.3	70 - 130	14.70	30		07/19/12
Tin	7440-31-5	0.420	116	mg/kg	105.5	70 - 130	13.80	30		07/19/12
Uranium	7440-61-1	0.388	120	mg/kg	109.1	70 - 130	14.30	30		07/19/12
Arsenic	7440-38-2	3.06	112	mg/kg	101.8	70 - 130	13.00	30		07/19/12

* - QC result out of range

n/a - Not Applicable

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204901	204928	4	BLANK	78173	BLANK		ICP-2008 MS All possible metal
204901	204928	5	LCS	78174	LCS		ICP-2008 MS All possible metal
204901	204928	7	MS	78175	B2JF29(120894001MS)	120894001	ICP-2008 MS All possible metal
204901	204928	8	MSD	78176	B2JF29(120894001MSD)	120894001	ICP-2008 MS All possible metal
204901	204928	16	SAMPLE	120895001	B2JDM8		ICP-2008 MS All possible metal
204901	204928	17	SAMPLE	120895002	B2JDN1		ICP-2008 MS All possible metal
204901	204928	20	SAMPLE	120895003	B2JDV3		ICP-2008 MS All possible metal
204901	204928	21	SAMPLE	120895004	B2JDP6		ICP-2008 MS All possible metal
204901	204928	22	SAMPLE	120895005	B2JDN7		ICP-2008 MS All possible metal
204901	204928	23	SAMPLE	120895006	B2JDN4		ICP-2008 MS All possible metal
204901	204979	1	LCS	78174	LCS		ICP-2008 MS All possible metal
204901	204979	2	BLANK	78173	BLANK		ICP-2008 MS All possible metal
204901	204979	15	MSD	78176	B2JF29(120894001MSD)	120894001	ICP-2008 MS All possible metal
204901	204979	18	SAMPLE	120895002	B2JDN1		ICP-2008 MS All possible metal
204901	204979	19	MS	78175	B2JF29(120894001MS)	120894001	ICP-2008 MS All possible metal
204901	204979	21	SAMPLE	120895001	B2JDM8		ICP-2008 MS All possible metal
204901	204979	22	SAMPLE	120895006	B2JDN4		ICP-2008 MS All possible metal
204901	204979	24	SAMPLE	120895005	B2JDN7		ICP-2008 MS All possible metal
204901	204979	26	SAMPLE	120895004	B2JDP6		ICP-2008 MS All possible metal
204901	204979	29	SAMPLE	120895003	B2JDV3		ICP-2008 MS All possible metal
204909	204935	3	BLANK	78225	BLANK		Anions by Ion Chromatography (Solid)
204909	204935	4	LCS	78226	LCS		Anions by Ion Chromatography (Solid)
204909	204935	5	MS	78227	B2JDM8(120895001MS)	120895001	Anions by Ion Chromatography (Solid)

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Analytical Batch 204928 (QC Batch: 204901) **Test** ICP-2008 MS All possible metal
Associated Samples 120895001, 120895002, 120895003, 120895004, 120895005, 120895006

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78173**						
Manganese	7439-96-5		<0.10	ug/L				U	07/19/12
Nickel	7440-02-0		<0.10	ug/L				U	07/19/12
Silver	7440-22-4		<0.050	ug/L				U	07/19/12
Antimony	7440-36-0		<0.30	ug/L				U	07/19/12
Barium	7440-39-3		<0.20	ug/L				U	07/19/12
Beryllium	7440-41-7		<0.10	ug/L				U	07/19/12
Cadmium	7440-43-9		<0.050	ug/L				U	07/19/12
Chromium	7440-47-3		<0.10	ug/L				U	07/19/12
Cobalt	7440-48-4		<0.050	ug/L				U	07/19/12
Copper	7440-50-8		<0.10	ug/L				U	07/19/12
Vanadium	7440-62-2		<0.20	ug/L				U	07/19/12
Zinc	7440-66-6		<1.0	ug/L				U	07/19/12
Lead	7439-92-1		<0.050	ug/L				U	07/19/12
Mercury	7439-97-6		<0.050	ug/L				U	07/19/12
Molybdenum	7439-98-7		<0.050	ug/L				U	07/19/12
Strontium	7440-24-6		<0.10	ug/L				U	07/19/12
Tin	7440-31-5		<0.050	ug/L				U	07/19/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Uranium	7440-61-1		<0.050	ug/L					U	07/19/12
Arsenic	7440-38-2		<0.20	ug/L					U	07/19/12
LCS			**QC Sample #78174**							
Manganese	7439-96-5		266	mg/kg	93.1	75 - 121				07/19/12
Nickel	7440-02-0		54.6	mg/kg	92.5	74 - 122				07/19/12
Silver	7440-22-4		33.3	mg/kg	96.7	83 - 127				07/19/12
Antimony	7440-36-0		117	mg/kg	96.1	62 - 205				07/19/12
Barium	7440-39-3		161	mg/kg	95.1	78 - 118				07/19/12
Beryllium	7440-41-7		59.1	mg/kg	94.7	77 - 120				07/19/12
Cadmium	7440-43-9		58.5	mg/kg	94.6	76 - 129				07/19/12
Chromium	7440-47-3		62.7	mg/kg	88	68 - 119				07/19/12
Cobalt	7440-48-4		101	mg/kg	98.1	77 - 122				07/19/12
Copper	7440-50-8		72.6	mg/kg	89.4	67 - 120				07/19/12
Vanadium	7440-62-2		51.8	mg/kg	87.4	67 - 122				07/19/12
Zinc	7440-66-6		130	mg/kg	92.2	73 - 131				07/19/12
Lead	7439-92-1		89.0	mg/kg	96.3	79 - 124				07/19/12
Mercury	7439-97-6		3.55	mg/kg	94.2	69 - 124				07/19/12
Molybdenum	7439-98-7		41.6	mg/kg	97.6	80 - 125				07/19/12
Strontium	7440-24-6		67.6	mg/kg	93.4	78 - 119				07/19/12
Tin	7440-31-5		106	mg/kg	99.3	84 - 130				07/19/12
Uranium	7440-61-1		355	mg/kg	97.2	86 - 113				07/19/12
Arsenic	7440-38-2		90.7	mg/kg	97.9	79 - 125				07/19/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MS			**QC Sample #78175**							
			Original	**120894001**						
Manganese	7439-96-5		92.3	mg/kg	91.1	70 - 130				07/19/12
Nickel	7440-02-0		94.1	mg/kg	92.8	70 - 130				07/19/12
Silver	7440-22-4		101	mg/kg	99.9	70 - 130				07/19/12
Antimony	7440-36-0		91.7	mg/kg	90.5	70 - 130				07/19/12
Barium	7440-39-3		105	mg/kg	103.1	70 - 130				07/19/12
Beryllium	7440-41-7		98.7	mg/kg	97.4	70 - 130				07/19/12
Cadmium	7440-43-9		99.1	mg/kg	97.8	70 - 130				07/19/12
Chromium	7440-47-3		97.8	mg/kg	96.5	70 - 130				07/19/12
Cobalt	7440-48-4		96.8	mg/kg	95.5	70 - 130				07/19/12
Copper	7440-50-8		92.5	mg/kg	91.3	70 - 130				07/19/12
Vanadium	7440-62-2		105	mg/kg	103.2	70 - 130				07/19/12
Zinc	7440-66-6		91.1	mg/kg	89.9	70 - 130				07/19/12
Lead	7439-92-1		99.0	mg/kg	97.7	70 - 130				07/19/12
Mercury	7439-97-6		1.95	mg/kg	96	70 - 130				07/19/12
Molybdenum	7439-98-7		104	mg/kg	102.5	70 - 130				07/19/12
Strontium	7440-24-6		99.1	mg/kg	97.8	70 - 130				07/19/12
Tin	7440-31-5		101	mg/kg	99.5	70 - 130				07/19/12
Uranium	7440-61-1		104	mg/kg	102.2	70 - 130				07/19/12
Arsenic	7440-38-2		97.8	mg/kg	96.5	70 - 130				07/19/12
MSD			**QC Sample #78176**							
			Original	**120894001**				**Paired**	**78175**	
Manganese	7439-96-5		160	mg/kg	145.8	70 - 130	16.30	30	N	07/19/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Nickel	7440-02-0		111	mg/kg	100.9	70 - 130	15.20	30		07/19/12
Silver	7440-22-4		114	mg/kg	103.7	70 - 130	12.10	30		07/19/12
Antimony	7440-36-0		105	mg/kg	95.2	70 - 130	13.50	30		07/19/12
Barium	7440-39-3		129	mg/kg	117.2	70 - 130	13.50	30		07/19/12
Beryllium	7440-41-7		115	mg/kg	104.4	70 - 130	15.10	30		07/19/12
Cadmium	7440-43-9		113	mg/kg	103.1	70 - 130	13.00	30		07/19/12
Chromium	7440-47-3		116	mg/kg	105.3	70 - 130	15.90	30		07/19/12
Cobalt	7440-48-4		115	mg/kg	104.9	70 - 130	16.70	30		07/19/12
Copper	7440-50-8		110	mg/kg	100.1	70 - 130	14.60	30		07/19/12
Vanadium	7440-62-2		128	mg/kg	116.1	70 - 130	15.00	30		07/19/12
Zinc	7440-66-6		113	mg/kg	102.4	70 - 130	15.50	30		07/19/12
Lead	7439-92-1		115	mg/kg	104.7	70 - 130	14.00	30		07/19/12
Mercury	7439-97-6		2.28	mg/kg	103.7	70 - 130	15.20	30		07/19/12
Molybdenum	7439-98-7		118	mg/kg	107.8	70 - 130	13.50	30		07/19/12
Strontium	7440-24-6		119	mg/kg	108.3	70 - 130	14.70	30		07/19/12
Tin	7440-31-5		116	mg/kg	105.5	70 - 130	13.80	30		07/19/12
Uranium	7440-61-1		120	mg/kg	109.1	70 - 130	14.30	30		07/19/12
Arsenic	7440-38-2		112	mg/kg	101.8	70 - 130	13.00	30		07/19/12

* - QC result out of range

n/a - Not Applicable

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204901	204928	4	BLANK	78173	BLANK		ICP-2008 MS All possible metal
204901	204928	5	LCS	78174	LCS		ICP-2008 MS All possible metal
204901	204928	7	MS	78175	B2JF29(120894001MS)	120894001	ICP-2008 MS All possible metal
204901	204928	8	MSD	78176	B2JF29(120894001MSD)	120894001	ICP-2008 MS All possible metal
204901	204928	24	SAMPLE	120900001	B2JDT7		ICP-2008 MS All possible metal
204901	204928	25	SAMPLE	120900002	B2JDT4		ICP-2008 MS All possible metal
204901	204928	26	SAMPLE	120900003	B2JDH3		ICP-2008 MS All possible metal
204901	204928	27	SAMPLE	120900004	B2JDK4		ICP-2008 MS All possible metal
204901	204928	28	SAMPLE	120900005	B2JDJ5		ICP-2008 MS All possible metal
204901	204928	29	SAMPLE	120900006	B2JDV0		ICP-2008 MS All possible metal
204901	204979	1	LCS	78174	LCS		ICP-2008 MS All possible metal
204901	204979	2	BLANK	78173	BLANK		ICP-2008 MS All possible metal
204901	204979	11	SAMPLE	120900006	B2JDV0		ICP-2008 MS All possible metal
204901	204979	12	SAMPLE	120900005	B2JDJ5		ICP-2008 MS All possible metal
204901	204979	13	SAMPLE	120900004	B2JDK4		ICP-2008 MS All possible metal
204901	204979	14	SAMPLE	120900003	B2JDH3		ICP-2008 MS All possible metal
204901	204979	15	MSD	78176	B2JF29(120894001MSD)	120894001	ICP-2008 MS All possible metal
204901	204979	16	SAMPLE	120900002	B2JDT4		ICP-2008 MS All possible metal
204901	204979	17	SAMPLE	120900001	B2JDT7		ICP-2008 MS All possible metal
204901	204979	19	MS	78175	B2JF29(120894001MS)	120894001	ICP-2008 MS All possible metal
204902	204927	4	BLANK	78177	BLANK		ICP-2008 MS All possible metal
204902	204927	5	LCS	78178	LCS		ICP-2008 MS All possible metal
204902	204927	7	MS	78179	B2LTY7(120902001MS)	120902001	ICP-2008 MS All possible metal

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204902	204927	8	MSD	78180	B2LTY7(120902001MSD)	120902001	ICP-2008 MS All possible metal
204902	204927	9	SAMPLE	120900007	B2JDP0		ICP-2008 MS All possible metal
204902	204927	10	SAMPLE	120900008	B2JDR8		ICP-2008 MS All possible metal
204902	204927	11	SAMPLE	120900009	B2JDT1		ICP-2008 MS All possible metal
204902	204927	12	SAMPLE	120900010	B2JF32		ICP-2008 MS All possible metal
204902	204927	13	SAMPLE	120900011	B2JDJ8		ICP-2008 MS All possible metal
204902	204927	14	SAMPLE	120900012	B2JDR2		ICP-2008 MS All possible metal
204902	204927	15	SAMPLE	120900013	B2JDR5		ICP-2008 MS All possible metal
204902	204927	16	SAMPLE	120900014	B2JDP3		ICP-2008 MS All possible metal
204902	204927	17	SAMPLE	120900015	B2JDP9		ICP-2008 MS All possible metal
204902	204927	20	SAMPLE	120900016	B2JDV6		ICP-2008 MS All possible metal
204902	204927	21	SAMPLE	120900017	B2JDK1		ICP-2008 MS All possible metal
204902	204927	22	SAMPLE	120900018	B2JF35		ICP-2008 MS All possible metal
204902	204927	23	SAMPLE	120900019	B2JF47		ICP-2008 MS All possible metal
204902	204984	1	LCS	78178	LCS		ICP-2008 MS All possible metal
204902	204984	2	BLANK	78177	BLANK		ICP-2008 MS All possible metal
204902	204984	10	SAMPLE	120900019	B2JF47		ICP-2008 MS All possible metal
204902	204984	11	SAMPLE	120900018	B2JF35		ICP-2008 MS All possible metal
204902	204984	12	SAMPLE	120900017	B2JDK1		ICP-2008 MS All possible metal
204902	204984	13	SAMPLE	120900015	B2JDP9		ICP-2008 MS All possible metal
204902	204984	14	SAMPLE	120900016	B2JDV6		ICP-2008 MS All possible metal
204902	204984	15	SAMPLE	120900014	B2JDP3		ICP-2008 MS All possible metal
204902	204984	16	SAMPLE	120900013	B2JDR5		ICP-2008 MS All possible metal

Batch QC List

Attention Scot Fitzgerald
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Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204902	204984	17	SAMPLE	120900012	B2JDR2		ICP-2008 MS All possible metal
204902	204984	18	SAMPLE	120900011	B2JDJ8		ICP-2008 MS All possible metal
204902	204984	19	SAMPLE	120900010	B2JF32		ICP-2008 MS All possible metal
204902	204984	20	SAMPLE	120900009	B2JDT1		ICP-2008 MS All possible metal
204902	204984	21	SAMPLE	120900008	B2JDR8		ICP-2008 MS All possible metal
204902	204984	22	SAMPLE	120900007	B2JDP0		ICP-2008 MS All possible metal
204902	204984	23	MSD	78180	B2LTY7(120902001MSD)	120902001	ICP-2008 MS All possible metal
204902	204984	24	MS	78179	B2LTY7(120902001MS)	120902001	ICP-2008 MS All possible metal
204910	204934	3	BLANK	78230	BLANK		Anions by Ion Chromatography (Solid)
204910	204934	4	LCS	78231	LCS		Anions by Ion Chromatography (Solid)
204910	204934	5	MS	78232	B2JDP3(120900014MS)	120900014	Anions by Ion Chromatography (Solid)
204910	204934	6	MSD	78233	B2JDP3(120900014MSD)	120900014	Anions by Ion Chromatography (Solid)
204910	204934	7	DUP	78234	B2JDP3(120900014DUP)	120900014	Anions by Ion Chromatography (Solid)
204910	204934	8	SAMPLE	120900011	B2JDJ8		Anions by Ion Chromatography (Solid)
204910	204934	9	SAMPLE	120900012	B2JDR2		Anions by Ion Chromatography (Solid)
204910	204934	10	SAMPLE	120900013	B2JDR5		Anions by Ion Chromatography (Solid)
204910	204934	11	SAMPLE	120900014	B2JDP3		Anions by Ion Chromatography (Solid)
204910	204934	12	SAMPLE	120900015	B2JDP9		Anions by Ion Chromatography (Solid)
204910	204934	13	SAMPLE	120900016	B2JDV6		Anions by Ion Chromatography (Solid)
204910	204934	14	SAMPLE	120900017	B2JDK1		Anions by Ion Chromatography (Solid)
204910	204934	15	SAMPLE	120900018	B2JF35		Anions by Ion Chromatography (Solid)
204910	204934	16	SAMPLE	120900019	B2JF47		Anions by Ion Chromatography (Solid)
204923	204937	3	BLANK	78270	BLANK		Anions by Ion Chromatography (Solid)

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Analytical Batch 204927 (QC Batch: 204902) **Test** ICP-2008 MS All possible metal
Associated Samples 120900007, 120900008, 120900009, 120900010, 120900011, 120900012, 120900013, 120900014, 120900015, 120900016, 120900017, 120900018, 120900019

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78177**						
Manganese	7439-96-5		<0.10	ug/L				U	07/18/12
Nickel	7440-02-0		<0.10	ug/L				U	07/18/12
Silver	7440-22-4		<0.050	ug/L				U	07/18/12
Antimony	7440-36-0		<0.30	ug/L				U	07/18/12
Barium	7440-39-3		<0.20	ug/L				U	07/18/12
Beryllium	7440-41-7		<0.10	ug/L				U	07/18/12
Cadmium	7440-43-9		<0.050	ug/L				U	07/18/12
Chromium	7440-47-3		<0.10	ug/L				U	07/18/12
Cobalt	7440-48-4		<0.050	ug/L				U	07/18/12
Copper	7440-50-8		<0.10	ug/L				U	07/18/12
Vanadium	7440-62-2		<0.20	ug/L				U	07/18/12
Zinc	7440-66-6		<1.0	ug/L				U	07/18/12
Lead	7439-92-1		<0.050	ug/L				U	07/18/12
Mercury	7439-97-6		<0.050	ug/L				U	07/18/12
Molybdenum	7439-98-7		<0.050	ug/L				U	07/18/12
Strontium	7440-24-6		<0.10	ug/L				U	07/18/12
Tin	7440-31-5		<0.050	ug/L				U	07/18/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Uranium	7440-61-1		<0.050	ug/L					U	07/18/12
Arsenic	7440-38-2		<0.20	ug/L					U	07/18/12
LCS			**QC Sample #78178**							
Manganese	7439-96-5		275	mg/kg	96.1	75 - 121				07/18/12
Nickel	7440-02-0		58.2	mg/kg	98.5	74 - 122				07/18/12
Silver	7440-22-4		38.6	mg/kg	112.3	83 - 127				07/18/12
Antimony	7440-36-0		128	mg/kg	104.7	62 - 205				07/18/12
Barium	7440-39-3		166	mg/kg	98.1	78 - 118				07/18/12
Beryllium	7440-41-7		64.9	mg/kg	104.1	77 - 120				07/18/12
Cadmium	7440-43-9		63.2	mg/kg	102.3	76 - 129				07/18/12
Chromium	7440-47-3		68.4	mg/kg	96	68 - 119				07/18/12
Cobalt	7440-48-4		107	mg/kg	103.9	77 - 122				07/18/12
Copper	7440-50-8		78.2	mg/kg	96.4	67 - 120				07/18/12
Vanadium	7440-62-2		57.1	mg/kg	96.5	67 - 122				07/18/12
Zinc	7440-66-6		137	mg/kg	97	73 - 131				07/18/12
Lead	7439-92-1		95.3	mg/kg	103.2	79 - 124				07/18/12
Mercury	7439-97-6		3.93	mg/kg	104.1	69 - 124				07/18/12
Molybdenum	7439-98-7		45.1	mg/kg	105.8	80 - 125				07/18/12
Strontium	7440-24-6		67.3	mg/kg	92.9	78 - 119				07/18/12
Tin	7440-31-5		115	mg/kg	107.2	84 - 130				07/18/12
Uranium	7440-61-1		454	mg/kg	103.4	86 - 113				07/18/12
Arsenic	7440-38-2		99.6	mg/kg	107.6	79 - 125				07/18/12

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

Quality Control Report

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Department Inorganic

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MS			**QC Sample #78179**							
			Original	**120902001**						
Manganese	7439-96-5		158	mg/kg	173.1	70 - 130			N	07/18/12
Nickel	7440-02-0		100	mg/kg	109.8	70 - 130				07/18/12
Silver	7440-22-4		90.3	mg/kg	98.9	70 - 130				07/18/12
Antimony	7440-36-0		73.4	mg/kg	80.3	70 - 130				07/18/12
Barium	7440-39-3		160	mg/kg	175.1	70 - 130			N	07/18/12
Beryllium	7440-41-7		102	mg/kg	111.3	70 - 130				07/18/12
Cadmium	7440-43-9		94.8	mg/kg	103.8	70 - 130				07/18/12
Chromium	7440-47-3		102	mg/kg	111.3	70 - 130				07/18/12
Cobalt	7440-48-4		100	mg/kg	109.6	70 - 130				07/18/12
Copper	7440-50-8		98.0	mg/kg	107.3	70 - 130				07/18/12
Vanadium	7440-62-2		106	mg/kg	116.5	70 - 130				07/18/12
Zinc	7440-66-6		106	mg/kg	116	70 - 130				07/18/12
Lead	7439-92-1		98.0	mg/kg	107.3	70 - 130				07/18/12
Mercury	7439-97-6		2.01	mg/kg	110.2	70 - 130				07/18/12
Molybdenum	7439-98-7		89.9	mg/kg	98.4	70 - 130				07/18/12
Strontium	7440-24-6		135	mg/kg	147.9	70 - 130			N	07/18/12
Tin	7440-31-5		85.9	mg/kg	94	70 - 130				07/18/12
Uranium	7440-61-1		95.6	mg/kg	104.6	70 - 130				07/18/12
Arsenic	7440-38-2		99.6	mg/kg	109	70 - 130				07/18/12
MSD			**QC Sample #78180**							
			Original	**120902001**				**Paired**	**78179**	
Manganese	7439-96-5		140	mg/kg	143.1	70 - 130	9.00	30	N	07/18/12

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

Quality Control Report

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Department Inorganic

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Nickel	7440-02-0		102	mg/kg	103.8	70 - 130	1.00	30		07/18/12
Silver	7440-22-4		92.8	mg/kg	94.8	70 - 130	2.70	30		07/18/12
Antimony	7440-36-0		77.9	mg/kg	79.6	70 - 130	5.90	30		07/18/12
Barium	7440-39-3		233	mg/kg	237.5	70 - 130	29.60	30	N	07/18/12
Beryllium	7440-41-7		103	mg/kg	105.2	70 - 130	1.00	30		07/18/12
Cadmium	7440-43-9		95.2	mg/kg	97.3	70 - 130	0.40	30		07/18/12
Chromium	7440-47-3		105	mg/kg	107.6	70 - 130	2.90	30		07/18/12
Cobalt	7440-48-4		102	mg/kg	104.4	70 - 130	1.90	30		07/18/12
Copper	7440-50-8		96.9	mg/kg	99	70 - 130	1.90	30		07/18/12
Vanadium	7440-62-2		111	mg/kg	113.4	70 - 130	4.50	30		07/18/12
Zinc	7440-66-6		109	mg/kg	111.6	70 - 130	2.70	30		07/18/12
Lead	7439-92-1		100	mg/kg	102.6	70 - 130	2.80	30		07/18/12
Mercury	7439-97-6		2.00	mg/kg	102.2	70 - 130	0.90	30		07/18/12
Molybdenum	7439-98-7		96.0	mg/kg	98	70 - 130	6.40	30		07/18/12
Strontium	7440-24-6		203	mg/kg	207.4	70 - 130	29.70	30	N	07/18/12
Tin	7440-31-5		89.8	mg/kg	91.7	70 - 130	4.40	30		07/18/12
Uranium	7440-61-1		98.0	mg/kg	100.1	70 - 130	2.50	30		07/18/12
Arsenic	7440-38-2		103	mg/kg	105.5	70 - 130	3.90	30		07/18/12

* - QC result out of range

n/a - Not Applicable

Quality Control Report

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Department Inorganic

Group # WSCF120900

Analytical Batch 204928 (QC Batch: 204901) **Test** ICP-2008 MS All possible metal
Associated Samples 120900001, 120900002, 120900003, 120900004, 120900005, 120900006

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78173**						
Manganese	7439-96-5		<0.10	ug/L				U	07/19/12
Nickel	7440-02-0		<0.10	ug/L				U	07/19/12
Silver	7440-22-4		<0.050	ug/L				U	07/19/12
Antimony	7440-36-0		<0.30	ug/L				U	07/19/12
Barium	7440-39-3		<0.20	ug/L				U	07/19/12
Beryllium	7440-41-7		<0.10	ug/L				U	07/19/12
Cadmium	7440-43-9		<0.050	ug/L				U	07/19/12
Chromium	7440-47-3		<0.10	ug/L				U	07/19/12
Cobalt	7440-48-4		<0.050	ug/L				U	07/19/12
Copper	7440-50-8		<0.10	ug/L				U	07/19/12
Vanadium	7440-62-2		<0.20	ug/L				U	07/19/12
Zinc	7440-66-6		<1.0	ug/L				U	07/19/12
Lead	7439-92-1		<0.050	ug/L				U	07/19/12
Mercury	7439-97-6		<0.050	ug/L				U	07/19/12
Molybdenum	7439-98-7		<0.050	ug/L				U	07/19/12
Strontium	7440-24-6		<0.10	ug/L				U	07/19/12
Tin	7440-31-5		<0.050	ug/L				U	07/19/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Uranium	7440-61-1		<0.050	ug/L					U	07/19/12
Arsenic	7440-38-2		<0.20	ug/L					U	07/19/12
LCS			**QC Sample #78174**							
Manganese	7439-96-5		266	mg/kg	93.1	75 - 121				07/19/12
Nickel	7440-02-0		54.6	mg/kg	92.5	74 - 122				07/19/12
Silver	7440-22-4		33.3	mg/kg	96.7	83 - 127				07/19/12
Antimony	7440-36-0		117	mg/kg	96.1	62 - 205				07/19/12
Barium	7440-39-3		161	mg/kg	95.1	78 - 118				07/19/12
Beryllium	7440-41-7		59.1	mg/kg	94.7	77 - 120				07/19/12
Cadmium	7440-43-9		58.5	mg/kg	94.6	76 - 129				07/19/12
Chromium	7440-47-3		62.7	mg/kg	88	68 - 119				07/19/12
Cobalt	7440-48-4		101	mg/kg	98.1	77 - 122				07/19/12
Copper	7440-50-8		72.6	mg/kg	89.4	67 - 120				07/19/12
Vanadium	7440-62-2		51.8	mg/kg	87.4	67 - 122				07/19/12
Zinc	7440-66-6		130	mg/kg	92.2	73 - 131				07/19/12
Lead	7439-92-1		89.0	mg/kg	96.3	79 - 124				07/19/12
Mercury	7439-97-6		3.55	mg/kg	94.2	69 - 124				07/19/12
Molybdenum	7439-98-7		41.6	mg/kg	97.6	80 - 125				07/19/12
Strontium	7440-24-6		67.6	mg/kg	93.4	78 - 119				07/19/12
Tin	7440-31-5		106	mg/kg	99.3	84 - 130				07/19/12
Uranium	7440-61-1		355	mg/kg	97.2	86 - 113				07/19/12
Arsenic	7440-38-2		90.7	mg/kg	97.9	79 - 125				07/19/12

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

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Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MS			**QC Sample #78175**							
			Original	**120894001**						
Manganese	7439-96-5		92.3	mg/kg	91.1	70 - 130				07/19/12
Nickel	7440-02-0		94.1	mg/kg	92.8	70 - 130				07/19/12
Silver	7440-22-4		101	mg/kg	99.9	70 - 130				07/19/12
Antimony	7440-36-0		91.7	mg/kg	90.5	70 - 130				07/19/12
Barium	7440-39-3		105	mg/kg	103.1	70 - 130				07/19/12
Beryllium	7440-41-7		98.7	mg/kg	97.4	70 - 130				07/19/12
Cadmium	7440-43-9		99.1	mg/kg	97.8	70 - 130				07/19/12
Chromium	7440-47-3		97.8	mg/kg	96.5	70 - 130				07/19/12
Cobalt	7440-48-4		96.8	mg/kg	95.5	70 - 130				07/19/12
Copper	7440-50-8		92.5	mg/kg	91.3	70 - 130				07/19/12
Vanadium	7440-62-2		105	mg/kg	103.2	70 - 130				07/19/12
Zinc	7440-66-6		91.1	mg/kg	89.9	70 - 130				07/19/12
Lead	7439-92-1		99.0	mg/kg	97.7	70 - 130				07/19/12
Mercury	7439-97-6		1.95	mg/kg	96	70 - 130				07/19/12
Molybdenum	7439-98-7		104	mg/kg	102.5	70 - 130				07/19/12
Strontium	7440-24-6		99.1	mg/kg	97.8	70 - 130				07/19/12
Tin	7440-31-5		101	mg/kg	99.5	70 - 130				07/19/12
Uranium	7440-61-1		104	mg/kg	102.2	70 - 130				07/19/12
Arsenic	7440-38-2		97.8	mg/kg	96.5	70 - 130				07/19/12
MSD			**QC Sample #78176**							
			Original	**120894001**				**Paired**	**78175**	
Manganese	7439-96-5		160	mg/kg	145.8	70 - 130	16.30	30	N	07/19/12

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

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Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Nickel	7440-02-0		111	mg/kg	100.9	70 - 130	15.20	30		07/19/12
Silver	7440-22-4		114	mg/kg	103.7	70 - 130	12.10	30		07/19/12
Antimony	7440-36-0		105	mg/kg	95.2	70 - 130	13.50	30		07/19/12
Barium	7440-39-3		129	mg/kg	117.2	70 - 130	13.50	30		07/19/12
Beryllium	7440-41-7		115	mg/kg	104.4	70 - 130	15.10	30		07/19/12
Cadmium	7440-43-9		113	mg/kg	103.1	70 - 130	13.00	30		07/19/12
Chromium	7440-47-3		116	mg/kg	105.3	70 - 130	15.90	30		07/19/12
Cobalt	7440-48-4		115	mg/kg	104.9	70 - 130	16.70	30		07/19/12
Copper	7440-50-8		110	mg/kg	100.1	70 - 130	14.60	30		07/19/12
Vanadium	7440-62-2		128	mg/kg	116.1	70 - 130	15.00	30		07/19/12
Zinc	7440-66-6		113	mg/kg	102.4	70 - 130	15.50	30		07/19/12
Lead	7439-92-1		115	mg/kg	104.7	70 - 130	14.00	30		07/19/12
Mercury	7439-97-6		2.28	mg/kg	103.7	70 - 130	15.20	30		07/19/12
Molybdenum	7439-98-7		118	mg/kg	107.8	70 - 130	13.50	30		07/19/12
Strontium	7440-24-6		119	mg/kg	108.3	70 - 130	14.70	30		07/19/12
Tin	7440-31-5		116	mg/kg	105.5	70 - 130	13.80	30		07/19/12
Uranium	7440-61-1		120	mg/kg	109.1	70 - 130	14.30	30		07/19/12
Arsenic	7440-38-2		112	mg/kg	101.8	70 - 130	13.00	30		07/19/12

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Analytical Batch 204979 (QC Batch: 204901) **Test** ICP-2008 MS All possible metal
Associated Samples 120900001, 120900002, 120900003, 120900004, 120900005, 120900006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78173**							
Selenium	7782-49-2		<1.0	ug/L					U	07/19/12
LCS			**QC Sample #78174**							
Selenium	7782-49-2		75.5	mg/kg	84.4	82 - 133				07/19/12
MS			**QC Sample #78175**							
			Original 120894001							
Selenium	7782-49-2		96.3	mg/kg	95	70 - 130				07/19/12
MSD			**QC Sample #78176**							
			Original 120894001					**Paired**	**78175**	
Selenium	7782-49-2		99.4	mg/kg	90.4	70 - 130	3.20	30		07/19/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Analytical Batch 204984 (QC Batch: 204902) **Test** ICP-2008 MS All possible metal
Associated Samples 120900007, 120900008, 120900009, 120900010, 120900011, 120900012, 120900013, 120900014, 120900015, 120900016, 120900017, 120900018, 120900019

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78177**							
Selenium	7782-49-2		<1.0	ug/L					U	07/19/12
LCS			**QC Sample #78178**							
Selenium	7782-49-2		87.7	mg/kg	97.9	82 - 133				07/19/12
MS			**QC Sample #78179**							
			Original 120902001							
Selenium	7782-49-2		107	mg/kg	117	70 - 130				07/19/12
MSD			**QC Sample #78180**							
			Original 120902001					**Paired**	**78179**	
Selenium	7782-49-2		93.4	mg/kg	95.4	70 - 130	13.60	30		07/19/12

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

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204986	205006	1	BLANK	78460	BLANK		Anions by Ion Chromatography (Solid)
204986	205006	4	LCS	78461	LCS		Anions by Ion Chromatography (Solid)
204986	205006	5	MS	78462	B2JF44(120922007MS)	120922007	Anions by Ion Chromatography (Solid)
204986	205006	6	MSD	78463	B2JF44(120922007MSD)	120922007	Anions by Ion Chromatography (Solid)
204986	205006	7	DUP	78464	B2JF44(120922007DUP)	120922007	Anions by Ion Chromatography (Solid)
204986	205006	8	SAMPLE	120922001	B2JDL0		Anions by Ion Chromatography (Solid)
204986	205006	9	SAMPLE	120922002	B2JDL3		Anions by Ion Chromatography (Solid)
204986	205006	10	SAMPLE	120922003	B2JDL6		Anions by Ion Chromatography (Solid)
204986	205006	11	SAMPLE	120922004	B2JDL9		Anions by Ion Chromatography (Solid)
204986	205006	12	SAMPLE	120922005	B2JDM2		Anions by Ion Chromatography (Solid)
204986	205006	13	SAMPLE	120922006	B2JDM5		Anions by Ion Chromatography (Solid)
204986	205006	14	SAMPLE	120922007	B2JF44		Anions by Ion Chromatography (Solid)
204986	205006	15	SAMPLE	120922008	B2JDJ2		Anions by Ion Chromatography (Solid)
204986	205006	16	SAMPLE	120922009	B2JDK7		Anions by Ion Chromatography (Solid)
205241	205258	4	BLANK	78760	BLANK		ICP-2008 MS All possible metal
205241	205258	5	LCS	78761	LCS		ICP-2008 MS All possible metal
205241	205258	6	SAMPLE	120922001	B2JDL0		ICP-2008 MS All possible metal
205241	205258	7	MS	78762	B2JDL0(120922001MS)	120922001	ICP-2008 MS All possible metal
205241	205258	8	MSD	78763	B2JDL0(120922001MSD)	120922001	ICP-2008 MS All possible metal
205241	205258	9	SAMPLE	120922002	B2JDL3		ICP-2008 MS All possible metal
205241	205258	10	SAMPLE	120922003	B2JDL6		ICP-2008 MS All possible metal
205241	205258	11	SAMPLE	120922004	B2JDL9		ICP-2008 MS All possible metal
205241	205258	12	SAMPLE	120922005	B2JDM2		ICP-2008 MS All possible metal

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
205241	205258	13	SAMPLE	120922006	B2JDM5		ICP-2008 MS All possible metal
205241	205258	14	SAMPLE	120922007	B2JF44		ICP-2008 MS All possible metal
205241	205258	15	SAMPLE	120922008	B2JDJ2		ICP-2008 MS All possible metal
205241	205258	16	SAMPLE	120922009	B2JDK7		ICP-2008 MS All possible metal
205241	205399	1	LCS	78761	LCS		ICP-2008 MS All possible metal
205241	205399	2	BLANK	78760	BLANK		ICP-2008 MS All possible metal
205241	205399	10	SAMPLE	120922009	B2JDK7		ICP-2008 MS All possible metal
205241	205399	11	SAMPLE	120922001	B2JDL0		ICP-2008 MS All possible metal
205241	205399	12	SAMPLE	120922008	B2JDJ2		ICP-2008 MS All possible metal
205241	205399	13	SAMPLE	120922007	B2JF44		ICP-2008 MS All possible metal
205241	205399	14	SAMPLE	120922003	B2JDL6		ICP-2008 MS All possible metal
205241	205399	15	SAMPLE	120922002	B2JDL3		ICP-2008 MS All possible metal
205241	205399	16	SAMPLE	120922006	B2JDM5		ICP-2008 MS All possible metal
205241	205399	17	MSD	78763	B2JDL0(120922001MSD)	120922001	ICP-2008 MS All possible metal
205241	205399	18	SAMPLE	120922005	B2JDM2		ICP-2008 MS All possible metal
205241	205399	19	MS	78762	B2JDL0(120922001MS)	120922001	ICP-2008 MS All possible metal
205241	205399	20	SAMPLE	120922004	B2JDL9		ICP-2008 MS All possible metal
205245	205247	3	BLANK	78769	BLANK		Hexavalent chromium
205245	205247	4	LCS	78770	LCS		Hexavalent chromium
205245	205247	5	DUP	78771	B2JF29(120894001DUP)	120894001	Hexavalent chromium
205245	205247	6	MS	78772	B2JF29(120894001MS)	120894001	Hexavalent chromium
205245	205247	7	PSTSPK	78773	PSTSPK		Hexavalent chromium
205245	205247	8	IMS	78774	B2JF29(120894001IMS)	120894001	Hexavalent chromium

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Analytical Batch 205258 (QC Batch: 205241) **Test** ICP-2008 MS All possible metal
Associated Samples 120922001, 120922002, 120922003, 120922004, 120922005, 120922006, 120922007, 120922008, 120922009

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78760**						
Manganese	7439-96-5		0.509	ug/L				B	07/30/12
Nickel	7440-02-0		<0.10	ug/L				U	07/30/12
Silver	7440-22-4		<0.050	ug/L				U	07/30/12
Antimony	7440-36-0		<0.30	ug/L				U	07/30/12
Barium	7440-39-3		<0.20	ug/L				U	07/30/12
Beryllium	7440-41-7		<0.10	ug/L				U	07/30/12
Cadmium	7440-43-9		<0.050	ug/L				U	07/30/12
Chromium	7440-47-3		<0.10	ug/L				U	07/30/12
Cobalt	7440-48-4		<0.050	ug/L				U	07/30/12
Copper	7440-50-8		<0.10	ug/L				U	07/30/12
Vanadium	7440-62-2		0.679	ug/L				B	07/30/12
Zinc	7440-66-6		<1.0	ug/L				U	07/30/12
Lead	7439-92-1		<0.050	ug/L				U	07/30/12
Mercury	7439-97-6		<0.050	ug/L				U	07/30/12
Molybdenum	7439-98-7		<0.050	ug/L				U	07/30/12
Strontium	7440-24-6		<0.10	ug/L				U	07/30/12
Tin	7440-31-5		<0.050	ug/L				U	07/30/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Uranium	7440-61-1		<0.050	ug/L					U	07/30/12
Arsenic	7440-38-2		<0.20	ug/L					U	07/30/12
LCS			**QC Sample #78761**							
Manganese	7439-96-5		260	mg/kg	90.9	75 - 121				07/30/12
Nickel	7440-02-0		54.0	mg/kg	91.4	74 - 122				07/30/12
Silver	7440-22-4		35.0	mg/kg	101.8	83 - 127				07/30/12
Antimony	7440-36-0		102	mg/kg	83.8	62 - 205				07/30/12
Barium	7440-39-3		158	mg/kg	93.5	78 - 118				07/30/12
Beryllium	7440-41-7		63.2	mg/kg	101.3	77 - 120				07/30/12
Cadmium	7440-43-9		60.4	mg/kg	97.8	76 - 129				07/30/12
Chromium	7440-47-3		64.8	mg/kg	90.8	68 - 119				07/30/12
Cobalt	7440-48-4		97.2	mg/kg	94.4	77 - 122				07/30/12
Copper	7440-50-8		71.7	mg/kg	88.3	67 - 120				07/30/12
Vanadium	7440-62-2		54.4	mg/kg	91.9	67 - 122				07/30/12
Zinc	7440-66-6		135	mg/kg	95.5	73 - 131				07/30/12
Lead	7439-92-1		86.9	mg/kg	94	79 - 124				07/30/12
Mercury	7439-97-6		3.64	mg/kg	96.5	69 - 124				07/30/12
Molybdenum	7439-98-7		43.1	mg/kg	101.2	80 - 125				07/30/12
Strontium	7440-24-6		65.8	mg/kg	90.8	78 - 119				07/30/12
Tin	7440-31-5		109	mg/kg	101.6	84 - 130				07/30/12
Uranium	7440-61-1		366	mg/kg	95	86 - 113				07/30/12
Arsenic	7440-38-2		94.1	mg/kg	101.7	79 - 125				07/30/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MS			**QC Sample #78762**							
			Original	**120922001**						
Manganese	7439-96-5	672	-251	mg/kg	-250.7	70 - 130			X	07/30/12
Nickel	7440-02-0	20.0	79.4	mg/kg	79.4	70 - 130				07/30/12
Silver	7440-22-4	0.0937	96.9	mg/kg	96.9	70 - 130				07/30/12
Antimony	7440-36-0	0.315	76.6	mg/kg	76.6	70 - 130				07/30/12
Barium	7440-39-3	169	0.437	mg/kg	0.4	70 - 130			N	07/30/12
Beryllium	7440-41-7	0.766	98.2	mg/kg	98.2	70 - 130				07/30/12
Cadmium	7440-43-9	0.175	94.6	mg/kg	94.6	70 - 130				07/30/12
Chromium	7440-47-3	16.7	83.8	mg/kg	83.8	70 - 130				07/30/12
Cobalt	7440-48-4	17.9	80.3	mg/kg	80.3	70 - 130				07/30/12
Copper	7440-50-8	32.5	70.9	mg/kg	70.9	70 - 130				07/30/12
Vanadium	7440-62-2	102	45.8	mg/kg	45.8	70 - 130			N	07/30/12
Zinc	7440-66-6	81.0	57.4	mg/kg	57.4	70 - 130			N	07/30/12
Lead	7439-92-1	13.5	86.4	mg/kg	86.4	70 - 130				07/30/12
Mercury	7439-97-6	0.0266	1.86	mg/kg	93.2	70 - 130				07/30/12
Molybdenum	7439-98-7	0.852	101	mg/kg	101.2	70 - 130				07/30/12
Strontium	7440-24-6	83.2	51.7	mg/kg	51.8	70 - 130			N	07/30/12
Tin	7440-31-5	1.21	97.6	mg/kg	97.6	70 - 130				07/30/12
Uranium	7440-61-1	1.19	96.5	mg/kg	96.5	70 - 130				07/30/12
Arsenic	7440-38-2	6.99	92.8	mg/kg	92.8	70 - 130				07/30/12
MSD			**QC Sample #78763**							
			Original	**120922001**				**Paired**	**78762**	
Manganese	7439-96-5	672	-263	mg/kg	-274.6	70 - 130	3.00	30	X	07/30/12

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

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Nickel	7440-02-0	20.0	78.8	mg/kg	82.3	70 - 130	0.50	30		07/30/12
Silver	7440-22-4	0.0937	95.7	mg/kg	99.9	70 - 130	1.20	30		07/30/12
Antimony	7440-36-0	0.315	83.0	mg/kg	86.7	70 - 130	8.00	30		07/30/12
Barium	7440-39-3	169	-1.15	mg/kg	-1.2	70 - 130	0.60	30	N	07/30/12
Beryllium	7440-41-7	0.766	97.1	mg/kg	101.3	70 - 130	1.20	30		07/30/12
Cadmium	7440-43-9	0.175	92.8	mg/kg	96.9	70 - 130	1.90	30		07/30/12
Chromium	7440-47-3	16.7	81.4	mg/kg	85	70 - 130	2.40	30		07/30/12
Cobalt	7440-48-4	17.9	77.8	mg/kg	81.2	70 - 130	2.60	30		07/30/12
Copper	7440-50-8	32.5	69.2	mg/kg	72.2	70 - 130	1.00	30		07/30/12
Vanadium	7440-62-2	102	35.8	mg/kg	37.3	70 - 130	7.20	30	N	07/30/12
Zinc	7440-66-6	81.0	55.1	mg/kg	57.5	70 - 130	1.50	30	N	07/30/12
Lead	7439-92-1	13.5	83.4	mg/kg	87	70 - 130	3.10	30		07/30/12
Mercury	7439-97-6	0.0266	1.86	mg/kg	97.2	70 - 130	0.00	30		07/30/12
Molybdenum	7439-98-7	0.852	98.6	mg/kg	102.9	70 - 130	2.60	30		07/30/12
Strontium	7440-24-6	83.2	45.5	mg/kg	47.5	70 - 130	4.70	30	N	07/30/12
Tin	7440-31-5	1.21	95.5	mg/kg	99.7	70 - 130	2.00	30		07/30/12
Uranium	7440-61-1	1.19	94.6	mg/kg	98.7	70 - 130	2.10	30		07/30/12
Arsenic	7440-38-2	6.99	93.2	mg/kg	97.3	70 - 130	0.50	30		07/30/12

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Analytical Batch 205399 (QC Batch: 205241) **Test** ICP-2008 MS All possible metal
Associated Samples 120922001, 120922002, 120922003, 120922004, 120922005, 120922006, 120922007, 120922008, 120922009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78760**							
Selenium	7782-49-2		<1.0	ug/L					U	07/27/12
LCS			**QC Sample #78761**							
Selenium	7782-49-2		97.1	mg/kg	108.5	82 - 133				07/27/12
MS			**QC Sample #78762**							
			Original 120922001							
Selenium	7782-49-2	<0.26	85.5	mg/kg	85.5	70 - 130				07/27/12
MSD			**QC Sample #78763**							
			Original 120922001					**Paired**	**78762**	
Selenium	7782-49-2	<0.26	95.3	mg/kg	99.5	70 - 130	10.80	30		07/27/12

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

Date: 13 August 2012
To: CH2M Hill (technical representative)
From: Analytical Quality Associates, Inc.
Project: 100 K RA
Subject: General Chemistry - Sample Data Groups (SDGs) WSCF120788, WSCF120894, WSCF120895, WSCF120900, and WSCF230922

INTRODUCTION

This memorandum presents the results of data validation for SDGs WSCF120788, WSCF120894, WSCF120895, WSCF120900, and WSCF230922 prepared by WSCF Analytical Laboratories. A list of samples validated along with the analytical methods is provided in the following table.

Sample ID	Sample Date	Media	Validation Level	Analytical Methods
B2JDD8	6/18/12	Soil	C	300.0 & 7196 (Cr VI)
B2JF29	7/9/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDH0	7/9/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDF4	7/9/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDF7	7/9/12	Soil	C	300.0 & 7196 (Cr VI)
B2JF41	7/9/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDF1	7/9/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDH9	7/10/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDH6	7/10/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDM8	7/11/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDN1	7/11/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDV3	7/11/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDP6	7/11/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDN7	7/11/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDN4	7/11/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDT7	7/12/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDT4	7/12/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDH3	7/10/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDK4	7/12/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDJ5	7/12/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDV0	7/12/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDP0	7/10/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDR8	7/12/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDT1	7/12/12	Soil	C	300.0 & 7196 (Cr VI)
B2JF32	7/10/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDJ8	7/10/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDR2	7/11/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDR5	7/12/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDP3	7/11/12	Soil	C	300.0 & 7196 (Cr VI)

B2JDP9	7/11/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDV6	7/11/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDK1	7/11/12	Soil	C	300.0 & 7196 (Cr VI)
B2JF35	7/11/12	Soil	C	300.0 & 7196 (Cr VI)
B2JF47	7/11/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDL0	7/17/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDL3	7/17/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDL6	7/17/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDL9	7/16/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDM2	7/16/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDM5	7/16/12	Soil	C	300.0 & 7196 (Cr VI)
B2JF44	7/17/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDJ2	7/17/12	Soil	C	300.0 & 7196 (Cr VI)
B2JDK7	7/17/12	Soil	C	300.0 & 7196 (Cr VI)

Data validation was conducted in accordance with the CHPRC validation statement of work and the 100 Area Remedial Action Sampling and Analysis Plan, DOE/RL-96-22, Rev. 5 (SAP). Appendices 1 through 6 provide the following information as indicated below:

Appendix 1. Glossary of Data Reporting Qualifiers
Appendix 2. Summary of Data Qualification
Appendix 3. Annotated Laboratory Reports
Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
Appendix 5. Data Validation Supporting Documentation
Appendix 6. Additional Documentation Requested By Client

DATA QUALITY OBJECTIVES

- **Holding Times and Sample Preservation**

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The holding time requirements are as follows:

- All anions – extraction within 28 days of sample collection and analysis within 48 hours of extraction
- Hexavalent chromium – extraction of soils within 30 days of sample collection and analysis within 24 hours of extraction

Sample preservation requires chilling to 4 degrees Celsius.

The samples were analyzed within the prescribed holding times and properly preserved.

- **Blanks**

The blank data results are reviewed to assess the extent of contamination introduced through sampling, sample preparation, and analysis.

Laboratory Blanks

All laboratory blank results were acceptable.

Trip Blanks

No trip blanks were submitted for validation.

Field Blanks

No field blanks were submitted for validation.

Equipment Blanks

All equipment blank results were acceptable.

- **Accuracy**

Accuracy is evaluated by reviewing matrix spike sample results and laboratory control sample results. According to the SAP, the matrix spike sample accuracy limits are 70% to 130% and the laboratory control sample accuracy limits are the ones specified by the DV procedure. The limits for reported analytes not listed in the SAP are specified by the DV procedure.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Samples

All MS/MSD recoveries were acceptable except for the following.

For SDG WSCF120900 batch 204937, the MS/MSD (78272/3) percent recoveries were < the QC acceptance limit. The associated results of samples B2JDJ5 and B2JF32 were non-detects and, therefore, should be qualified as estimates and flagged "UJ." The other associated sample results were all detects and, therefore, should be qualified as estimates and flagged "J."

Laboratory Control Samples (LCSs)

All LCS recoveries were acceptable.

- **Precision**

Precision is evaluated by reviewing MS/MSD results, laboratory duplicate sample results, field duplicate sample results, and field split sample results. These QC results provide information on the laboratory reproducibility and whether sampling activities are adequate to acquire consistent sample results. According to the SAP, the RPD limit for Cr VI and Sulfate is 30%. The RPD limits for reported analytes not listed in the SAP are specified by the DV procedure. When duplicate RPDs exceed the limits and associated results are <5X the reporting limit (RL) with absolute differences <2X the RL, no precision infraction occurred.

MS/MSD Samples

All MS/MSD RPD values were acceptable.

Laboratory Duplicate Samples

All laboratory duplicate results were acceptable with the following exceptions. The duplicate relative percent differences for Cr VI in SDG WSCF120788 was >30%. However, the parent and/or duplicate results were < the MDL. Therefore, no sample data should be qualified.

Field Duplicate Samples

All field duplicate results were acceptable.

Field Split Samples

All field split results were acceptable.

- **Detection Limits**

Reported MDLs are compared against the contractually required detection limits (CRDLs) to ensure that laboratory detection limits meet the required criteria.

All reported sample MDLs with associated non-detected sample results were below the CRDLs.

CRDLs for chloride and sulfate were not provided in the SAP.

- **Completeness**

SDGs WSCF120788, WSCF120894, WSCF120895, WSCF120900, and WSCF120922 were submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

Minor deficiencies leading to qualification of Chloride sample results as estimates were due to MS/MSD %Rs< the QC acceptance limit. See the table in Appendix 2 for a listing of all affected sample results.

REFERENCES

GRP-GD-003, Rev. 0, Change 0, *Data Validation for Chemical Analyses*, August 2010.

DOE/RL-96-22, Rev. 5, *100 Area Remedial Action Sampling and Analysis Plan*, September 2009.

Appendix 1

Glossary of Data Reporting Qualifiers

Qualifiers that may be applied by data validators in compliance with the CHPRC statement of work are as follows:

- **U** — The constituent was analyzed for, but was not detected. The data should be considered usable for decision-making purposes.

- **UJ** — The constituent was analyzed for and was not detected. Due to a quality control deficiency identified during data validation the value reported may not accurately reflect the RL. The data should be considered usable for decision-making purposes.

- **J** — Indicates the constituent was analyzed for and detected. The associated value is estimated due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J+** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected positive bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J-** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected negative bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **N** — The analysis indicates the presence of an analyte that has been tentatively identified.

- **NJ** — The analysis indicates the presence of an analyte that has been tentatively identified and the associated numerical value represents its approximate concentration.

- **NJ+** — The analysis indicates the presence of an analyte that has been tentatively identified. The associated value is estimated with a suspected positive bias due to a quality control deficiency identified during data validation.

- **NJ-** — The analysis indicates the presence of an analyte that has been tentatively identified. The associated value is estimated with a suspected negative bias due to a quality control deficiency identified during data validation.

- **UR** — Indicates the constituent was analyzed for and not detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

- **R** — Indicates the constituent was analyzed for and detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

Appendix 2

Summary of Data Qualification

General Chemistry Data Qualification Summary			
SDG: WSCF120900	Reviewer: AQA	Project: 100 K RA	Page 1 of 1
Analyte(s)	**Qualifier**	**Samples Affected**	**Reason**
Chloride	J	B2JDT7, B2JDT4, B2JDH3, B2JDK4, B2JDV0, B2JDP0, B2JDR8, B2JDT1,	Low MS/MSD %Rs
Chloride	UJ	B2JDJ5, B2JF32	Low MS/MSD %Rs

Comments: None

Appendix 3

Annotated Laboratory Reports

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120788

Sample # 120788001
SAF# F12-005
Sample ID B2JDD8

Matrix SOIL
Sampled 06/18/12
Received 06/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**06/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	4.22		mg/kg	1	3.0	21	06/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.99		mg/kg	1	0.99	5.1	06/20/12
Nitrate-N	NO3-N	LA-533-410	B	1.04		mg/kg	1	0.96	5.1	06/20/12
Sulfate	14808-79-8	LA-533-410	B	37.2		mg/kg	1	5.7	54	06/20/12
ICPMS Prep (S)										**06/25/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		335		mg/kg	0.5	0.049	0.49	06/26/12
Nickel	7440-02-0	LA-505-412		10.1		mg/kg	0.5	0.049	0.49	06/26/12
Silver	7440-22-4	LA-505-412	B	0.0765		mg/kg	0.5	0.024	0.24	06/26/12
Antimony	7440-36-0	LA-505-412		1.52		mg/kg	0.5	0.15	1.5	06/26/12
Barium	7440-39-3	LA-505-412		72.2		mg/kg	0.5	0.097	0.97	06/26/12
Beryllium	7440-41-7	LA-505-412	B	0.299		mg/kg	0.5	0.049	0.49	06/26/12
Cadmium	7440-43-9	LA-505-412	B	0.104		mg/kg	0.5	0.024	0.24	06/26/12
Chromium	7440-47-3	LA-505-412		7.50		mg/kg	0.5	0.049	0.49	06/26/12
Cobalt	7440-48-4	LA-505-412		10.8		mg/kg	0.5	0.024	0.12	06/26/12
Copper	7440-50-8	LA-505-412		20.3		mg/kg	0.5	0.049	0.49	06/26/12
Vanadium	7440-62-2	LA-505-412		59.4		mg/kg	0.5	0.097	0.97	06/26/12

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

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

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

REVISED120788 -

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120788

Sample # 120788001
SAF# F12-005
Sample ID B2JDD8

Matrix SOIL
Sampled 06/18/12
Received 06/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		53.4		mg/kg	0.5	0.49	4.9	06/26/12
Lead	7439-92-1	LA-505-412		6.62		mg/kg	0.5	0.024	0.24	06/26/12
Mercury	7439-97-6	LA-505-412	B	0.0283		mg/kg	0.5	0.024	0.097	06/26/12
Molybdenum	7439-98-7	LA-505-412		0.491		mg/kg	0.5	0.024	0.24	06/26/12
Strontium	7440-24-6	LA-505-412		37.9		mg/kg	0.5	0.049	0.49	06/26/12
Tin	7440-31-5	LA-505-412		0.758		mg/kg	0.5	0.024	0.24	06/26/12
Uranium	7440-61-1	LA-505-412		0.640		mg/kg	0.5	0.024	0.12	06/26/12
Arsenic	7440-38-2	LA-505-412		4.89		mg/kg	0.5	0.097	0.97	06/26/12
Selenium	7782-49-2	LA-505-412	B	0.285		mg/kg	0.5	0.24	2.4	06/26/12
Boron	7440-42-8	LA-505-412	B	0.925		mg/kg	0.5	0.24	2.4	06/26/12
Preparation for Cr6 (SO)										**06/26/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.52	06/26/12

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

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

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

REVISED120788 -

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894001
SAF# F12-005
Sample ID B2JF29

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	8.36		mg/kg	1	2.9	21	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	4.29		mg/kg	1	0.94	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410	B	45.2		mg/kg	1	5.5	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	300		mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		9.06		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.054		mg/kg	1	0.054	0.54	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.32		mg/kg	1	0.32	3.2	07/19/12
Barium	7440-39-3	LA-505-412		63.4		mg/kg	1	0.21	2.1	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.289		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.106		mg/kg	1	0.054	0.54	07/19/12
Chromium	7440-47-3	LA-505-412		6.87		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		7.94		mg/kg	1	0.054	0.27	07/19/12
Copper	7440-50-8	LA-505-412		15.6		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		38.9		mg/kg	1	0.21	2.1	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894001
SAF# F12-005
Sample ID B2JF29

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		41.4		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		6.84		mg/kg	1	0.054	0.54	07/19/12
Mercury	7439-97-6	LA-505-412	B	0.0626		mg/kg	1	0.054	0.21	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.345		mg/kg	1	0.054	0.54	07/19/12
Strontium	7440-24-6	LA-505-412		27.8		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.420		mg/kg	1	0.054	0.54	07/19/12
Uranium	7440-61-1	LA-505-412		0.388		mg/kg	1	0.054	0.27	07/19/12
Arsenic	7440-38-2	LA-505-412		3.06		mg/kg	1	0.21	2.1	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	B	1.94		mg/kg	1	0.54	5.4	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/23/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894002
SAF# F12-005
Sample ID B2JDH0

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	3.33		mg/kg	1	2.9	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	2.44		mg/kg	1	0.94	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410	B	25.0		mg/kg	1	5.5	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	305		mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		11.5		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.054		mg/kg	1	0.054	0.54	07/19/12
Antimony	7440-36-0	LA-505-412	B	0.374		mg/kg	1	0.32	3.2	07/19/12
Barium	7440-39-3	LA-505-412		66.1		mg/kg	1	0.21	2.1	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.241		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.112		mg/kg	1	0.054	0.54	07/19/12
Chromium	7440-47-3	LA-505-412		8.69		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		8.63		mg/kg	1	0.054	0.27	07/19/12
Copper	7440-50-8	LA-505-412		16.7		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		48.9		mg/kg	1	0.21	2.1	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894002
SAF# F12-005
Sample ID B2JDH0

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		45.3		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		9.11		mg/kg	1	0.054	0.54	07/19/12
Mercury	7439-97-6	LA-505-412	B	0.0633		mg/kg	1	0.054	0.21	07/19/12
Molybdenum	7439-98-7	LA-505-412		1.15		mg/kg	1	0.054	0.54	07/19/12
Strontium	7440-24-6	LA-505-412		28.1		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.527		mg/kg	1	0.054	0.54	07/19/12
Uranium	7440-61-1	LA-505-412		0.399		mg/kg	1	0.054	0.27	07/19/12
Arsenic	7440-38-2	LA-505-412		3.19		mg/kg	1	0.21	2.1	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	B	2.61		mg/kg	1	0.54	5.4	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	B	0.102		ug/g	1	0.099	0.49	07/23/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894003
SAF# F12-005
Sample ID B2JDF4

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	11.8		mg/kg	1	3.0	21	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.98		mg/kg	1	0.98	5.0	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	3.86		mg/kg	1	0.95	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410	B	46.9		mg/kg	1	5.6	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	315		mg/kg	1	0.10	1.0	07/19/12
Nickel	7440-02-0	LA-505-412		9.75		mg/kg	1	0.10	1.0	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.051		mg/kg	1	0.051	0.51	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/19/12
Barium	7440-39-3	LA-505-412		68.9		mg/kg	1	0.20	2.0	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.294		mg/kg	1	0.10	1.0	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0962		mg/kg	1	0.051	0.51	07/19/12
Chromium	7440-47-3	LA-505-412		7.29		mg/kg	1	0.10	1.0	07/19/12
Cobalt	7440-48-4	LA-505-412		8.40		mg/kg	1	0.051	0.25	07/19/12
Copper	7440-50-8	LA-505-412		16.8		mg/kg	1	0.10	1.0	07/19/12
Vanadium	7440-62-2	LA-505-412		36.5		mg/kg	1	0.20	2.0	07/19/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894003
SAF# F12-005
Sample ID B2JDF4

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		42.4		mg/kg	1	1.0	10	07/19/12
Lead	7439-92-1	LA-505-412		7.10		mg/kg	1	0.051	0.51	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.051		mg/kg	1	0.051	0.20	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.368		mg/kg	1	0.051	0.51	07/19/12
Strontium	7440-24-6	LA-505-412		29.5		mg/kg	1	0.10	1.0	07/19/12
Tin	7440-31-5	LA-505-412	B	0.425		mg/kg	1	0.051	0.51	07/19/12
Uranium	7440-61-1	LA-505-412		0.414		mg/kg	1	0.051	0.25	07/19/12
Arsenic	7440-38-2	LA-505-412		2.95		mg/kg	1	0.20	2.0	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.25		mg/kg	0.5	0.25	2.5	07/19/12
Boron	7440-42-8	LA-505-412	B	1.56		mg/kg	1	0.51	5.1	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/23/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894004
SAF# F12-005
Sample ID B2JDF7

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	4.21		mg/kg	1	2.9	21	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	1.97		mg/kg	1	0.94	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410	B	30.9		mg/kg	1	5.5	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	289		mg/kg	1	0.10	1.0	07/19/12
Nickel	7440-02-0	LA-505-412		9.56		mg/kg	1	0.10	1.0	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.050		mg/kg	1	0.050	0.50	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.30		mg/kg	1	0.30	3.0	07/19/12
Barium	7440-39-3	LA-505-412		61.7		mg/kg	1	0.20	2.0	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.273		mg/kg	1	0.10	1.0	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0815		mg/kg	1	0.050	0.50	07/19/12
Chromium	7440-47-3	LA-505-412		6.75		mg/kg	1	0.10	1.0	07/19/12
Cobalt	7440-48-4	LA-505-412		7.16		mg/kg	1	0.050	0.25	07/19/12
Copper	7440-50-8	LA-505-412		13.9		mg/kg	1	0.10	1.0	07/19/12
Vanadium	7440-62-2	LA-505-412		28.9		mg/kg	1	0.20	2.0	07/19/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894004
SAF# F12-005
Sample ID B2JDF7

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		35.3		mg/kg	1	1.0	10	07/19/12
Lead	7439-92-1	LA-505-412		4.70		mg/kg	1	0.050	0.50	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.050		mg/kg	1	0.050	0.20	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.259		mg/kg	1	0.050	0.50	07/19/12
Strontium	7440-24-6	LA-505-412		29.6		mg/kg	1	0.10	1.0	07/19/12
Tin	7440-31-5	LA-505-412	B	0.279		mg/kg	1	0.050	0.50	07/19/12
Uranium	7440-61-1	LA-505-412		0.363		mg/kg	1	0.050	0.25	07/19/12
Arsenic	7440-38-2	LA-505-412		2.52		mg/kg	1	0.20	2.0	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.25		mg/kg	0.5	0.25	2.5	07/19/12
Boron	7440-42-8	LA-505-412	B	1.67		mg/kg	1	0.50	5.0	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.49	07/23/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894005
SAF# F12-005
Sample ID B2JF41

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	U	<0.92		mg/kg	1	0.92	4.9	07/17/12
Sulfate	14808-79-8	LA-533-410	U	<5.5		mg/kg	1	5.5	52	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	3.89		mg/kg	1	0.10	1.0	07/19/12
Nickel	7440-02-0	LA-505-412	U	<0.10		mg/kg	1	0.10	1.0	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/19/12
Barium	7440-39-3	LA-505-412	B	1.78		mg/kg	1	0.21	2.1	07/19/12
Beryllium	7440-41-7	LA-505-412	U	<0.10		mg/kg	1	0.10	1.0	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/19/12
Chromium	7440-47-3	LA-505-412	U	<0.10		mg/kg	1	0.10	1.0	07/19/12
Cobalt	7440-48-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.26	07/19/12
Copper	7440-50-8	LA-505-412	U	<0.10		mg/kg	1	0.10	1.0	07/19/12
Vanadium	7440-62-2	LA-505-412	U	<0.21		mg/kg	1	0.21	2.1	07/19/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894005
SAF# F12-005
Sample ID B2JF41

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	B	1.62		mg/kg	1	1.0	10	07/19/12
Lead	7439-92-1	LA-505-412	B	0.265		mg/kg	1	0.052	0.52	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.052		mg/kg	1	0.052	0.21	07/19/12
Molybdenum	7439-98-7	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/19/12
Strontium	7440-24-6	LA-505-412	B	0.329		mg/kg	1	0.10	1.0	07/19/12
Tin	7440-31-5	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/19/12
Uranium	7440-61-1	LA-505-412	B	0.0557		mg/kg	1	0.052	0.26	07/19/12
Arsenic	7440-38-2	LA-505-412	U	<0.21		mg/kg	1	0.21	2.1	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.52		mg/kg	1	0.52	5.2	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.098		ug/g	1	0.098	0.49	07/23/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894006
SAF# F12-005
Sample ID B2JDF1

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	3.81		mg/kg	1	2.9	21	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.98		mg/kg	1	0.98	5.0	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	1.81		mg/kg	1	0.95	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410	U	<5.6		mg/kg	1	5.6	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	354		mg/kg	1	0.10	1.0	07/19/12
Nickel	7440-02-0	LA-505-412		10.5		mg/kg	1	0.10	1.0	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.051		mg/kg	1	0.051	0.51	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/19/12
Barium	7440-39-3	LA-505-412		71.6		mg/kg	1	0.20	2.0	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.298		mg/kg	1	0.10	1.0	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0966		mg/kg	1	0.051	0.51	07/19/12
Chromium	7440-47-3	LA-505-412		7.37		mg/kg	1	0.10	1.0	07/19/12
Cobalt	7440-48-4	LA-505-412		9.00		mg/kg	1	0.051	0.25	07/19/12
Copper	7440-50-8	LA-505-412		17.9		mg/kg	1	0.10	1.0	07/19/12
Vanadium	7440-62-2	LA-505-412		44.7		mg/kg	1	0.20	2.0	07/19/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894006
SAF# F12-005
Sample ID B2JDF1

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		59.6		mg/kg	1	1.0	10	07/19/12
Lead	7439-92-1	LA-505-412		7.96		mg/kg	1	0.051	0.51	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.051		mg/kg	1	0.051	0.20	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.359		mg/kg	1	0.051	0.51	07/19/12
Strontium	7440-24-6	LA-505-412		31.3		mg/kg	1	0.10	1.0	07/19/12
Tin	7440-31-5	LA-505-412	B	0.455		mg/kg	1	0.051	0.51	07/19/12
Uranium	7440-61-1	LA-505-412		0.431		mg/kg	1	0.051	0.25	07/19/12
Arsenic	7440-38-2	LA-505-412		3.71		mg/kg	1	0.20	2.0	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.25		mg/kg	0.5	0.25	2.5	07/19/12
Boron	7440-42-8	LA-505-412	B	1.22		mg/kg	1	0.51	5.1	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/23/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894007
SAF# F12-005
Sample ID B2JDH9

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	10.4		mg/kg	1	3.0	21	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.98		mg/kg	1	0.98	5.0	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	1.25		mg/kg	1	0.95	5.1	07/17/12
Sulfate	14808-79-8	LA-533-410	B	23.4		mg/kg	1	5.6	54	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	241		mg/kg	1	0.10	1.0	07/19/12
Nickel	7440-02-0	LA-505-412		7.43		mg/kg	1	0.10	1.0	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/19/12
Barium	7440-39-3	LA-505-412		45.4		mg/kg	1	0.21	2.1	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.205		mg/kg	1	0.10	1.0	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/19/12
Chromium	7440-47-3	LA-505-412		5.26		mg/kg	1	0.10	1.0	07/19/12
Cobalt	7440-48-4	LA-505-412		6.65		mg/kg	1	0.052	0.26	07/19/12
Copper	7440-50-8	LA-505-412		13.5		mg/kg	1	0.10	1.0	07/19/12
Vanadium	7440-62-2	LA-505-412		31.4		mg/kg	1	0.21	2.1	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894007
SAF# F12-005
Sample ID B2JDH9

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		31.3		mg/kg	1	1.0	10	07/19/12
Lead	7439-92-1	LA-505-412		3.53		mg/kg	1	0.052	0.52	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.052		mg/kg	1	0.052	0.21	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.256		mg/kg	1	0.052	0.52	07/19/12
Strontium	7440-24-6	LA-505-412		22.1		mg/kg	1	0.10	1.0	07/19/12
Tin	7440-31-5	LA-505-412	B	0.346		mg/kg	1	0.052	0.52	07/19/12
Uranium	7440-61-1	LA-505-412		0.342		mg/kg	1	0.052	0.26	07/19/12
Arsenic	7440-38-2	LA-505-412	B	2.01		mg/kg	1	0.21	2.1	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	B	0.692		mg/kg	1	0.52	5.2	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/23/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894008
SAF# F12-005
Sample ID B2JDH6

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410		192		mg/kg	1	2.9	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	2.53		mg/kg	1	0.92	4.9	07/17/12
Sulfate	14808-79-8	LA-533-410	B	35.3		mg/kg	1	5.5	52	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	368		mg/kg	1	0.095	0.95	07/19/12
Nickel	7440-02-0	LA-505-412		10.0		mg/kg	1	0.095	0.95	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.048		mg/kg	1	0.048	0.48	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.29		mg/kg	1	0.29	2.9	07/19/12
Barium	7440-39-3	LA-505-412		72.8		mg/kg	1	0.19	1.9	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.290		mg/kg	1	0.095	0.95	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.048		mg/kg	1	0.048	0.48	07/19/12
Chromium	7440-47-3	LA-505-412		7.60		mg/kg	1	0.095	0.95	07/19/12
Cobalt	7440-48-4	LA-505-412		9.78		mg/kg	1	0.048	0.24	07/19/12
Copper	7440-50-8	LA-505-412		18.6		mg/kg	1	0.095	0.95	07/19/12
Vanadium	7440-62-2	LA-505-412		54.0		mg/kg	1	0.19	1.9	07/19/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Sample # 120894008
SAF# F12-005
Sample ID B2JDH6

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		47.3		mg/kg	1	0.95	9.5	07/19/12
Lead	7439-92-1	LA-505-412		6.89		mg/kg	1	0.048	0.48	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.048		mg/kg	1	0.048	0.19	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.389		mg/kg	1	0.048	0.48	07/19/12
Strontium	7440-24-6	LA-505-412		31.3		mg/kg	1	0.095	0.95	07/19/12
Tin	7440-31-5	LA-505-412		0.518		mg/kg	1	0.048	0.48	07/19/12
Uranium	7440-61-1	LA-505-412		0.543		mg/kg	1	0.048	0.24	07/19/12
Arsenic	7440-38-2	LA-505-412		2.96		mg/kg	1	0.19	1.9	07/19/12
Selenium	7782-49-2	LA-505-412	B	0.261		mg/kg	0.5	0.24	2.4	07/19/12
Boron	7440-42-8	LA-505-412	B	0.938		mg/kg	1	0.48	4.8	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.50	07/23/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895001
SAF# F12-005
Sample ID B2JDM8

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	2.73		mg/kg	1	0.93	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410	B	11.5		mg/kg	1	5.5	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	217		mg/kg	1	0.10	1.0	07/19/12
Nickel	7440-02-0	LA-505-412		7.01		mg/kg	1	0.10	1.0	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.051		mg/kg	1	0.051	0.51	07/19/12
Antimony	7440-36-0	LA-505-412	B	0.597		mg/kg	1	0.31	3.1	07/19/12
Barium	7440-39-3	LA-505-412		42.6		mg/kg	1	0.21	2.1	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.133		mg/kg	1	0.10	1.0	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0798		mg/kg	1	0.051	0.51	07/19/12
Chromium	7440-47-3	LA-505-412		4.12		mg/kg	1	0.10	1.0	07/19/12
Cobalt	7440-48-4	LA-505-412		6.60		mg/kg	1	0.051	0.26	07/19/12
Copper	7440-50-8	LA-505-412		15.8		mg/kg	1	0.10	1.0	07/19/12
Vanadium	7440-62-2	LA-505-412		28.7		mg/kg	1	0.21	2.1	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895001
SAF# F12-005
Sample ID B2JDM8

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		31.5		mg/kg	1	1.0	10	07/19/12
Lead	7439-92-1	LA-505-412		4.43		mg/kg	1	0.051	0.51	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.051		mg/kg	1	0.051	0.21	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.331		mg/kg	1	0.051	0.51	07/19/12
Strontium	7440-24-6	LA-505-412		23.3		mg/kg	1	0.10	1.0	07/19/12
Tin	7440-31-5	LA-505-412		0.808		mg/kg	1	0.051	0.51	07/19/12
Uranium	7440-61-1	LA-505-412		0.308		mg/kg	1	0.051	0.26	07/19/12
Arsenic	7440-38-2	LA-505-412		2.80		mg/kg	1	0.21	2.1	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	B	0.707		mg/kg	1	0.51	5.1	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.49	07/23/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895002
SAF# F12-005
Sample ID B2JDN1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	1.96		mg/kg	1	0.94	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410	B	10.6		mg/kg	1	5.5	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	258		mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		6.37		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.054		mg/kg	1	0.054	0.54	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.32		mg/kg	1	0.32	3.2	07/19/12
Barium	7440-39-3	LA-505-412		48.8		mg/kg	1	0.22	2.2	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.197		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.054		mg/kg	1	0.054	0.54	07/19/12
Chromium	7440-47-3	LA-505-412		2.90		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		8.12		mg/kg	1	0.054	0.27	07/19/12
Copper	7440-50-8	LA-505-412		14.7		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		30.7		mg/kg	1	0.22	2.2	07/19/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895002
SAF# F12-005
Sample ID B2JDN1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		33.6		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		3.19		mg/kg	1	0.054	0.54	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.054		mg/kg	1	0.054	0.22	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.224		mg/kg	1	0.054	0.54	07/19/12
Strontium	7440-24-6	LA-505-412		24.0		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.345		mg/kg	1	0.054	0.54	07/19/12
Uranium	7440-61-1	LA-505-412		0.369		mg/kg	1	0.054	0.27	07/19/12
Arsenic	7440-38-2	LA-505-412	B	1.64		mg/kg	1	0.22	2.2	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.54		mg/kg	1	0.54	5.4	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/23/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895003
SAF# F12-005
Sample ID B2JDV3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	6.78		mg/kg	1	3.1	21	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.2	07/18/12
Nitrate-N	NO3-N	LA-533-410	U	<0.98		mg/kg	1	0.98	5.2	07/18/12
Sulfate	14808-79-8	LA-533-410	N	1320		mg/kg	1	5.8	55	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	331		mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		10.5		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.055		mg/kg	1	0.055	0.55	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.33		mg/kg	1	0.33	3.3	07/19/12
Barium	7440-39-3	LA-505-412		66.0		mg/kg	1	0.22	2.2	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.229		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0636		mg/kg	1	0.055	0.55	07/19/12
Chromium	7440-47-3	LA-505-412		6.52		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		9.36		mg/kg	1	0.055	0.27	07/19/12
Copper	7440-50-8	LA-505-412		18.8		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		35.1		mg/kg	1	0.22	2.2	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895003
SAF# F12-005
Sample ID B2JDV3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		39.2		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		3.69		mg/kg	1	0.055	0.55	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.055		mg/kg	1	0.055	0.22	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.244		mg/kg	1	0.055	0.55	07/19/12
Strontium	7440-24-6	LA-505-412		32.0		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.431		mg/kg	1	0.055	0.55	07/19/12
Uranium	7440-61-1	LA-505-412		0.528		mg/kg	1	0.055	0.27	07/19/12
Arsenic	7440-38-2	LA-505-412		2.70		mg/kg	1	0.22	2.2	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.55		mg/kg	1	0.55	5.5	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.52	07/23/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895004
SAF# F12-005
Sample ID B2JDP6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	21	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/18/12
Nitrate-N	NO3-N	LA-533-410	B	1.81		mg/kg	1	0.94	5.0	07/18/12
Sulfate	14808-79-8	LA-533-410	BN	18.4		mg/kg	1	5.5	53	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	265		mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		7.50		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.053		mg/kg	1	0.053	0.53	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.32		mg/kg	1	0.32	3.2	07/19/12
Barium	7440-39-3	LA-505-412		48.0		mg/kg	1	0.21	2.1	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.214		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0557		mg/kg	1	0.053	0.53	07/19/12
Chromium	7440-47-3	LA-505-412		4.16		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		8.18		mg/kg	1	0.053	0.27	07/19/12
Copper	7440-50-8	LA-505-412		16.0		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		30.5		mg/kg	1	0.21	2.1	07/19/12

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

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

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

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895004
SAF# F12-005
Sample ID B2JDP6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		34.1		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		2.86		mg/kg	1	0.053	0.53	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.053		mg/kg	1	0.053	0.21	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.195		mg/kg	1	0.053	0.53	07/19/12
Strontium	7440-24-6	LA-505-412		24.5		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.372		mg/kg	1	0.053	0.53	07/19/12
Uranium	7440-61-1	LA-505-412		0.344		mg/kg	1	0.053	0.27	07/19/12
Arsenic	7440-38-2	LA-505-412	B	2.00		mg/kg	1	0.21	2.1	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	B	0.664		mg/kg	1	0.53	5.3	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.50	07/23/12

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

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

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

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895005
SAF# F12-005
Sample ID B2JDN7

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	21	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/18/12
Nitrate-N	NO3-N	LA-533-410	U	<0.94		mg/kg	1	0.94	5.0	07/18/12
Sulfate	14808-79-8	LA-533-410	UN	<5.5		mg/kg	1	5.5	53	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	266		mg/kg	1	0.10	1.0	07/19/12
Nickel	7440-02-0	LA-505-412		7.71		mg/kg	1	0.10	1.0	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/19/12
Barium	7440-39-3	LA-505-412		56.8		mg/kg	1	0.21	2.1	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.283		mg/kg	1	0.10	1.0	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0563		mg/kg	1	0.052	0.52	07/19/12
Chromium	7440-47-3	LA-505-412		4.96		mg/kg	1	0.10	1.0	07/19/12
Cobalt	7440-48-4	LA-505-412		8.13		mg/kg	1	0.052	0.26	07/19/12
Copper	7440-50-8	LA-505-412		15.7		mg/kg	1	0.10	1.0	07/19/12
Vanadium	7440-62-2	LA-505-412		35.6		mg/kg	1	0.21	2.1	07/19/12

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

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

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895005
SAF# F12-005
Sample ID B2JDN7

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		33.8		mg/kg	1	1.0	10	07/19/12
Lead	7439-92-1	LA-505-412		2.94		mg/kg	1	0.052	0.52	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.052		mg/kg	1	0.052	0.21	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.222		mg/kg	1	0.052	0.52	07/19/12
Strontium	7440-24-6	LA-505-412		25.5		mg/kg	1	0.10	1.0	07/19/12
Tin	7440-31-5	LA-505-412	B	0.404		mg/kg	1	0.052	0.52	07/19/12
Uranium	7440-61-1	LA-505-412		0.408		mg/kg	1	0.052	0.26	07/19/12
Arsenic	7440-38-2	LA-505-412		2.10		mg/kg	1	0.21	2.1	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.52		mg/kg	1	0.52	5.2	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/23/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895006
SAF# F12-005
Sample ID B2JDN4

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<3.0		mg/kg	1	3.0	21	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.98		mg/kg	1	0.98	5.0	07/18/12
Nitrate-N	NO3-N	LA-533-410	U	<0.95		mg/kg	1	0.95	5.1	07/18/12
Sulfate	14808-79-8	LA-533-410	BN	6.45		mg/kg	1	5.6	53	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	335		mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		11.1		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.057		mg/kg	1	0.057	0.57	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.34		mg/kg	1	0.34	3.4	07/19/12
Barium	7440-39-3	LA-505-412		68.9		mg/kg	1	0.23	2.3	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.303		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.057		mg/kg	1	0.057	0.57	07/19/12
Chromium	7440-47-3	LA-505-412		6.92		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		9.86		mg/kg	1	0.057	0.28	07/19/12
Copper	7440-50-8	LA-505-412		18.9		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		42.4		mg/kg	1	0.23	2.3	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Sample # 120895006
SAF# F12-005
Sample ID B2JDN4

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		42.5		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		3.52		mg/kg	1	0.057	0.57	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.057		mg/kg	1	0.057	0.23	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.242		mg/kg	1	0.057	0.57	07/19/12
Strontium	7440-24-6	LA-505-412		31.6		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.446		mg/kg	1	0.057	0.57	07/19/12
Uranium	7440-61-1	LA-505-412		0.485		mg/kg	1	0.057	0.28	07/19/12
Arsenic	7440-38-2	LA-505-412	B	2.11		mg/kg	1	0.23	2.3	07/19/12
Selenium	7782-49-2	LA-505-412	B	0.300		mg/kg	0.5	0.28	2.8	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.57		mg/kg	1	0.57	5.7	07/19/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	07/23/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900001
SAF# F12-005
Sample ID B2JDT7

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	N	87.4	J	mg/kg	1	2.8	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.93		mg/kg	1	0.93	4.7	07/19/12
Nitrate-N	NO3-N	LA-533-410	B	3.94		mg/kg	1	0.90	4.8	07/19/12
Sulfate	14808-79-8	LA-533-410	N	64.8		mg/kg	1	5.3	51	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	324		mg/kg	1	0.094	0.94	07/19/12
Nickel	7440-02-0	LA-505-412		11.1		mg/kg	1	0.094	0.94	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.047		mg/kg	1	0.047	0.47	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.28		mg/kg	1	0.28	2.8	07/19/12
Barium	7440-39-3	LA-505-412		64.2		mg/kg	1	0.19	1.9	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.272		mg/kg	1	0.094	0.94	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0869		mg/kg	1	0.047	0.47	07/19/12
Chromium	7440-47-3	LA-505-412		8.67		mg/kg	1	0.094	0.94	07/19/12
Cobalt	7440-48-4	LA-505-412		8.26		mg/kg	1	0.047	0.24	07/19/12
Copper	7440-50-8	LA-505-412		16.8		mg/kg	1	0.094	0.94	07/19/12
Vanadium	7440-62-2	LA-505-412		35.8		mg/kg	1	0.19	1.9	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900001
SAF# F12-005
Sample ID B2JDT7

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		40.2		mg/kg	1	0.94	9.4	07/19/12
Lead	7439-92-1	LA-505-412		24.1		mg/kg	1	0.047	0.47	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.047		mg/kg	1	0.047	0.19	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.272		mg/kg	1	0.047	0.47	07/19/12
Strontium	7440-24-6	LA-505-412		29.9		mg/kg	1	0.094	0.94	07/19/12
Tin	7440-31-5	LA-505-412	B	0.399		mg/kg	1	0.047	0.47	07/19/12
Uranium	7440-61-1	LA-505-412		0.529		mg/kg	1	0.047	0.24	07/19/12
Arsenic	7440-38-2	LA-505-412		3.09		mg/kg	1	0.19	1.9	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.24		mg/kg	0.5	0.24	2.4	07/19/12
Boron	7440-42-8	LA-505-412	B	0.806		mg/kg	1	0.47	4.7	07/19/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900002
SAF# F12-005
Sample ID B2JDT4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	BN	9.82	J	mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/19/12
Nitrate-N	NO3-N	LA-533-410	U	<0.93		mg/kg	1	0.93	5.0	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	21.1		mg/kg	1	5.5	53	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	290		mg/kg	1	0.096	0.96	07/19/12
Nickel	7440-02-0	LA-505-412		8.65		mg/kg	1	0.096	0.96	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.048		mg/kg	1	0.048	0.48	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.29		mg/kg	1	0.29	2.9	07/19/12
Barium	7440-39-3	LA-505-412		62.2		mg/kg	1	0.19	1.9	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.311		mg/kg	1	0.096	0.96	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.048		mg/kg	1	0.048	0.48	07/19/12
Chromium	7440-47-3	LA-505-412		4.71		mg/kg	1	0.096	0.96	07/19/12
Cobalt	7440-48-4	LA-505-412		8.77		mg/kg	1	0.048	0.24	07/19/12
Copper	7440-50-8	LA-505-412		18.4		mg/kg	1	0.096	0.96	07/19/12
Vanadium	7440-62-2	LA-505-412		30.6		mg/kg	1	0.19	1.9	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900002
SAF# F12-005
Sample ID B2JDT4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		38.0		mg/kg	1	0.96	9.6	07/19/12
Lead	7439-92-1	LA-505-412		4.02		mg/kg	1	0.048	0.48	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.048		mg/kg	1	0.048	0.19	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.215		mg/kg	1	0.048	0.48	07/19/12
Strontium	7440-24-6	LA-505-412		30.0		mg/kg	1	0.096	0.96	07/19/12
Tin	7440-31-5	LA-505-412	B	0.376		mg/kg	1	0.048	0.48	07/19/12
Uranium	7440-61-1	LA-505-412		0.436		mg/kg	1	0.048	0.24	07/19/12
Arsenic	7440-38-2	LA-505-412		2.83		mg/kg	1	0.19	1.9	07/19/12
Selenium	7782-49-2	LA-505-412	B	0.301		mg/kg	0.5	0.24	2.4	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.48		mg/kg	1	0.48	4.8	07/19/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.50	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900003
SAF# F12-005
Sample ID B2JDH3

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	BN	8.58	J	mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.9	07/19/12
Nitrate-N	NO3-N	LA-533-410	B	0.930		mg/kg	1	0.92	4.9	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	8.94		mg/kg	1	5.5	52	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	318		mg/kg	1	0.096	0.96	07/19/12
Nickel	7440-02-0	LA-505-412		9.33		mg/kg	1	0.096	0.96	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.048		mg/kg	1	0.048	0.48	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.29		mg/kg	1	0.29	2.9	07/19/12
Barium	7440-39-3	LA-505-412		65.1		mg/kg	1	0.19	1.9	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.253		mg/kg	1	0.096	0.96	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0817		mg/kg	1	0.048	0.48	07/19/12
Chromium	7440-47-3	LA-505-412		6.46		mg/kg	1	0.096	0.96	07/19/12
Cobalt	7440-48-4	LA-505-412		8.56		mg/kg	1	0.048	0.24	07/19/12
Copper	7440-50-8	LA-505-412		16.9		mg/kg	1	0.096	0.96	07/19/12
Vanadium	7440-62-2	LA-505-412		34.8		mg/kg	1	0.19	1.9	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900003
SAF# F12-005
Sample ID B2JDH3

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		40.7		mg/kg	1	0.96	9.6	07/19/12
Lead	7439-92-1	LA-505-412		6.64		mg/kg	1	0.048	0.48	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.048		mg/kg	1	0.048	0.19	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.270		mg/kg	1	0.048	0.48	07/19/12
Strontium	7440-24-6	LA-505-412		30.1		mg/kg	1	0.096	0.96	07/19/12
Tin	7440-31-5	LA-505-412	B	0.438		mg/kg	1	0.048	0.48	07/19/12
Uranium	7440-61-1	LA-505-412		0.418		mg/kg	1	0.048	0.24	07/19/12
Arsenic	7440-38-2	LA-505-412		3.69		mg/kg	1	0.19	1.9	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.24		mg/kg	0.5	0.24	2.4	07/19/12
Boron	7440-42-8	LA-505-412	B	1.17		mg/kg	1	0.48	4.8	07/19/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900004
SAF# F12-005
Sample ID B2JDK4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	BN	3.44	J	mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/19/12
Nitrate-N	NO3-N	LA-533-410	U	<0.93		mg/kg	1	0.93	4.9	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	7.56		mg/kg	1	5.5	52	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	319		mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		9.28		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.056		mg/kg	1	0.056	0.56	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.34		mg/kg	1	0.34	3.4	07/19/12
Barium	7440-39-3	LA-505-412		58.5		mg/kg	1	0.22	2.2	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.219		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.056		mg/kg	1	0.056	0.56	07/19/12
Chromium	7440-47-3	LA-505-412		5.89		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		7.93		mg/kg	1	0.056	0.28	07/19/12
Copper	7440-50-8	LA-505-412		15.4		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		29.9		mg/kg	1	0.22	2.2	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900004
SAF# F12-005
Sample ID B2JDK4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		35.0		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		3.88		mg/kg	1	0.056	0.56	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.056		mg/kg	1	0.056	0.22	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.253		mg/kg	1	0.056	0.56	07/19/12
Strontium	7440-24-6	LA-505-412		24.9		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.334		mg/kg	1	0.056	0.56	07/19/12
Uranium	7440-61-1	LA-505-412		0.355		mg/kg	1	0.056	0.28	07/19/12
Arsenic	7440-38-2	LA-505-412		2.58		mg/kg	1	0.22	2.2	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.28		mg/kg	0.5	0.28	2.8	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.56		mg/kg	1	0.56	5.6	07/19/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.50	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900005
SAF# F12-005
Sample ID B2JDJ5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	UN	<2.9	UJ	mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.94		mg/kg	1	0.94	4.8	07/19/12
Nitrate-N	NO3-N	LA-533-410	U	<0.91		mg/kg	1	0.91	4.9	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	8.15		mg/kg	1	5.4	52	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	271		mg/kg	1	0.099	0.99	07/19/12
Nickel	7440-02-0	LA-505-412		7.65		mg/kg	1	0.099	0.99	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.050		mg/kg	1	0.050	0.50	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.30		mg/kg	1	0.30	3.0	07/19/12
Barium	7440-39-3	LA-505-412		76.5		mg/kg	1	0.20	2.0	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.231		mg/kg	1	0.099	0.99	07/19/12
Cadmium	7440-43-9	LA-505-412	B	0.0572		mg/kg	1	0.050	0.50	07/19/12
Chromium	7440-47-3	LA-505-412		5.32		mg/kg	1	0.099	0.99	07/19/12
Cobalt	7440-48-4	LA-505-412		7.56		mg/kg	1	0.050	0.25	07/19/12
Copper	7440-50-8	LA-505-412		14.8		mg/kg	1	0.099	0.99	07/19/12
Vanadium	7440-62-2	LA-505-412		35.4		mg/kg	1	0.20	2.0	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900005
SAF# F12-005
Sample ID B2JDJ5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		34.2		mg/kg	1	0.99	9.9	07/19/12
Lead	7439-92-1	LA-505-412		3.45		mg/kg	1	0.050	0.50	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.050		mg/kg	1	0.050	0.20	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.223		mg/kg	1	0.050	0.50	07/19/12
Strontium	7440-24-6	LA-505-412		26.8		mg/kg	1	0.099	0.99	07/19/12
Tin	7440-31-5	LA-505-412	B	0.354		mg/kg	1	0.050	0.50	07/19/12
Uranium	7440-61-1	LA-505-412		0.369		mg/kg	1	0.050	0.25	07/19/12
Arsenic	7440-38-2	LA-505-412		2.07		mg/kg	1	0.20	2.0	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.25		mg/kg	0.5	0.25	2.5	07/19/12
Boron	7440-42-8	LA-505-412	B	0.668		mg/kg	1	0.50	5.0	07/19/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.49	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900006
SAF# F12-005
Sample ID B2JDV0

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	BN	3.07	J	mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/19/12
Nitrate-N	NO3-N	LA-533-410	B	1.03		mg/kg	1	0.93	4.9	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	18.3		mg/kg	1	5.5	52	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	306		mg/kg	1	0.11	1.1	07/19/12
Nickel	7440-02-0	LA-505-412		9.50		mg/kg	1	0.11	1.1	07/19/12
Silver	7440-22-4	LA-505-412	U	<0.056		mg/kg	1	0.056	0.56	07/19/12
Antimony	7440-36-0	LA-505-412	U	<0.34		mg/kg	1	0.34	3.4	07/19/12
Barium	7440-39-3	LA-505-412		58.0		mg/kg	1	0.22	2.2	07/19/12
Beryllium	7440-41-7	LA-505-412	B	0.296		mg/kg	1	0.11	1.1	07/19/12
Cadmium	7440-43-9	LA-505-412	U	<0.056		mg/kg	1	0.056	0.56	07/19/12
Chromium	7440-47-3	LA-505-412		6.70		mg/kg	1	0.11	1.1	07/19/12
Cobalt	7440-48-4	LA-505-412		8.15		mg/kg	1	0.056	0.28	07/19/12
Copper	7440-50-8	LA-505-412		16.5		mg/kg	1	0.11	1.1	07/19/12
Vanadium	7440-62-2	LA-505-412		38.2		mg/kg	1	0.22	2.2	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900006
SAF# F12-005
Sample ID B2JDV0

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		38.2		mg/kg	1	1.1	11	07/19/12
Lead	7439-92-1	LA-505-412		4.78		mg/kg	1	0.056	0.56	07/19/12
Mercury	7439-97-6	LA-505-412	U	<0.056		mg/kg	1	0.056	0.22	07/19/12
Molybdenum	7439-98-7	LA-505-412	B	0.250		mg/kg	1	0.056	0.56	07/19/12
Strontium	7440-24-6	LA-505-412		26.5		mg/kg	1	0.11	1.1	07/19/12
Tin	7440-31-5	LA-505-412	B	0.403		mg/kg	1	0.056	0.56	07/19/12
Uranium	7440-61-1	LA-505-412		0.370		mg/kg	1	0.056	0.28	07/19/12
Arsenic	7440-38-2	LA-505-412		2.61		mg/kg	1	0.22	2.2	07/19/12
Selenium	7782-49-2	LA-505-412	U	<0.28		mg/kg	0.5	0.28	2.8	07/19/12
Boron	7440-42-8	LA-505-412	B	4.99		mg/kg	1	0.56	5.6	07/19/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.098		ug/g	1	0.098	0.49	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900007
SAF# F12-005
Sample ID B2JDP0

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	BN	3.07	J	mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.8	07/19/12
Nitrate-N	NO3-N	LA-533-410	B	1.05		mg/kg	1	0.92	4.9	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	9.81		mg/kg	1	5.4	52	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	321		mg/kg	1	0.11	1.1	07/18/12
Nickel	7440-02-0	LA-505-412		9.75		mg/kg	1	0.11	1.1	07/18/12
Silver	7440-22-4	LA-505-412	B	0.0587		mg/kg	1	0.053	0.53	07/18/12
Antimony	7440-36-0	LA-505-412	B	0.392		mg/kg	1	0.32	3.2	07/18/12
Barium	7440-39-3	LA-505-412	N	72.6		mg/kg	1	0.21	2.1	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.357		mg/kg	1	0.11	1.1	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.104		mg/kg	1	0.053	0.53	07/18/12
Chromium	7440-47-3	LA-505-412		6.60		mg/kg	1	0.11	1.1	07/18/12
Cobalt	7440-48-4	LA-505-412		9.67		mg/kg	1	0.053	0.27	07/18/12
Copper	7440-50-8	LA-505-412		18.4		mg/kg	1	0.11	1.1	07/18/12
Vanadium	7440-62-2	LA-505-412		44.4		mg/kg	1	0.21	2.1	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900007
SAF# F12-005
Sample ID B2JDP0

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		45.6		mg/kg	1	1.1	11	07/18/12
Lead	7439-92-1	LA-505-412		6.84		mg/kg	1	0.053	0.53	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.053		mg/kg	1	0.053	0.21	07/18/12
Molybdenum	7439-98-7	LA-505-412		0.625		mg/kg	1	0.053	0.53	07/18/12
Strontium	7440-24-6	LA-505-412	N	34.9		mg/kg	1	0.11	1.1	07/18/12
Tin	7440-31-5	LA-505-412		0.572		mg/kg	1	0.053	0.53	07/18/12
Uranium	7440-61-1	LA-505-412		0.548		mg/kg	1	0.053	0.27	07/18/12
Arsenic	7440-38-2	LA-505-412		3.83		mg/kg	1	0.21	2.1	07/18/12
Selenium	7782-49-2	LA-505-412	B	0.273		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	B	1.45		mg/kg	1	0.53	5.3	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.096		ug/g	1	0.096	0.48	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900008
SAF# F12-005
Sample ID B2JDR8

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	BN	4.06	J	mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.9	07/19/12
Nitrate-N	NO3-N	LA-533-410	U	<0.92		mg/kg	1	0.92	4.9	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	21.0		mg/kg	1	5.5	52	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	275		mg/kg	1	0.095	0.95	07/18/12
Nickel	7440-02-0	LA-505-412		19.1		mg/kg	1	0.095	0.95	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.047		mg/kg	1	0.047	0.47	07/18/12
Antimony	7440-36-0	LA-505-412	B	0.319		mg/kg	1	0.28	2.8	07/18/12
Barium	7440-39-3	LA-505-412	N	55.2		mg/kg	1	0.19	1.9	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.291		mg/kg	1	0.095	0.95	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0626		mg/kg	1	0.047	0.47	07/18/12
Chromium	7440-47-3	LA-505-412		8.39		mg/kg	1	0.095	0.95	07/18/12
Cobalt	7440-48-4	LA-505-412		8.39		mg/kg	1	0.047	0.24	07/18/12
Copper	7440-50-8	LA-505-412		16.5		mg/kg	1	0.095	0.95	07/18/12
Vanadium	7440-62-2	LA-505-412		23.9		mg/kg	1	0.19	1.9	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900008
SAF# F12-005
Sample ID B2JDR8

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		32.7		mg/kg	1	0.95	9.5	07/18/12
Lead	7439-92-1	LA-505-412		42.2		mg/kg	1	0.047	0.47	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.047		mg/kg	1	0.047	0.19	07/18/12
Molybdenum	7439-98-7	LA-505-412		0.483		mg/kg	1	0.047	0.47	07/18/12
Strontium	7440-24-6	LA-505-412	N	30.5		mg/kg	1	0.095	0.95	07/18/12
Tin	7440-31-5	LA-505-412		0.983		mg/kg	1	0.047	0.47	07/18/12
Uranium	7440-61-1	LA-505-412		0.437		mg/kg	1	0.047	0.24	07/18/12
Arsenic	7440-38-2	LA-505-412		3.70		mg/kg	1	0.19	1.9	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.24		mg/kg	0.5	0.24	2.4	07/19/12
Boron	7440-42-8	LA-505-412	B	2.97		mg/kg	1	0.47	4.7	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.098		ug/g	1	0.098	0.49	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900009
SAF# F12-005
Sample ID B2JDT1

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	BN	2.97	J	mg/kg	1	2.9	21	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/19/12
Nitrate-N	NO3-N	LA-533-410	U	<0.94		mg/kg	1	0.94	5.0	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	14.5		mg/kg	1	5.5	53	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	308		mg/kg	1	0.11	1.1	07/18/12
Nickel	7440-02-0	LA-505-412		10.2		mg/kg	1	0.11	1.1	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.055		mg/kg	1	0.055	0.55	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.33		mg/kg	1	0.33	3.3	07/18/12
Barium	7440-39-3	LA-505-412	N	61.6		mg/kg	1	0.22	2.2	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.342		mg/kg	1	0.11	1.1	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0716		mg/kg	1	0.055	0.55	07/18/12
Chromium	7440-47-3	LA-505-412		7.71		mg/kg	1	0.11	1.1	07/18/12
Cobalt	7440-48-4	LA-505-412		8.67		mg/kg	1	0.055	0.28	07/18/12
Copper	7440-50-8	LA-505-412		15.6		mg/kg	1	0.11	1.1	07/18/12
Vanadium	7440-62-2	LA-505-412		35.2		mg/kg	1	0.22	2.2	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900009
SAF# F12-005
Sample ID B2JDT1

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		38.6		mg/kg	1	1.1	11	07/18/12
Lead	7439-92-1	LA-505-412		5.71		mg/kg	1	0.055	0.55	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.055		mg/kg	1	0.055	0.22	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.282		mg/kg	1	0.055	0.55	07/18/12
Strontium	7440-24-6	LA-505-412	N	31.2		mg/kg	1	0.11	1.1	07/18/12
Tin	7440-31-5	LA-505-412	B	0.412		mg/kg	1	0.055	0.55	07/18/12
Uranium	7440-61-1	LA-505-412		0.484		mg/kg	1	0.055	0.28	07/18/12
Arsenic	7440-38-2	LA-505-412		2.68		mg/kg	1	0.22	2.2	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.28		mg/kg	0.5	0.28	2.8	07/19/12
Boron	7440-42-8	LA-505-412	B	1.60		mg/kg	1	0.55	5.5	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900010
SAF# F12-005
Sample ID B2JF32

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/18/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	UN	<2.9	UJ	mg/kg	1	2.9	20	07/19/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/19/12
Nitrate-N	NO3-N	LA-533-410	U	<0.93		mg/kg	1	0.93	4.9	07/19/12
Sulfate	14808-79-8	LA-533-410	BN	12.3		mg/kg	1	5.5	52	07/19/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	287		mg/kg	1	0.094	0.94	07/18/12
Nickel	7440-02-0	LA-505-412		8.74		mg/kg	1	0.094	0.94	07/18/12
Silver	7440-22-4	LA-505-412	B	0.0546		mg/kg	1	0.047	0.47	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.28		mg/kg	1	0.28	2.8	07/18/12
Barium	7440-39-3	LA-505-412	N	63.0		mg/kg	1	0.19	1.9	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.216		mg/kg	1	0.094	0.94	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0819		mg/kg	1	0.047	0.47	07/18/12
Chromium	7440-47-3	LA-505-412		5.21		mg/kg	1	0.094	0.94	07/18/12
Cobalt	7440-48-4	LA-505-412		9.12		mg/kg	1	0.047	0.24	07/18/12
Copper	7440-50-8	LA-505-412		16.2		mg/kg	1	0.094	0.94	07/18/12
Vanadium	7440-62-2	LA-505-412		30.7		mg/kg	1	0.19	1.9	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900010
SAF# F12-005
Sample ID B2JF32

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		35.7		mg/kg	1	0.94	9.4	07/18/12
Lead	7439-92-1	LA-505-412		5.19		mg/kg	1	0.047	0.47	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.047		mg/kg	1	0.047	0.19	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.226		mg/kg	1	0.047	0.47	07/18/12
Strontium	7440-24-6	LA-505-412	N	32.2		mg/kg	1	0.094	0.94	07/18/12
Tin	7440-31-5	LA-505-412	B	0.392		mg/kg	1	0.047	0.47	07/18/12
Uranium	7440-61-1	LA-505-412		0.531		mg/kg	1	0.047	0.24	07/18/12
Arsenic	7440-38-2	LA-505-412		2.34		mg/kg	1	0.19	1.9	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.24		mg/kg	0.5	0.24	2.4	07/19/12
Boron	7440-42-8	LA-505-412	B	0.865		mg/kg	1	0.47	4.7	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900011
SAF# F12-005
Sample ID B2JDJ8

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	1.22		mg/kg	1	0.93	4.9	07/17/12
Sulfate	14808-79-8	LA-533-410	B	15.0		mg/kg	1	5.5	52	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	267		mg/kg	1	0.10	1.0	07/18/12
Nickel	7440-02-0	LA-505-412		7.95		mg/kg	1	0.10	1.0	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.051		mg/kg	1	0.051	0.51	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/18/12
Barium	7440-39-3	LA-505-412	N	59.1		mg/kg	1	0.20	2.0	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.317		mg/kg	1	0.10	1.0	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0787		mg/kg	1	0.051	0.51	07/18/12
Chromium	7440-47-3	LA-505-412		5.19		mg/kg	1	0.10	1.0	07/18/12
Cobalt	7440-48-4	LA-505-412		8.72		mg/kg	1	0.051	0.26	07/18/12
Copper	7440-50-8	LA-505-412		15.8		mg/kg	1	0.10	1.0	07/18/12
Vanadium	7440-62-2	LA-505-412		30.4		mg/kg	1	0.20	2.0	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900011
SAF# F12-005
Sample ID B2JDJ8

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		35.4		mg/kg	1	1.0	10	07/18/12
Lead	7439-92-1	LA-505-412		5.25		mg/kg	1	0.051	0.51	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.051		mg/kg	1	0.051	0.20	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.234		mg/kg	1	0.051	0.51	07/18/12
Strontium	7440-24-6	LA-505-412	N	29.3		mg/kg	1	0.10	1.0	07/18/12
Tin	7440-31-5	LA-505-412	B	0.363		mg/kg	1	0.051	0.51	07/18/12
Uranium	7440-61-1	LA-505-412		0.465		mg/kg	1	0.051	0.26	07/18/12
Arsenic	7440-38-2	LA-505-412		2.17		mg/kg	1	0.20	2.0	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	B	0.896		mg/kg	1	0.51	5.1	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900012
SAF# F12-005
Sample ID B2JDR2

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410		25.6		mg/kg	1	2.9	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	U	<0.92		mg/kg	1	0.92	4.9	07/17/12
Sulfate	14808-79-8	LA-533-410	B	14.3		mg/kg	1	5.5	52	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	303		mg/kg	1	0.11	1.1	07/18/12
Nickel	7440-02-0	LA-505-412		9.52		mg/kg	1	0.11	1.1	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.056		mg/kg	1	0.056	0.56	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.33		mg/kg	1	0.33	3.3	07/18/12
Barium	7440-39-3	LA-505-412	N	62.5		mg/kg	1	0.22	2.2	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.267		mg/kg	1	0.11	1.1	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0703		mg/kg	1	0.056	0.56	07/18/12
Chromium	7440-47-3	LA-505-412		5.90		mg/kg	1	0.11	1.1	07/18/12
Cobalt	7440-48-4	LA-505-412		8.03		mg/kg	1	0.056	0.28	07/18/12
Copper	7440-50-8	LA-505-412		14.8		mg/kg	1	0.11	1.1	07/18/12
Vanadium	7440-62-2	LA-505-412		28.8		mg/kg	1	0.22	2.2	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900012
SAF# F12-005
Sample ID B2JDR2

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		36.7		mg/kg	1	1.1	11	07/18/12
Lead	7439-92-1	LA-505-412		5.15		mg/kg	1	0.056	0.56	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.056		mg/kg	1	0.056	0.22	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.223		mg/kg	1	0.056	0.56	07/18/12
Strontium	7440-24-6	LA-505-412	N	30.7		mg/kg	1	0.11	1.1	07/18/12
Tin	7440-31-5	LA-505-412	B	0.341		mg/kg	1	0.056	0.56	07/18/12
Uranium	7440-61-1	LA-505-412		0.506		mg/kg	1	0.056	0.28	07/18/12
Arsenic	7440-38-2	LA-505-412		2.83		mg/kg	1	0.22	2.2	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.28		mg/kg	0.5	0.28	2.8	07/19/12
Boron	7440-42-8	LA-505-412	B	0.958		mg/kg	1	0.56	5.6	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900013
SAF# F12-005
Sample ID B2JDR5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	8.87		mg/kg	1	2.9	21	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	4.9	07/17/12
Nitrate-N	NO3-N	LA-533-410	B	1.13		mg/kg	1	0.94	5.0	07/17/12
Sulfate	14808-79-8	LA-533-410		61.5		mg/kg	1	5.6	53	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	318		mg/kg	1	0.11	1.1	07/18/12
Nickel	7440-02-0	LA-505-412		10.3		mg/kg	1	0.11	1.1	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.055		mg/kg	1	0.055	0.55	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.33		mg/kg	1	0.33	3.3	07/18/12
Barium	7440-39-3	LA-505-412	N	69.7		mg/kg	1	0.22	2.2	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.277		mg/kg	1	0.11	1.1	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0752		mg/kg	1	0.055	0.55	07/18/12
Chromium	7440-47-3	LA-505-412		8.67		mg/kg	1	0.11	1.1	07/18/12
Cobalt	7440-48-4	LA-505-412		8.98		mg/kg	1	0.055	0.27	07/18/12
Copper	7440-50-8	LA-505-412		16.9		mg/kg	1	0.11	1.1	07/18/12
Vanadium	7440-62-2	LA-505-412		36.0		mg/kg	1	0.22	2.2	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900013
SAF# F12-005
Sample ID B2JDR5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		38.8		mg/kg	1	1.1	11	07/18/12
Lead	7439-92-1	LA-505-412		6.08		mg/kg	1	0.055	0.55	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.055		mg/kg	1	0.055	0.22	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.273		mg/kg	1	0.055	0.55	07/18/12
Strontium	7440-24-6	LA-505-412	N	34.1		mg/kg	1	0.11	1.1	07/18/12
Tin	7440-31-5	LA-505-412	B	0.398		mg/kg	1	0.055	0.55	07/18/12
Uranium	7440-61-1	LA-505-412		0.506		mg/kg	1	0.055	0.27	07/18/12
Arsenic	7440-38-2	LA-505-412		2.99		mg/kg	1	0.22	2.2	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	B	1.70		mg/kg	1	0.55	5.5	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900014
SAF# F12-005
Sample ID B2JDP3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.8		mg/kg	1	2.8	20	07/17/12
Nitrite-N	NO2-N	LA-533-410	U	<0.93		mg/kg	1	0.93	4.7	07/17/12
Nitrate-N	NO3-N	LA-533-410	U	<0.90		mg/kg	1	0.90	4.8	07/17/12
Sulfate	14808-79-8	LA-533-410	U	<5.3		mg/kg	1	5.3	51	07/17/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	218		mg/kg	1	0.10	1.0	07/18/12
Nickel	7440-02-0	LA-505-412		5.65		mg/kg	1	0.10	1.0	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.051		mg/kg	1	0.051	0.51	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.30		mg/kg	1	0.30	3.0	07/18/12
Barium	7440-39-3	LA-505-412	N	45.4		mg/kg	1	0.20	2.0	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.189		mg/kg	1	0.10	1.0	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0828		mg/kg	1	0.051	0.51	07/18/12
Chromium	7440-47-3	LA-505-412		2.37		mg/kg	1	0.10	1.0	07/18/12
Cobalt	7440-48-4	LA-505-412		7.92		mg/kg	1	0.051	0.25	07/18/12
Copper	7440-50-8	LA-505-412		15.6		mg/kg	1	0.10	1.0	07/18/12
Vanadium	7440-62-2	LA-505-412		28.1		mg/kg	1	0.20	2.0	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900014
SAF# F12-005
Sample ID B2JDP3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		30.9		mg/kg	1	1.0	10	07/18/12
Lead	7439-92-1	LA-505-412		3.33		mg/kg	1	0.051	0.51	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.051		mg/kg	1	0.051	0.20	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.234		mg/kg	1	0.051	0.51	07/18/12
Strontium	7440-24-6	LA-505-412	N	23.2		mg/kg	1	0.10	1.0	07/18/12
Tin	7440-31-5	LA-505-412	B	0.318		mg/kg	1	0.051	0.51	07/18/12
Uranium	7440-61-1	LA-505-412		0.408		mg/kg	1	0.051	0.25	07/18/12
Arsenic	7440-38-2	LA-505-412	B	1.71		mg/kg	1	0.20	2.0	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.25		mg/kg	0.5	0.25	2.5	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.51		mg/kg	1	0.51	5.1	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.097		ug/g	1	0.097	0.49	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900015
SAF# F12-005
Sample ID B2JDP9

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	13.4		mg/kg	1	2.9	20	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/18/12
Nitrate-N	NO3-N	LA-533-410	B	0.992		mg/kg	1	0.93	5.0	07/18/12
Sulfate	14808-79-8	LA-533-410		73.3		mg/kg	1	5.5	53	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	247		mg/kg	1	0.11	1.1	07/18/12
Nickel	7440-02-0	LA-505-412		8.64		mg/kg	1	0.11	1.1	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.053		mg/kg	1	0.053	0.53	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.32		mg/kg	1	0.32	3.2	07/18/12
Barium	7440-39-3	LA-505-412	N	51.5		mg/kg	1	0.21	2.1	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.247		mg/kg	1	0.11	1.1	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0622		mg/kg	1	0.053	0.53	07/18/12
Chromium	7440-47-3	LA-505-412		7.09		mg/kg	1	0.11	1.1	07/18/12
Cobalt	7440-48-4	LA-505-412		6.51		mg/kg	1	0.053	0.26	07/18/12
Copper	7440-50-8	LA-505-412		12.5		mg/kg	1	0.11	1.1	07/18/12
Vanadium	7440-62-2	LA-505-412		23.4		mg/kg	1	0.21	2.1	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900015
SAF# F12-005
Sample ID B2JDP9

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		29.3		mg/kg	1	1.1	11	07/18/12
Lead	7439-92-1	LA-505-412		5.07		mg/kg	1	0.053	0.53	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.053		mg/kg	1	0.053	0.21	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.179		mg/kg	1	0.053	0.53	07/18/12
Strontium	7440-24-6	LA-505-412	N	29.1		mg/kg	1	0.11	1.1	07/18/12
Tin	7440-31-5	LA-505-412	B	0.251		mg/kg	1	0.053	0.53	07/18/12
Uranium	7440-61-1	LA-505-412		0.371		mg/kg	1	0.053	0.26	07/18/12
Arsenic	7440-38-2	LA-505-412		2.34		mg/kg	1	0.21	2.1	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	B	0.828		mg/kg	1	0.53	5.3	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900016
SAF# F12-005
Sample ID B2JDV6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<3.0		mg/kg	1	3.0	21	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.98		mg/kg	1	0.98	5.0	07/18/12
Nitrate-N	NO3-N	LA-533-410	U	<0.95		mg/kg	1	0.95	5.0	07/18/12
Sulfate	14808-79-8	LA-533-410	U	<5.6		mg/kg	1	5.6	53	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	205		mg/kg	1	0.11	1.1	07/18/12
Nickel	7440-02-0	LA-505-412		5.20		mg/kg	1	0.11	1.1	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.054		mg/kg	1	0.054	0.54	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.32		mg/kg	1	0.32	3.2	07/18/12
Barium	7440-39-3	LA-505-412	N	40.0		mg/kg	1	0.22	2.2	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.175		mg/kg	1	0.11	1.1	07/18/12
Cadmium	7440-43-9	LA-505-412	U	<0.054		mg/kg	1	0.054	0.54	07/18/12
Chromium	7440-47-3	LA-505-412		1.45		mg/kg	1	0.11	1.1	07/18/12
Cobalt	7440-48-4	LA-505-412		7.83		mg/kg	1	0.054	0.27	07/18/12
Copper	7440-50-8	LA-505-412		14.4		mg/kg	1	0.11	1.1	07/18/12
Vanadium	7440-62-2	LA-505-412		24.7		mg/kg	1	0.22	2.2	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900016
SAF# F12-005
Sample ID B2JDV6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		27.3		mg/kg	1	1.1	11	07/18/12
Lead	7439-92-1	LA-505-412		2.07		mg/kg	1	0.054	0.54	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.054		mg/kg	1	0.054	0.22	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.175		mg/kg	1	0.054	0.54	07/18/12
Strontium	7440-24-6	LA-505-412	N	21.6		mg/kg	1	0.11	1.1	07/18/12
Tin	7440-31-5	LA-505-412	B	0.283		mg/kg	1	0.054	0.54	07/18/12
Uranium	7440-61-1	LA-505-412		0.373		mg/kg	1	0.054	0.27	07/18/12
Arsenic	7440-38-2	LA-505-412	B	1.29		mg/kg	1	0.22	2.2	07/18/12
Selenium	7782-49-2	LA-505-412	B	0.282		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	B	0.549		mg/kg	1	0.54	5.4	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900017
SAF# F12-005
Sample ID B2JDK1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	17.1		mg/kg	1	2.9	20	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/18/12
Nitrate-N	NO3-N	LA-533-410	B	1.27		mg/kg	1	0.93	5.0	07/18/12
Sulfate	14808-79-8	LA-533-410	B	18.5		mg/kg	1	5.5	52	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	253		mg/kg	1	0.10	1.0	07/18/12
Nickel	7440-02-0	LA-505-412		6.69		mg/kg	1	0.10	1.0	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/18/12
Barium	7440-39-3	LA-505-412	N	45.4		mg/kg	1	0.21	2.1	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.155		mg/kg	1	0.10	1.0	07/18/12
Cadmium	7440-43-9	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/18/12
Chromium	7440-47-3	LA-505-412		3.25		mg/kg	1	0.10	1.0	07/18/12
Cobalt	7440-48-4	LA-505-412		8.47		mg/kg	1	0.052	0.26	07/18/12
Copper	7440-50-8	LA-505-412		14.9		mg/kg	1	0.10	1.0	07/18/12
Vanadium	7440-62-2	LA-505-412		23.6		mg/kg	1	0.21	2.1	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900017
SAF# F12-005
Sample ID B2JDK1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		30.7		mg/kg	1	1.0	10	07/18/12
Lead	7439-92-1	LA-505-412		3.31		mg/kg	1	0.052	0.52	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.052		mg/kg	1	0.052	0.21	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.187		mg/kg	1	0.052	0.52	07/18/12
Strontium	7440-24-6	LA-505-412	N	24.0		mg/kg	1	0.10	1.0	07/18/12
Tin	7440-31-5	LA-505-412	B	0.313		mg/kg	1	0.052	0.52	07/18/12
Uranium	7440-61-1	LA-505-412		0.396		mg/kg	1	0.052	0.26	07/18/12
Arsenic	7440-38-2	LA-505-412	B	1.95		mg/kg	1	0.21	2.1	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	B	1.43		mg/kg	1	0.52	5.2	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.098		ug/g	1	0.098	0.49	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900018
SAF# F12-005
Sample ID B2JF35

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	11.8		mg/kg	1	2.9	20	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.95		mg/kg	1	0.95	4.8	07/18/12
Nitrate-N	NO3-N	LA-533-410	U	<0.92		mg/kg	1	0.92	4.9	07/18/12
Sulfate	14808-79-8	LA-533-410		53.0		mg/kg	1	5.4	52	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	242		mg/kg	1	0.10	1.0	07/18/12
Nickel	7440-02-0	LA-505-412		7.53		mg/kg	1	0.10	1.0	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.052		mg/kg	1	0.052	0.52	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.31		mg/kg	1	0.31	3.1	07/18/12
Barium	7440-39-3	LA-505-412	N	51.8		mg/kg	1	0.21	2.1	07/18/12
Beryllium	7440-41-7	LA-505-412	B	0.230		mg/kg	1	0.10	1.0	07/18/12
Cadmium	7440-43-9	LA-505-412	B	0.0566		mg/kg	1	0.052	0.52	07/18/12
Chromium	7440-47-3	LA-505-412		5.47		mg/kg	1	0.10	1.0	07/18/12
Cobalt	7440-48-4	LA-505-412		6.86		mg/kg	1	0.052	0.26	07/18/12
Copper	7440-50-8	LA-505-412		13.8		mg/kg	1	0.10	1.0	07/18/12
Vanadium	7440-62-2	LA-505-412		23.7		mg/kg	1	0.21	2.1	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900018
SAF# F12-005
Sample ID B2JF35

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412		31.1		mg/kg	1	1.0	10	07/18/12
Lead	7439-92-1	LA-505-412		4.49		mg/kg	1	0.052	0.52	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.052		mg/kg	1	0.052	0.21	07/18/12
Molybdenum	7439-98-7	LA-505-412	B	0.211		mg/kg	1	0.052	0.52	07/18/12
Strontium	7440-24-6	LA-505-412	N	29.8		mg/kg	1	0.10	1.0	07/18/12
Tin	7440-31-5	LA-505-412	B	0.284		mg/kg	1	0.052	0.52	07/18/12
Uranium	7440-61-1	LA-505-412		0.365		mg/kg	1	0.052	0.26	07/18/12
Arsenic	7440-38-2	LA-505-412		2.39		mg/kg	1	0.21	2.1	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/19/12
Boron	7440-42-8	LA-505-412	B	2.01		mg/kg	1	0.52	5.2	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900019
SAF# F12-005
Sample ID B2JF47

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/17/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.8		mg/kg	1	2.8	20	07/18/12
Nitrite-N	NO2-N	LA-533-410	U	<0.94		mg/kg	1	0.94	4.8	07/18/12
Nitrate-N	NO3-N	LA-533-410	U	<0.91		mg/kg	1	0.91	4.8	07/18/12
Sulfate	14808-79-8	LA-533-410	U	<5.4		mg/kg	1	5.4	51	07/18/12
ICPMS Prep (S)										**07/18/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412	N	5.81		mg/kg	1	0.11	1.1	07/18/12
Nickel	7440-02-0	LA-505-412	U	<0.11		mg/kg	1	0.11	1.1	07/18/12
Silver	7440-22-4	LA-505-412	U	<0.053		mg/kg	1	0.053	0.53	07/18/12
Antimony	7440-36-0	LA-505-412	U	<0.32		mg/kg	1	0.32	3.2	07/18/12
Barium	7440-39-3	LA-505-412	N	2.47		mg/kg	1	0.21	2.1	07/18/12
Beryllium	7440-41-7	LA-505-412	U	<0.11		mg/kg	1	0.11	1.1	07/18/12
Cadmium	7440-43-9	LA-505-412	U	<0.053		mg/kg	1	0.053	0.53	07/18/12
Chromium	7440-47-3	LA-505-412	U	<0.11		mg/kg	1	0.11	1.1	07/18/12
Cobalt	7440-48-4	LA-505-412	B	0.0871		mg/kg	1	0.053	0.27	07/18/12
Copper	7440-50-8	LA-505-412	U	<0.11		mg/kg	1	0.11	1.1	07/18/12
Vanadium	7440-62-2	LA-505-412	U	<0.21		mg/kg	1	0.21	2.1	07/18/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Sample # 120900019
SAF# F12-005
Sample ID B2JF47

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	B	1.28		mg/kg	1	1.1	11	07/18/12
Lead	7439-92-1	LA-505-412	B	0.392		mg/kg	1	0.053	0.53	07/18/12
Mercury	7439-97-6	LA-505-412	U	<0.053		mg/kg	1	0.053	0.21	07/18/12
Molybdenum	7439-98-7	LA-505-412	U	<0.053		mg/kg	1	0.053	0.53	07/18/12
Strontium	7440-24-6	LA-505-412	BN	0.623		mg/kg	1	0.11	1.1	07/18/12
Tin	7440-31-5	LA-505-412	U	<0.053		mg/kg	1	0.053	0.53	07/18/12
Uranium	7440-61-1	LA-505-412	B	0.0903		mg/kg	1	0.053	0.27	07/18/12
Arsenic	7440-38-2	LA-505-412	U	<0.21		mg/kg	1	0.21	2.1	07/18/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/19/12
Boron	7440-42-8	LA-505-412	U	<0.53		mg/kg	1	0.53	5.3	07/18/12
Preparation for Cr6 (SO)										**07/18/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.49	07/19/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922001
SAF# F12-005
Sample ID B2JDL0

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	10.3		mg/kg	1	2.9	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	5.0	07/20/12
Nitrate-N	NO3-N	LA-533-410	B	0.960		mg/kg	1	0.94	5.0	07/20/12
Sulfate	14808-79-8	LA-533-410		79.4		mg/kg	1	5.6	53	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		672		mg/kg	0.5	0.052	0.52	07/30/12
Nickel	7440-02-0	LA-505-412		20.0		mg/kg	0.5	0.052	0.52	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0937		mg/kg	0.5	0.026	0.26	07/30/12
Antimony	7440-36-0	LA-505-412	B	0.315		mg/kg	0.5	0.16	1.6	07/30/12
Barium	7440-39-3	LA-505-412	N	169		mg/kg	0.5	0.10	1.0	07/30/12
Beryllium	7440-41-7	LA-505-412		0.766		mg/kg	0.5	0.052	0.52	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.175		mg/kg	0.5	0.026	0.26	07/30/12
Chromium	7440-47-3	LA-505-412		16.7		mg/kg	0.5	0.052	0.52	07/30/12
Cobalt	7440-48-4	LA-505-412		17.9		mg/kg	0.5	0.026	0.13	07/30/12
Copper	7440-50-8	LA-505-412		32.5		mg/kg	0.5	0.052	0.52	07/30/12
Vanadium	7440-62-2	LA-505-412	N	102		mg/kg	0.5	0.10	1.0	07/30/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922001
SAF# F12-005
Sample ID B2JDL0

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	81.0		mg/kg	0.5	0.52	5.2	07/30/12
Lead	7439-92-1	LA-505-412		13.5		mg/kg	0.5	0.026	0.26	07/30/12
Mercury	7439-97-6	LA-505-412	B	0.0266		mg/kg	0.5	0.026	0.10	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.852		mg/kg	0.5	0.026	0.26	07/30/12
Strontium	7440-24-6	LA-505-412	N	83.2		mg/kg	0.5	0.052	0.52	07/30/12
Tin	7440-31-5	LA-505-412		1.21		mg/kg	0.5	0.026	0.26	07/30/12
Uranium	7440-61-1	LA-505-412		1.19		mg/kg	0.5	0.026	0.13	07/30/12
Arsenic	7440-38-2	LA-505-412		6.99		mg/kg	0.5	0.10	1.0	07/30/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/27/12
Boron	7440-42-8	LA-505-412	B	2.32		mg/kg	0.5	0.26	2.6	07/30/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/23/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922002
SAF# F12-005
Sample ID B2JDL3

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	9.44		mg/kg	1	2.9	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	5.0	07/20/12
Nitrate-N	NO3-N	LA-533-410	B	4.26		mg/kg	1	0.94	5.0	07/20/12
Sulfate	14808-79-8	LA-533-410		129		mg/kg	1	5.6	53	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		288		mg/kg	0.5	0.050	0.50	07/30/12
Nickel	7440-02-0	LA-505-412		10.3		mg/kg	0.5	0.050	0.50	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0357		mg/kg	0.5	0.025	0.25	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.15		mg/kg	0.5	0.15	1.5	07/30/12
Barium	7440-39-3	LA-505-412	N	74.3		mg/kg	0.5	0.099	0.99	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.303		mg/kg	0.5	0.050	0.50	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.0773		mg/kg	0.5	0.025	0.25	07/30/12
Chromium	7440-47-3	LA-505-412		8.31		mg/kg	0.5	0.050	0.50	07/30/12
Cobalt	7440-48-4	LA-505-412		8.02		mg/kg	0.5	0.025	0.12	07/30/12
Copper	7440-50-8	LA-505-412		14.6		mg/kg	0.5	0.050	0.50	07/30/12
Vanadium	7440-62-2	LA-505-412	N	45.5		mg/kg	0.5	0.099	0.99	07/30/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922002
SAF# F12-005
Sample ID B2JDL3

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	42.8		mg/kg	0.5	0.50	5.0	07/30/12
Lead	7439-92-1	LA-505-412		3.98		mg/kg	0.5	0.025	0.25	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.025		mg/kg	0.5	0.025	0.099	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.419		mg/kg	0.5	0.025	0.25	07/30/12
Strontium	7440-24-6	LA-505-412	N	32.5		mg/kg	0.5	0.050	0.50	07/30/12
Tin	7440-31-5	LA-505-412		0.452		mg/kg	0.5	0.025	0.25	07/30/12
Uranium	7440-61-1	LA-505-412		0.461		mg/kg	0.5	0.025	0.12	07/30/12
Arsenic	7440-38-2	LA-505-412		2.44		mg/kg	0.5	0.099	0.99	07/30/12
Selenium	7782-49-2	LA-505-412	U	<0.25		mg/kg	0.5	0.25	2.5	07/27/12
Boron	7440-42-8	LA-505-412	B	1.01		mg/kg	0.5	0.25	2.5	07/30/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/23/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922003
SAF# F12-005
Sample ID B2JDL6

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	5.30		mg/kg	1	2.9	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	5.0	07/20/12
Nitrate-N	NO3-N	LA-533-410	U	<0.94		mg/kg	1	0.94	5.0	07/20/12
Sulfate	14808-79-8	LA-533-410	B	15.6		mg/kg	1	5.6	53	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		298		mg/kg	0.5	0.049	0.49	07/30/12
Nickel	7440-02-0	LA-505-412		10.6		mg/kg	0.5	0.049	0.49	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0350		mg/kg	0.5	0.025	0.25	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.15		mg/kg	0.5	0.15	1.5	07/30/12
Barium	7440-39-3	LA-505-412	N	77.1		mg/kg	0.5	0.099	0.99	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.264		mg/kg	0.5	0.049	0.49	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.0819		mg/kg	0.5	0.025	0.25	07/30/12
Chromium	7440-47-3	LA-505-412		8.42		mg/kg	0.5	0.049	0.49	07/30/12
Cobalt	7440-48-4	LA-505-412		8.23		mg/kg	0.5	0.025	0.12	07/30/12
Copper	7440-50-8	LA-505-412		15.0		mg/kg	0.5	0.049	0.49	07/30/12
Vanadium	7440-62-2	LA-505-412	N	46.6		mg/kg	0.5	0.099	0.99	07/30/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922003
SAF# F12-005
Sample ID B2JDL6

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	44.4		mg/kg	0.5	0.49	4.9	07/30/12
Lead	7439-92-1	LA-505-412		3.94		mg/kg	0.5	0.025	0.25	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.025		mg/kg	0.5	0.025	0.099	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.379		mg/kg	0.5	0.025	0.25	07/30/12
Strontium	7440-24-6	LA-505-412	N	32.9		mg/kg	0.5	0.049	0.49	07/30/12
Tin	7440-31-5	LA-505-412		0.400		mg/kg	0.5	0.025	0.25	07/30/12
Uranium	7440-61-1	LA-505-412		0.473		mg/kg	0.5	0.025	0.12	07/30/12
Arsenic	7440-38-2	LA-505-412		2.51		mg/kg	0.5	0.099	0.99	07/30/12
Selenium	7782-49-2	LA-505-412	U	<0.25		mg/kg	0.5	0.25	2.5	07/27/12
Boron	7440-42-8	LA-505-412	B	0.803		mg/kg	0.5	0.25	2.5	07/30/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/23/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922004
SAF# F12-005
Sample ID B2JDL9

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<3.0		mg/kg	1	3.0	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.1	07/20/12
Nitrate-N	NO3-N	LA-533-410	B	1.43		mg/kg	1	0.96	5.1	07/20/12
Sulfate	14808-79-8	LA-533-410	B	18.7		mg/kg	1	5.7	54	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		301		mg/kg	0.5	0.052	0.52	07/30/12
Nickel	7440-02-0	LA-505-412		9.11		mg/kg	0.5	0.052	0.52	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0345		mg/kg	0.5	0.026	0.26	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.16		mg/kg	0.5	0.16	1.6	07/30/12
Barium	7440-39-3	LA-505-412	N	70.1		mg/kg	0.5	0.10	1.0	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.308		mg/kg	0.5	0.052	0.52	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.0831		mg/kg	0.5	0.026	0.26	07/30/12
Chromium	7440-47-3	LA-505-412		6.54		mg/kg	0.5	0.052	0.52	07/30/12
Cobalt	7440-48-4	LA-505-412		9.10		mg/kg	0.5	0.026	0.13	07/30/12
Copper	7440-50-8	LA-505-412		17.4		mg/kg	0.5	0.052	0.52	07/30/12
Vanadium	7440-62-2	LA-505-412	N	51.0		mg/kg	0.5	0.10	1.0	07/30/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922004
SAF# F12-005
Sample ID B2JDL9

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	45.0		mg/kg	0.5	0.52	5.2	07/30/12
Lead	7439-92-1	LA-505-412		5.46		mg/kg	0.5	0.026	0.26	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.026		mg/kg	0.5	0.026	0.10	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.394		mg/kg	0.5	0.026	0.26	07/30/12
Strontium	7440-24-6	LA-505-412	N	32.4		mg/kg	0.5	0.052	0.52	07/30/12
Tin	7440-31-5	LA-505-412		0.481		mg/kg	0.5	0.026	0.26	07/30/12
Uranium	7440-61-1	LA-505-412		0.522		mg/kg	0.5	0.026	0.13	07/30/12
Arsenic	7440-38-2	LA-505-412		3.73		mg/kg	0.5	0.10	1.0	07/30/12
Selenium	7782-49-2	LA-505-412	B	0.262		mg/kg	0.5	0.26	2.6	07/27/12
Boron	7440-42-8	LA-505-412	B	0.833		mg/kg	0.5	0.26	2.6	07/30/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.50	07/23/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922005
SAF# F12-005
Sample ID B2JDM2

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	12.9		mg/kg	1	3.0	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.99		mg/kg	1	0.99	5.1	07/20/12
Nitrate-N	NO3-N	LA-533-410	B	1.38		mg/kg	1	0.96	5.1	07/20/12
Sulfate	14808-79-8	LA-533-410	B	24.7		mg/kg	1	5.7	54	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		294		mg/kg	0.5	0.053	0.53	07/30/12
Nickel	7440-02-0	LA-505-412		8.50		mg/kg	0.5	0.053	0.53	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0345		mg/kg	0.5	0.027	0.27	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.16		mg/kg	0.5	0.16	1.6	07/30/12
Barium	7440-39-3	LA-505-412	N	65.6		mg/kg	0.5	0.11	1.1	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.334		mg/kg	0.5	0.053	0.53	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.0833		mg/kg	0.5	0.027	0.27	07/30/12
Chromium	7440-47-3	LA-505-412		6.02		mg/kg	0.5	0.053	0.53	07/30/12
Cobalt	7440-48-4	LA-505-412		9.08		mg/kg	0.5	0.027	0.13	07/30/12
Copper	7440-50-8	LA-505-412		16.6		mg/kg	0.5	0.053	0.53	07/30/12
Vanadium	7440-62-2	LA-505-412	N	53.7		mg/kg	0.5	0.11	1.1	07/30/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922005
SAF# F12-005
Sample ID B2JDM2

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	43.1		mg/kg	0.5	0.53	5.3	07/30/12
Lead	7439-92-1	LA-505-412		5.44		mg/kg	0.5	0.027	0.27	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.027		mg/kg	0.5	0.027	0.11	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.377		mg/kg	0.5	0.027	0.27	07/30/12
Strontium	7440-24-6	LA-505-412	N	32.5		mg/kg	0.5	0.053	0.53	07/30/12
Tin	7440-31-5	LA-505-412		0.467		mg/kg	0.5	0.027	0.27	07/30/12
Uranium	7440-61-1	LA-505-412		0.465		mg/kg	0.5	0.027	0.13	07/30/12
Arsenic	7440-38-2	LA-505-412		3.40		mg/kg	0.5	0.11	1.1	07/30/12
Selenium	7782-49-2	LA-505-412	U	<0.27		mg/kg	0.5	0.27	2.7	07/27/12
Boron	7440-42-8	LA-505-412	B	0.770		mg/kg	0.5	0.27	2.7	07/30/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	07/23/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922006
SAF# F12-005
Sample ID B2JDM5

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410		26.1		mg/kg	1	3.0	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<1.0		mg/kg	1	1.0	5.1	07/20/12
Nitrate-N	NO3-N	LA-533-410	U	<0.97		mg/kg	1	0.97	5.1	07/20/12
Sulfate	14808-79-8	LA-533-410	B	6.56		mg/kg	1	5.7	54	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		258		mg/kg	0.5	0.051	0.51	07/30/12
Nickel	7440-02-0	LA-505-412		9.59		mg/kg	0.5	0.051	0.51	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0307		mg/kg	0.5	0.026	0.26	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.15		mg/kg	0.5	0.15	1.5	07/30/12
Barium	7440-39-3	LA-505-412	N	50.4		mg/kg	0.5	0.10	1.0	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.246		mg/kg	0.5	0.051	0.51	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.0533		mg/kg	0.5	0.026	0.26	07/30/12
Chromium	7440-47-3	LA-505-412		6.45		mg/kg	0.5	0.051	0.51	07/30/12
Cobalt	7440-48-4	LA-505-412		7.45		mg/kg	0.5	0.026	0.13	07/30/12
Copper	7440-50-8	LA-505-412		13.8		mg/kg	0.5	0.051	0.51	07/30/12
Vanadium	7440-62-2	LA-505-412	N	41.9		mg/kg	0.5	0.10	1.0	07/30/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922006
SAF# F12-005
Sample ID B2JDM5

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	35.9		mg/kg	0.5	0.51	5.1	07/30/12
Lead	7439-92-1	LA-505-412		3.35		mg/kg	0.5	0.026	0.26	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.026		mg/kg	0.5	0.026	0.10	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.334		mg/kg	0.5	0.026	0.26	07/30/12
Strontium	7440-24-6	LA-505-412	N	29.0		mg/kg	0.5	0.051	0.51	07/30/12
Tin	7440-31-5	LA-505-412		0.323		mg/kg	0.5	0.026	0.26	07/30/12
Uranium	7440-61-1	LA-505-412		0.409		mg/kg	0.5	0.026	0.13	07/30/12
Arsenic	7440-38-2	LA-505-412		2.31		mg/kg	0.5	0.10	1.0	07/30/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/27/12
Boron	7440-42-8	LA-505-412	B	0.733		mg/kg	0.5	0.26	2.6	07/30/12
Preparation for Cr6 (SO)										**07/23/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.10		ug/g	1	0.10	0.51	07/23/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922007
SAF# F12-005
Sample ID B2JF44

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	U	<2.9		mg/kg	1	2.9	20	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.96		mg/kg	1	0.96	4.9	07/20/12
Nitrate-N	NO3-N	LA-533-410	U	<0.93		mg/kg	1	0.93	4.9	07/20/12
Sulfate	14808-79-8	LA-533-410	U	<5.5		mg/kg	1	5.5	52	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		7.60		mg/kg	0.5	0.052	0.52	07/30/12
Nickel	7440-02-0	LA-505-412	B	0.350		mg/kg	0.5	0.052	0.52	07/30/12
Silver	7440-22-4	LA-505-412	U	<0.026		mg/kg	0.5	0.026	0.26	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.16		mg/kg	0.5	0.16	1.6	07/30/12
Barium	7440-39-3	LA-505-412	N	3.08		mg/kg	0.5	0.10	1.0	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.103		mg/kg	0.5	0.052	0.52	07/30/12
Cadmium	7440-43-9	LA-505-412	U	<0.026		mg/kg	0.5	0.026	0.26	07/30/12
Chromium	7440-47-3	LA-505-412	B	0.231		mg/kg	0.5	0.052	0.52	07/30/12
Cobalt	7440-48-4	LA-505-412		0.139		mg/kg	0.5	0.026	0.13	07/30/12
Copper	7440-50-8	LA-505-412		0.765		mg/kg	0.5	0.052	0.52	07/30/12
Vanadium	7440-62-2	LA-505-412	CN	1.31		mg/kg	0.5	0.10	1.0	07/30/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922007
SAF# F12-005
Sample ID B2JF44

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	5.25		mg/kg	0.5	0.52	5.2	07/30/12
Lead	7439-92-1	LA-505-412		0.631		mg/kg	0.5	0.026	0.26	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.026		mg/kg	0.5	0.026	0.10	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.983		mg/kg	0.5	0.026	0.26	07/30/12
Strontium	7440-24-6	LA-505-412	BN	0.456		mg/kg	0.5	0.052	0.52	07/30/12
Tin	7440-31-5	LA-505-412	B	0.0475		mg/kg	0.5	0.026	0.26	07/30/12
Uranium	7440-61-1	LA-505-412		0.247		mg/kg	0.5	0.026	0.13	07/30/12
Arsenic	7440-38-2	LA-505-412	B	0.513		mg/kg	0.5	0.10	1.0	07/30/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/27/12
Boron	7440-42-8	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/30/12
Preparation for Cr6 (SO)										**07/25/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.097		ug/g	1	0.097	0.49	07/25/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922008
SAF# F12-005
Sample ID B2JDJ2

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	5.00		mg/kg	1	3.0	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.99		mg/kg	1	0.99	5.1	07/20/12
Nitrate-N	NO3-N	LA-533-410	B	2.15		mg/kg	1	0.96	5.1	07/20/12
Sulfate	14808-79-8	LA-533-410	B	44.2		mg/kg	1	5.7	54	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		350		mg/kg	0.5	0.050	0.50	07/30/12
Nickel	7440-02-0	LA-505-412		9.20		mg/kg	0.5	0.050	0.50	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0363		mg/kg	0.5	0.025	0.25	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.15		mg/kg	0.5	0.15	1.5	07/30/12
Barium	7440-39-3	LA-505-412	N	63.9		mg/kg	0.5	0.099	0.99	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.374		mg/kg	0.5	0.050	0.50	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.0706		mg/kg	0.5	0.025	0.25	07/30/12
Chromium	7440-47-3	LA-505-412		6.61		mg/kg	0.5	0.050	0.50	07/30/12
Cobalt	7440-48-4	LA-505-412		9.34		mg/kg	0.5	0.025	0.12	07/30/12
Copper	7440-50-8	LA-505-412		16.5		mg/kg	0.5	0.050	0.50	07/30/12
Vanadium	7440-62-2	LA-505-412	N	57.7		mg/kg	0.5	0.099	0.99	07/30/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922008
SAF# F12-005
Sample ID B2JDJ2

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	44.7		mg/kg	0.5	0.50	5.0	07/30/12
Lead	7439-92-1	LA-505-412		5.08		mg/kg	0.5	0.025	0.25	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.025		mg/kg	0.5	0.025	0.099	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.467		mg/kg	0.5	0.025	0.25	07/30/12
Strontium	7440-24-6	LA-505-412	N	30.4		mg/kg	0.5	0.050	0.50	07/30/12
Tin	7440-31-5	LA-505-412		0.541		mg/kg	0.5	0.025	0.25	07/30/12
Uranium	7440-61-1	LA-505-412		0.469		mg/kg	0.5	0.025	0.12	07/30/12
Arsenic	7440-38-2	LA-505-412		2.82		mg/kg	0.5	0.099	0.99	07/30/12
Selenium	7782-49-2	LA-505-412	B	0.270		mg/kg	0.5	0.25	2.5	07/27/12
Boron	7440-42-8	LA-505-412	B	1.67		mg/kg	0.5	0.25	2.5	07/30/12
~~**Preparation for Cr6 (SO)**~~										~~**07/25/12**~~
~~**Hexavalent chromium**~~										
~~Hexavalent chromium~~	~~18540-29-9~~	~~LA-265-403~~	~~U~~	~~<0.10~~		~~ug/g~~	~~1~~	~~0.10~~	~~0.51~~	~~07/25/12~~

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922009
SAF# F12-005
Sample ID B2JDK7

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anion Prep (S)										**07/20/12**
Anions by Ion Chromatography (Solid)										
Chloride	16887-00-6	LA-533-410	B	3.88		mg/kg	1	2.9	21	07/20/12
Nitrite-N	NO2-N	LA-533-410	U	<0.97		mg/kg	1	0.97	5.0	07/20/12
Nitrate-N	NO3-N	LA-533-410	B	1.99		mg/kg	1	0.94	5.0	07/20/12
Sulfate	14808-79-8	LA-533-410		63.8		mg/kg	1	5.6	53	07/20/12
ICPMS Prep (S)										**07/26/12**
ICP-2008 MS All possible metal										
Manganese	7439-96-5	LA-505-412		276		mg/kg	0.5	0.053	0.53	07/30/12
Nickel	7440-02-0	LA-505-412		9.10		mg/kg	0.5	0.053	0.53	07/30/12
Silver	7440-22-4	LA-505-412	B	0.0365		mg/kg	0.5	0.026	0.26	07/30/12
Antimony	7440-36-0	LA-505-412	U	<0.16		mg/kg	0.5	0.16	1.6	07/30/12
Barium	7440-39-3	LA-505-412	N	65.9		mg/kg	0.5	0.11	1.1	07/30/12
Beryllium	7440-41-7	LA-505-412	B	0.306		mg/kg	0.5	0.053	0.53	07/30/12
Cadmium	7440-43-9	LA-505-412	B	0.0655		mg/kg	0.5	0.026	0.26	07/30/12
Chromium	7440-47-3	LA-505-412		7.17		mg/kg	0.5	0.053	0.53	07/30/12
Cobalt	7440-48-4	LA-505-412		8.00		mg/kg	0.5	0.026	0.13	07/30/12
Copper	7440-50-8	LA-505-412		16.1		mg/kg	0.5	0.053	0.53	07/30/12
Vanadium	7440-62-2	LA-505-412	N	44.5		mg/kg	0.5	0.11	1.1	07/30/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

KS
08/13/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Sample # 120922009
SAF# F12-005
Sample ID B2JDK7

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Zinc	7440-66-6	LA-505-412	N	40.1		mg/kg	0.5	0.53	5.3	07/30/12
Lead	7439-92-1	LA-505-412		4.49		mg/kg	0.5	0.026	0.26	07/30/12
Mercury	7439-97-6	LA-505-412	U	<0.026		mg/kg	0.5	0.026	0.11	07/30/12
Molybdenum	7439-98-7	LA-505-412		0.313		mg/kg	0.5	0.026	0.26	07/30/12
Strontium	7440-24-6	LA-505-412	N	32.2		mg/kg	0.5	0.053	0.53	07/30/12
Tin	7440-31-5	LA-505-412		0.417		mg/kg	0.5	0.026	0.26	07/30/12
Uranium	7440-61-1	LA-505-412		0.499		mg/kg	0.5	0.026	0.13	07/30/12
Arsenic	7440-38-2	LA-505-412		2.70		mg/kg	0.5	0.11	1.1	07/30/12
Selenium	7782-49-2	LA-505-412	U	<0.26		mg/kg	0.5	0.26	2.6	07/27/12
Boron	7440-42-8	LA-505-412	B	0.752		mg/kg	0.5	0.26	2.6	07/30/12
Preparation for Cr6 (SO)										**07/25/12**
Hexavalent chromium										
Hexavalent chromium	18540-29-9	LA-265-403	U	<0.099		ug/g	1	0.099	0.50	07/25/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

Attachment 2
Narrative Rev1
WSCF120788

Revision 1: P&D to correct 3-nitroaniline MDL and PQL – this case narrative replaces the prior in its entirety.

Introduction

A sample was received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The sample was analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Master Contract 39818, Revision 3, "Laboratory Analytical Services to CHPRC Soil and Groundwater Remediation Project."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

The following generic data qualifiers (i.e., B, D, U and J) may be applicable to this report, as appropriate

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Attachment 2
Narrative Rev1
WSCF120788

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Vanadium and Copper – Detected in the Blank and evaluated. No sample results in this batch were affected. "C" Flags not required.

- All other applicable QC controls are within the established limits.

Organic Comments

PCB – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- The Method Blank, LCS, MS, MSD and sample B2JDD8 (120788001) did not meet the acceptance limits for surrogate Nitrobenzene-d5. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.

- The Method Blank did not meet the acceptance limits for surrogate Terphenyl-d14. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.

- All other applicable QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – The hold time requirement for this analysis was met. A Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gamma Energy Analysis:

Attachment 2
Narrative Rev1
WSCF120788

- Europium-155 - Duplicate Relative Percent Difference (RPD) could not be reported by the LIMS system because it cannot perform the calculation from a value divisible by zero.

- All applicable QC controls are within the established limits.

Americium-241:

- Americium-241 – The Blank is less than two times the RDL. "B" Flag not required.

- Americium-241 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results near the minimum detectable activity. No flags issued.

- All other applicable QC controls are within the established limits.

Isotopic Plutonium analysis:

- Plutonium-239/240 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results near the minimum detectable activity. No flags issued.

- All other applicable QC controls are within the established limits.

Isotopic Uranium analysis:

- Uranium-234 and Uranium-238 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.

- Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.

- All other applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

Attachment 2
Narrative Rev1
WSCF120788

Problem and Discrepancy Report

WSCF

SDG WSCF120788

07/26/2012

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1. The data package has the following issues:

a) The electronic data, as well as, the sample result, MDL and PQL is missing for 3-Nitroaniline page 23 of the hardcopy data package, sample B2JDD8.

Resolution: *Provide appropriate correction*

Lab Response: **The MDL and PQL have been added**

Please correct the issues and resubmit the electronic **and** hardcopy data packages.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-013

PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #5

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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, WT=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

120788

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS PCB	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am Au SR	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDD8 1	SOIL	JUN 18 2012	1016

6/18/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Frank Hall	JUN 18 2012 1300	TA Enriquez	JUN 18 2012 1300
Frank Hall			

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

F12-005-013 — PAGE 2 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample 45	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N 507 - 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6002-618 (REV 2)

REVISED120788 -

Attachment 2
Narrative
WSCF120894

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Master Contract 39818, Revision 3, "Laboratory Analytical Services to CHPRC Soil and Groundwater Remediation Project."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

The following generic data qualifiers (i.e., B, C, D, J and U) may be applicable to this report, as appropriate.

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **C** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were C flagged (applies to inorganic and wet chemical analyses).
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **B (organic analyses)** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were B flagged.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Attachment 2
Narrative
WSCF120894

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Manganese Matrix Spike Duplicate recovery is outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- All other applicable QC controls are within the established limits.

Organic Comments

PCB – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – The hold time requirement for this analysis was met. A Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gamma Energy Analysis:

- All applicable QC controls are within the established limits.

Attachment 2
Narrative
WSCF120894

Americium-241:

- All applicable QC controls are within the established limits.

Isotopic Plutonium analysis:

- Batch QC 204881
  - Plutonium-239/240 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - All other applicable QC controls are within the established limits.

Isotopic Uranium analysis:

- Batch QC 204881
  - Uranium-238 – The Blank is less than two times the RDL. "B" Flag not required.
  - Uranium-238 – The duplicate is outside of default RPD limits. RPD limit does not apply to results with greater than 20% counting uncertainty.
- Batch QC 204882
  - Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.
  - All other applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-184

PAGE 1 OF 2

COLLECTOR: Kevin Patterson

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #62

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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)

120894

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 y/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex /196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270 SVOA SP LOAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);
SAMPLE DATE SAMPLE TIME	JUL 09 2012 1018							
SAMPLE NO.	B2JF29							
MATRIX*	SOIL							

7/16/12 7/16/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800		7/16/12 0800
	7/16/12 1100		7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-184

PAGE 2 OF 2

COLLECTOR Kevin Patterson	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #62	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	
ICE CHEST NO. (N/A)	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9" 6/20/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-025 — PAGE 1 OF 2

COLLECTOR Kevin Patterson	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days	**SAMPLING LOCATION** Area AG Zone 2 Verification Sample #9	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil
SAF NO. F12-005	**AIR QUALITY** ☐	**ICE CHEST NO.** (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25
ACTUAL SAMPLE DEPTH 6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP EQUAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDH0	SOIL	JUL 09 2012	1109

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	ARMS Tyre	7/16/12 0800
ARMS Tyre	7/16/12 1100	TA Frazier	7/16/12 1100

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**

PRINTED ON 12/8/2011 — A 6003 618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-025 — PAGE 2 OF 2

COLLECTOR Kevin Patterson	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C
SAMPLING LOCATION Area AG Zone 2 Verification Sample #9	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 6/28/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-019 PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #7

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-28

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex -(Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDF4	3 SOIL	JUL 09 2012	1018

9H 07/20/12

9H 07/20/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	AKMcIntyre	7/16/12 0800
AKMcIntyre	7/16/12 1100		7/16/12 1100
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-019 — PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #7	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE BC

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 12/8/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-022 | PAGE 1 OF 2

COLLECTOR: Kevin Patterson

COMPANY CONTACT: TRENT, SJ | TELEPHONE NO.: 373-5869 | PROJECT COORDINATOR: TRENT, SJ | PRICE CODE: 8C | DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #8

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil | SAF NO.: F12-005 | AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25 | ACTUAL SAMPLE DEPTH: 6" | COA: 302677ES10 | METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP EDMA;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Rn U Ra SR	Tritium - Liq Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDF7	4 SOIL	JUL 09 2012	1049	✓	✓	✓	✓	✓	✓	✓

JH 6/29/12 | JH 6/29/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1100	SSU-1	JUL 09 2012 1110
SSU-1	7/16/12 0800	AR McIntyre	7/16/12 0800
AR McIntyre	7/16/12 1100		7/16/12 1100

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

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-022	PAGE 2 OF 2
COLLECTOR Kevin Patterson	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BC	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #8	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	
ICE CHEST NO. (N/A)	FIELD LOGBOOK NO. HNF-N- 507-25	ACTUAL SAMPLE DEPTH 6"	COA 302677ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ gjt 12/12/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-196

PAGE 1 OF 2

COLLECTOR: Kevin Patterson

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #66

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: F-N-507-23.23

ACTUAL SAMPLE DEPTH: N/A

COA: 302677E510

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	3G	3G	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP EDAM;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - on Fe (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JF41	S	SOIL	JUL 09 2012	0910

9/12 9/12/12 9/12/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1410	SSU-1	JUL 09 2012 1410
SSU-1	7/16/12 0800	ARMS Entry	7/16/12 0800
ARMS Entry	7/16/12 1100	TA Frazier	7/16/12 1100

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**

PRINTED ON 12/8/2012

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-196	PAGE 2 OF 2
COLLECTOR Kevin Patterson	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #66	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. INF -N-507- 25-23	ACTUAL SAMPLE DEPTH N/A	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 4/23/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-016

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #6

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - /196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (1mLm);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDF1	6	SOIL	JUL 09 2012	0945	✓	✓	9H 6/29/12	9H 6/29/12	✓	✓	✓	9H 6/29/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	ARMGritz	7/16/12 0800
ARMGritz	7/16/12 1100	TAFrazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-016 — PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #6	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ GJK 6/28/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-034

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #12

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-502-25

ACTUAL SAMPLE DEPTH: 0-6

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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 concentrat ons that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 7008	Chromium Hex - 7196	SEE ITEM (2) IN SPECIAL INSTRUCTIONS PCB	8270_SVOA_SPECIAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am U Pu Sr	Tritium - Liq Sc (Tritium)

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDH9	7 SOIL	JUL 10 2012	0923	X	X	X	X	X	X	X	X

04/22/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	SS Wall	JUL 10 2012 1330
SS Wall	7/16/12 0800	Alm Cintyre	7/16/12 0800
Alm Cintyre	7/16/12 1100		7/16/12 1100

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

PRINTED ON 12/8/2011

A 6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-034** — **PAGE 2 OF 2**

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #12	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-[illegible]	**ACTUAL SAMPLE DEPTH** 0"-6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-031

PAGE 1 OF 2

COLLECTOR
KC Patterson
CHPRC

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE BC

DATA TURNAROUND
15 Days / 15 Days

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #11

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.
F12-005

AIR QUALITY ☐

ICE CHEST NO.
(N/A)

FIELD LOGBOOK NO.
HNF-N-507-25

ACTUAL SAMPLE DEPTH
0'-6"

COA
302677ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO
Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium Gas Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDH6	8 SOIL	JUL 10 2012	0915	X	X	X	X	X	X	X

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012	SJ Trent	1330 JUL 10 2012
SJ Trent	7/16/12 0800	ARM Equipment	7/16/12 0800
ARM Equipment	7/16/12 1100	TA Processing	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-031

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRG	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #11	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soi.		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE BC

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120895

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

The following generic data qualifiers (i.e., B, C, D, J and U) may be applicable to this report, as appropriate

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **C** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were C flagged (applies to inorganic and wet chemical analyses).
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **B (organic analyses)** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were B flagged.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Inorganic Comments

Attachment 2
Narrative
WSCF120895

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204913
  - Sulfate – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

  - All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204901
  - Manganese – Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

Organic Comments

PCB – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

  - B2JDV3 (120895003) did not meet the acceptance limits for surrogate Decachlorobiphenyl. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.
  - All other applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 205183
  - 3, 3-Dichlorobenzidine did not meet the LCS acceptance limits. Sample results for these analytes were "X" flagged.

- All other applicable QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – The hold time requirement for this analysis was met. A Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Americium-241:
  - Batch QC 204922
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
    - All other applicable QC controls are within the established limits.
- Gamma Energy Analysis:
    - All applicable QC controls are within the established limits.
- Isotopic Plutonium analysis:
  - Batch QC 204922
    - Plutonium 239/240—the blank is less than 2X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
    - Plutonium 239/240— Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
    - All other applicable QC controls are within the established limits.
- Isotopic Uranium analysis:
  - Batch QC 204882
    - Uranium-234 and Uranium-238 — The blank is less than 5X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
    - All other applicable QC controls are within the established limits.
- Strontium-89/90:
    - All applicable QC controls are within the established limits.

Narrative

Attachment 2
Narrative
WSCF120895

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-073 PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #25

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6'

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250ml	60ml	250ml	250ml	60ml	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS ICV	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEIZV	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Liq Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDM8	SOIL	JUL 11 2012	0828	✓	✓	✓	✓	✓	✓	✓	

120895

7/16/2012

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: John Fulton	DATE/TIME: JUL 11 2012 1430	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: 7/16/12 0800	RECEIVED BY/STORED IN: ARMCIntyre	DATE/TIME: 7/16/12 0800
RELINQUISHED BY/REMOVED FROM: ARMCIntyre	DATE/TIME: 7/16/12 1100	RECEIVED BY/STORED IN: TA Pmzim	DATE/TIME: 7/16/12 1100
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION DISPOSAL METHOD | DISPOSED BY | DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-073** | **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #25	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-076

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #26

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507 25

ACTUAL SAMPLE DEPTH: 0-6'

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250ml	250ml	60ml	500ml	120mL	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**
B2JDN1 2	SOIL	JUL 11 2012	0834

9/4 7/16/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMCIUTYRE	7/16/12 0800
ARMCIUTYRE	7/16/12 1100	[illegible]	7/16/12 1100
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION	**RECEIVED BY**	**TITLE**	**DATE/TIME**
FINAL SAMPLE DISPOSITION	**DISPOSAL METHOD**	**DISPOSED BY**	**DATE/TIME**

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-076** | **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #26	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY ☐			
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-118 PAGE 1 OF 2

COLLECTOR John Fulton

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #40

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY [ ]

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF -N-507- 25

ACTUAL SAMPLE DEPTH 0-6"

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196,	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SvOA_SPECIAL,	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDV3 3	SOIL	JUL 11 2012	0803	✓	✓	✓	✓	✓	✓	✓	

OK 6/25/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-118** — **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #40	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-61'	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-091

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #31

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium (Low Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDP6	4	SOIL	JUL 11 2012	0752	✓	✓	✓	✓	✓	✓	✓	

07/13/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSintyre	7/16/12 0800
ARMSintyre	7/16/12 1100		7/16/12 1100

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

PRINTED ON 12/8/2011

A 6003 618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-091** | **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #31	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY [ ]

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-082

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #28

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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, Sd=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270 SVOA SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDN7	SOIL	JUL 11 2012	0941	✓	✓	✓	✓	✓	✓	✓

7/16 6/26/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM Guthrie	7/16/12 0800
ARM Guthrie	7/16/12 1100		7/16/12 1100

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:

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-082 — PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #28	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-2.5	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-079

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #27

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: | |

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF -N-507- 25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196,	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL,	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDN4	SOIL	JUL 11 2012	0838

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM Chitwood	7/16/12 0800
ARM Chitwood	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-079 — PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #27	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY	**ORIGINAL**		
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** 1F-N-507-2.5	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120900

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

The following generic data qualifiers (i.e., B, C, D, J and U) may be applicable to this report, as appropriate

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **C** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were C flagged (applies to inorganic and wet chemical analyses).
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **B (organic analyses)** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were B flagged.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Inorganic Comments

Attachment 2
Narrative
WSCF120900

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204923
  - Chloride and Sulfate – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

  - All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204901
  - Manganese – Matrix Spike Duplicate recovery was outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- Batch QC 204902
  - Manganese, Barium and Strontium – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

Organic Comments

PCB – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

  - All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 205183

Attachment 2
Narrative
WSCF120900

- 3, 3-Dichlorobenzidine did not meet the LCS acceptance limits. Sample results for these analytes were "X" flagged.
- All other applicable QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – The hold time requirement for this analysis was met. A Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.
- Americium-241:
  - Batch QC 204922
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
  - Batch QC 204884
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - Batch QC 204884
    - Americium-243 Tracer for sample B2JDJ8—tracer recovery was slightly above the established laboratory limits. No flags issued.
    - All other applicable QC controls are within the established limits.
- Gamma Energy Analysis:
    - All applicable QC controls are within the established limits.
- Isotopic Plutonium analysis:
  - Batch QC 204884
    - Plutonium 239/240—the blank is less than 2X the MDC and is acceptable, per S&GRP SOW.
  - Batch QC 204922

Attachment 2
Narrative
WSCF120900

- Plutonium 239/240—the blank is less than 2X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
- Plutonium 239/240— Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
- All other applicable QC controls are within the established limits.

- Isotopic Uranium analysis:
  - Batch QC 204882
    - Uranium-234 and Uranium-238—the blank is less than 5X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
  - Batch QC 204883
    - Uranium-234—the blank is less than 5X the MDC and is acceptable, per S&GRP SOW.
    - Uranium-235— Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
  - Batch QC 204884
    - Uranium-234— the blank is less than 5X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
    - All other applicable QC controls are within the established limits.
- Strontium-89/90:
    - All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-112

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #38

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35.

ACTUAL SAMPLE DEPTH

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

OFFSITE PROPERTY NO.: N/A

BILL OF LADING/AIR BILL NO.: N/A

MATRIX*: A=Air, DC=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

120900

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 3008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS PCB	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am U Pu SR	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDT7	SOIL	JUN 12 2012	0931	✓	✓	✓	✓	✓	✓	✓

gk 7/20/12

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: DJ Sparks CHPRC	DATE/TIME: JUN 12 2012 1100	RECEIVED BY/STORED IN: SSU#1	DATE/TIME: JUN 12 2012 1100
RELINQUISHED BY/REMOVED FROM: SSU #1	DATE/TIME: 7/16/12 0800	RECEIVED BY/STORED IN: ARMCIntyre	DATE/TIME: 7/16/12 0800
RELINQUISHED BY/REMOVED FROM: ARMCIntyre 7/16/12	DATE/TIME: 1100	RECEIVED BY/STORED IN: [illegible] 7/16/12 1100	DATE/TIME:
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION — RECEIVED BY — TITLE — DATE/TIME

FINAL SAMPLE DISPOSITION — DISPOSAL METHOD — DISPOSED BY — DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-112

PAGE 2 OF 2

COLLECTOR
DJ Sparks
CHPRC

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND
15 Days / 15 Days

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #38

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.
F12-005

AIR QUALITY

ICE CHEST NO.
(N/A)

FIELD LOGBOOK NO.
HNF-N-507-25

ACTUAL SAMPLE DEPTH
0-6 inches

COA
302677FS10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO
Waste Sampling & Characterization

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-109

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #37

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION		Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME		6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER		G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)		1	1	1	1	1	1	1	1
VOLUME		250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	ntium - on Ex (Tritium);
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
B2JDT4	2 SOIL	JUN 12 2012	0656	✓	✓	✓	✓	✓	✓

GK 7/12/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	AMCintyre	7/16/12 0800
AMCintyre	7/16/12 1100		7/16/12 1100
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

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-109 — PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #37	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-20	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677E510
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-028

PAGE 1 OF 2

COLLECTOR KC Patterson CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #10

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-25

ACTUAL SAMPLE DEPTH 0'-6'

COA 3026//ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

OFFSITE PROPERTY NO. N/A

BILL OF LADING/AIR BILL NO. N/A

MATRIX*
A=Air
DI=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium).

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDH3	3	SOIL	JUL 10 2012	0730	✓	✓	✓	✓	✓	✓	✓	

7/16/2012

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	KC Patterson CHPRC	JUL 10 2012 1330
Sample #1	7/16/12 0800	Armstrong	7/16/12 0800
Armstrong	7/16/12	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-028** — **PAGE 2 OF 2**

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #10	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0"-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-049

PAGE 1 OF 2

COLLECTOR DJ Sparks CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #17

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO.

FIELD LOGBOOK NO. HNF-N-507-25.

ACTUAL SAMPLE DEPTH 6-6 inches

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120m
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7199;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Thium - ion Ex (Thium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDK4	4	SOIL	JUN 12 2012	0755	✓	✓	✓	✓	✓	✓	✓	

OH 6/12/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU#1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMSEntyre	7/16/12 0800
ARMSEntyre	7/16/12 1100	TA Pnazin	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-049 **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #17	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-807-25.	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-040

PAGE 1 OF 2

COLLECTOR: DJ Sparks, CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #14

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.:

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: C-Lunches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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:

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDJ5 5	SOIL	JUN 12 2012	0819	✓	✓	✓	✓	✓	✓	✓	

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks	JUN 12 2012 1000	SSU#1	JUN 12 2012 1100
SSU#1	7/16/12 0800	ALMELITYRE	7/16/12 0800
ALMELITYRE	7/16/12 1100	TA Amazin Jones	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-040** | **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #14	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-115

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #39

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDV0 6	SOIL	JUN 12 2012	0714	✓	✓	✓	✓	✓	✓	✓

7/16/2012

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks	JUN 12 2012 1100	SSU#1	JUN 12 2012 1100
CHPRC SSU#1	7/16/12 0800	ARMSITE	7/16/12 0800
ARMSITE	7/16/12 1100	TA Pnazim Jefferson	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6008-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-115

PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #39	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-085 — PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #29

ICE CHEST NO.: (N/A)

SHIPPED TO: Waste Sampling & Characterization

COMPANY CONTACT: TRENT, SJ — **TELEPHONE NO.:** 373-5869

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

FIELD LOGBOOK NO.: HNF-N-507-25 — **ACTUAL SAMPLE DEPTH:** 0"-6"

OFFSITE PROPERTY NO.: N/A

PROJECT COORDINATOR: TRENT, SJ

SAF NO.: F12-005

COA: 302677ES10

BILL OF LADING/AIR BILL NO.: N/A

PRICE CODE: 8C — **AIR QUALITY:** [ ]

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE:

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/10 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDP0	7 SOIL	JUL 10 2012	0740	X	X	X	X	X	X	X	

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1331	Suitt	JUL 10 2012 1331
Suitt	7/16/12 0800	APM Suitye	7/16/12 0800
APM Suitye	7/16/12 1100	TA Rnazim	7/16/12 1100

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

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-085

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample 429	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-[illegible]-25	**ACTUAL SAMPLE DEPTH** 0'-6'	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-103

PAGE 1 OF 2

COLLECTOR: DJ Sparks, CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #35

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDR8	8	SOIL	JUN 12 2012	0701	✓	✓	✓	✓	✓	✓	✓	

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	Ahmentuge	7/16/12 0800
Ahmentuge	7/16/12 1100	TA Frazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-103

PAGE 2 OF 2

COLLECTOR
DJ Sparks
CHPRC

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND
15 Days / 15 Days

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #35

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.
F12-005

AIR QUALITY

ICE CHEST NO.
(N/A)

FIELD LOGBOOK NO.
HNF-N-507-25

ACTUAL SAMPLE DEPTH
0-6 inches

COA
302677ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO
Waste Sampling & Characterization

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium 155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-106

PAGE 1 OF 2

COLLECTOR: DJ Sparks, CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #36

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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
SF=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDT1	9 SOIL	JUN 12 2012	0707	✓	✓	✓	✓	✓	✓	✓

9 7/16/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARM Entry	7/16/12 0800
ARM Entry	7/16/12 1100	JA Frazim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-106** | **PAGE 2 OF 2**

COLLECTOR
DJ Sparks
CHPRC

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND
15 Days / 15 Days

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #36

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.
F12-005

AIR QUALITY ☐

ICE CHEST NO.
(N/A)

FIELD LOGBOOK NO.
HNF-N-507-25

ACTUAL SAMPLE DEPTH
0-6 inches

COA
302677ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO
Waste Sampling & Characterization

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium 154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-187

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #63

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0"-6"

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool<4C	Cool<4C	Cool<4C	Cool<4C	Cool<4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250ml	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270 SVOA SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - ion ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JF32	10 SOIL	JUL 10 2012	0750	X	X	X	X	X	X	X

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	3Sutt1	JUL 10 2012 1336
3Sutt1	7/16/12 0800	ARMCintyre	7/16/12 0800
ARMCintyre	7/16/12 1100	TA Prazim	7/16/12 1100

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	

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-187	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #63	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	
ICE CHEST NO. (N/A)	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 6'-6'	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-043 — PAGE 1 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #15	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0"-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Liq Sc (Tritium);

SAMPLE NO.		**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**								
B2JDJ8	11	SOIL	JUL 10 2012	0750	X	X	X	X	X	X	X	

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1315	3Smith	JUL 10 2012 1315
3Smith	7/16/12 0800	ARMcIntyre	7/16/12 0800
ARMcIntyre	7/16/12 1100	TA Rivera	7/16/12 1100

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**

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-043

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #15	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-367-25	**ACTUAL SAMPLE DEPTH** 0"- 6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium 152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-097

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #33

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDR2	12 SOIL	JUL 11 2012	0949	✓	✓	✓	✓	✓	✓	✓	✓

7/16/2012

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM Chitty	7/16/12 0800
ARM Chitty	7/16/12 1100	TA Frazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-097

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #33	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-100

PAGE 1 OF 2

COLLECTOR: DJ Sparks, CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #34

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soi

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25.

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDR5	13 SOIL	JUN 12 2012	0724	✓	✓	✓	✓	✓	✓	✓

JH 6/28/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12 1100	TA FRAZIER	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-100

PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #34

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-25

ACTUAL SAMPLE DEPTH 0-6 inches

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

OFFSITE PROPERTY NO. N/A

BILL OF LADING/AIR BILL NO. N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-613 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-088

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #30

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDP3	14	SOIL	JUL 11 2012	0741	✓	✓	✓	✓	✓	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSLL-1	JUL 11 2012 1830
SSLL-1	7/16/12 0800	ARMENTAGE	7/16/12 0800
ARMENTAGE	7/16/12 1100	TAMAZIM	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-088

PAGE 2 OF 2

COLLECTOR
John Fulton

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND
15 Days / 15 Days

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #30

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soi

SAF NO.
F12-005

AIR QUALITY ☐

ICE CHEST NO.
(N/A)

FIELD LOGBOOK NO.
HNF-N-507-25

ACTUAL SAMPLE DEPTH
0-6"

COA
302677ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO
Waste Sampling & Characterization

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-094 — PAGE 1 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**AIR QUALITY** ☐	**DATA TURNAROUND** 15 Days / 15 Days	
SAMPLING LOCATION Area AG Zone 2 Verification Sample #32	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/18 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120m	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium Ion Ex (Tritium);

SAMPLE NO.		**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**
B2JDP9	15	SOIL	JUL 11 2012	0855

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSchutze	7/16/12 0800
ARMSchutze	7/16/12 1100	TA Frazier	7/16/12 1100

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**

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-094 — PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #32	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12 005	**AIR QUALITY** [ ]
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** WMSJ-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A 6003 618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-121

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: BC

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #41

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDV6	16 SOIL	JUL 11 2012	0846	✓	✓	✓	✓	✓	✓	✓	

GH 7/28/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMS Courier	7/16/12 0800
ARMS Courier	7/16/12 1100	TA Fnazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-121	PAGE 2 OF 2
COLLECTOR: John Fulton	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #41	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005	AIR QUALITY: ☐	
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N-507-25	ACTUAL SAMPLE DEPTH: 0-6"	COA: 302677ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-046

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #16

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.:

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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, SF=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDK1	17	SOIL	JUL 11 2012	0954	✓	✓	✓	✓	✓	✓	✓	

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSTUTYRE	7/16/12 0800
ARMSTUTYRE	7/16/12 1100	TA FNAZIM	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-046

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #16	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium 155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-190

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #64

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JF35	18 SOIL	JUL 11 2012	0855	✓	✓	✓	✓	✓	✓	✓

7/16/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSchutyre	7/16/12 0800
ARMSchutyre	7/16/12 1100	TAFrazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-190

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #64	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT FEDERAL EXPRESS

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A 6003 618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-202 PAGE 1 OF 2

COLLECTOR John Fulton

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #68

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF -N-507- 25

ACTUAL SAMPLE DEPTH 0-6"

COA 302677ES10

METHOD OF SHIPMENT FEDERAL EXPRESS

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - /196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270, SVOA SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JF47	19	SOIL	JUL 11 2012	0808	✓	✓	✓	✓	✓	✓	✓	

7/16/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430		JUL 11 2012 1430
SSU #1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12 1100	TA FRAZIER	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-202 — PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #68	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507-75	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT FEDERAL EXPRESS

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120922

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Master Contract 39818, Revision 3, "Laboratory Analytical Services to CHPRC Soil and Groundwater Remediation Project."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

- Sample Issue Resolution Form SDR12-308 regarding missing sample collector on COC is attached to this report.

The following generic data qualifiers (i.e., B, C, D, J and U) may be applicable to this report, as appropriate.

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **C** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were C flagged (applies to inorganic and wet chemical analyses).
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **B (organic analyses)** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were B flagged.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Attachment 2
Narrative
WSCF120922

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Vanadium, Strontium, Zinc and Barium – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- Vanadium and Manganese were detected in the Blank and evaluated.
- Manganese – Exceeded spiking levels by a factor of 4. Spike recoveries and associated RPDs are not valid.
- All other applicable QC controls are within the established limits.

Organic Comments

PCB – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – The hold time requirement for this analysis was met. A Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

Attachment 2
Narrative
WSCF120922

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gamma Energy Analysis:

- All applicable QC controls are within the established limits.

Americium-241:

- The Blank is less than two times the RDL. "B" Flag not required.
- Americium-243 - Tracer recovery did not meet the established laboratory limits. No flags issued on sample results. The quality control report was flagged for the failure.
- All other applicable QC controls are within the established limits.

Isotopic Plutonium analysis:

- All applicable QC controls are within the established limits.

Isotopic Uranium analysis:

- Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.
- All other applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-055

PAGE 1 OF 2

COLLECTOR
DJ Sparks

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND
15 Days / 15 Days

SAMPLING LOCATION
Area AG Zone 2 Verificaton Sample #19

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.
F12-005

AIR QUALITY [ ]

ICE CHEST NO.
(N/A)

FIELD LOGBOOK NO.
HNF -N-507-22

ACTUAL SAMPLE DEPTH
0-6"

COA
302677ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO
Waste Sampling & Characterization

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

120922

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2052	Chromium Hex 7196:	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL:	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am U Pu Sr	Tritium - Ion Ex (Tritium).

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDL0	/ SOIL	JUL 17 2012	1413	X	X	X	7/17/12	X	X	X	7/17/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU-1	JUL 17 2012 1515
[redacted]	7-18-12 0730	ARMCINTYRE	7/18/12 0730
ARMCINTYRE	7/18/12 0800	TA Frazier	7/18/12 0800

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**

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-055** — **PAGE 2 OF 2**

COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8C	**DATA TURNAROUND**
	TRENT, SJ	373-5869	TRENT, SJ		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	**15 Days / 15 Days**
Area AG Zone 2 Verification Sample #19	Area AG Zone 2 Sampling Verification Sampling Soil		F12-005		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	**ORIGINAL**
(N/A)	HNF-N-507-25	6-6'	302677ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Waste Sampling & Characterization	N/A		N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ GH 4/29/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-058

PAGE 1 OF 2

COLLECTOR

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5859

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #20

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507 D.

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDL3	2 SOIL	JUL 17 2012	1420	X	X			X	X	X	

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU-1	JUL 17 2012 1515
SSU-1	JUL 18 2012 0730	Randy Ellingsworth	JUL 18 2012 0730
Randy Ellingsworth	JUL 18 2012 0800	TA Frazier	JUL 18 2012 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-058** — **PAGE 2 OF 2**

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #20	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9/4/2012

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-061

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #21

ICE CHEST NO.: (N/A)

SHIPPED TO: Waste Sampling & Characterization

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

FIELD LOGBOOK NO.: HNF -N-507-25

ACTUAL SAMPLE DEPTH: 6-6"

OFFSITE PROPERTY NO.: N/A

PROJECT COORDINATOR: TRENT, SJ

SAF NO.: F12-005

COA: 302677ES10

BILL OF LADING/AIR BILL NO.: N/A

PRICE CODE: 8C

AIR QUALITY: ☐

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

DATA TURNAROUND: 15 Days / 15 Days

ORIGINAL

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	RCRA_SVOA_SP EC/AL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Non Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDL6	3	SOIL	JUL 17 2012	1313	X	X	X	X	X	X	X	

7-18-12 9H 7/19/12 9H 6/27/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSO #1	JUL 17 2012 1515
SSO #1	7-18-12 0730	ARM Intyre	7-18-12 0730
AR McIntyre	7-18-12 0800	TA Kazien	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-061

PAGE 2 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #21	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ -- PH 6/29/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-064

PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #22

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool--4C	Cool--4C	Cool--4C	Cool--4C	Cool--4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP FETAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDL9	4	SOIL	JUN 16 2012	0954

7/18/12 7/18/2012

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: Frank Hall	DATE/TIME: JUN 16 2012 1515	RECEIVED BY/STORED IN: SSU #1	DATE/TIME: JUN 16 2012 1515
RELINQUISHED BY/REMOVED FROM: SSU #1 7-18-12	DATE/TIME: 0730	RECEIVED BY/STORED IN: ARM Stutzman 7-18-12	DATE/TIME: 0730
RELINQUISHED BY/REMOVED FROM: ARM Stutzman 7/18/12	DATE/TIME: 0800	RECEIVED BY/STORED IN: TA Frazier 7/18/12	DATE/TIME: 0800
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-064

PAGE 2 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #22	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9/17/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-067 — PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #23

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF -N-507- 25

ACTUAL SAMPLE DEPTH: 0 - 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDM2 5	SOIL	JUN 16 2012	1024

JH 6/29/12 JH 6/28/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Frank Hall	JUN 16 2012 1515	SSU #1	JUN 16 2012 1515
SSU #1 7.18.12	0730	ARM Courier	7.18.12 0730
ARM Courier 7.18.12	0820	TA Frazier	7/18/12 0800

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

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-067

PAGE 2 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #23	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY ☐			
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 4/29/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-070 — PAGE 1 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #24	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** YNF-N-507- 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C — **AIR QUALITY** ☐ — **DATA TURNAROUND** 15 Days / 15 Days — **METHOD OF SHIPMENT** GOVERNMENT VEHICLE — **ORIGINAL**

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Spn Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDM5 6	SOIL	JUN 16 2012	0940

9/4 11/29/12 — 9/4 11/28/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Frank Hall	JUN 16 2012 1500	SSL #1	JUN 16 2012 1500
SSL-1	JUL 18 2012 0730	Randy Ellingsworth	JUL 18 2012 0730
Randy Ellingsworth	JUL 18 2012 0800	TA Fragzin	JUL 18 2012 0800

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**

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-070

PAGE 2 OF 2

COLLECTOR
Frank Hall

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND
15 Days / 15 Days

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #24

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.
F12-005

AIR QUALITY [ ]

ICE CHEST NO.
(N/A)

FIELD LOGBOOK NO.
HNF -N-507- 25

ACTUAL SAMPLE DEPTH
0-6"

COA
302677E510

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO
Waste Sampling & Characterization

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9H 6/29/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-199 — PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #67

ICE CHEST NO.: NA

SHIPPED TO: Waste Sampling & Characterization NA

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: NA

OFFSITE PROPERTY NO.: N/A

PROJECT COORDINATOR: TRENT, SJ

SAF NO.: F12-005

COA: 302677ES10

BILL OF LADING/AIR BILL NO.: N/A

PRICE CODE: 8C

AIR QUALITY: ☐

METHOD OF SHIPMENT: FEDERAL EXPRESS

DATA TURNAROUND: 15 Days / 15 Days

ORIGINAL

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - (SW6)	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP &CEAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - (in Fe (Urban));

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JF44	7	SOIL	JUL 17 2012	1250	X	X	X	X	X	X	X	

PK 7/23/12

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: DJ Sparks CHPRC	DATE/TIME: JUL 17 2012 1515	RECEIVED BY/STORED IN: CSU #1	DATE/TIME: JUL 17 2012 1515
RELINQUISHED BY/REMOVED FROM: SSU #1	DATE/TIME: 7.18.12 0730	RECEIVED BY/STORED IN: AKM Sulgre	DATE/TIME: 7.18.12 0730
RELINQUISHED BY/REMOVED FROM: AKM Sulgre	DATE/TIME: 7.18.12 0800	RECEIVED BY/STORED IN: TA Fnazisa	DATE/TIME: 7/18/12 0800
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-199 — PAGE 2 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #67	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF -N-507-25	**ACTUAL SAMPLE DEPTH** N/A	**COA** 302677ES10	**METHOD OF SHIPMENT** FEDERAL EXPRESS	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-037 — PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #13

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6'

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Inorganic - Ion Ex (Thallium);
SAMPLE NO.	B2JDJ2							
MATRIX*	S SOIL							
SAMPLE DATE / SAMPLE TIME	JUL 17 2012 1355	X	X	X	X	X	X	X

Qt Metallic

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU #1	JUL 17 2012 1515
SSU #1	7.18.12 0730	ARM Eastye	7.18.12 0730
ARM Eastye	7.18.12 0800	TA Franklin	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-037

PAGE 2 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #13	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-052

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #18

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: N/A

FIELD LOGBOOK NO.: HNF -N-507-23

ACTUAL SAMPLE DEPTH: 0 - 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Gas Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDK7	9 SOIL	JUL 17 2012	1308	X	X	X	X	X	X	X

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU #1	JUL 17 2012 1515
SSU #1	7.18.12 0730	ARM CENTURE	7.18.12 0730
ARM CENTURE	7.18.12 0830	TA FRAZIER	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

F12-005-052 — PAGE 2 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #18	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. NA	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Appendix 5

Data Validation Supporting Documentation

VALIDATION LEVEL:	A	B	(C)	D	E
PROJECT: 100 K RA			DATA PACKAGE: VSR12-021		
VALIDATOR: Ken Salaz		LAB: WSCF		DATE: 8/13/12	
			SDG: WSCF120788, WSCF120894, WSCF120895, WSCF120900, WSCF120922		
ANALYSES PERFORMED					
Anions/IC X	TOC	TOX	TPH-418.1	Oil and Grease	Alkalinity
Ammonia	BOD/COD	Chloride	Chromium-VI X	pH	NO_3/NO_2
Sulfate	TDS	TKN	Phosphate		
SAMPLES/MATRIX Soil Samples					

SDG WSCF120788: B2JDD8
SDG WSCF120894: B2JDH9, B2JDH6
SDG WSCF120895: B2JDM8, B2JDN1, B2JDV3, B2JDP6, B2JDN7, B2JDN4
SDG WSCF120900: B2JDT7, B2JDT4, B2JDH3, B2JDK4, B2JDJ5, B2JDV0, B2JDP0, B2JDR8, B2JDT1, B2JF32, B2JDJ8, B2JDR2, B2JDR5, B2JDP3, B2JDP9, B2JDV6, B2JDK1, B2JF35, B2JF47
SDG WSCF120922: B2JDL0, B2JDL3, B2JDL6, B2JDL9, B2JDM2, B2JDM5, B2JF44, BJDJ2, B2JDK7

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present?..... Yes (No) N/A

Comments: None

2. INSTRUMENT PERFORMANCE AND CALIBRATIONS (Levels D and E)

Initial calibrations performed on all instruments? ..... Yes No N/A

Initial calibrations acceptable? ..... Yes No N/A

ICV and CCV checks performed on all instruments? ..... Yes No N/A

ICV and CCV checks acceptable? ..... Yes No N/A

Standards traceable? ..... Yes No N/A

Standards expired? ..... Yes No N/A

Calculation check acceptable? ..... Yes No N/A

Comments:

3. BLANKS (Levels B, C, D, and E)

ICB and CCB checks performed for all applicable analyses? (Levels D, E) ..... Yes No N/A

ICB and CCB results acceptable? (Levels D, E) ..... Yes No N/A

Laboratory blanks analyzed? ..... Yes No N/A

Laboratory blank results acceptable? ..... Yes No N/A

Field blanks analyzed? (Levels C, D, E) ..... Yes No N/A

Field blank results acceptable? (Levels C, D, E) ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Comments:__ None

4. ACCURACY (Levels C, D, and E)

Spike samples analyzed? ..... Yes No N/A

Spike recoveries acceptable? ..... Yes No N/A

Spike standards NIST traceable? (Levels D, E) ..... Yes No N/A

Spike standards expired? (Levels D, E) ..... Yes No N/A

LCS/BSS samples analyzed? ..... Yes No N/A

LCS/BSS results acceptable? ..... Yes No N/A

Standards traceable? (Levels D, E) ..... Yes No N/A

Standards expired? (Levels D, E) ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Performance audit sample(s) analyzed? ..... Yes No N/A

Performance audit sample results acceptable? ..... Yes No N/A

Comments:_ None

SDG WSCF120900: Cl MS/MSD(78272/3)=79/79

5. PRECISION (Levels C, D, and E)

Duplicate RPD values acceptable?..... Yes (No) N/A

Duplicate results acceptable? ..... (Yes) No N/A

MS/MSD standards NIST traceable? (Levels D, E) ..... Yes No (N/A)

MS/MSD standards expired? (Levels D, E) ..... Yes No (N/A)

Field duplicate RPD values acceptable? ..... (Yes) No N/A

Field split RPD values acceptable? ..... Yes No (N/A)

Transcription/calculation errors? (Levels D, E) ..... Yes No (N/A)

Comments:

SDGs WSCF120788 & WSCF120900: Cr VI RPDs>30%, parent and duplicate results <MDL

6. HOLDING TIMES (all levels)

Samples properly preserved? ..... (Yes) No N/A

Sample holding times acceptable? ..... (Yes) No N/A

Comments: None

7. RESULT QUANTITATION AND DETECTION LIMITS (all levels)

Results reported for all requested analyses?..... Yes No N/A

Results supported in the raw data? (Levels D, E) ..... Yes No N/A

Samples properly prepared? (Levels D, E)..... Yes No N/A

Detection limits meet RDL?..... Yes No N/A

Transcription/calculation errors? (Levels D, E)..... Yes No N/A

Comments:__ None

Comments (attach additional sheets as necessary):

Appendix 6

Additional Documentation Requested By Client

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120788

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
203599	203600	3	BLANK	77190	BLANK		Anions by Ion Chromatography (Solid)
203599	203600	4	LCS	77191	LCS		Anions by Ion Chromatography (Solid)
203599	203600	5	MS	77192	B2JDD8(120788001MS)	120788001	Anions by Ion Chromatography (Solid)
203599	203600	6	MSD	77193	B2JDD8(120788001MSD)	120788001	Anions by Ion Chromatography (Solid)
203599	203600	7	DUP	77194	B2JDD8(120788001DUP)	120788001	Anions by Ion Chromatography (Solid)
203599	203600	8	SAMPLE	120788001	B2JDD8		Anions by Ion Chromatography (Solid)
203662	203697	4	BLANK	77239	BLANK		ICP-2008 MS All possible metal
203662	203697	5	LCS	77240	LCS		ICP-2008 MS All possible metal
203662	203697	7	MS	77241	B2LPX0(120787001MS)	120787001	ICP-2008 MS All possible metal
203662	203697	8	MSD	77242	B2LPX0(120787001MSD)	120787001	ICP-2008 MS All possible metal
203662	203697	11	SAMPLE	120788001	B2JDD8		ICP-2008 MS All possible metal
203662	203876	1	LCS	77240	LCS		ICP-2008 MS All possible metal
203662	203876	2	BLANK	77239	BLANK		ICP-2008 MS All possible metal
203662	203876	10	SAMPLE	120788001	B2JDD8		ICP-2008 MS All possible metal
203662	203876	13	MSD	77242	B2LPX0(120787001MSD)	120787001	ICP-2008 MS All possible metal
203662	203876	14	MS	77241	B2LPX0(120787001MS)	120787001	ICP-2008 MS All possible metal
203867	203868	1	BLANK	77470	BLANK		Hexavalent chromium
203867	203868	4	LCS	77471	LCS		Hexavalent chromium
203867	203868	5	DUP	77472	B2LPX0(120787001DUP)	120787001	Hexavalent chromium
203867	203868	6	MS	77473	B2LPX0(120787001MS)	120787001	Hexavalent chromium
203867	203868	7	PSTSPK	77474	PSTSPK		Hexavalent chromium
203867	203868	8	IMS	77475	B2LPX0(120787001IMS)	120787001	Hexavalent chromium
203867	203868	12	SAMPLE	120788001	B2JDD8		Hexavalent chromium

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Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120788

Analytical Batch 203600 (QC Batch: 203599)
Associated Samples 120788001

Test Anions by Ion Chromatography (Solid)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #77190**							
Chloride	16887-00-6		<0.058	ug/mL					U	06/20/12
Nitrite-N	NO2-N		<0.019	ug/mL					U	06/20/12
Nitrate-N	NO3-N		<0.019	ug/mL					U	06/20/12
Sulfate	14808-79-8		<0.11	ug/mL					U	06/20/12
LCS			**QC Sample #77191**							
Chloride	16887-00-6		1.80	ug/mL	90.7	90 - 110				06/20/12
Nitrite-N	NO2-N		0.968	ug/mL	98.9	90 - 110				06/20/12
Nitrate-N	NO3-N		0.873	ug/mL	98.6	90 - 110				06/20/12
Sulfate	14808-79-8		3.67	ug/mL	93.7	90 - 110				06/20/12
MS			**QC Sample #77192**							
			Original 120788001							
Chloride	16887-00-6	4.22	43.9	mg/kg	87.2	80 - 120				06/20/12
Nitrite-N	NO2-N	<0.99	23.6	mg/kg	94.8	80 - 120				06/20/12
Nitrate-N	NO3-N	1.04	21.5	mg/kg	95.5	80 - 120				06/20/12
Sulfate	14808-79-8	37.2	89.0	mg/kg	89.4	80 - 120				06/20/12
MSD			**QC Sample #77193**							
			Original 120788001					**Paired 77192**		

* - QC result out of range n/a - Not Applicable

REVISED120788 -

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120788

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Chloride	16887-00-6	4.22	42.4	mg/kg	83.9	80 - 120	3.20	30		06/20/12
Nitrite-N	NO2-N	<0.99	23.3	mg/kg	93.3	80 - 120	1.30	30		06/20/12
Nitrate-N	NO3-N	1.04	21.7	mg/kg	96.2	80 - 120	0.90	30		06/20/12
Sulfate	14808-79-8	37.2	87.3	mg/kg	87.3	80 - 120	1.60	30		06/20/12
DUP			**QC Sample #77194**							
			Original 120788001							
Chloride	16887-00-6	4.22	4.18	mg/kg			0.70	30	B	06/20/12
Nitrite-N	NO2-N	<0.99	<1.0	mg/kg			0.00	30	U	06/20/12
Nitrate-N	NO3-N	1.04	1.29	mg/kg			21.40	30	B	06/20/12
Sulfate	14808-79-8	37.2	37.0	mg/kg			0.60	30	B	06/20/12

* - QC result out of range n/a - Not Applicable

REVISED120788 -

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120788

Analytical Batch 203868 (QC Batch: 203867)
Associated Samples 120788001

Test Hexavalent chromium

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #77470**								
Hexavalent chromium	18540-29-9		<0.10	ug/g						U	06/26/12
LCS			**QC Sample #77471**								
Hexavalent chromium	18540-29-9		3.47	ug/g	88	80 - 120					06/26/12
DUP			**QC Sample #77472**								
			Original 120787001								
Hexavalent chromium	18540-29-9		<0.099	ug/g			117.40	30	*	UX	06/26/12
MS			**QC Sample #77473**								
			Original 120787001								
Hexavalent chromium	18540-29-9		3.58	ug/g	89.9	75 - 125					06/26/12
PSTSPK			**QC Sample #77474**								
Hexavalent chromium	18540-29-9		0.0504	ug/g	100.8	85 - 115					06/26/12
IMS			**QC Sample #77475**								
			Original 120787001								
Hexavalent chromium	18540-29-9		340	ug/g	75.6	75 - 125					06/26/12

* - QC result out of range n/a - Not Applicable

REVISED120788 -

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204901	204979	32	SAMPLE	120894003	B2JDF4		ICP-2008 MS All possible metal
204909	204935	3	BLANK	78225	BLANK		Anions by Ion Chromatography (Solid)
204909	204935	4	LCS	78226	LCS		Anions by Ion Chromatography (Solid)
204909	204935	5	MS	78227	B2JDM8(120895001MS)	120895001	Anions by Ion Chromatography (Solid)
204909	204935	6	MSD	78228	B2JDM8(120895001MSD	120895001	Anions by Ion Chromatography (Solid)
204909	204935	7	DUP	78229	B2JDM8(120895001DUP)	120895001	Anions by Ion Chromatography (Solid)
204909	204935	8	SAMPLE	120894001	B2JF29		Anions by Ion Chromatography (Solid)
204909	204935	9	SAMPLE	120894002	B2JDH0		Anions by Ion Chromatography (Solid)
204909	204935	10	SAMPLE	120894003	B2JDF4		Anions by Ion Chromatography (Solid)
204909	204935	11	SAMPLE	120894004	B2JDF7		Anions by Ion Chromatography (Solid)
204909	204935	12	SAMPLE	120894005	B2JF41		Anions by Ion Chromatography (Solid)
204909	204935	13	SAMPLE	120894006	B2JDF1		Anions by Ion Chromatography (Solid)
204909	204935	14	SAMPLE	120894007	B2JDH9		Anions by Ion Chromatography (Solid)
204909	204935	15	SAMPLE	120894008	B2JDH6		Anions by Ion Chromatography (Solid)
205245	205247	3	BLANK	78769	BLANK		Hexavalent chromium
205245	205247	4	LCS	78770	LCS		Hexavalent chromium
205245	205247	5	DUP	78771	B2JF29(120894001DUP)	120894001	Hexavalent chromium
205245	205247	6	MS	78772	B2JF29(120894001MS)	120894001	Hexavalent chromium
205245	205247	7	PSTSPK	78773	PSTSPK		Hexavalent chromium
205245	205247	8	IMS	78774	B2JF29(120894001IMS)	120894001	Hexavalent chromium
205245	205247	9	SAMPLE	120894001	B2JF29		Hexavalent chromium
205245	205247	10	SAMPLE	120894002	B2JDH0		Hexavalent chromium
205245	205247	11	SAMPLE	120894003	B2JDF4		Hexavalent chromium

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
205245	205247	12	SAMPLE	120894004	B2JDF7		Hexavalent chromium
205245	205247	13	SAMPLE	120894005	B2JF41		Hexavalent chromium
205245	205247	14	SAMPLE	120894006	B2JDF1		Hexavalent chromium
205245	205247	15	SAMPLE	120894007	B2JDH9		Hexavalent chromium
205245	205247	16	SAMPLE	120894008	B2JDH6		Hexavalent chromium

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Analytical Batch 205247 (QC Batch: 205245) **Test** Hexavalent chromium
Associated Samples 120894001, 120894002, 120894003, 120894004, 120894005, 120894006, 120894007, 120894008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78769**							
Hexavalent chromium	18540-29-9		<0.096	ug/g					U	07/23/12
LCS			**QC Sample #78770**							
Hexavalent chromium	18540-29-9		3.87	ug/g	99.2	80 - 120				07/23/12
DUP			**QC Sample #78771**							
			Original 120894001							
Hexavalent chromium	18540-29-9	<0.10	<0.10	ug/g			22.50	30	U	07/23/12
MS			**QC Sample #78772**							
			Original 120894001							
Hexavalent chromium	18540-29-9	<0.10	3.02	ug/g	77.1	75 - 125				07/23/12
PSTSPK			**QC Sample #78773**							
Hexavalent chromium	18540-29-9		0.0905	ug/g	90.5	85 - 115				07/23/12
IMS			**QC Sample #78774**							
			Original 120894001							
Hexavalent chromium	18540-29-9	<0.10	398	ug/g	96.9	75 - 125				07/23/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Analytical Batch 204935 (QC Batch: 204909) **Test** Anions by Ion Chromatography (Solid)
Associated Samples 120894001, 120894002, 120894003, 120894004, 120894005, 120894006, 120894007, 120894008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78225**							
Chloride	16887-00-6		<0.058	ug/mL					U	07/17/12
Nitrite-N	NO2-N		<0.019	ug/mL					U	07/17/12
Nitrate-N	NO3-N		<0.019	ug/mL					U	07/17/12
Sulfate	14808-79-8		<0.11	ug/mL					U	07/17/12
LCS			**QC Sample #78226**							
Chloride	16887-00-6		1.98	ug/mL	100.2	90 - 110				07/17/12
Nitrite-N	NO2-N		0.958	ug/mL	97.9	90 - 110				07/17/12
Nitrate-N	NO3-N		0.896	ug/mL	101.2	90 - 110				07/17/12
Sulfate	14808-79-8		4.01	ug/mL	102.2	90 - 110				07/17/12
MS			**QC Sample #78227**							
			Original 120895001							
Chloride	16887-00-6		53.3	mg/kg	107.7	80 - 120				07/17/12
Nitrite-N	NO2-N		25.0	mg/kg	102.4	80 - 120				07/17/12
Nitrate-N	NO3-N		23.3	mg/kg	105.2	80 - 120				07/17/12
Sulfate	14808-79-8		100	mg/kg	102.3	80 - 120				07/17/12
MSD			**QC Sample #78228**							
			Original 120895001					**Paired**	**78227**	

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Chloride	16887-00-6		53.7	mg/kg	107.3	80 - 120	0.70	30		07/17/12
Nitrite-N	NO2-N		24.7	mg/kg	100.1	80 - 120	1.20	30		07/17/12
Nitrate-N	NO3-N		22.4	mg/kg	100	80 - 120	3.50	30		07/17/12
Sulfate	14808-79-8		105	mg/kg	106.1	80 - 120	3.50	30		07/17/12
DUP			**QC Sample #78229**							
			Original 120895001							
Chloride	16887-00-6		<2.9	mg/kg			11.50	30	U	07/17/12
Nitrite-N	NO2-N		<0.96	mg/kg			0.00	30	U	07/17/12
Nitrate-N	NO3-N		2.71	mg/kg			0.40	30	B	07/17/12
Sulfate	14808-79-8		15.3	mg/kg			28.80	30	B	07/17/12

* - QC result out of range n/a - Not Applicable

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204901	204928	4	BLANK	78173	BLANK		ICP-2008 MS All possible metal
204901	204928	5	LCS	78174	LCS		ICP-2008 MS All possible metal
204901	204928	7	MS	78175	B2JF29(120894001MS)	120894001	ICP-2008 MS All possible metal
204901	204928	8	MSD	78176	B2JF29(120894001MSD)	120894001	ICP-2008 MS All possible metal
204901	204928	16	SAMPLE	120895001	B2JDM8		ICP-2008 MS All possible metal
204901	204928	17	SAMPLE	120895002	B2JDN1		ICP-2008 MS All possible metal
204901	204928	20	SAMPLE	120895003	B2JDV3		ICP-2008 MS All possible metal
204901	204928	21	SAMPLE	120895004	B2JDP6		ICP-2008 MS All possible metal
204901	204928	22	SAMPLE	120895005	B2JDN7		ICP-2008 MS All possible metal
204901	204928	23	SAMPLE	120895006	B2JDN4		ICP-2008 MS All possible metal
204901	204979	1	LCS	78174	LCS		ICP-2008 MS All possible metal
204901	204979	2	BLANK	78173	BLANK		ICP-2008 MS All possible metal
204901	204979	15	MSD	78176	B2JF29(120894001MSD)	120894001	ICP-2008 MS All possible metal
204901	204979	18	SAMPLE	120895002	B2JDN1		ICP-2008 MS All possible metal
204901	204979	19	MS	78175	B2JF29(120894001MS)	120894001	ICP-2008 MS All possible metal
204901	204979	21	SAMPLE	120895001	B2JDM8		ICP-2008 MS All possible metal
204901	204979	22	SAMPLE	120895006	B2JDN4		ICP-2008 MS All possible metal
204901	204979	24	SAMPLE	120895005	B2JDN7		ICP-2008 MS All possible metal
204901	204979	26	SAMPLE	120895004	B2JDP6		ICP-2008 MS All possible metal
204901	204979	29	SAMPLE	120895003	B2JDV3		ICP-2008 MS All possible metal
204909	204935	3	BLANK	78225	BLANK		Anions by Ion Chromatography (Solid)
204909	204935	4	LCS	78226	LCS		Anions by Ion Chromatography (Solid)
204909	204935	5	MS	78227	B2JDM8(120895001MS)	120895001	Anions by Ion Chromatography (Solid)

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204909	204935	6	MSD	78228	B2JDM8(120895001MSD	120895001	Anions by Ion Chromatography (Solid)
204909	204935	7	DUP	78229	B2JDM8(120895001DUP)	120895001	Anions by Ion Chromatography (Solid)
204909	204935	16	SAMPLE	120895001	B2JDM8		Anions by Ion Chromatography (Solid)
204909	204935	17	SAMPLE	120895002	B2JDN1		Anions by Ion Chromatography (Solid)
204913	204936	3	BLANK	78241	BLANK		Anions by Ion Chromatography (Solid)
204913	204936	4	LCS	78242	LCS		Anions by Ion Chromatography (Solid)
204913	204936	5	MS	78243	B2JDN4(120895006MS)	120895006	Anions by Ion Chromatography (Solid)
204913	204936	6	MSD	78244	B2JDN4(120895006MSD)	120895006	Anions by Ion Chromatography (Solid)
204913	204936	7	DUP	78245	B2JDN4(120895006DUP)	120895006	Anions by Ion Chromatography (Solid)
204913	204936	8	SAMPLE	120895003	B2JDV3		Anions by Ion Chromatography (Solid)
204913	204936	9	SAMPLE	120895004	B2JDP6		Anions by Ion Chromatography (Solid)
204913	204936	10	SAMPLE	120895005	B2JDN7		Anions by Ion Chromatography (Solid)
204913	204936	11	SAMPLE	120895006	B2JDN4		Anions by Ion Chromatography (Solid)
205245	205247	3	BLANK	78769	BLANK		Hexavalent chromium
205245	205247	4	LCS	78770	LCS		Hexavalent chromium
205245	205247	5	DUP	78771	B2JF29(120894001DUP)	120894001	Hexavalent chromium
205245	205247	6	MS	78772	B2JF29(120894001MS)	120894001	Hexavalent chromium
205245	205247	7	PSTSPK	78773	PSTSPK		Hexavalent chromium
205245	205247	8	IMS	78774	B2JF29(120894001IMS)	120894001	Hexavalent chromium
205245	205247	17	SAMPLE	120895001	B2JDM8		Hexavalent chromium
205245	205247	18	SAMPLE	120895002	B2JDN1		Hexavalent chromium
205245	205247	20	SAMPLE	120895003	B2JDV3		Hexavalent chromium
205245	205247	21	SAMPLE	120895004	B2JDP6		Hexavalent chromium

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
205245	205247	22	SAMPLE	120895005	B2JDN7		Hexavalent chromium
205245	205247	23	SAMPLE	120895006	B2JDN4		Hexavalent chromium

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Analytical Batch 204935 (QC Batch: 204909)
Associated Samples 120895001, 120895002

Test Anions by Ion Chromatography (Solid)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78225**							
Chloride	16887-00-6		<0.058	ug/mL					U	07/17/12
Nitrite-N	NO2-N		<0.019	ug/mL					U	07/17/12
Nitrate-N	NO3-N		<0.019	ug/mL					U	07/17/12
Sulfate	14808-79-8		<0.11	ug/mL					U	07/17/12
LCS			**QC Sample #78226**							
Chloride	16887-00-6		1.98	ug/mL	100.2	90 - 110				07/17/12
Nitrite-N	NO2-N		0.958	ug/mL	97.9	90 - 110				07/17/12
Nitrate-N	NO3-N		0.896	ug/mL	101.2	90 - 110				07/17/12
Sulfate	14808-79-8		4.01	ug/mL	102.2	90 - 110				07/17/12
MS			**QC Sample #78227**							
			Original 120895001							
Chloride	16887-00-6	<2.9	53.3	mg/kg	107.7	80 - 120				07/17/12
Nitrite-N	NO2-N	<0.96	25.0	mg/kg	102.4	80 - 120				07/17/12
Nitrate-N	NO3-N	2.73	23.3	mg/kg	105.2	80 - 120				07/17/12
Sulfate	14808-79-8	11.5	100	mg/kg	102.3	80 - 120				07/17/12
MSD			**QC Sample #78228**							
			Original 120895001					**Paired 78227**		

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Chloride	16887-00-6	<2.9	53.7	mg/kg	107.3	80 - 120	0.70	30		07/17/12
Nitrite-N	NO2-N	<0.96	24.7	mg/kg	100.1	80 - 120	1.20	30		07/17/12
Nitrate-N	NO3-N	2.73	22.4	mg/kg	100	80 - 120	3.50	30		07/17/12
Sulfate	14808-79-8	11.5	105	mg/kg	106.1	80 - 120	3.50	30		07/17/12
DUP			**QC Sample #78229**							
			Original 120895001							
Chloride	16887-00-6	<2.9	<2.9	mg/kg			11.50	30	U	07/17/12
Nitrite-N	NO2-N	<0.96	<0.96	mg/kg			0.00	30	U	07/17/12
Nitrate-N	NO3-N	2.73	2.71	mg/kg			0.40	30	B	07/17/12
Sulfate	14808-79-8	11.5	15.3	mg/kg			28.80	30	B	07/17/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Analytical Batch 204936 (QC Batch: 204913)
Associated Samples 120895003, 120895004, 120895005, 120895006

Test Anions by Ion Chromatography (Solid)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78241**							
Chloride	16887-00-6		<0.058	ug/mL					U	07/18/12
Nitrite-N	NO2-N		<0.019	ug/mL					U	07/18/12
Nitrate-N	NO3-N		<0.019	ug/mL					U	07/18/12
Sulfate	14808-79-8		<0.11	ug/mL					U	07/18/12
LCS			**QC Sample #78242**							
Chloride	16887-00-6		1.85	ug/mL	93.5	90 - 110				07/18/12
Nitrite-N	NO2-N		1.01	ug/mL	103.5	90 - 110				07/18/12
Nitrate-N	NO3-N		0.860	ug/mL	97.2	90 - 110				07/18/12
Sulfate	14808-79-8		3.60	ug/mL	91.7	90 - 110				07/18/12
MS			**QC Sample #78243**							
			Original 120895006							
Chloride	16887-00-6	<3.0	41.2	mg/kg	82	80 - 120				07/18/12
Nitrite-N	NO2-N	<0.98	23.0	mg/kg	92.8	80 - 120				07/18/12
Nitrate-N	NO3-N	<0.95	19.5	mg/kg	87	80 - 120				07/18/12
Sulfate	14808-79-8	6.45	79.2	mg/kg	79.7	80 - 120			N	07/18/12
MSD			**QC Sample #78244**							
			Original 120895006					**Paired**	**78243**	

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Chloride	16887-00-6	<3.0	43.1	mg/kg	85.5	80 - 120	4.50	30		07/18/12
Nitrite-N	NO2-N	<0.98	24.2	mg/kg	97	80 - 120	5.10	30		07/18/12
Nitrate-N	NO3-N	<0.95	19.7	mg/kg	87.3	80 - 120	1.00	30		07/18/12
Sulfate	14808-79-8	6.45	78.4	mg/kg	78.5	80 - 120	0.90	30	N	07/18/12
DUP			**QC Sample #78245**							
			Original 120895006							
Chloride	16887-00-6	<3.0	<2.9	mg/kg			5.30	30	U	07/18/12
Nitrite-N	NO2-N	<0.98	<0.97	mg/kg			0.00	30	U	07/18/12
Nitrate-N	NO3-N	<0.95	<0.94	mg/kg			18.80	30	U	07/18/12
Sulfate	14808-79-8	6.45	5.77	mg/kg			11.00	30	B	07/18/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120895

Analytical Batch 205247 (QC Batch: 205245) **Test** Hexavalent chromium
Associated Samples 120895001, 120895002, 120895003, 120895004, 120895005, 120895006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78769**							
Hexavalent chromium	18540-29-9		<0.096	ug/g					U	07/23/12
LCS			**QC Sample #78770**							
Hexavalent chromium	18540-29-9		3.87	ug/g	99.2	80 - 120				07/23/12
DUP			**QC Sample #78771**							
			Original 120894001							
Hexavalent chromium	18540-29-9		<0.10	ug/g			22.50	30	U	07/23/12
MS			**QC Sample #78772**							
			Original 120894001							
Hexavalent chromium	18540-29-9		3.02	ug/g	77.1	75 - 125				07/23/12
PSTSPK			**QC Sample #78773**							
Hexavalent chromium	18540-29-9		0.0905	ug/g	90.5	85 - 115				07/23/12
IMS			**QC Sample #78774**							
			Original 120894001							
Hexavalent chromium	18540-29-9		398	ug/g	96.9	75 - 125				07/23/12

* - QC result out of range n/a - Not Applicable

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204902	204984	17	SAMPLE	120900012	B2JDR2		ICP-2008 MS All possible metal
204902	204984	18	SAMPLE	120900011	B2JDJ8		ICP-2008 MS All possible metal
204902	204984	19	SAMPLE	120900010	B2JF32		ICP-2008 MS All possible metal
204902	204984	20	SAMPLE	120900009	B2JDT1		ICP-2008 MS All possible metal
204902	204984	21	SAMPLE	120900008	B2JDR8		ICP-2008 MS All possible metal
204902	204984	22	SAMPLE	120900007	B2JDP0		ICP-2008 MS All possible metal
204902	204984	23	MSD	78180	B2LTY7(120902001MSD)	120902001	ICP-2008 MS All possible metal
204902	204984	24	MS	78179	B2LTY7(120902001MS)	120902001	ICP-2008 MS All possible metal
204910	204934	3	BLANK	78230	BLANK		Anions by Ion Chromatography (Solid)
204910	204934	4	LCS	78231	LCS		Anions by Ion Chromatography (Solid)
204910	204934	5	MS	78232	B2JDP3(120900014MS)	120900014	Anions by Ion Chromatography (Solid)
204910	204934	6	MSD	78233	B2JDP3(120900014MSD)	120900014	Anions by Ion Chromatography (Solid)
204910	204934	7	DUP	78234	B2JDP3(120900014DUP)	120900014	Anions by Ion Chromatography (Solid)
204910	204934	8	SAMPLE	120900011	B2JDJ8		Anions by Ion Chromatography (Solid)
204910	204934	9	SAMPLE	120900012	B2JDR2		Anions by Ion Chromatography (Solid)
204910	204934	10	SAMPLE	120900013	B2JDR5		Anions by Ion Chromatography (Solid)
204910	204934	11	SAMPLE	120900014	B2JDP3		Anions by Ion Chromatography (Solid)
204910	204934	12	SAMPLE	120900015	B2JDP9		Anions by Ion Chromatography (Solid)
204910	204934	13	SAMPLE	120900016	B2JDV6		Anions by Ion Chromatography (Solid)
204910	204934	14	SAMPLE	120900017	B2JDK1		Anions by Ion Chromatography (Solid)
204910	204934	15	SAMPLE	120900018	B2JF35		Anions by Ion Chromatography (Solid)
204910	204934	16	SAMPLE	120900019	B2JF47		Anions by Ion Chromatography (Solid)
204923	204937	3	BLANK	78270	BLANK		Anions by Ion Chromatography (Solid)

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204923	204937	4	LCS	78271	LCS		Anions by Ion Chromatography (Solid)
204923	204937	5	MS	78272	B2JF32(120900010MS)	120900010	Anions by Ion Chromatography (Solid)
204923	204937	6	MSD	78273	B2JF32(120900010MSD)	120900010	Anions by Ion Chromatography (Solid)
204923	204937	7	DUP	78274	B2JF32(120900010DUP)	120900010	Anions by Ion Chromatography (Solid)
204923	204937	8	SAMPLE	120900001	B2JDT7		Anions by Ion Chromatography (Solid)
204923	204937	9	SAMPLE	120900002	B2JDT4		Anions by Ion Chromatography (Solid)
204923	204937	10	SAMPLE	120900003	B2JDH3		Anions by Ion Chromatography (Solid)
204923	204937	11	SAMPLE	120900004	B2JDK4		Anions by Ion Chromatography (Solid)
204923	204937	12	SAMPLE	120900005	B2JDJ5		Anions by Ion Chromatography (Solid)
204923	204937	13	SAMPLE	120900006	B2JDV0		Anions by Ion Chromatography (Solid)
204923	204937	14	SAMPLE	120900007	B2JDP0		Anions by Ion Chromatography (Solid)
204923	204937	15	SAMPLE	120900008	B2JDR8		Anions by Ion Chromatography (Solid)
204923	204937	16	SAMPLE	120900009	B2JDT1		Anions by Ion Chromatography (Solid)
204923	204937	17	SAMPLE	120900010	B2JF32		Anions by Ion Chromatography (Solid)
204982	204983	2	BLANK	78442	BLANK		Hexavalent chromium
204982	204983	4	LCS	78443	LCS		Hexavalent chromium
204982	204983	5	DUP	78444	B2JDT7(120900001DUP)	120900001	Hexavalent chromium
204982	204983	6	MS	78445	B2JDT7(120900001MS)	120900001	Hexavalent chromium
204982	204983	7	PSTSPK	78446	PSTSPK		Hexavalent chromium
204982	204983	8	IMS	78447	B2JDT7(120900001IMS)	120900001	Hexavalent chromium
204982	204983	9	SAMPLE	120900001	B2JDT7		Hexavalent chromium
204982	204983	10	SAMPLE	120900002	B2JDT4		Hexavalent chromium
204982	204983	11	SAMPLE	120900003	B2JDH3		Hexavalent chromium

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204982	204983	12	SAMPLE	120900004	B2JDK4		Hexavalent chromium
204982	204983	13	SAMPLE	120900005	B2JDJ5		Hexavalent chromium
204982	204983	14	SAMPLE	120900006	B2JDV0		Hexavalent chromium
204982	204983	15	SAMPLE	120900007	B2JDP0		Hexavalent chromium
204982	204983	16	SAMPLE	120900008	B2JDR8		Hexavalent chromium
204982	204983	17	SAMPLE	120900009	B2JDT1		Hexavalent chromium
204982	204983	18	SAMPLE	120900010	B2JF32		Hexavalent chromium
204982	204983	20	SAMPLE	120900011	B2JDJ8		Hexavalent chromium
204982	204983	21	SAMPLE	120900012	B2JDR2		Hexavalent chromium
204982	204983	22	SAMPLE	120900013	B2JDR5		Hexavalent chromium
204982	204983	23	SAMPLE	120900014	B2JDP3		Hexavalent chromium
204982	204983	24	SAMPLE	120900015	B2JDP9		Hexavalent chromium
204982	204983	25	SAMPLE	120900016	B2JDV6		Hexavalent chromium
204982	204983	26	SAMPLE	120900017	B2JDK1		Hexavalent chromium
204982	204983	27	SAMPLE	120900018	B2JF35		Hexavalent chromium
204982	204983	28	SAMPLE	120900019	B2JF47		Hexavalent chromium

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Analytical Batch 204934 (QC Batch: 204910) **Test** Anions by Ion Chromatography (Solid)
Associated Samples 120900011, 120900012, 120900013, 120900014, 120900015, 120900016, 120900017, 120900018, 120900019

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78230**							
Chloride	16887-00-6		<0.058	ug/mL					U	07/17/12
Nitrite-N	NO2-N		<0.019	ug/mL					U	07/17/12
Nitrate-N	NO3-N		<0.019	ug/mL					U	07/17/12
Sulfate	14808-79-8		<0.11	ug/mL					U	07/17/12
LCS			**QC Sample #78231**							
Chloride	16887-00-6		2.00	ug/mL	101.1	90 - 110				07/17/12
Nitrite-N	NO2-N		0.965	ug/mL	98.7	90 - 110				07/17/12
Nitrate-N	NO3-N		0.905	ug/mL	102.2	90 - 110				07/17/12
Sulfate	14808-79-8		4.00	ug/mL	102.1	90 - 110				07/17/12
MS			**QC Sample #78232**							
			Original 120900014							
Chloride	16887-00-6	<2.8	48.7	mg/kg	99.1	80 - 120				07/18/12
Nitrite-N	NO2-N	<0.93	23.1	mg/kg	94.9	80 - 120				07/18/12
Nitrate-N	NO3-N	<0.90	22.0	mg/kg	99.9	80 - 120				07/18/12
Sulfate	14808-79-8	<5.3	96.4	mg/kg	99	80 - 120				07/18/12
MSD			**QC Sample #78233**							
			Original 120900014					**Paired 78232**		

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Chloride	16887-00-6	<2.8	48.1	mg/kg	97.8	80 - 120	1.20	30		07/18/12
Nitrite-N	NO2-N	<0.93	22.1	mg/kg	90.9	80 - 120	4.40	30		07/18/12
Nitrate-N	NO3-N	<0.90	21.8	mg/kg	99.4	80 - 120	0.90	30		07/18/12
Sulfate	14808-79-8	<5.3	96.1	mg/kg	98.7	80 - 120	0.30	30		07/18/12
DUP			**QC Sample #78234**							
			Original 120900014							
Chloride	16887-00-6	<2.8	<2.8	mg/kg			0.00	30	U	07/18/12
Nitrite-N	NO2-N	<0.93	<0.94	mg/kg			0.00	30	U	07/18/12
Nitrate-N	NO3-N	<0.90	<0.91	mg/kg			0.00	30	U	07/18/12
Sulfate	14808-79-8	<5.3	<5.4	mg/kg			12.30	30	U	07/18/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Analytical Batch 204937 (QC Batch: 204923) **Test** Anions by Ion Chromatography (Solid)
Associated Samples 120900001, 120900002, 120900003, 120900004, 120900005, 120900006, 120900007, 120900008, 120900009, 120900010

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78270**							
Chloride	16887-00-6		<0.058	ug/mL					U	07/19/12
Nitrite-N	NO2-N		<0.019	ug/mL					U	07/19/12
Nitrate-N	NO3-N		<0.019	ug/mL					U	07/19/12
Sulfate	14808-79-8		<0.11	ug/mL					U	07/19/12
LCS			**QC Sample #78271**							
Chloride	16887-00-6		1.82	ug/mL	91.7	90 - 110				07/19/12
Nitrite-N	NO2-N		0.991	ug/mL	101.3	90 - 110				07/19/12
Nitrate-N	NO3-N		0.852	ug/mL	96.2	90 - 110				07/19/12
Sulfate	14808-79-8		3.60	ug/mL	91.7	90 - 110				07/19/12
MS			**QC Sample #78272**							
			Original 120900010							
Chloride	16887-00-6	<2.9	38.7	mg/kg	79.1	80 - 120			N	07/19/12
Nitrite-N	NO2-N	<0.96	22.4	mg/kg	92.7	80 - 120				07/19/12
Nitrate-N	NO3-N	<0.93	18.2	mg/kg	83.5	80 - 120				07/19/12
Sulfate	14808-79-8	12.3	70.7	mg/kg	73	80 - 120			N	07/19/12
MSD			**QC Sample #78273**							
			Original 120900010					**Paired**	**78272**	

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Chloride	16887-00-6	<2.9	38.9	mg/kg	78.9	80 - 120	0.50	30	N	07/19/12
Nitrite-N	NO2-N	<0.96	22.3	mg/kg	91.4	80 - 120	0.40	30		07/19/12
Nitrate-N	NO3-N	<0.93	18.5	mg/kg	83.9	80 - 120	1.60	30		07/19/12
Sulfate	14808-79-8	12.3	72.2	mg/kg	73.9	80 - 120	1.80	30	N	07/19/12
DUP			**QC Sample #78274**							
			Original 120900010							
Chloride	16887-00-6	<2.9	<2.9	mg/kg			4.70	30	U	07/19/12
Nitrite-N	NO2-N	<0.96	<0.97	mg/kg			0.00	30	U	07/19/12
Nitrate-N	NO3-N	<0.93	<0.94	mg/kg			12.80	30	U	07/19/12
Sulfate	14808-79-8	12.3	11.9	mg/kg			3.40	30	B	07/19/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120900

Analytical Batch 204983 (QC Batch: 204982) **Test** Hexavalent chromium
Associated Samples 120900001, 120900002, 120900003, 120900004, 120900005, 120900006, 120900007, 120900008, 120900009, 120900010, 120900011, 120900012, 120900013, 120900014, 120900015, 120900016, 120900017, 120900018, 120900019

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78442**								
Hexavalent chromium	18540-29-9		<0.098	ug/g						U	07/19/12
LCS			**QC Sample #78443**								
Hexavalent chromium	18540-29-9		3.93	ug/g	101.8	80 - 120					07/19/12
DUP			**QC Sample #78444**								
			Original 120900001								
Hexavalent chromium	18540-29-9	<0.10	<0.099	ug/g			243.70	30	*	U	07/19/12
MS			**QC Sample #78445**								
			Original 120900001								
Hexavalent chromium	18540-29-9	<0.10	3.16	ug/g	81.2	75 - 125					07/19/12
PSTSPK			**QC Sample #78446**								
Hexavalent chromium	18540-29-9		0.0832	ug/g	110.9	85 - 115					07/19/12
IMS			**QC Sample #78447**								
			Original 120900001								
Hexavalent chromium	18540-29-9	<0.10	391	ug/g	93.8	75 - 125					07/19/12

* - QC result out of range n/a - Not Applicable

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204986	205006	1	BLANK	78460	BLANK		Anions by Ion Chromatography (Solid)
204986	205006	4	LCS	78461	LCS		Anions by Ion Chromatography (Solid)
204986	205006	5	MS	78462	B2JF44(120922007MS)	120922007	Anions by Ion Chromatography (Solid)
204986	205006	6	MSD	78463	B2JF44(120922007MSD)	120922007	Anions by Ion Chromatography (Solid)
204986	205006	7	DUP	78464	B2JF44(120922007DUP)	120922007	Anions by Ion Chromatography (Solid)
204986	205006	8	SAMPLE	120922001	B2JDL0		Anions by Ion Chromatography (Solid)
204986	205006	9	SAMPLE	120922002	B2JDL3		Anions by Ion Chromatography (Solid)
204986	205006	10	SAMPLE	120922003	B2JDL6		Anions by Ion Chromatography (Solid)
204986	205006	11	SAMPLE	120922004	B2JDL9		Anions by Ion Chromatography (Solid)
204986	205006	12	SAMPLE	120922005	B2JDM2		Anions by Ion Chromatography (Solid)
204986	205006	13	SAMPLE	120922006	B2JDM5		Anions by Ion Chromatography (Solid)
204986	205006	14	SAMPLE	120922007	B2JF44		Anions by Ion Chromatography (Solid)
204986	205006	15	SAMPLE	120922008	B2JDJ2		Anions by Ion Chromatography (Solid)
204986	205006	16	SAMPLE	120922009	B2JDK7		Anions by Ion Chromatography (Solid)
205241	205258	4	BLANK	78760	BLANK		ICP-2008 MS All possible metal
205241	205258	5	LCS	78761	LCS		ICP-2008 MS All possible metal
205241	205258	6	SAMPLE	120922001	B2JDL0		ICP-2008 MS All possible metal
205241	205258	7	MS	78762	B2JDL0(120922001MS)	120922001	ICP-2008 MS All possible metal
205241	205258	8	MSD	78763	B2JDL0(120922001MSD)	120922001	ICP-2008 MS All possible metal
205241	205258	9	SAMPLE	120922002	B2JDL3		ICP-2008 MS All possible metal
205241	205258	10	SAMPLE	120922003	B2JDL6		ICP-2008 MS All possible metal
205241	205258	11	SAMPLE	120922004	B2JDL9		ICP-2008 MS All possible metal
205241	205258	12	SAMPLE	120922005	B2JDM2		ICP-2008 MS All possible metal

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
205241	205258	13	SAMPLE	120922006	B2JDM5		ICP-2008 MS All possible metal
205241	205258	14	SAMPLE	120922007	B2JF44		ICP-2008 MS All possible metal
205241	205258	15	SAMPLE	120922008	B2JDJ2		ICP-2008 MS All possible metal
205241	205258	16	SAMPLE	120922009	B2JDK7		ICP-2008 MS All possible metal
205241	205399	1	LCS	78761	LCS		ICP-2008 MS All possible metal
205241	205399	2	BLANK	78760	BLANK		ICP-2008 MS All possible metal
205241	205399	10	SAMPLE	120922009	B2JDK7		ICP-2008 MS All possible metal
205241	205399	11	SAMPLE	120922001	B2JDL0		ICP-2008 MS All possible metal
205241	205399	12	SAMPLE	120922008	B2JDJ2		ICP-2008 MS All possible metal
205241	205399	13	SAMPLE	120922007	B2JF44		ICP-2008 MS All possible metal
205241	205399	14	SAMPLE	120922003	B2JDL6		ICP-2008 MS All possible metal
205241	205399	15	SAMPLE	120922002	B2JDL3		ICP-2008 MS All possible metal
205241	205399	16	SAMPLE	120922006	B2JDM5		ICP-2008 MS All possible metal
205241	205399	17	MSD	78763	B2JDL0(120922001MSD)	120922001	ICP-2008 MS All possible metal
205241	205399	18	SAMPLE	120922005	B2JDM2		ICP-2008 MS All possible metal
205241	205399	19	MS	78762	B2JDL0(120922001MS)	120922001	ICP-2008 MS All possible metal
205241	205399	20	SAMPLE	120922004	B2JDL9		ICP-2008 MS All possible metal
205245	205247	3	BLANK	78769	BLANK		Hexavalent chromium
205245	205247	4	LCS	78770	LCS		Hexavalent chromium
205245	205247	5	DUP	78771	B2JF29(120894001DUP)	120894001	Hexavalent chromium
205245	205247	6	MS	78772	B2JF29(120894001MS)	120894001	Hexavalent chromium
205245	205247	7	PSTSPK	78773	PSTSPK		Hexavalent chromium
205245	205247	8	IMS	78774	B2JF29(120894001IMS)	120894001	Hexavalent chromium

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
205245	205247	24	SAMPLE	120922001	B2JDL0		Hexavalent chromium
205245	205247	25	SAMPLE	120922002	B2JDL3		Hexavalent chromium
205245	205247	26	SAMPLE	120922003	B2JDL6		Hexavalent chromium
205245	205247	27	SAMPLE	120922004	B2JDL9		Hexavalent chromium
205245	205247	28	SAMPLE	120922005	B2JDM2		Hexavalent chromium
205245	205247	29	SAMPLE	120922006	B2JDM5		Hexavalent chromium
205246	205248	3	BLANK	78775	BLANK		Hexavalent chromium
205246	205248	4	LCS	78776	LCS		Hexavalent chromium
205246	205248	5	DUP	78777	B2JF44(120922007DUP)	120922007	Hexavalent chromium
205246	205248	6	MS	78778	B2JF44(120922007MS)	120922007	Hexavalent chromium
205246	205248	7	PSTSPK	78779	PSTSPK		Hexavalent chromium
205246	205248	8	IMS	78780	B2JF44(120922007IMS)	120922007	Hexavalent chromium
205246	205248	9	SAMPLE	120922007	B2JF44		Hexavalent chromium
205246	205248	10	SAMPLE	120922008	B2JDJ2		Hexavalent chromium
205246	205248	11	SAMPLE	120922009	B2JDK7		Hexavalent chromium

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Analytical Batch 205006 (QC Batch: 204986) **Test** Anions by Ion Chromatography (Solid)
Associated Samples 120922001, 120922002, 120922003, 120922004, 120922005, 120922006, 120922007, 120922008, 120922009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78460**							
Chloride	16887-00-6		<0.058	ug/mL					U	07/20/12
Nitrite-N	NO2-N		<0.019	ug/mL					U	07/20/12
Nitrate-N	NO3-N		<0.019	ug/mL					U	07/20/12
Sulfate	14808-79-8		<0.11	ug/mL					U	07/20/12
LCS			**QC Sample #78461**							
Chloride	16887-00-6		1.95	ug/mL	98.3	90 - 110				07/20/12
Nitrite-N	NO2-N		0.955	ug/mL	97.6	90 - 110				07/20/12
Nitrate-N	NO3-N		0.926	ug/mL	104.6	90 - 110				07/20/12
Sulfate	14808-79-8		3.93	ug/mL	100.3	90 - 110				07/20/12
MS			**QC Sample #78462**							
			Original 120922007							
Chloride	16887-00-6	<2.9	51.8	mg/kg	104	80 - 120				07/20/12
Nitrite-N	NO2-N	<0.96	24.5	mg/kg	99.6	80 - 120				07/20/12
Nitrate-N	NO3-N	<0.93	23.1	mg/kg	103.8	80 - 120				07/20/12
Sulfate	14808-79-8	<5.5	103	mg/kg	104.5	80 - 120				07/20/12
MSD			**QC Sample #78463**							
			Original 120922007					**Paired 78462**		

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Chloride	16887-00-6	<2.9	51.9	mg/kg	104.1	80 - 120	0.20	30		07/20/12
Nitrite-N	NO2-N	<0.96	24.3	mg/kg	98.5	80 - 120	0.80	30		07/20/12
Nitrate-N	NO3-N	<0.93	22.5	mg/kg	101	80 - 120	2.60	30		07/20/12
Sulfate	14808-79-8	<5.5	102	mg/kg	103.1	80 - 120	1.00	30		07/20/12
DUP			**QC Sample #78464**							
			Original 120922007							
Chloride	16887-00-6	<2.9	<2.9	mg/kg			7.20	30	U	07/20/12
Nitrite-N	NO2-N	<0.96	<0.95	mg/kg			0.00	30	U	07/20/12
Nitrate-N	NO3-N	<0.93	<0.92	mg/kg			0.00	30	U	07/20/12
Sulfate	14808-79-8	<5.5	<5.4	mg/kg			15.80	30	U	07/20/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Analytical Batch 205247 (QC Batch: 205245) **Test** Hexavalent chromium
Associated Samples 120922001, 120922002, 120922003, 120922004, 120922005, 120922006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78769**							
Hexavalent chromium	18540-29-9		<0.096	ug/g					U	07/23/12
LCS			**QC Sample #78770**							
Hexavalent chromium	18540-29-9		3.87	ug/g	99.2	80 - 120				07/23/12
DUP			**QC Sample #78771**							
			Original 120894001							
Hexavalent chromium	18540-29-9		<0.10	ug/g			22.50	30	U	07/23/12
MS			**QC Sample #78772**							
			Original 120894001							
Hexavalent chromium	18540-29-9		3.02	ug/g	77.1	75 - 125				07/23/12
PSTSPK			**QC Sample #78773**							
Hexavalent chromium	18540-29-9		0.0905	ug/g	90.5	85 - 115				07/23/12
IMS			**QC Sample #78774**							
			Original 120894001							
Hexavalent chromium	18540-29-9		398	ug/g	96.9	75 - 125				07/23/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF120922

Analytical Batch 205248 (QC Batch: 205246)
Associated Samples 120922007, 120922008, 120922009

Test Hexavalent chromium

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78775**							
Hexavalent chromium	18540-29-9		<0.098	ug/g					U	07/25/12
LCS			**QC Sample #78776**							
Hexavalent chromium	18540-29-9		3.86	ug/g	98.7	80 - 120				07/25/12
DUP			**QC Sample #78777**							
			Original 120922007							
Hexavalent chromium	18540-29-9	<0.097	<0.098	ug/g			0.40	30	U	07/25/12
MS			**QC Sample #78778**							
			Original 120922007							
Hexavalent chromium	18540-29-9	<0.097	3.85	ug/g	99.4	75 - 125				07/25/12
PSTSPK			**QC Sample #78779**							
Hexavalent chromium	18540-29-9		0.0495	ug/g	99	85 - 115				07/25/12
IMS			**QC Sample #78780**							
			Original 120922007							
Hexavalent chromium	18540-29-9	<0.097	335	ug/g	81.7	75 - 125				07/25/12

* - QC result out of range n/a - Not Applicable

Date: 16 August 2012
To: CH2M Hill (technical representative)
From: Analytical Quality Associates, Inc.
Project: 100-K
Subject: Radiochemical - Sample Data Group (SDG) WSCF120925

INTRODUCTION

This memorandum presents the results of data validation for SDG WSCF120925 prepared by WSCF. A list of samples validated along with the analytical methods is provided in the following table.

Sample ID	Sample Date	Media	Validation Level	Analytical Methods
B2LWL0	07/18/12	Soil	C	Am-241, Iso-Pu, Iso-U, Gamma & Sr-89/90
B2LWL1	07/18/12	Soil	C	Am-241, Iso-Pu, Iso-U, Gamma & Sr-89/90
B2LWL2	07/18/12	Soil	C	Am-241, Iso-Pu, Iso-U, Gamma & Sr-89/90
B2LWL3	07/18/12	Soil	C	Am-241, Iso-Pu, Iso-U, Gamma & Sr-89/90
B2LWL4	07/18/12	Soil	C	Am-241, Iso-Pu, Iso-U, Gamma & Sr-89/90
B2LWK1	07/18/12	Soil	C	Am-241, Iso-Pu, Iso-U, Gamma & Sr-89/90
B2LWK2	07/18/12	Soil	C	Am-241, Iso-Pu, Iso-U, Gamma & Sr-89/90
B2LWK3	07/18/12	Soil	C	Am-241, Iso-Pu, Iso-U, Gamma & Sr-89/90
B2LWK4	07/18/12	Soil	C	Am-241, Iso-Pu, Iso-U, Gamma & Sr-89/90
B2LWK5	07/18/12	Soil	C	Am-241, Iso-Pu, Iso-U, Gamma & Sr-89/90
B2LWK6	07/18/12	Soil	C	Am-241, Iso-Pu, Iso-U, Gamma & Sr-89/90
B2LWK7	07/18/12	Soil	C	Am-241, Iso-Pu, Iso-U, Gamma & Sr-89/90
B2LWK8	07/18/12	Soil	C	Am-241, Iso-Pu, Iso-U, Gamma & Sr-89/90
B2LWK9	07/18/12	Soil	C	Am-241, Iso-Pu, Iso-U, Gamma & Sr-89/90

Data validation was conducted in accordance with the CHPRC validation statement of work and the 100 Area Remedial Action Sampling and Analysis Plan, DOE/RL-96-22, Rev. 5 (SAP). Appendices 1 through 6 provide the following information as indicated below:

Appendix 1. Glossary of Data Reporting Qualifiers
Appendix 2. Summary of Data Qualification
Appendix 3. Annotated Laboratory Reports
Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
Appendix 5. Data Validation Supporting Documentation
Appendix 6. Additional Documentation Requested By Client

DATA QUALITY OBJECTIVES

- **Holding Times and Sample Preservation**

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The maximum holding time for radiochemical analysis is 180 days. There are no specific preservation requirements for radiochemical soil/solid analysis.

The samples were analyzed within the prescribed holding time.

- **Blanks**

The blank data results are reviewed to assess the extent of contamination introduced through sampling, sample preparation, and analysis.

Laboratory Blanks

All laboratory blank results were acceptable with the following exceptions.

For batch 204950, the Pu-239/240 and U-233/234 laboratory blank results were detects > the minimum detectable concentrations (MDCs). The associated sample results that were detects <5X the blank results should be qualified as estimates and flagged "J." See the table in Appendix 2 for a listing of all affected samples.

Trip Blanks

No trip blanks were submitted for validation.

Field Blanks

No field blanks were submitted for validation.

Equipment Blanks

All equipment blank results were acceptable with the following exception. U-234 and U-238 were detected in equipment blank sample B2LWL4. The U-234 result has been flagged "J" due to laboratory blank contamination.

- **Accuracy**

Accuracy is evaluated by reviewing matrix spike sample results, laboratory control sample results, and chemical recovery factors. Chemical recovery factors are determined through use of a carrier or tracer and provide assessment of the chemical separation process that is affected by the laboratory procedure, sample matrix, and/or interference. Chemical recovery factors are used to correct sample concentration, uncertainty, and MDC results. According to the SAP, the laboratory control sample accuracy limits are 70% to 130%.

Matrix Spike (MS) Samples

MS analyses are not required for the methods performed.

Laboratory Control Samples (LCSs)

All LCS recoveries were acceptable with the following exception.

For batch 204950, the LCS recovery for Am-241was above the acceptance limit. The Am-241 result for sample B2LWK1 was detect > the MDC and should be qualified as estimate and flagged "J." All other Am-241 sample results were < the MDCs and should not be qualified.

Carrier/Tracer Recovery Factors

All carrier/tracer recovery factors were acceptable.

- **Precision**

Precision is evaluated by reviewing laboratory duplicate, field duplicate, and field split sample results. These QC results provide information on the laboratory reproducibility and whether sampling activities are adequate to acquire consistent sample results. According to the SAP, the relative percent difference (RPD) limits are ±30%. When duplicate RPDs exceed the limits and have associated results <5X the MDCs the precision limits are ones specified by the DV procedure.

Laboratory Duplicate Samples

All laboratory duplicate results were acceptable.

Field Duplicate Samples

All field duplicate results were acceptable.

Field Split Samples

No field splits were submitted for validation.

- **Detection Limits**

Reported MDCs are compared against the contractually required detection limits (CRDLs) to ensure that laboratory detection limits meet the required criteria.

All reported sample MDCs were below the CRDLs.

- **Completeness**

SDG WSCF120925 was submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

Minor deficiencies leading to qualification of sample results as estimates were due to laboratory blank contamination or high LCS recovery. See the table in Appendix 2 for a listing of all affected sample results.

REFERENCES

GRP-GD-002, Rev. 0, Change 0, *Data Validation for Radiochemical Analyses*, August 2010.

DOE/RL-96-22, Rev. 5, *100 Area Remedial Action Sampling and Analysis Plan*, September 2009.

Appendix 1

Glossary of Data Reporting Qualifiers

Qualifiers that may be applied by data validators in compliance with the CHPRC statement of work are as follows:

- **U** — The constituent was analyzed for and was not detected. The data should be considered usable for decision-making purposes.

- **UJ** — The constituent was analyzed for and was not detected. Due to a quality control deficiency identified during data validation the value reported may not accurately reflect the MDC. The data should be considered usable for decision-making purposes.

- **J** — Indicates the constituent was analyzed for and detected. The associated value is estimated due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J+** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected positive bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **J-** — Indicates the constituent was analyzed for and detected. The associated value is estimated with a suspected negative bias due to a quality control deficiency identified during data validation. The data should be considered usable for decision-making purposes.

- **UR** — Indicates the constituent was analyzed for and not detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

- **R** — Indicates the constituent was analyzed for and detected; however, due to an identified quality control deficiency the data should be considered unusable for decision-making purposes.

Appendix 2

Summary of Data Qualification

Radiochemical Data Qualification Summary			
SDGs: WSCF120925	Reviewer: AQA	Project: 100-K	Page 1 of 1
Analyte(s)	**Qualifier**	**Samples Affected**	**Reason**
Pu-239/240	J	B2LWL1, B2LWL2, B2LWK1	Laboratory blank contamination
U-233/234	J	B2LWL4, B2LWK1	Laboratory blank contamination
Am-241	J	B2LWK1	High LCS recovery

Comments: None

Appendix 3

Annotated Laboratory Reports

EBERLINE ANALYTICAL-RICHMOND

SAMPLE DELIVERY GROUP H4727

7728-001 B2JDF0

DATA SHEET

SDG	7728	Client/Case no	Hanford	SDG_H4727
Contact	Joseph Verville	Contract	No. S00W235A01	
Lab sample id	S206083-01	Client sample id	B2JDF0	
Dept sample id	7728-001	Location/Matrix	Area AG Zone 2 Verif.#5	SOIL
Received	06/26/12	Collected/Weight	06/18/12 10:16	181 g
% solids	94.1	Custody/SAF No	F12-005-015	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-0.963	3.1	5.51	400	U	H
Carbon 14	14762-75-5	-1.31	2.2	3.77	50.0	U	C
Nickel 63	13981-37-8	-0.081	1.7	2.99	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling-Soil

Lab id	EBRLNE
Protocol	CHPRC
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	07/11/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-001 B2JDF3

DATA SHEET

SDG	7737	Client/Case no	CHPRC	SDG_H4735
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207055-01	Client sample id	B2JDF3	
Dept sample id	7737-001	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/09/12 09:49	175 g
% solids	98.3	Custody/SAF No	F12-005-018	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-0.999	2.9	5.16	400	U	H
Carbon 14	14762-75-5	0.134	2.7	4.59	50.0	U	C
Nickel 63	13981-37-8	-0.370	1.9	3.34	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-002 B2JDF6

DATA SHEET

SDG	7737	Client/Case no	CHPRC	SDG_H4735
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207055-02	Client sample id	B2JDF6	
Dept sample id	7737-002	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/09/12 10:18	187 g
% solids	98.1	Custody/SAF No	F12-005-021	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	0.763	2.8	4.82	400	U	H
Carbon 14	14762-75-5	-1.40	2.4	4.22	50.0	U	C
Nickel 63	13981-37-8	0	2.0	3.41	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-003 B2JDF9

DATA SHEET

SDG	7737	Client/Case no	CHPRC	SDG_H4735	
Contact	Joseph Verville	Contract	No. 33677		
Lab sample id	S207055-03	Client sample id	B2JDF9		
Dept sample id	7737-003	Location/Matrix	Area AG Zone 2 Verif #6	SOIL	
Received	07/19/12	Collected/Weight	07/09/12 10:49	178 g	
% solids	97.6	Custody/SAF No	F12-005-024	F12-005	

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	1.52	3.0	5.08	400	U	H
Carbon 14	14762-75-5	-2.12	2.5	4.34	50.0	U	C
Nickel 63	13981-37-8	-1.15	1.8	3.12	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-004 B2JDH2

DATA SHEET

SDG	7737	Client/Case no	CHPRC	SDG_H4735
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207055-04	Client sample id	B2JDH2	
Dept sample id	7737-004	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/09/12 11:09	178 g
% solids	97.3	Custody/SAF No	F12-005-027	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	0	2.9	5.06	400	U	H
Carbon 14	14762-75-5	-0.844	2.7	4.55	50.0	U	C
Nickel 63	13981-37-8	-0.204	1.9	3.32	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-005 B2JDH5

DATA SHEET

SDG	7737	Client/Case no	CHPRC	SDG_H4735
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207055-05	Client sample id	B2JDH5	
Dept sample id	7737-005	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/10/12 07:30	156 g
% solids	95.4	Custody/SAF No	F12-005-030	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	0.091	3.0	5.19	400	U	H
Carbon 14	14762-75-5	-1.49	2.8	4.91	50.0	U	C
Nickel 63	13981-37-8	-0.704	2.1	3.58	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-006 B2JDH8

DATA SHEET

SDG	7737	Client/Case no	CHPRC	SDG_H4735	
Contact	Joseph Verville	Contract	No. 33677		
Lab sample id	S207055-06	Client sample id	B2JDH8		
Dept sample id	7737-006	Location/Matrix	Area AG Zone 2 Verif #6	SOIL	
Received	07/19/12	Collected/Weight	07/10/12 09:15	173 g	
% solids	87.7	Custody/SAF No	F12-005-033	F12-005	

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	1.18	2.8	4.80	400	U	H
Carbon 14	14762-75-5	-0.377	2.5	4.29	50.0	U	C
Nickel 63	13981-37-8	-0.165	2.0	3.35	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-007 B2JDJ1

DATA SHEET

SDG	7737	Client/Case no	CHPRC	SDG H4735
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207055-07	Client sample id	B2JDJ1	
Dept sample id	7737-007	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/10/12 09:23	147 g
% solids	95.8	Custody/SAF No	F12-005-036	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	0.269	3.0	5.09	400	U	H
Carbon 14	14762-75-5	-0.724	2.7	4.64	50.0	U	C
Nickel 63	13981-37-8	-1.05	1.9	3.27	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-008 B2JDJ4

DATA SHEET

SDG	7737	Client/Case no	CHPRC	SDG H4735
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207055-08	Client sample id	B2JDJ4	
Dept sample id	7737-008	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/17/12 13:55	166 g
% solids	96.0	Custody/SAF No	F12-005-039	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	0.782	2.9	4.94	400	U	H
Carbon 14	14762-75-5	-0.687	2.6	4.40	50.0	U	C
Nickel 63	13981-37-8	0.521	1.9	3.26	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-009 B2JDJ7

DATA SHEET

SDG	7737	Client/Case no	CHPRC	SDG_H4735	
Contact	Joseph Verville	Contract	No. 33677		
Lab sample id	S207055-09	Client sample id	B2JDJ7		
Dept sample id	7737-009	Location/Matrix	Area AG Zone 2 Verif #6	SOIL	
Received	07/19/12	Collected/Weight	07/12/12 08:19	181 g	
% solids	96.7	Custody/SAF No	F12-005-042	F12-005	

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	0.264	2.9	5.01	400	U	H
Carbon 14	14762-75-5	-0.990	2.8	4.83	50.0	U	C
Nickel 63	13981-37-8	-0.473	2.0	3.49	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-010 B2JDK0

DATA SHEET

SDG	7737	Client/Case no	CHPRC	SDG H4735	
Contact	Joseph Verville	Contract	No. 33677		
Lab sample id	S207055-10	Client sample id	B2JDK0		
Dept sample id	7737-010	Location/Matrix	Area AG Zone 2 Verif #6	SOIL	
Received	07/19/12	Collected/Weight	07/10/12 07:50	179 g	
% solids	97.5	Custody/SAF No	F12-005-045	F12-005	

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	0.675	2.8	4.79	400	U	H
Carbon 14	14762-75-5	0.132	2.7	4.51	50.0	U	C
Nickel 63	13981-37-8	-0.557	1.9	3.23	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-011 B2JDK3

DATA SHEET

SDG	7737	Client/Case no	CHPRC	SDG_H4735
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207055-11	Client sample id	B2JDK3	
Dept sample id	7737-011	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/11/12 09:58	146 g
% solids	97.1	Custody/SAF No	F12-005-048	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-0.261	2.8	4.95	400	U	H
Carbon 14	14762-75-5	0.495	2.7	4.61	50.0	U	C
Nickel 63	13981-37-8	-1.16	2.0	3.50	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-012 B2JDK6

DATA SHEET

SDG	7737	Client/Case no	CHPRC	SDG H4735
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207055-12	Client sample id	B2JDK6	
Dept sample id	7737-012	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/12/12 07:55	165 g
% solids	97.3	Custody/SAF No	F12-005-051	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	1.52	3.0	5.09	400	U	H
Carbon 14	14762-75-5	1.28	2.8	4.68	50.0	U	C
Nickel 63	13981-37-8	-0.526	1.9	3.28	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-013 B2JDK9

DATA SHEET

SDG	7737	Client/Case no	CHPRC	SDG H4735
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207055-13	Client sample id	B2JDK9	
Dept sample id	7737-013	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/17/12 13:08	148 g
% solids	90.8	Custody/SAF No	F12-005-054	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	2.46	3.0	4.98	400	U	H
Carbon 14	14762-75-5	-1.44	2.6	4.48	50.0	U	C
Nickel 63	13981-37-8	-1.57	2.1	3.64	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-014 B2JDL2

DATA SHEET

SDG	7737	Client/Case no	CHPRC	SDG H4735	
Contact	Joseph Verville	Contract	No. 33677		
Lab sample id	S207055-14	Client sample id	B2JDL2		
Dept sample id	7737-014	Location/Matrix	Area AG Zone 2 Verif #6	SOIL	
Received	07/19/12	Collected/Weight	07/17/12 14:13	149 g	
% solids	96.3	Custody/SAF No	F12-005-057	F12-005	

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-0.692	2.8	4.92	400	U	H
Carbon 14	14762-75-5	1.24	2.8	4.70	50.0	U	C
Nickel 63	13981-37-8	-2.25	1.9	3.38	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-001 B2JDL5

DATA SHEET

SDG	7738	Client/Case no	CHPRC	SDG_H4736
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207056-01	Client sample id	B2JDL5	
Dept sample id	7738-001	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/17/12 14:20	181 g
% solids	96.7	Custody/SAF No	F12-005-060	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-0.729	3.5	6.03	400	U	H
Carbon 14	14762-75-5	-0.177	1.5	2.52	50.0	U	C
Nickel 63	13981-37-8	1.61	1.9	3.06	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-002 B2JDL8

DATA SHEET

SDG	7738	Client/Case no	CHPRC	SDG_H4736
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207056-02	Client sample id	B2JDL8	
Dept sample id	7738-002	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/17/12 13:13	133 g
% solids	92.4	Custody/SAF No	F12-005-063	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-3.09	3.6	6.40	400	U	H
Carbon 14	14762-75-5	1.24	1.7	2.83	50.0	U	C
Nickel 63	13981-37-8	1.90	1.9	3.19	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-003 B2JDM1

DATA SHEET

SDG	7738	Client/Case no	CHPRC	SDG_H4736
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207056-03	Client sample id	B2JDM1	
Dept sample id	7738-003	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/16/12 09:54	167 g
% solids	95.2	Custody/SAF No	F12-005-066	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-3.40	3.4	6.25	400	U	H
Carbon 14	14762-75-5	-0.215	1.6	2.76	50.0	U	C
Nickel 63	13981-37-8	0.869	1.7	2.92	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-004 B2JDM4

DATA SHEET

SDG	7738	Client/Case no	CHPRC	SDG H4736
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207056-04	Client sample id	B2JDM4	
Dept sample id	7738-004	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/16/12 10:24	178 g
% solids	96.3	Custody/SAF No	F12-005-069	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-3.83	3.4	6.19	400	U	H
Carbon 14	14762-75-5	-0.638	1.7	2.82	50.0	U	C
Nickel 63	13981-37-8	0.890	1.8	2.99	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-005 B2JDM7

DATA SHEET

SDG	7738	Client/Case no	CHPRC SDG H4736
Contact	Joseph Verville	Contract	No. 33677
Lab sample id	S207056-05	Client sample id	B2JDM7
Dept sample id	7738-005	Location/Matrix	Area AG Zone 2 Verif #6 SOIL
Received	07/19/12	Collected/Weight	07/16/12 09:46 192 g
% solids	97.6	Custody/SAF No	F12-005-072 F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.61	3.4	5.93	400	U	H
Carbon 14	14762-75-5	0.222	1.7	2.84	50.0	U	C
Nickel 63	13981-37-8	1.07	1.8	3.04	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-006 B2JDN0

DATA SHEET

SDG	7738	Client/Case no	CHPRC	SDG H4736	
Contact	Joseph Verville	Contract	No. 33677		
Lab sample id	S207056-06	Client sample id	B2JDN0		
Dept sample id	7738-006	Location/Matrix	Area AG Zone 2 Verif #6	SOIL	
Received	07/19/12	Collected/Weight	07/11/12 08:28	184 g	
% solids	98.2	Custody/SAF No	F12-005-075	F12-005	

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-3.55	3.5	6.35	400	U	H
Carbon 14	14762-75-5	1.19	1.7	2.88	50.0	U	C
Nickel 63	13981-37-8	1.50	2.0	3.26	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-007 B2JDN3

DATA SHEET

SDG	7738	Client/Case no	CHPRC SDG H4736
Contact	Joseph Verville	Contract	No. 33677
Lab sample id	S207056-07	Client sample id	B2JDN3
Dept sample id	7738-007	Location/Matrix	Area AG Zone 2 Verif #6 SOIL
Received	07/19/12	Collected/Weight	07/11/12 08:34 197 g
% solids	97.2	Custody/SAF No	F12-005-078 F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	4.13	3.2	5.20	400	U	H
Carbon 14	14762-75-5	-0.936	2.3	3.94	50.0	U	C
Nickel 63	13981-37-8	1.11	1.9	3.15	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-008 B2JDN6

DATA SHEET

SDG	7738	Client/Case no	CHPRC SDG H4736
Contact	Joseph Verville	Contract	No. 33677
Lab sample id	S207056-08	Client sample id	B2JDN6
Dept sample id	7738-008	Location/Matrix	Area AG Zone 2 Verif #6 SOIL
Received	07/19/12	Collected/Weight	07/11/12 08:38 142 g
% solids	95.9	Custody/SAF No	F12-005-081 F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-2.60	3.4	6.16	400	U	H
Carbon 14	14762-75-5	-0.532	2.0	4.05	50.0	U	C
Nickel 63	13981-37-8	0.880	1.9	3.25	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-009 B2JDN9

DATA SHEET

SDG	7738	Client/Case no	CHPRC	SDG_H4736
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207056-09	Client sample id	B2JDN9	
Dept sample id	7738-009	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/11/12 09:41	166 g
% solids	97.5	Custody/SAF No	F12-005-084	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	0.467	3.6	6.18	400	U	H
Carbon 14	14762-75-5	-0.461	1.9	3.83	50.0	U	C
Nickel 63	13981-37-8	0.936	1.8	3.01	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-010 B2JDP2

DATA SHEET

SDG	7738	Client/Case no	CHPRC	SDG H4736
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207056-10	Client sample id	B2JDP2	
Dept sample id	7738-010	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/10/12 07:40	164 g
% solids	96.4	Custody/SAF No	F12-005-087	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.18	3.4	6.02	400	U	H
Carbon 14	14762-75-5	0.643	2.0	3.92	50.0	U	C
Nickel 63	13981-37-8	1.13	1.9	3.21	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-011 B2JDP5

DATA SHEET

SDG	7738	Client/Case no	CHPRC	SDG_H4736
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207056-11	Client sample id	B2JDP5	
Dept sample id	7738-011	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/11/12 07:41	182 g
% solids	98.4	Custody/SAF No	F12-005-090	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-3.70	3.5	6.45	400	U	H
Carbon 14	14762-75-5	0.914	2.2	4.18	50.0	U	C
Nickel 63	13981-37-8	1.66	1.9	3.14	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-012 B2JDP8

DATA SHEET

SDG	7738	Client/Case no	CHPRC SDG_H4736
Contact	Joseph Verville	Contract	No. 33677
Lab sample id	S207056-12	Client sample id	B2JDP8
Dept sample id	7738-012	Location/Matrix	Area AG Zone 2 Verif #6 SOIL
Received	07/19/12	Collected/Weight	07/11/12 07:52 150 g
% solids	97.1	Custody/SAF No	F12-005-093 F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.65	3.3	5.75	400	U	H
Carbon 14	14762-75-5	-0.209	1.9	3.82	50.0	U	C
Nickel 63	13981-37-8	2.33	1.9	3.13	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-013 B2JDR1

DATA SHEET

SDG	7738	Client/Case no	CHPRC	SDG H4736
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207056-13	Client sample id	B2JDR1	
Dept sample id	7738-013	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/11/12 08:55	132 g
% solids	98.1	Custody/SAF No	F12-005-096	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-5.00	3.4	6.38	400	U	H
Carbon 14	14762-75-5	1.84	2.1	4.01	50.0	U	C
Nickel 63	13981-37-8	1.31	1.7	2.84	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-014 B2JDR4

DATA SHEET

SDG	7738	Client/Case no	CHPRC	SDG_H4736
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207056-14	Client sample id	B2JDR4	
Dept sample id	7738-014	Location/Matrix	Area AG Zone 2 Verif #6	SOIL
Received	07/19/12	Collected/Weight	07/11/12 09:49	158 g
% solids	96.2	Custody/SAF No	F12-005-099	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-3.81	3.5	6.31	400	U	H
Carbon 14	14762-75-5	0.636	2.1	4.15	50.0	U	C
Nickel 63	13981-37-8	1.14	1.9	3.12	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-001 B2JDR7

DATA SHEET

SDG	7739	Client/Case no	CHPRC SDG_H4737
Contact	Joseph Verville	Contract	No. 33677
Lab sample id	S207057-01	Client sample id	B2JDR7
Dept sample id	7739-001	Location/Matrix	Area AG Zone 2 Verif #34 SOIL
Received	07/19/12	Collected/Weight	07/12/12 07:24 141 g
% solids	97.2	Custody/SAF No	F12-005-102 F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	0	2.9	4.96	400	U	H
Carbon 14	14762-75-5	-1.09	2.4	4.14	50.0	U	C
Nickel 63	13981-37-8	0.997	2.0	3.40	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-002 B2JDT0

DATA SHEET

SDG	7739	Client/Case no	CHPRC SDG H4737
Contact	Joseph Verville	Contract	No. 33677
Lab sample id	S207057-02	Client sample id	B2JDT0
Dept sample id	7739-002	Location/Matrix	Area AG Zone 2 Verif #35 SOIL
Received	07/19/12	Collected/Weight	07/12/12 07:01 146 g
% solids	96.7	Custody/SAF No	F12-005-105 F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-0.779	2.9	5.06	400	U	H
Carbon 14	14762-75-5	2.14	2.7	4.46	50.0	U	C
Nickel 63	13981-37-8	1.22	2.1	3.51	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-003 B2JDT3

DATA SHEET

SDG	7739	Client/Case no	CHPRC	SDG_H4737
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207057-03	Client sample id	B2JDT3	
Dept sample id	7739-003	Location/Matrix	Area AG Zone 2 Verif #36	SOIL
Received	07/19/12	Collected/Weight	07/12/12 07:07	153 g
% solids	96.7	Custody/SAF No	F12-005-108	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	0.760	2.9	4.93	400	U	H
Carbon 14	14762-75-5	-1.36	2.4	4.20	50.0	U	C
Nickel 63	13981-37-8	1.28	1.9	3.09	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-004 B2JDT6

DATA SHEET

SDG	7739	Client/Case no	CHPRC	SDG H4737
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207057-04	Client sample id	B2JDT6	
Dept sample id	7739-004	Location/Matrix	Area AG Zone 2 Verif #37	SOIL
Received	07/19/12	Collected/Weight	07/12/12 06:56	150 g
% solids	98.2	Custody/SAF No	F12-005-111	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	0	2.8	4.79	400	U	H
Carbon 14	14762-75-5	0.944	2.5	4.20	50.0	U	C
Nickel 63	13981-37-8	1.48	1.9	3.07	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-005 B2JDT9

DATA SHEET

SDG	7739	Client/Case no	CHPRC	SDG H4737
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207057-05	Client sample id	B2JDT9	
Dept sample id	7739-005	Location/Matrix	Area AG Zone 2 Verif #38	SOIL
Received	07/19/12	Collected/Weight	07/12/12 07:31	165 g
% solids	97.3	Custody/SAF No	F12-005-114	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-0.901	2.7	4.79	400	U	H
Carbon 14	14762-75-5	-1.02	2.4	4.20	50.0	U	C
Nickel 63	13981-37-8	0.608	1.8	3.04	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-006 B2JDV2

DATA SHEET

SDG	7739	Client/Case no	CHPRC	SDG_H4737
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207057-06	Client sample id	B2JDV2	
Dept sample id	7739-006	Location/Matrix	Area AG Zone 2 Verif #39	SOIL
Received	07/19/12	Collected/Weight	07/12/12 07:14	158 g
% solids	97.9	Custody/SAF No	F12-005-117	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-0.910	2.7	4.83	400	U	H
Carbon 14	14762-75-5	-1.97	2.4	4.20	50.0	U	C
Nickel 63	13981-37-8	0.874	1.9	3.12	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-007 B2JDV5

DATA SHEET

SDG	7739	Client/Case no	CHPRC	SDG_H4737
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207057-07	Client sample id	B2JDV5	
Dept sample id	7739-007	Location/Matrix	Area AG Zone 2 Verif #40	SOIL
Received	07/19/12	Collected/Weight	07/11/12 08:03	136 g
% solids	93.8	Custody/SAF No	F12-005-120	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-2.02	2.8	5.12	400	U	H
Carbon 14	14762-75-5	-0.212	2.6	4.34	50.0	U	C
Nickel 63	13981-37-8	1.34	1.9	3.15	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-008 B2JDV8

DATA SHEET

SDG	7739	Client/Case no	CHPRC	SDG_H4737
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207057-08	Client sample id	B2JDV8	
Dept sample id	7739-008	Location/Matrix	Area AG Zone 2 Verif #41	SOIL
Received	07/19/12	Collected/Weight	07/11/12 08:46	167 g
% solids	97.8	Custody/SAF No	F12-005-123	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	2.19	2.9	4.78	400	U	H
Carbon 14	14762-75-5	-1.67	2.4	4.12	50.0	U	C
Nickel 63	13981-37-8	2.33	2.1	3.37	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-009 B2JF31

DATA SHEET

SDG	7739	Client/Case no	CHPRC SDG H4737
Contact	Joseph Verville	Contract	No. 33677
Lab sample id	S207057-09	Client sample id	B2JF31
Dept sample id	7739-009	Location/Matrix	Area AG Zone 2 Verif #62 SOIL
Received	07/19/12	Collected/Weight	07/09/12 10:18 182 g
% solids	98.1	Custody/SAF No	F12-005-186 F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.70	2.7	4.79	400	U	H
Carbon 14	14762-75-5	-0.564	2.4	4.08	50.0	U	C
Nickel 63	13981-37-8	2.08	1.9	3.06	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-010 B2JF34

DATA SHEET

SDG	7739	Client/Case no	CHPRC	SDG_H4737
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207057-10	Client sample id	B2JF34	
Dept sample id	7739-010	Location/Matrix	Area AG Zone 2 Verif #63	SOIL
Received	07/19/12	Collected/Weight	07/10/12 07:50	189 g
% solids	97.5	Custody/SAF No	F12-005-189	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.21	2.7	4.75	400	U	H
Carbon 14	14762-75-5	-0.392	2.3	3.97	50.0	U	C
Nickel 63	13981-37-8	2.12	1.9	3.12	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-011 B2JF37

DATA SHEET

SDG	7739	Client/Case no	CHPRC	SDG_H4737
Contact	Joseph Verville	Contract	No. 33677	
Lab sample id	S207057-11	Client sample id	B2JF37	
Dept sample id	7739-011	Location/Matrix	Area AG Zone 2 Verif #64	SOIL
Received	07/19/12	Collected/Weight	07/11/12 08:55	141 g
% solids	97.7	Custody/SAF No	F12-005-192	F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	0.862	3.0	5.09	400	U	H
Carbon 14	14762-75-5	-1.78	2.5	4.38	50.0	U	C
Nickel 63	13981-37-8	0.974	1.9	3.18	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-012 B2JF43

DATA SHEET

SDG	7739	Client/Case no	CHPRC SDG_H4737
Contact	Joseph Verville	Contract	No. 33677
Lab sample id	S207057-12	Client sample id	B2JF43
Dept sample id	7739-012	Location/Matrix	Area AG Zone 2 Verif #66 SOIL
Received	07/19/12	Collected/Weight	07/09/12 09:10 175 g
% solids	99.9	Custody/SAF No	F12-005-198 F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	0.700	3.0	5.16	400	U	H
Carbon 14	14762-75-5	2.05	2.7	4.42	50.0	U	C
Nickel 63	13981-37-8	0.612	1.7	2.87	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-013 B2JF46

DATA SHEET

SDG	7739	Client/Case no	CHPRC	SDG H4737	
Contact	Joseph Verville	Contract	No. 33677		
Lab sample id	S207057-13	Client sample id	B2JF46		
Dept sample id	7739-013	Location/Matrix	Area AG Zone 2 Verif #67	SOIL	
Received	07/19/12	Collected/Weight	07/17/12 12:50	152 g	
% solids	99.9	Custody/SAF No	F12-005-201	F12-005	

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-0.251	2.8	4.94	400	U	H
Carbon 14	14762-75-5	-0.288	2.4	4.16	50.0	U	C
Nickel 63	13981-37-8	0.269	1.7	2.88	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-014 B2JF49

DATA SHEET

SDG	7739	Client/Case no	CHPRC SDG H4737
Contact	Joseph Verville	Contract	No. 33677
Lab sample id	S207057-14	Client sample id	B2JF49
Dept sample id	7739-014	Location/Matrix	Area AG Zone 2 Verif #68 SOIL
Received	07/19/12	Collected/Weight	07/11/12 08:08 197 g
% solids	99.9	Custody/SAF No	F12-005-204 F12-005

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	1.47	2.9	4.82	400	U	H
Carbon 14	14762-75-5	-1.06	2.4	4.13	50.0	U	C
Nickel 63	13981-37-8	0.667	1.7	2.78	30.0	U	NI_L

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120788

Sample # 120788001
SAF# F12-005
Sample ID B2JDD8

Matrix SOIL
Sampled 06/18/12
Received 06/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**06/26/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	J	0.023	.013	pCi/g	1	3.9E-3		06/26/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	0.016	.014	pCi/g	1	0.019		06/26/12
Plutonium-239_240	PU-239/240	LA-508-471	U	0.0080	.012	pCi/g	1	0.022		06/26/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.19	.06	pCi/g	1	0.014		06/26/12
Uranium-235	15117-96-1	LA-508-471		0.012	.01	pCi/g	1	5.6E-3		06/26/12
Uranium-238	U-238	LA-508-471		0.18	.057	pCi/g	1	0.014		06/26/12
Preparation for GEA (S)										**06/20/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481		0.062	.022	pCi/g	1	0.021		06/20/12
Cobalt-60	10198-40-0	LA-508-481	U	6.3E-4	.01	pCi/g	1	0.019		06/20/12
Europium-152	14683-23-9	LA-508-481	U	0.017	.034	pCi/g	1	0.065		06/20/12
Europium-154	15585-10-1	LA-508-481	U	-2.4E-3	.041	pCi/g	1	0.067		06/20/12
Europium-155	14391-16-3	LA-508-481	U	0.031	.049	pCi/g	1	0.089		06/20/12
Strontium 89/90 SOLID/SOIL PREP										**06/26/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

REVISED120788 -

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120788

Sample # 120788001
SAF# F12-005
Sample ID B2JDD8

Matrix SOIL
Sampled 06/18/12
Received 06/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.76	.5	pCi/g	1	0.84		06/28/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

REVISED120788 -

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894001
SAF# F12-005
Sample ID B2JF29

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/20/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471		0.033	.02	pCi/g	1	0.021		07/23/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	0.026	.023	pCi/g	1	0.034		07/23/12
Plutonium-239_240	PU-239/240	LA-508-471		0.021	.016	pCi/g	1	0.018		07/23/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.17	.055	pCi/g	1	5.1E-3		07/23/12
Uranium-235	15117-96-1	LA-508-471		6.9E-3	.0079	pCi/g	1	6.3E-3		07/23/12
Uranium-238	U-238	LA-508-471		0.20	.061	pCi/g	1	0.014		07/23/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481		0.21	.04	pCi/g	1	0.019		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	0.012	.011	pCi/g	1	0.022		07/18/12
Europium-152	14683-23-9	LA-508-481		0.15	.056	pCi/g	1	0.059		07/18/12
Europium-154	15585-10-1	LA-508-481	U	0.028	.032	pCi/g	1	0.065		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.011	.052	pCi/g	1	0.091		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/20/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894001
SAF# F12-005
Sample ID B2JF29

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.54	.34	pCi/g	1	0.65		07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894002
SAF# F12-005
Sample ID B2JDH0

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/20/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471		0.033	.023	pCi/g	1	0.030		07/23/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	-0.013	.02	pCi/g	1	0.045		07/23/12
Plutonium-239_240	PU-239/240	LA-508-471		0.052	.027	pCi/g	1	0.019		07/23/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.13	.045	pCi/g	1	0.013		07/23/12
Uranium-235	15117-96-1	LA-508-471		0.015	.012	pCi/g	1	5.7E-3		07/23/12
Uranium-238	U-238	LA-508-471		0.17	.055	pCi/g	1	4.6E-3		07/23/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481		0.31	.084	pCi/g	1	0.043		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	-0.017	.023	pCi/g	1	0.038		07/18/12
Europium-152	14683-23-9	LA-508-481	U	0.014	.077	pCi/g	1	0.13		07/18/12
Europium-154	15585-10-1	LA-508-481	U	-0.028	.069	pCi/g	1	0.12		07/18/12
Europium-155	14391-16-3	LA-508-481	U	5.4E-3	.11	pCi/g	1	0.18		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/20/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894002
SAF# F12-005
Sample ID B2JDH0

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.055	.22	pCi/g	1	0.47		07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894003
SAF# F12-005
Sample ID B2JDF4

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/20/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471		0.047	.022	pCi/g	1	0.012		07/23/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	0.0020	.02	pCi/g	1	0.039		07/23/12
Plutonium-239_240	PU-239/240	LA-508-471		0.024	.015	pCi/g	1	5.5E-3		07/23/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.11	.038	pCi/g	1	0.012		07/23/12
Uranium-235	15117-96-1	LA-508-471		0.0080	.008	pCi/g	1	5.4E-3		07/23/12
Uranium-238	U-238	LA-508-471		0.17	.053	pCi/g	1	4.3E-3		07/23/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481		0.59	.098	pCi/g	1	0.042		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	7.3E-3	.023	pCi/g	1	0.046		07/18/12
Europium-152	14683-23-9	LA-508-481	U	0.090	.092	pCi/g	1	0.14		07/18/12
Europium-154	15585-10-1	LA-508-481	U	0.011	.063	pCi/g	1	0.12		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.022	.09	pCi/g	1	0.17		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/20/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894003
SAF# F12-005
Sample ID B2JDF4

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.30	.3	pCi/g	1	0.59		07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894004
SAF# F12-005
Sample ID B2JDF7

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/20/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.013	.015	pCi/g	1	0.023		07/23/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	0.014	.014	pCi/g	1	0.018		07/23/12
Plutonium-239_240	PU-239/240	LA-508-471		0.012	.011	pCi/g	1	6.5E-3		07/23/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.15	.05	pCi/g	1	4.2E-3		07/23/12
Uranium-235	15117-96-1	LA-508-471		0.012	.0097	pCi/g	1	5.2E-3		07/23/12
Uranium-238	U-238	LA-508-471		0.20	.061	pCi/g	1	4.2E-3		07/23/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481		0.074	.05	pCi/g	1	0.050		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	1.2E-4	.024	pCi/g	1	0.045		07/18/12
Europium-152	14683-23-9	LA-508-481	U	0.054	.084	pCi/g	1	0.14		07/18/12
Europium-154	15585-10-1	LA-508-481	U	-8.6E-3	.074	pCi/g	1	0.13		07/18/12
Europium-155	14391-16-3	LA-508-481	U	-0.091	.11	pCi/g	1	0.17		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/20/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894004
SAF# F12-005
Sample ID B2JDF7

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.41	.31	pCi/g	1	0.57		07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
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B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894005
SAF# F12-005
Sample ID B2JF41

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S											**07/20/12**
Americium/Curium (AEA)											
Americium-241	14596-10-2	LA-508-471	U		0.010	.016	pCi/g	1	0.027		07/23/12
Plutonium (AEA)											
Plutonium-238	13981-16-3	LA-508-471	U		-2.1E-3	.015	pCi/g	1	0.032		07/23/12
Plutonium-239_240	PU-239/240	LA-508-471	U		0.011	.013	pCi/g	1	0.020		07/23/12
Uranium (AEA)											
Uranium-234	U-233/234	LA-508-471			0.033	.019	pCi/g	1	0.016		07/23/12
Uranium-235	15117-96-1	LA-508-471	U		4.3E-3	.0062	pCi/g	1	5.8E-3		07/23/12
Uranium-238	U-238	LA-508-471		J	0.042	.02	pCi/g	1	4.7E-3		07/23/12
Preparation for GEA (S)											**07/17/12**
Gamma Energy Analysis-general											
Cesium-137	10045-97-3	LA-508-481	U		3.5E-4	.012	pCi/g	1	0.023		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U		4.4E-3	.013	pCi/g	1	0.028		07/18/12
Europium-152	14683-23-9	LA-508-481	U		-0.015	.043	pCi/g	1	0.066		07/18/12
Europium-154	15585-10-1	LA-508-481	U		0.022	.042	pCi/g	1	0.086		07/18/12
Europium-155	14391-16-3	LA-508-481	U		0.038	.07	pCi/g	1	0.13		07/18/12
Strontium 89/90 SOLID/SOIL PREP											**07/20/12**
Strontium 89/90 (GPC/GEA)											

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894005
SAF# F12-005
Sample ID B2JF41

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	-0.21	.21	pCi/g	1	0.44		07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894006
SAF# F12-005
Sample ID B2JDF1

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/20/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.016	.013	pCi/g	1	0.017		07/23/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	0.0020	.014	pCi/g	1	0.028		07/23/12
Plutonium-239_240	PU-239/240	LA-508-471		9.9E-3	.009	pCi/g	1	5.4E-3		07/23/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.13	.044	pCi/g	1	0.012		07/23/12
Uranium-235	15117-96-1	LA-508-471		0.014	.011	pCi/g	1	5.3E-3		07/23/12
Uranium-238	U-238	LA-508-471		0.16	.051	pCi/g	1	4.3E-3		07/23/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481		0.14	.051	pCi/g	1	0.040		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	7.5E-3	.02	pCi/g	1	0.041		07/18/12
Europium-152	14683-23-9	LA-508-481	U	0.015	.057	pCi/g	1	0.11		07/18/12
Europium-154	15585-10-1	LA-508-481	U	9.5E-3	.066	pCi/g	1	0.13		07/18/12
Europium-155	14391-16-3	LA-508-481	U	-3.7E-3	.082	pCi/g	1	0.15		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/20/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894006
SAF# F12-005
Sample ID B2JDF1

Matrix SOIL
Sampled 07/09/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.21	.25	pCi/g	1	0.52		07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894007
SAF# F12-005
Sample ID B2JDH9

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/20/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	7.7E-3	.011	pCi/g	1	0.018		07/23/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	6.2E-3	.015	pCi/g	1	0.027		07/23/12
Plutonium-239_240	PU-239/240	LA-508-471	U	0.012	.012	pCi/g	1	0.015		07/23/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.12	.04	pCi/g	1	4.6E-3		07/23/12
Uranium-235	15117-96-1	LA-508-471		0.013	.01	pCi/g	1	5.6E-3		07/23/12
Uranium-238	U-238	LA-508-471		0.16	.051	pCi/g	1	4.6E-3		07/23/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	0.034	.038	pCi/g	1	0.072		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	-0.021	.025	pCi/g	1	0.043		07/18/12
Europium-152	14683-23-9	LA-508-481	U	0.036	.086	pCi/g	1	0.16		07/18/12
Europium-154	15585-10-1	LA-508-481	U	0.025	.072	pCi/g	1	0.15		07/18/12
Europium-155	14391-16-3	LA-508-481	U	-0.053	.11	pCi/g	1	0.19		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/20/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894007
SAF# F12-005
Sample ID B2JDH9

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.17	.28	pCi/g	1	0.57		07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894008
SAF# F12-005
Sample ID B2JDH6

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/22/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471		0.021	.017	pCi/g	1	0.021		07/24/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	4.6E-3	.017	pCi/g	1	0.032		07/24/12
Plutonium-239_240	PU-239/240	LA-508-471	U	0.011	.012	pCi/g	1	0.017		07/24/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.20	.062	pCi/g	1	0.013		07/24/12
Uranium-235	15117-96-1	LA-508-471		0.026	.016	pCi/g	1	5.8E-3		07/24/12
Uranium-238	U-238	LA-508-471		0.19	.06	pCi/g	1	4.7E-3		07/24/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481		0.047	.02	pCi/g	1	0.020		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	1.9E-3	.01	pCi/g	1	0.019		07/18/12
Europium-152	14683-23-9	LA-508-481	U	-0.015	.033	pCi/g	1	0.059		07/18/12
Europium-154	15585-10-1	LA-508-481	U	9.8E-3	.031	pCi/g	1	0.059		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.038	.05	pCi/g	1	0.088		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/20/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Sample # 120894008
SAF# F12-005
Sample ID B2JDH6

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.0080	.27	pCi/g	1	0.55		07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

Sample # 120895001
SAF# F12-005
Sample ID B2JDM8

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/25/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.013	.021	pCi/g	1	0.036		07/27/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	6.4E-3	.018	pCi/g	1	0.032		07/27/12
Plutonium-239_240	PU-239/240	LA-508-471	U	0.017	.015	pCi/g	1	0.020		07/27/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.11	.07	pCi/g	1	0.041		07/27/12
Uranium-235	15117-96-1	LA-508-471	U	0.011	.022	pCi/g	1	0.029		07/27/12
Uranium-238	U-238	LA-508-471		0.11	.069	pCi/g	1	0.024		07/27/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481		0.037	.017	pCi/g	1	0.018		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	3.6E-3	.01	pCi/g	1	0.020		07/18/12
Europium-152	14683-23-9	LA-508-481	U	1.8E-3	.03	pCi/g	1	0.055		07/18/12
Europium-154	15585-10-1	LA-508-481	U	5.7E-3	.027	pCi/g	1	0.053		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.017	.048	pCi/g	1	0.084		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/23/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

Sample # 120895001
SAF# F12-005
Sample ID B2JDM8

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406		6.2	1.5	pCi/g	1	1.3		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

Sample # 120895002
SAF# F12-005
Sample ID B2JDN1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S											**07/22/12**
Americium/Curium (AEA)											
Americium-241	14596-10-2	LA-508-471	U		0.023	.02	pCi/g	1	0.029		07/24/12
Plutonium (AEA)											
Plutonium-238	13981-16-3	LA-508-471	U		-0.014	.015	pCi/g	1	0.035		07/24/12
Plutonium-239_240	PU-239/240	LA-508-471	U		0.0080	.0098	pCi/g	1	0.015		07/24/12
Uranium (AEA)											
Uranium-234	U-233/234	LA-508-471		J	0.13	.044	pCi/g	1	4.6E-3		07/24/12
Uranium-235	15117-96-1	LA-508-471			0.017	.012	pCi/g	1	5.6E-3		07/24/12
Uranium-238	U-238	LA-508-471			0.14	.045	pCi/g	1	4.5E-3		07/24/12
Preparation for GEA (S)											**07/17/12**
Gamma Energy Analysis-general											
Cesium-137	10045-97-3	LA-508-481			0.057	.056	pCi/g	1	0.036		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U		-0.0080	.02	pCi/g	1	0.035		07/18/12
Europium-152	14683-23-9	LA-508-481	U		9.8E-4	.073	pCi/g	1	0.12		07/18/12
Europium-154	15585-10-1	LA-508-481	U		-0.054	.068	pCi/g	1	0.11		07/18/12
Europium-155	14391-16-3	LA-508-481	U		0.054	.097	pCi/g	1	0.16		07/18/12
Strontium 89/90 SOLID/SOIL PREP											**07/20/12**
Strontium 89/90 (GPC/GEA)											

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

Sample # 120895002
SAF# F12-005
Sample ID B2JDN1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	-0.15	.23	pCi/g	1	0.50		07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

Sample # 120895003
SAF# F12-005
Sample ID B2JDV3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/22/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471		0.070	.029	pCi/g	1	0.015		07/24/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	0.025	.029	pCi/g	1	0.049		07/24/12
Plutonium-239_240	PU-239/240	LA-508-471		0.12	.044	pCi/g	1	6.8E-3		07/24/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.23	.067	pCi/g	1	0.017		07/24/12
Uranium-235	15117-96-1	LA-508-471		0.022	.014	pCi/g	1	0.0060		07/24/12
Uranium-238	U-238	LA-508-471		0.21	.063	pCi/g	1	4.9E-3		07/24/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481		0.50	.1	pCi/g	1	0.041		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	0.016	.024	pCi/g	1	0.054		07/18/12
Europium-152	14683-23-9	LA-508-481	U	4.8E-3	.077	pCi/g	1	0.13		07/18/12
Europium-154	15585-10-1	LA-508-481	U	-0.027	.071	pCi/g	1	0.14		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.067	.12	pCi/g	1	0.23		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/20/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

Sample # 120895003
SAF# F12-005
Sample ID B2JDV3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406		1.5	.38	pCi/g	1	0.63		07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

Sample # 120895004
SAF# F12-005
Sample ID B2JDP6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/22/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471		0.18	.063	pCi/g	1	0.030		07/24/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471		0.036	.021	pCi/g	1	0.018		07/24/12
Plutonium-239_240	PU-239/240	LA-508-471		0.14	.05	pCi/g	1	6.5E-3		07/24/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471	J	0.13	.045	pCi/g	1	0.013		07/24/12
Uranium-235	15117-96-1	LA-508-471		0.017	.012	pCi/g	1	5.7E-3		07/24/12
Uranium-238	U-238	LA-508-471		0.14	.047	pCi/g	1	4.6E-3		07/24/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	0.026	.023	pCi/g	1	0.047		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	-2.7E-3	.023	pCi/g	1	0.042		07/18/12
Europium-152	14683-23-9	LA-508-481	U	-5.1E-3	.066	pCi/g	1	0.11		07/18/12
Europium-154	15585-10-1	LA-508-481	U	0.047	.07	pCi/g	1	0.14		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.022	.095	pCi/g	1	0.17		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/20/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

Sample # 120895004
SAF# F12-005
Sample ID B2JDP6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406		5.4	.78	pCi/g	1	0.48		07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

Sample # 120895005
SAF# F12-005
Sample ID B2JDN7

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/22/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.011	.014	pCi/g	1	0.024		07/24/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	-2.4E-3	.017	pCi/g	1	0.037		07/24/12
Plutonium-239_240	PU-239/240	LA-508-471	U	7.3E-3	.013	pCi/g	1	0.023		07/24/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471	J	0.15	.049	pCi/g	1	4.4E-3		07/24/12
Uranium-235	15117-96-1	LA-508-471		0.020	.013	pCi/g	1	5.4E-3		07/24/12
Uranium-238	U-238	LA-508-471		0.15	.049	pCi/g	1	4.4E-3		07/24/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	4.2E-3	.016	pCi/g	1	0.031		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	1.4E-4	.014	pCi/g	1	0.028		07/18/12
Europium-152	14683-23-9	LA-508-481	U	0.044	.054	pCi/g	1	0.10		07/18/12
Europium-154	15585-10-1	LA-508-481	U	-0.050	.042	pCi/g	1	0.059		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.064	.092	pCi/g	1	0.18		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/20/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

Sample # 120895005
SAF# F12-005
Sample ID B2JDN7

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.14	.25	pCi/g	1	0.52		07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

Sample # 120895006
SAF# F12-005
Sample ID B2JDN4

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/22/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471		0.021	.015	pCi/g	1	0.017		07/24/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	-7.8E-3	.015	pCi/g	1	0.037		07/24/12
Plutonium-239_240	PU-239/240	LA-508-471		0.016	.013	pCi/g	1	0.0070		07/24/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.17	.052	pCi/g	1	4.3E-3		07/24/12
Uranium-235	15117-96-1	LA-508-471		9.7E-3	.0087	pCi/g	1	5.2E-3		07/24/12
Uranium-238	U-238	LA-508-471		0.15	.046	pCi/g	1	4.2E-3		07/24/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	0.038	.06	pCi/g	1	0.12		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	-0.014	.051	pCi/g	1	0.10		07/18/12
Europium-152	14683-23-9	LA-508-481	U	0.084	.17	pCi/g	1	0.33		07/18/12
Europium-154	15585-10-1	LA-508-481	U	-0.19	.17	pCi/g	1	0.28		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.17	.18	pCi/g	1	0.34		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/20/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

Sample # 120895006
SAF# F12-005
Sample ID B2JDN4

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.41	.34	pCi/g	1	0.64		07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900001
SAF# F12-005
Sample ID B2JDT7

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S											**07/22/12**
Americium/Curium (AEA)											
Americium-241	14596-10-2	LA-508-471	U		8.8E-3	.011	pCi/g	1	0.016		07/24/12
Plutonium (AEA)											
Plutonium-238	13981-16-3	LA-508-471	U		-4.6E-3	.013	pCi/g	1	0.030		07/24/12
Plutonium-239_240	PU-239/240	LA-508-471	U		2.3E-3	.0079	pCi/g	1	0.017		07/24/12
Uranium (AEA)											
Uranium-234	U-233/234	LA-508-471		J	0.15	.049	pCi/g	1	4.4E-3		07/24/12
Uranium-235	15117-96-1	LA-508-471			0.028	.016	pCi/g	1	5.4E-3		07/24/12
Uranium-238	U-238	LA-508-471			0.17	.053	pCi/g	1	4.4E-3		07/24/12
Preparation for GEA (S)											**07/17/12**
Gamma Energy Analysis-general											
Cesium-137	10045-97-3	LA-508-481	U		4.6E-3	.011	pCi/g	1	0.020		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U		-1.1E-3	.01	pCi/g	1	0.018		07/18/12
Europium-152	14683-23-9	LA-508-481	U		-7.4E-3	.032	pCi/g	1	0.057		07/18/12
Europium-154	15585-10-1	LA-508-481	U		0.017	.029	pCi/g	1	0.057		07/18/12
Europium-155	14391-16-3	LA-508-481	U		-3.5E-3	.048	pCi/g	1	0.082		07/18/12
Strontium 89/90 SOLID/SOIL PREP											**07/20/12**
Strontium 89/90 (GPC/GEA)											

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900001
SAF# F12-005
Sample ID B2JDT7

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	-0.059	.26	pCi/g	1	0.56		07/26/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900002
SAF# F12-005
Sample ID B2JDT4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/24/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471		0.022		pCi/g	1	0.020		07/25/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	0.019		pCi/g	1	0.027		07/25/12
Plutonium-239_240	PU-239/240	LA-508-471	U	8.4E-3		pCi/g	1	0.015		07/25/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.18		pCi/g	1	0.012		07/25/12
Uranium-235	15117-96-1	LA-508-471		7.9E-3		pCi/g	1	5.3E-3		07/25/12
Uranium-238	U-238	LA-508-471		0.19		pCi/g	1	4.3E-3		07/25/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	-6.3E-3	.024	pCi/g	1	0.043		07/23/12
Cobalt-60	10198-40-0	LA-508-481	U	3.1E-5	.022	pCi/g	1	0.041		07/23/12
Europium-152	14683-23-9	LA-508-481	U	-0.036	.092	pCi/g	1	0.12		07/23/12
Europium-154	15585-10-1	LA-508-481	U	-0.052	.074	pCi/g	1	0.12		07/23/12
Europium-155	14391-16-3	LA-508-481	U	0.099	.1	pCi/g	1	0.18		07/23/12
Strontium 89/90 SOLID/SOIL PREP										**07/23/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900002
SAF# F12-005
Sample ID B2JDT4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.035	.23	pCi/g	1	0.46		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900003
SAF# F12-005
Sample ID B2JDH3

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/24/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.020	.021	pCi/g	1	0.032		07/25/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	-0.0090	.018	pCi/g	1	0.039		07/25/12
Plutonium-239_240	PU-239/240	LA-508-471	U	6.8E-3	.01	pCi/g	1	0.017		07/25/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.15	.049	pCi/g	1	4.3E-3		07/25/12
Uranium-235	15117-96-1	LA-508-471		0.012	.0098	pCi/g	1	5.3E-3		07/25/12
Uranium-238	U-238	LA-508-471		0.17	.052	pCi/g	1	4.3E-3		07/25/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481		0.069	.044	pCi/g	1	0.044		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	-0.012	.023	pCi/g	1	0.040		07/18/12
Europium-152	14683-23-9	LA-508-481	U	-0.056	.1	pCi/g	1	0.12		07/18/12
Europium-154	15585-10-1	LA-508-481	U	-0.044	.077	pCi/g	1	0.13		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.026	.1	pCi/g	1	0.17		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/23/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900003
SAF# F12-005
Sample ID B2JDH3

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.23	.23	pCi/g	1	0.46		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900004
SAF# F12-005
Sample ID B2JDK4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S											**07/24/12**
Americium/Curium (AEA)											
Americium-241	14596-10-2	LA-508-471			0.014	.012	pCi/g	1	0.013		07/25/12
Plutonium (AEA)											
Plutonium-238	13981-16-3	LA-508-471	U		6.4E-3	.023	pCi/g	1	0.041		07/25/12
Plutonium-239_240	PU-239/240	LA-508-471		J	0.028	.017	pCi/g	1	5.8E-3		07/25/12
Uranium (AEA)											
Uranium-234	U-233/234	LA-508-471			0.17	.055	pCi/g	1	0.015		07/25/12
Uranium-235	15117-96-1	LA-508-471			0.010	.0093	pCi/g	1	5.5E-3		07/25/12
Uranium-238	U-238	LA-508-471			0.17	.053	pCi/g	1	4.4E-3		07/25/12
Preparation for GEA (S)											**07/17/12**
Gamma Energy Analysis-general											
Cesium-137	10045-97-3	LA-508-481	U		-6.7E-3	.021	pCi/g	1	0.038		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U		9.5E-3	.017	pCi/g	1	0.037		07/18/12
Europium-152	14683-23-9	LA-508-481	U		-0.034	.057	pCi/g	1	0.086		07/18/12
Europium-154	15585-10-1	LA-508-481	U		0.020	.069	pCi/g	1	0.12		07/18/12
Europium-155	14391-16-3	LA-508-481	U		7.6E-3	.084	pCi/g	1	0.15		07/18/12
Strontium 89/90 SOLID/SOIL PREP											**07/23/12**
Strontium 89/90 (GPC/GEA)											

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

EH
08/10/12

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900004
SAF# F12-005
Sample ID B2JDK4

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406		0.72	.31	pCi/g	1	0.50		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900005
SAF# F12-005
Sample ID B2JDJ5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/24/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.014	.016	pCi/g	1	0.024		07/25/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	0.015	.013	pCi/g	1	0.016		07/25/12
Plutonium-239_240	PU-239/240	LA-508-471	J	8.8E-3	.0088	pCi/g	1	5.9E-3		07/25/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.13	.042	pCi/g	1	0.011		07/25/12
Uranium-235	15117-96-1	LA-508-471		0.011	.0094	pCi/g	1	5.1E-3		07/25/12
Uranium-238	U-238	LA-508-471		0.13	.043	pCi/g	1	4.1E-3		07/25/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	-5.7E-3	.02	pCi/g	1	0.031		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	3.8E-3	.017	pCi/g	1	0.031		07/18/12
Europium-152	14683-23-9	LA-508-481	U	-6.4E-3	.058	pCi/g	1	0.093		07/18/12
Europium-154	15585-10-1	LA-508-481	U	0.033	.058	pCi/g	1	0.12		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.015	.091	pCi/g	1	0.17		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/23/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900005
SAF# F12-005
Sample ID B2JDJ5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	3.8E-3	.22	pCi/g	1	0.44		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900006
SAF# F12-005
Sample ID B2JDV0

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/24/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.012	.016	pCi/g	1	0.026		07/25/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	-2.1E-3	.015	pCi/g	1	0.031		07/25/12
Plutonium-239_240	PU-239/240	LA-508-471	U	0.010	.013	pCi/g	1	0.019		07/25/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.17	.054	pCi/g	1	4.3E-3		07/25/12
Uranium-235	15117-96-1	LA-508-471		7.8E-3	.0079	pCi/g	1	5.3E-3		07/25/12
Uranium-238	U-238	LA-508-471		0.19	.058	pCi/g	1	4.3E-3		07/25/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	-0.012	.022	pCi/g	1	0.039		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	0.016	.026	pCi/g	1	0.052		07/18/12
Europium-152	14683-23-9	LA-508-481	U	-0.018	.082	pCi/g	1	0.13		07/18/12
Europium-154	15585-10-1	LA-508-481	U	-0.039	.089	pCi/g	1	0.15		07/18/12
Europium-155	14391-16-3	LA-508-481	U	-0.10	.11	pCi/g	1	0.17		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/23/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900006
SAF# F12-005
Sample ID B2JDV0

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.13	.22	pCi/g	1	0.46		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900007
SAF# F12-005
Sample ID B2JDP0

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S											**07/24/12**
Americium/Curium (AEA)											
Americium-241	14596-10-2	LA-508-471	U		0.015	.013	pCi/g	1	0.017		07/25/12
Plutonium (AEA)											
Plutonium-238	13981-16-3	LA-508-471	U		2.2E-3	.016	pCi/g	1	0.031		07/25/12
Plutonium-239_240	PU-239/240	LA-508-471		J	0.011	.01	pCi/g	1	6.1E-3		07/25/12
Uranium (AEA)											
Uranium-234	U-233/234	LA-508-471			0.14	.047	pCi/g	1	4.5E-3		07/25/12
Uranium-235	15117-96-1	LA-508-471			6.1E-3	.0071	pCi/g	1	5.5E-3		07/25/12
Uranium-238	U-238	LA-508-471			0.16	.052	pCi/g	1	4.4E-3		07/25/12
Preparation for GEA (S)											**07/17/12**
Gamma Energy Analysis-general											
Cesium-137	10045-97-3	LA-508-481			0.059	.038	pCi/g	1	0.042		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U		-1.5E-3	.019	pCi/g	1	0.035		07/18/12
Europium-152	14683-23-9	LA-508-481	U		0.054	.057	pCi/g	1	0.11		07/18/12
Europium-154	15585-10-1	LA-508-481	U		0.021	.067	pCi/g	1	0.13		07/18/12
Europium-155	14391-16-3	LA-508-481	U		0.034	.083	pCi/g	1	0.15		07/18/12
Strontium 89/90 SOLID/SOIL PREP											**07/23/12**
Strontium 89/90 (GPC/GEA)											

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900007
SAF# F12-005
Sample ID B2JDP0

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.12	.22	pCi/g	1	0.47		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900008
SAF# F12-005
Sample ID B2JDR8

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/24/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471		0.022	.015	pCi/g	1	0.017		07/25/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	0.0020	.013	pCi/g	1	0.026		07/25/12
Plutonium-239_240	PU-239/240	LA-508-471	U	0.010	.011	pCi/g	1	0.015		07/25/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.11	.038	pCi/g	1	4.4E-3		07/25/12
Uranium-235	15117-96-1	LA-508-471		9.9E-3	.0089	pCi/g	1	5.4E-3		07/25/12
Uranium-238	U-238	LA-508-471		0.17	.054	pCi/g	1	4.3E-3		07/25/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	0.013	.011	pCi/g	1	0.021		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	2.6E-3	.011	pCi/g	1	0.020		07/18/12
Europium-152	14683-23-9	LA-508-481	U	7.7E-3	.033	pCi/g	1	0.060		07/18/12
Europium-154	15585-10-1	LA-508-481	U	-0.023	.033	pCi/g	1	0.057		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.048	.048	pCi/g	1	0.087		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/23/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900008
SAF# F12-005
Sample ID B2JDR8

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.12	.23	pCi/g	1	0.47		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900009
SAF# F12-005
Sample ID B2JDT1

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/24/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.016	.014	pCi/g	1	0.019		07/26/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	-0.0020	.013	pCi/g	1	0.028		07/26/12
Plutonium-239_240	PU-239/240	LA-508-471	U	0.012	.011	pCi/g	1	0.015		07/26/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.16	.051	pCi/g	1	0.012		07/26/12
Uranium-235	15117-96-1	LA-508-471		7.7E-3	.0078	pCi/g	1	5.2E-3		07/26/12
Uranium-238	U-238	LA-508-471		0.17	.052	pCi/g	1	4.2E-3		07/26/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	-7.2E-3	.02	pCi/g	1	0.035		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	7.3E-3	.015	pCi/g	1	0.034		07/18/12
Europium-152	14683-23-9	LA-508-481	U	0.045	.062	pCi/g	1	0.12		07/18/12
Europium-154	15585-10-1	LA-508-481	U	-4.1E-3	.057	pCi/g	1	0.11		07/18/12
Europium-155	14391-16-3	LA-508-481	U	-0.0040	.1	pCi/g	1	0.18		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/22/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900009
SAF# F12-005
Sample ID B2JDT1

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.17	.29	pCi/g	1	0.57		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900010
SAF# F12-005
Sample ID B2JF32

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/24/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.023	.019	pCi/g	1	0.026		07/26/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	8.7E-3	.021	pCi/g	1	0.038		07/26/12
Plutonium-239_240	PU-239/240	LA-508-471	U	0.015	.013	pCi/g	1	0.016		07/26/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.18	.056	pCi/g	1	3.9E-3		07/26/12
Uranium-235	15117-96-1	LA-508-471		0.012	.0098	pCi/g	1	4.8E-3		07/26/12
Uranium-238	U-238	LA-508-471		0.17	.053	pCi/g	1	3.9E-3		07/26/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	-0.018	.034	pCi/g	1	0.051		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	-9.8E-3	.023	pCi/g	1	0.040		07/18/12
Europium-152	14683-23-9	LA-508-481	U	0.012	.078	pCi/g	1	0.12		07/18/12
Europium-154	15585-10-1	LA-508-481	U	-0.039	.068	pCi/g	1	0.12		07/18/12
Europium-155	14391-16-3	LA-508-481	U	9.6E-3	.095	pCi/g	1	0.16		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/22/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900010
SAF# F12-005
Sample ID B2JF32

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.15	.26	pCi/g	1	0.51		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900011
SAF# F12-005
Sample ID B2JDJ8

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S											**07/24/12**
Americium/Curium (AEA)											
Americium-241	14596-10-2	LA-508-471			0.026	.015	pCi/g	1	0.011		07/26/12
Plutonium (AEA)											
Plutonium-238	13981-16-3	LA-508-471	U		-2.1E-3	.02	pCi/g	1	0.040		07/26/12
Plutonium-239_240	PU-239/240	LA-508-471		J	0.021	.014	pCi/g	1	5.6E-3		07/26/12
Uranium (AEA)											
Uranium-234	U-233/234	LA-508-471			0.15	.049	pCi/g	1	0.015		07/26/12
Uranium-235	15117-96-1	LA-508-471			6.1E-3	.0071	pCi/g	1	5.5E-3		07/26/12
Uranium-238	U-238	LA-508-471			0.17	.055	pCi/g	1	4.5E-3		07/26/12
Preparation for GEA (S)											**07/17/12**
Gamma Energy Analysis-general											
Cesium-137	10045-97-3	LA-508-481	U		0.031	.034	pCi/g	1	0.035		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U		4.3E-3	.02	pCi/g	1	0.038		07/18/12
Europium-152	14683-23-9	LA-508-481	U		-0.015	.065	pCi/g	1	0.10		07/18/12
Europium-154	15585-10-1	LA-508-481	U		0.057	.063	pCi/g	1	0.13		07/18/12
Europium-155	14391-16-3	LA-508-481	U		0.10	.077	pCi/g	1	0.15		07/18/12
Strontium 89/90 SOLID/SOIL PREP											**07/22/12**
Strontium 89/90 (GPC/GEA)											

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900011
SAF# F12-005
Sample ID B2JDJ8

Matrix SOIL
Sampled 07/10/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.14	.22	pCi/g	1	0.45		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900012
SAF# F12-005
Sample ID B2JDR2

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/24/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.016	.015	pCi/g	1	0.021		07/26/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	9.8E-3	.01	pCi/g	1	0.014		07/26/12
Plutonium-239_240	PU-239/240	LA-508-471	J	0.020	.013	pCi/g	1	5.3E-3		07/26/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.15	.05	pCi/g	1	0.012		07/26/12
Uranium-235	15117-96-1	LA-508-471		6.3E-3	.0072	pCi/g	1	5.6E-3		07/26/12
Uranium-238	U-238	LA-508-471		0.15	.049	pCi/g	1	4.6E-3		07/26/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	-0.031	.026	pCi/g	1	0.031		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	1.8E-3	.014	pCi/g	1	0.030		07/18/12
Europium-152	14683-23-9	LA-508-481	U	0.057	.07	pCi/g	1	0.14		07/18/12
Europium-154	15585-10-1	LA-508-481	U	0.013	.062	pCi/g	1	0.13		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.066	.097	pCi/g	1	0.19		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/22/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900012
SAF# F12-005
Sample ID B2JDR2

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.022	.23	pCi/g	1	0.51		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900013
SAF# F12-005
Sample ID B2JDR5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/24/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.020	.017	pCi/g	1	0.024		07/26/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	-4.3E-3	.014	pCi/g	1	0.032		07/26/12
Plutonium-239_240	PU-239/240	LA-508-471	U	4.3E-3	.01	pCi/g	1	0.020		07/26/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.20	.064	pCi/g	1	5.1E-3		07/26/12
Uranium-235	15117-96-1	LA-508-471		0.0070	.008	pCi/g	1	6.3E-3		07/26/12
Uranium-238	U-238	LA-508-471		0.23	.071	pCi/g	1	5.1E-3		07/26/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	-0.010	.027	pCi/g	1	0.048		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	-0.010	.026	pCi/g	1	0.046		07/18/12
Europium-152	14683-23-9	LA-508-481	U	0.016	.08	pCi/g	1	0.15		07/18/12
Europium-154	15585-10-1	LA-508-481	U	0.019	.081	pCi/g	1	0.16		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.039	.12	pCi/g	1	0.22		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/22/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900013
SAF# F12-005
Sample ID B2JDR5

Matrix SOIL
Sampled 07/12/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.21	.29	pCi/g	1	0.57		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900014
SAF# F12-005
Sample ID B2JDP3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S											**07/24/12**
Americium/Curium (AEA)											
Americium-241	14596-10-2	LA-508-471	U		0.018	.015	pCi/g	1	0.019		07/26/12
Plutonium (AEA)											
Plutonium-238	13981-16-3	LA-508-471	U		-4.3E-3	.013	pCi/g	1	0.030		07/26/12
Plutonium-239_240	PU-239/240	LA-508-471		J	0.011	.0098	pCi/g	1	5.8E-3		07/26/12
Uranium (AEA)											
Uranium-234	U-233/234	LA-508-471			0.12	.041	pCi/g	1	4.5E-3		07/26/12
Uranium-235	15117-96-1	LA-508-471			0.014	.011	pCi/g	1	5.5E-3		07/26/12
Uranium-238	U-238	LA-508-471			0.16	.051	pCi/g	1	4.5E-3		07/26/12
Preparation for GEA (S)											**07/17/12**
Gamma Energy Analysis-general											
Cesium-137	10045-97-3	LA-508-481	U		9.9E-3	.019	pCi/g	1	0.038		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U		-0.013	.021	pCi/g	1	0.035		07/18/12
Europium-152	14683-23-9	LA-508-481	U		9.1E-3	.059	pCi/g	1	0.098		07/18/12
Europium-154	15585-10-1	LA-508-481	U		-5.2E-3	.046	pCi/g	1	0.086		07/18/12
Europium-155	14391-16-3	LA-508-481	U		5.7E-3	.074	pCi/g	1	0.13		07/18/12
Strontium 89/90 SOLID/SOIL PREP											**07/22/12**
Strontium 89/90 (GPC/GEA)											

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900014
SAF# F12-005
Sample ID B2JDP3

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	-0.10	.27	pCi/g	1	0.58		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900015
SAF# F12-005
Sample ID B2JDP9

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/24/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.013	.013	pCi/g	1	0.017		07/26/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	-2.1E-3	.013	pCi/g	1	0.028		07/26/12
Plutonium-239_240	PU-239/240	LA-508-471	U	0.011	.011	pCi/g	1	0.016		07/26/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.18	.057	pCi/g	1	4.4E-3		07/26/12
Uranium-235	15117-96-1	LA-508-471		0.018	.013	pCi/g	1	5.4E-3		07/26/12
Uranium-238	U-238	LA-508-471		0.15	.05	pCi/g	1	4.4E-3		07/26/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	9.1E-3	.011	pCi/g	1	0.021		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	1.2E-3	.0097	pCi/g	1	0.018		07/18/12
Europium-152	14683-23-9	LA-508-481	U	0.012	.033	pCi/g	1	0.062		07/18/12
Europium-154	15585-10-1	LA-508-481	U	-0.020	.034	pCi/g	1	0.055		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.020	.054	pCi/g	1	0.093		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/22/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900015
SAF# F12-005
Sample ID B2JDP9

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.42	.3	pCi/g	1	0.64		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900016
SAF# F12-005
Sample ID B2JDV6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/25/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.013	.019	pCi/g	1	0.033		07/27/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	4.2E-3	.016	pCi/g	1	0.030		07/27/12
Plutonium-239_240	PU-239/240	LA-508-471	U	8.5E-3	.01	pCi/g	1	0.016		07/27/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.15	.08	pCi/g	1	0.022		07/27/12
Uranium-235	15117-96-1	LA-508-471		0.030	.035	pCi/g	1	0.027		07/27/12
Uranium-238	U-238	LA-508-471		0.18	.087	pCi/g	1	0.022		07/27/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	-4.4E-3	.027	pCi/g	1	0.050		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	-0.013	.027	pCi/g	1	0.051		07/18/12
Europium-152	14683-23-9	LA-508-481	U	0.066	.09	pCi/g	1	0.17		07/18/12
Europium-154	15585-10-1	LA-508-481	U	-5.6E-3	.076	pCi/g	1	0.16		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.013	.092	pCi/g	1	0.17		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/23/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900016
SAF# F12-005
Sample ID B2JDV6

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.079	.33	pCi/g	1	0.63		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900017
SAF# F12-005
Sample ID B2JDK1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/25/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471		0.025	.017	pCi/g	1	0.019		07/27/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	0.0020	.018	pCi/g	1	0.036		07/27/12
Plutonium-239_240	PU-239/240	LA-508-471	U	4.1E-3	.0081	pCi/g	1	0.015		07/27/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.15	.051	pCi/g	1	5.1E-3		07/27/12
Uranium-235	15117-96-1	LA-508-471		6.9E-3	.0081	pCi/g	1	6.3E-3		07/27/12
Uranium-238	U-238	LA-508-471		0.15	.051	pCi/g	1	0.013		07/27/12
Preparation for GEA (S)										**07/17/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	-0.012	.022	pCi/g	1	0.037		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U	6.9E-3	.019	pCi/g	1	0.038		07/18/12
Europium-152	14683-23-9	LA-508-481	U	-9.5E-3	.071	pCi/g	1	0.11		07/18/12
Europium-154	15585-10-1	LA-508-481	U	-5.1E-3	.064	pCi/g	1	0.12		07/18/12
Europium-155	14391-16-3	LA-508-481	U	0.017	.087	pCi/g	1	0.15		07/18/12
Strontium 89/90 SOLID/SOIL PREP										**07/23/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900017
SAF# F12-005
Sample ID B2JDK1

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.19	.26	pCi/g	1	0.54		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900018
SAF# F12-005
Sample ID B2JF35

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S											**07/25/12**
Americium/Curium (AEA)											
Americium-241	14596-10-2	LA-508-471			0.030	.02	pCi/g	1	0.024		07/27/12
Plutonium (AEA)											
Plutonium-238	13981-16-3	LA-508-471	U		4.5E-3	.023	pCi/g	1	0.043		07/27/12
Plutonium-239_240	PU-239/240	LA-508-471		J	0.018	.013	pCi/g	1	0.0060		07/27/12
Uranium (AEA)											
Uranium-234	U-233/234	LA-508-471			0.15	.082	pCi/g	1	0.023		07/27/12
Uranium-235	15117-96-1	LA-508-471	U		0.021	.03	pCi/g	1	0.028		07/27/12
Uranium-238	U-238	LA-508-471			0.14	.079	pCi/g	1	0.040		07/27/12
Preparation for GEA (S)											**07/17/12**
Gamma Energy Analysis-general											
Cesium-137	10045-97-3	LA-508-481	U		-2.8E-3	.035	pCi/g	1	0.066		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U		-6.3E-3	.032	pCi/g	1	0.061		07/18/12
Europium-152	14683-23-9	LA-508-481	U		-0.071	.096	pCi/g	1	0.15		07/18/12
Europium-154	15585-10-1	LA-508-481	U		-0.12	.1	pCi/g	1	0.17		07/18/12
Europium-155	14391-16-3	LA-508-481	U		3.4E-3	.11	pCi/g	1	0.20		07/18/12
Strontium 89/90 SOLID/SOIL PREP											**07/23/12**
Strontium 89/90 (GPC/GEA)											

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900018
SAF# F12-005
Sample ID B2JF35

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	-0.098	.36	pCi/g	1	0.82		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900019
SAF# F12-005
Sample ID B2JF47

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S											**07/25/12**
Americium/Curium (AEA)											
Americium-241	14596-10-2	LA-508-471	U		0.025	.021	pCi/g	1	0.028		07/27/12
Plutonium (AEA)											
Plutonium-238	13981-16-3	LA-508-471			0.020	.014	pCi/g	1	0.014		07/27/12
Plutonium-239_240	PU-239/240	LA-508-471		J	0.013	.01	pCi/g	1	0.0050		07/27/12
Uranium (AEA)											
Uranium-234	U-233/234	LA-508-471			0.070	.051	pCi/g	1	0.021		07/27/12
Uranium-235	15117-96-1	LA-508-471	U		9.6E-3	.019	pCi/g	1	0.026		07/27/12
Uranium-238	U-238	LA-508-471			0.055	.044	pCi/g	1	0.021		07/27/12
Preparation for GEA (S)											**07/17/12**
Gamma Energy Analysis-general											
Cesium-137	10045-97-3	LA-508-481	U		3.9E-3	.014	pCi/g	1	0.028		07/18/12
Cobalt-60	10198-40-0	LA-508-481	U		8.1E-3	.017	pCi/g	1	0.035		07/18/12
Europium-152	14683-23-9	LA-508-481	U		0.010	.04	pCi/g	1	0.078		07/18/12
Europium-154	15585-10-1	LA-508-481	U		1.3E-3	.055	pCi/g	1	0.10		07/18/12
Europium-155	14391-16-3	LA-508-481	U		0.073	.062	pCi/g	1	0.12		07/18/12
Strontium 89/90 SOLID/SOIL PREP											**07/23/12**
Strontium 89/90 (GPC/GEA)											

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Sample # 120900019
SAF# F12-005
Sample ID B2JF47

Matrix SOIL
Sampled 07/11/12
Received 07/16/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.076	.32	pCi/g	1	0.62		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922001
SAF# F12-005
Sample ID B2JDL0

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/25/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.017	.015	pCi/g	1	0.020		07/30/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	2.2E-3	.011	pCi/g	1	0.024		07/29/12
Plutonium-239_240	PU-239/240	LA-508-471	U	6.6E-3	.011	pCi/g	1	0.020		07/29/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.14	.042	pCi/g	1	0.027		07/31/12
Uranium-235	15117-96-1	LA-508-471	U	0.019	.016	pCi/g	1	0.023		07/31/12
Uranium-238	U-238	LA-508-471		0.14	.041	pCi/g	1	0.027		07/31/12
Preparation for GEA (S)										**07/18/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	4.6E-3	.012	pCi/g	1	0.021		07/23/12
Cobalt-60	10198-40-0	LA-508-481	U	1.8E-3	.0097	pCi/g	1	0.019		07/23/12
Europium-152	14683-23-9	LA-508-481	U	7.1E-3	.032	pCi/g	1	0.058		07/23/12
Europium-154	15585-10-1	LA-508-481	U	0.028	.031	pCi/g	1	0.064		07/23/12
Europium-155	14391-16-3	LA-508-481	U	0.036	.053	pCi/g	1	0.094		07/23/12
Strontium 89/90 SOLID/SOIL PREP										**07/22/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922001
SAF# F12-005
Sample ID B2JDL0

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	-0.13	.26	pCi/g	1	0.53		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922002
SAF# F12-005
Sample ID B2JDL3

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/25/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	7.5E-3	.019	pCi/g	1	0.034		07/30/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	4.7E-3	.011	pCi/g	1	0.022		07/29/12
Plutonium-239_240	PU-239/240	LA-508-471	U	4.7E-3	.0067	pCi/g	1	6.4E-3		07/29/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.19	.051	pCi/g	1	0.025		07/31/12
Uranium-235	15117-96-1	LA-508-471	U	4.6E-3	.012	pCi/g	1	0.021		07/31/12
Uranium-238	U-238	LA-508-471		0.16	.044	pCi/g	1	0.025		07/31/12
Preparation for GEA (S)										**07/18/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	-2.3E-3	.023	pCi/g	1	0.042		07/23/12
Cobalt-60	10198-40-0	LA-508-481	U	-0.016	.02	pCi/g	1	0.033		07/23/12
Europium-152	14683-23-9	LA-508-481	U	-0.033	.071	pCi/g	1	0.12		07/23/12
Europium-154	15585-10-1	LA-508-481	U	-0.036	.072	pCi/g	1	0.12		07/23/12
Europium-155	14391-16-3	LA-508-481	U	0.15	.13	pCi/g	1	0.16		07/23/12
Strontium 89/90 SOLID/SOIL PREP										**07/22/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922002
SAF# F12-005
Sample ID B2JDL3

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	-0.081	.21	pCi/g	1	0.40		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922003
SAF# F12-005
Sample ID B2JDL6

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S											**07/25/12**
Americium/Curium (AEA)											
Americium-241	14596-10-2	LA-508-471		J	0.024	.017	pCi/g	1	0.020		07/30/12
Plutonium (AEA)											
Plutonium-238	13981-16-3	LA-508-471	U		-1.3E-7	.0077	pCi/g	1	0.018		07/29/12
Plutonium-239_240	PU-239/240	LA-508-471	U		0.012	.011	pCi/g	1	0.014		07/29/12
Uranium (AEA)											
Uranium-234	U-233/234	LA-508-471			0.17	.047	pCi/g	1	0.026		07/31/12
Uranium-235	15117-96-1	LA-508-471	U		5.3E-3	.012	pCi/g	1	0.022		07/31/12
Uranium-238	U-238	LA-508-471			0.17	.047	pCi/g	1	0.026		07/31/12
Preparation for GEA (S)											**07/18/12**
Gamma Energy Analysis-general											
Cesium-137	10045-97-3	LA-508-481	U		-0.0040	.024	pCi/g	1	0.045		07/23/12
Cobalt-60	10198-40-0	LA-508-481	U		2.9E-3	.02	pCi/g	1	0.039		07/23/12
Europium-152	14683-23-9	LA-508-481	U		-2.8E-3	.063	pCi/g	1	0.12		07/23/12
Europium-154	15585-10-1	LA-508-481	U		3.8E-3	.069	pCi/g	1	0.13		07/23/12
Europium-155	14391-16-3	LA-508-481	U		0.031	.084	pCi/g	1	0.16		07/23/12
Strontium 89/90 SOLID/SOIL PREP											**07/22/12**
Strontium 89/90 (GPC/GEA)											

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922003
SAF# F12-005
Sample ID B2JDL6

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.40	.31	pCi/g	1	0.57		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922004
SAF# F12-005
Sample ID B2JDL9

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/25/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.016	.013	pCi/g	1	0.018		07/30/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	8.2E-7	.019	pCi/g	1	0.038		07/30/12
Plutonium-239_240	PU-239/240	LA-508-471	U	0.0020	.0068	pCi/g	1	0.015		07/30/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.14	.041	pCi/g	1	0.026		07/31/12
Uranium-235	15117-96-1	LA-508-471	U	8.7E-3	.013	pCi/g	1	0.022		07/31/12
Uranium-238	U-238	LA-508-471		0.17	.045	pCi/g	1	0.026		07/31/12
Preparation for GEA (S)										**07/18/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	0.027	.023	pCi/g	1	0.047		07/23/12
Cobalt-60	10198-40-0	LA-508-481	U	0.011	.017	pCi/g	1	0.038		07/23/12
Europium-152	14683-23-9	LA-508-481	U	-0.063	.072	pCi/g	1	0.10		07/23/12
Europium-154	15585-10-1	LA-508-481	U	7.2E-3	.059	pCi/g	1	0.12		07/23/12
Europium-155	14391-16-3	LA-508-481	U	0.052	.1	pCi/g	1	0.20		07/23/12
Strontium 89/90 SOLID/SOIL PREP										**07/22/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922004
SAF# F12-005
Sample ID B2JDL9

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.19	.29	pCi/g	1	0.56		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922005
SAF# F12-005
Sample ID B2JDM2

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/25/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	0.020	.016	pCi/g	1	0.022		07/30/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	-7.4E-3	.02	pCi/g	1	0.043		07/30/12
Plutonium-239_240	PU-239/240	LA-508-471		0.054	.027	pCi/g	1	0.018		07/30/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.20	.054	pCi/g	1	0.028		07/31/12
Uranium-235	15117-96-1	LA-508-471	U	0.021	.017	pCi/g	1	0.024		07/31/12
Uranium-238	U-238	LA-508-471		0.19	.052	pCi/g	1	0.027		07/31/12
Preparation for GEA (S)										**07/18/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481		0.077	.045	pCi/g	1	0.069		07/23/12
Cobalt-60	10198-40-0	LA-508-481	U	-0.025	.033	pCi/g	1	0.057		07/23/12
Europium-152	14683-23-9	LA-508-481	U	-0.040	.089	pCi/g	1	0.15		07/23/12
Europium-154	15585-10-1	LA-508-481	U	-0.036	.094	pCi/g	1	0.18		07/23/12
Europium-155	14391-16-3	LA-508-481	U	0.014	.1	pCi/g	1	0.19		07/23/12
Strontium 89/90 SOLID/SOIL PREP										**07/22/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922005
SAF# F12-005
Sample ID B2JDM2

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	-0.071	.22	pCi/g	1	0.45		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922006
SAF# F12-005
Sample ID B2JDM5

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/25/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	-1.7E-3	.012	pCi/g	1	0.026		07/30/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	0.013	.016	pCi/g	1	0.027		07/30/12
Plutonium-239_240	PU-239/240	LA-508-471	U	3.8E-3	.0074	pCi/g	1	0.014		07/30/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.18	.047	pCi/g	1	0.025		07/31/12
Uranium-235	15117-96-1	LA-508-471	U	1.2E-4		pCi/g	1	0.022		07/31/12
Uranium-238	U-238	LA-508-471		0.21	.053	pCi/g	1	0.025		07/31/12
Preparation for GEA (S)										**07/18/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	0.015	.017	pCi/g	1	0.020		07/23/12
Cobalt-60	10198-40-0	LA-508-481	U	-2.9E-3	.01	pCi/g	1	0.019		07/23/12
Europium-152	14683-23-9	LA-508-481	U	4.4E-3	.038	pCi/g	1	0.064		07/23/12
Europium-154	15585-10-1	LA-508-481	U	6.8E-3	.033	pCi/g	1	0.064		07/23/12
Europium-155	14391-16-3	LA-508-481	U	7.5E-3	.052	pCi/g	1	0.093		07/23/12
Strontium 89/90 SOLID/SOIL PREP										**07/22/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922006
SAF# F12-005
Sample ID B2JDM5

Matrix SOIL
Sampled 07/16/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406		0.67	.31	pCi/g	1	0.57		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922007
SAF# F12-005
Sample ID B2JF44

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S											**07/25/12**
Americium/Curium (AEA)											
Americium-241	14596-10-2	LA-508-471	U		6.8E-3	.016	pCi/g	1	0.028		07/30/12
Plutonium (AEA)											
Plutonium-238	13981-16-3	LA-508-471	U		0.013	.015	pCi/g	1	0.022		07/30/12
Plutonium-239_240	PU-239/240	LA-508-471			7.4E-3	.0077	pCi/g	1	0.0050		07/30/12
Uranium (AEA)											
Uranium-234	U-233/234	LA-508-471		J	0.044	.022	pCi/g	1	0.025		07/31/12
Uranium-235	15117-96-1	LA-508-471	U		5.7E-3	.012	pCi/g	1	0.022		07/31/12
Uranium-238	U-238	LA-508-471		J	0.039	.021	pCi/g	1	0.025		07/31/12
Preparation for GEA (S)											**07/18/12**
Gamma Energy Analysis-general											
Cesium-137	10045-97-3	LA-508-481	U		-0.013	.018	pCi/g	1	0.030		07/23/12
Cobalt-60	10198-40-0	LA-508-481	U		-9.5E-3	.019	pCi/g	1	0.032		07/23/12
Europium-152	14683-23-9	LA-508-481	U		-9.4E-3	.053	pCi/g	1	0.093		07/23/12
Europium-154	15585-10-1	LA-508-481	U		-0.020	.059	pCi/g	1	0.10		07/23/12
Europium-155	14391-16-3	LA-508-481	U		0.044	.072	pCi/g	1	0.13		07/23/12
Strontium 89/90 SOLID/SOIL PREP											**07/22/12**
Strontium 89/90 (GPC/GEA)											

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922007
SAF# F12-005
Sample ID B2JF44

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.43	.3	pCi/g	1	0.52		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922008
SAF# F12-005
Sample ID B2JDJ2

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S											**07/25/12**
Americium/Curium (AEA)											
Americium-241	14596-10-2	LA-508-471		J	0.029	.016	pCi/g	1	0.013		07/30/12
Plutonium (AEA)											
Plutonium-238	13981-16-3	LA-508-471	U		0.011	.021	pCi/g	1	0.038		07/30/12
Plutonium-239_240	PU-239/240	LA-508-471	U		6.5E-3	.0095	pCi/g	1	0.016		07/30/12
Uranium (AEA)											
Uranium-234	U-233/234	LA-508-471			0.21	.056	pCi/g	1	0.029		07/31/12
Uranium-235	15117-96-1	LA-508-471	U		0.013	.015	pCi/g	1	0.025		07/31/12
Uranium-238	U-238	LA-508-471			0.20	.054	pCi/g	1	0.031		07/31/12
Preparation for GEA (S)											**07/18/12**
Gamma Energy Analysis-general											
Cesium-137	10045-97-3	LA-508-481	U		5.4E-3	.019	pCi/g	1	0.038		07/23/12
Cobalt-60	10198-40-0	LA-508-481	U		-0.017	.02	pCi/g	1	0.029		07/23/12
Europium-152	14683-23-9	LA-508-481	U		-0.065	.069	pCi/g	1	0.088		07/23/12
Europium-154	15585-10-1	LA-508-481	U		0.013	.06	pCi/g	1	0.12		07/23/12
Europium-155	14391-16-3	LA-508-481	U		3.7E-3	.074	pCi/g	1	0.14		07/23/12
Strontium 89/90 SOLID/SOIL PREP											**07/22/12**
Strontium 89/90 (GPC/GEA)											

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922008
SAF# F12-005
Sample ID B2JDJ2

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	0.52	.33	pCi/g	1	0.59		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922009
SAF# F12-005
Sample ID B2JDK7

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Am/Cm/Pu/U/Np Prep (AEA) S										**07/25/12**
Americium/Curium (AEA)										
Americium-241	14596-10-2	LA-508-471	U	4.3E-3	.013	pCi/g	1	0.026		07/30/12
Plutonium (AEA)										
Plutonium-238	13981-16-3	LA-508-471	U	-2.3E-3	.023	pCi/g	1	0.045		07/30/12
Plutonium-239_240	PU-239/240	LA-508-471		0.033	.019	pCi/g	1	6.3E-3		07/30/12
Uranium (AEA)										
Uranium-234	U-233/234	LA-508-471		0.16	.046	pCi/g	1	0.027		07/31/12
Uranium-235	15117-96-1	LA-508-471	U	7.1E-3	.013	pCi/g	1	0.023		07/31/12
Uranium-238	U-238	LA-508-471		0.16	.045	pCi/g	1	0.027		07/31/12
Preparation for GEA (S)										**07/18/12**
Gamma Energy Analysis-general										
Cesium-137	10045-97-3	LA-508-481	U	-0.012	.024	pCi/g	1	0.043		07/23/12
Cobalt-60	10198-40-0	LA-508-481	U	-8.4E-3	.023	pCi/g	1	0.040		07/23/12
Europium-152	14683-23-9	LA-508-481	U	0.033	.083	pCi/g	1	0.12		07/23/12
Europium-154	15585-10-1	LA-508-481	U	-0.077	.069	pCi/g	1	0.11		07/23/12
Europium-155	14391-16-3	LA-508-481	U	0.015	.1	pCi/g	1	0.18		07/23/12
Strontium 89/90 SOLID/SOIL PREP										**07/22/12**
Strontium 89/90 (GPC/GEA)										

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

Sample # 120922009
SAF# F12-005
Sample ID B2JDK7

Matrix SOIL
Sampled 07/17/12
Received 07/18/12

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Strontium-89_90	SR-RAD	LA-220-406	U	-0.26	.24	pCi/g	1	0.54		07/27/12

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

1.0 GENERAL

CH2M Hill Plateau Remediation Company (CHPRC) Sample Delivery Group H4727 was composed of one soil sample designated under SAF No. F12-005 with a Project Designation of: Area AG Zone 2 Sampling Verification Sampling – Soil.

The sample was received as stated on the Chain-of-Custody document. Any discrepancies are noted on the Eberline Analytical Sample Receipt Checklist.

2.0 ANALYSIS NOTES

2.1 Tritium Analysis

No problems were encountered during the course of the analyses. The results for both the original and duplicate analyses were less than their respective MDAs, therefore no RPD or statistical control limit is calculated.

2.2 Carbon-14 Analysis

No problems were encountered during the course of the analyses. The results for both the original and duplicate analyses were less than their respective MDAs, therefore no RPD or statistical control limit is calculated.

2.3 Nickel-63 Analysis

No problems were encountered during the course of the analyses. The results for both the original and duplicate analyses were less than their respective MDAs, therefore no RPD or statistical control limit is calculated.

3.0 Case Narrative Certification Statement

"I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data obtained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature."

Joseph Verville
Client Services Manager

7/11/12
Date

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-015	PAGE 1 OF 1
COLLECTOR Frank Hall	COMPANY CONTACT TRENT, SJ H4727	TELEPHONE NO. 373-5869 (7728)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #5	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-255 (N/A)	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 798548429268		

LW. 6/25/12

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None
		HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	~~60mL~~ 120mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

JH 6/13/12

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDF0	SOIL	JUN 18 2012	1016	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM Frank Hall	DATE/TIME JUN 18 2012 1300	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUN 18 2012 1300
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUN 25 2012 1000	RECEIVED BY/STORED IN L.D. Wall	DATE/TIME JUN 25 2012 1000
RELINQUISHED BY/REMOVED FROM L.D. Wall	DATE/TIME JUN 25 2012 1400	RECEIVED BY/STORED IN CHDRC	DATE/TIME
RELINQUISHED BY/REMOVED FROM CHDRC	DATE/TIME FED EX	RECEIVED BY/STORED IN FEDEX	DATE/TIME 06/26/12 8930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63}; Tritium - H3 {Tritium}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

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1.0 GENERAL

CH2M Hill Plateau Remediation Company (CHPRC) Sample Delivery Group H4735 was composed of fourteen soil samples designated under SAF No. F12-005 with a Project Designation of: Area AG Zone 2 Sampling Verification Sampling – Soil.

The samples were received as stated on the Chain-of-Custody documents. Any discrepancies are noted on the Eberline Analytical Sample Receipt Checklist.

2.0 ANALYSIS NOTES

2.1 Tritium Analysis

No problems were encountered during the course of the analyses. The results for both the original and duplicate analyses were less than their respective MDAs, therefore no RPD or statistical control limit is calculated.

2.2 Carbon-14 Analysis

No problems were encountered during the course of the analyses. The results for both the original and duplicate analyses were less than their respective MDAs, therefore no RPD or statistical control limit is calculated.

2.3 Nickel-63 Analysis

No problems were encountered during the course of the analyses. The results for both the original and duplicate analyses were less than their respective MDAs, therefore no RPD or statistical control limit is calculated.

3.0 Case Narrative Certification Statement

"I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data obtained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature."

Joseph Verville
Client Services Manager

8/7/12
Date

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-018	PAGE 1 OF 1
COLLECTOR Kevin Patterson	COMPANY CONTACT TRENT, SJ H4735	TELEPHONE NO. 373-5869 (7737)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #6	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. 6WS-112 ~~(N/A)~~	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	None
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	~~60ml~~ 120 ml 9H 6/28/12
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDF3	SOIL	JUL 09 2012	0944	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM Kevin Patterson	DATE/TIME JUL 09 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 09 2012 1400	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. (1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63}; Tritium - H3 & Tritium3 9H 6/28/12
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230	
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1420	RECEIVED BY/STORED IN FED EX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN M. MATHWAMAN	DATE/TIME 07/19/12 09 20	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-021	PAGE 1 OF 1
COLLECTOR Kevin Patterson	COMPANY CONTACT TRENT, SJ H4735	TELEPHONE NO. 373-5869 (7737)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #7	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-192 ~~(N/A)~~	FIELD LOGBOOK NO. HNF-N-507.25	ACTUAL SAMPLE DEPTH 6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120ml 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDF6	SOIL	JUL 09 2012	1018	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM Kevin Patterson	DATE/TIME JUL 09 2012/1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 09 2012/1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012/1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012/1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012/1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN M. [illegible] 02/19/12	DATE/TIME 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium - H3 {Tritium}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-024	PAGE 1 OF 1
COLLECTOR Kevin Patterson	COMPANY CONTACT TRENT, SJ H4735	TELEPHONE NO. 373-5869 (7737)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #8	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. ~~(N/A)~~ GWS-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 3903/ 7986 2803 9052		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None
		HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	~~60mL~~ 120ml QA 6/28/12
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDF9	SOIL	JUL 09 2012	1049	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM Kevin Patterson Kevin Patterson	DATE/TIME JUL 09 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 09 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1215	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1215
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1430	RECEIVED BY/STORED IN FED EXPRESS	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN HF, DEATHERAGE	DATE/TIME 07/19/12 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium- H3 {Tritium3
QA 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	F12-005-027	PAGE 1 OF 1

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8C	DATA TURNAROUND
Kevin Patterson	TRENT, SJ H4735	373-5869 (7737)	TRENT, SJ	AIR QUALITY ☐	15 Days / 15 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
Area AG Zone 2 Verification Sample #9	Area AG Zone 2 Sampling Verification Sampling - Soil		F12-005		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
GWS-192 ~~(N/A)~~	HNF-N-507-25	6"	302677ES10	FEDERAL EXPRESS	**ORIGINAL**
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Eberline Services	SEE PTR		SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL 06/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDH2	SOIL	JUL 09 2012	1104	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1140	SSU-1	JUL 09 2012 1140
SSU-1	JUL 16 2012 1230	Don Brotherton	JUL 16 2012 1230
Don Brotherton	JUL 16 2012 1400	FED EXPRESS	
FED EX		F. NEATHERMAN	07/19/12 0920

SPECIAL INSTRUCTIONS
The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium - H3 {Tritium3}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-030	PAGE 1 OF 1
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT TRENT, SJ H4735	TELEPHONE NO. 373-5869 (7737)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #10	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0'-6'	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	None
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	~~60ml~~ 120ml 6/28/12
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDH5	SOIL	JUL 10 2012	0730	

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME JUL 10 2012 1315	RECEIVED BY/STORED IN SSutt	DATE/TIME JUL 10 2012 1315
RELINQUISHED BY/REMOVED FROM SSutt	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN [illegible]	DATE/TIME 07/19/12 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};

Tritium - H3 {Tritium3}

6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-033	PAGE 1 OF 1
COLLECTOR KC Patterson CHPRG	COMPANY CONTACT TRENT, SJ H4735	TELEPHONE NO. 373-5869 (7737)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #11	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0"-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL 9H 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDH8	SOIL	JUL 10 2012	0915	X

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRG	JUL 10 2012 1315	SSW#1	JUL 10 2012 1315
SSW#1	JUL 16 2012 1230	Don Brotherton	JUL 16 2012 1230
Don Brotherton	JUL 16 2012 1400	FED EX	
FED EX		[illegible]	07/19/12 0920

SPECIAL INSTRUCTIONS
The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63}; Tritium-H3 {Tritium} 9H 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-036	PAGE 1 OF 1
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT TRENT, SJ H4735	TELEPHONE NO. 373-5869 (7737)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #12	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GW5-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0"-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL JH 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDJ1	SOIL	JUL 10 2012	0903	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME 315 JUL 10 2012	RECEIVED BY/STORED IN SSutti	DATE/TIME 315 JUL 10 2012
RELINQUISHED BY/REMOVED FROM SSutti	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EXPRESS	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN M Heathington	DATE/TIME 07/19/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63}; tritium- H3 {Tritium}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-039	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ H4735	TELEPHONE NO. 373-5869 (7737)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #13	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. OWS 288	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 793803541310		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL 94 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDJ4	SOIL	JUL 17 2012	1355	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUL 17 2012 1515	RECEIVED BY/STORED IN SSmith	DATE/TIME JUL 17 2012 1515
RELINQUISHED BY/REMOVED FROM SSmith	DATE/TIME JUL 18 2012 0730	RECEIVED BY/STORED IN ARMCEutyo	DATE/TIME JUL 18 2012 0730
RELINQUISHED BY/REMOVED FROM ARMCEutyo	DATE/TIME JUL 18 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN MFRETHAWAY	DATE/TIME 07/19/12 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium- H3 & Tritium3

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-042	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ H4735	TELEPHONE NO. 373-5869 (7737)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #14	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6 inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL SH 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDJ7	SOIL	JUN 12 2012	0819	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUN 12 2012 1100
RELINQUISHED BY/REMOVED FROM SSU #1	DATE/TIME JUL 16 2012/1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012/1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN FILMTRACK INTN	DATE/TIME 07/19/12 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium - H3 {Tritium} SH 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME	
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME	

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-045	PAGE 1 OF 1
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT TRENT, SJ H4735	TELEPHONE NO. 373-5869 (7737)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #15	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-567-25	ACTUAL SAMPLE DEPTH 0"-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None
		HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	~~60mL~~ 120mL JH 6/28/12
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDK0	SOIL	JUL 10 2012	0750	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME JUL 10 2012 315	RECEIVED BY/STORED IN SSchell	DATE/TIME JUL 10 2012 315
RELINQUISHED BY/REMOVED FROM SSchell	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN [illegible]	DATE/TIME 07/19/12 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium- H3 {Tritium3
JH 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-048	PAGE 1 OF 1
COLLECTOR John Fulton	COMPANY CONTACT TRENT, SJ H4735	TELEPHONE NO. 373-5869 (7737)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #16	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL JH 6/20/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDK3	SOIL	JUL 11 2012	0958	✓

CHAIN OF POSSESSION	SIGN/ PRINT NAMES		
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EXPRESS	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN [illegible] 07/19/12	DATE/TIME 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium-H-3 {Tritium3
JH 6/20/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-051	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ H4735	TELEPHONE NO. 373-5869 (7737)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #17	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6 inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDK6	SOIL	JUN 12 2012	0755	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUN 12 2012 1100
RELINQUISHED BY/REMOVED FROM SSU#1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EXPRESS	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN FREATHERSTON	DATE/TIME 07/19/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium H-3 {Tritium3}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-054	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ H4735	TELEPHONE NO. 373-5869 C7737	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #18	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS 298	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 793803541310		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120 mL JH 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDK9	SOIL	JUL 17 2012	1328	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME 1515 JUL 17 2012	RECEIVED BY/STORED IN SSutter	DATE/TIME 1515 JUL 17 2012
RELINQUISHED BY/REMOVED FROM SSutter	DATE/TIME JUL 18 2012 0730	RECEIVED BY/STORED IN ARM Cintyre	DATE/TIME JUL 18 2012 0730
RELINQUISHED BY/REMOVED FROM ARM Cintyre	DATE/TIME 1900 JUL 18 2012	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN M Freeman/THOMAS	DATE/TIME 07/19/12 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium H-3 & Tritium3
JH 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-057	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ H4735	TELEPHONE NO. 373-5869 (7737)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #19	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS 298	FIELD LOGBOOK NO. HNF -N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 79380354/310		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None
		HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	~~60mL~~ 120mL OH 6/12/12
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDL2	SOIL	JUL 17 2012	1413	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUL 17 2012 1515	RECEIVED BY/STORED IN SSmith	DATE/TIME JUL 17 2012 1515
RELINQUISHED BY/REMOVED FROM SSmith	DATE/TIME JUL 18 2012 0730	RECEIVED BY/STORED IN ARMSmith	DATE/TIME JUL 18 2012 0730
RELINQUISHED BY/REMOVED FROM ARMSmith	DATE/TIME JUL 18 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN IT-NA [illegible] 07/19/12	DATE/TIME 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium H-3 {Tritium3}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

1.0 GENERAL

CH2M Hill Plateau Remediation Company (CHPRC) Sample Delivery Group H4736 was composed of fourteen soil samples designated under SAF No. F12-005 with a Project Designation of: Area AG Zone 2 Sampling Verification Sampling – Soil.

The samples were received as stated on the Chain-of-Custody documents. Any discrepancies are noted on the Eberline Analytical Sample Receipt Checklist.

2.0 ANALYSIS NOTES

2.1 Tritium Analysis

No problems were encountered during the course of the analyses. The results for both the original and duplicate analyses were less than their respective MDAs, therefore no RPD or statistical control limit is calculated.

2.2 Carbon-14 Analysis

No problems were encountered during the course of the analyses. The results for both the original and duplicate analyses were less than their respective MDAs, therefore no RPD or statistical control limit is calculated.

2.3 Nickel-63 Analysis

No problems were encountered during the course of the analyses. The results for both the original and duplicate analyses were less than their respective MDAs, therefore no RPD or statistical control limit is calculated.

3.0 Case Narrative Certification Statement

"I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data obtained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature."

8/8/12

Joseph Verville
Client Services Manager

Date

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-060	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ H4736	TELEPHONE NO. 373-5869 (7738)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #20	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS 298	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 79380354131O		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL 9H 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDL5	SOIL	JUL 17 2012	1420	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUL 17 2012 1515	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 17 2012 1515
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 18 2012 0730	RECEIVED BY/STORED IN ARMCEntyre	DATE/TIME JUL 18 2012 0730
RELINQUISHED BY/REMOVED FROM ARMCEntyre	DATE/TIME JUL 18 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN MFMATHENY	DATE/TIME 07/19/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium - H-3 & Tritium3
9H 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-063	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ H4736	TELEPHONE NO. 373-5869 (7738)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #21	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS 298	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 6-6'	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 79380354131 0		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL 9H 6/27/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDL8	SOIL	JUL 17 2012	1313	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUL 17 2012 1515	RECEIVED BY/STORED IN DJ Sparks	DATE/TIME JUL 17 2012 1515
RELINQUISHED BY/REMOVED FROM DJ Sparks	DATE/TIME JUL 18 2012 0730	RECEIVED BY/STORED IN ARMCintyre	DATE/TIME JUL 18 2012 0730
RELINQUISHED BY/REMOVED FROM ARMCintyre	DATE/TIME JUL 18 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN JF MATHESMAN	DATE/TIME 07/19/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium - H3 {Tritium};
9H 6/27/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-066	PAGE 1 OF 1
COLLECTOR Frank Hall	COMPANY CONTACT TRENT, SJ H4736	TELEPHONE NO. 373-5869 (7738)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #22	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWJ 298	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 79380354131 0		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None
		HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	~~60mL~~ 120ml GK 6/28/12
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDM1	SOIL	JUN 16 2012	0954	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM Frank Hall	DATE/TIME JUN 16 2012 1500	RECEIVED BY/STORED IN SSU #1	DATE/TIME JUN 16 2012 1500
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 18 2012 0730	RECEIVED BY/STORED IN ARMSecurity	DATE/TIME JUL 18 2012 0730
RELINQUISHED BY/REMOVED FROM ARMSecurity	DATE/TIME JUL 18 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN [illegible]	DATE/TIME 07/19/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63}; Tritium - H3 {Tritium3}

GK 6/27/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-069	PAGE 1 OF 1
COLLECTOR Frank Hall	COMPANY CONTACT TRENT, SJ H4736	TELEPHONE NO. 373-5869 (7738)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #23	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS 288	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 79380354131O		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None
		HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	~~60mL~~ 120mL 9H 6/28/12
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDM4	SOIL	JUN 16 2012	1024	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM Frank Hall	DATE/TIME JUN 16 2012 1500	RECEIVED BY/STORED IN SSU #1	DATE/TIME JUN 16 2012 1500
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 18 2012 0730	RECEIVED BY/STORED IN ARMCENTER	DATE/TIME JUL 18 2012 0730
RELINQUISHED BY/REMOVED FROM ARMCENTER	DATE/TIME JUL 18 2012 1400	RECEIVED BY/STORED IN FED EXPRESS	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN MEALTHE MAN	DATE/TIME 07/19/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium - H3 {tritium};

9H 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-072	PAGE 1 OF 1
COLLECTOR Frank Hall	COMPANY CONTACT TRENT, SJ H4736	TELEPHONE NO. 373-5869 (7738)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #24	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS 288	FIELD LOGBOOK NO. HNF -N-507- 25	ACTUAL SAMPLE DEPTH 0 - 6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 79780354 1310		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120ml 9K 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDM7	SOIL	JUN 16 2012	0946	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM Frank Hall	DATE/TIME JUN 16 2012 1500	RECEIVED BY/STORED IN SSU #	DATE/TIME JUN 16 2012 1500
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 18 2012 0730	RECEIVED BY/STORED IN ARMCitys	DATE/TIME JUL 18 2012 0730
RELINQUISHED BY/REMOVED FROM ARMCitys	DATE/TIME JUL 18 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN M. NATARAJAN	DATE/TIME 07/19/12 0900
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium - H3 {Tritium}
9K 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-075	PAGE 1 OF 1
COLLECTOR John Fulton	COMPANY CONTACT TRENT, SJ H4736	TELEPHONE NO. 373-5869 (7738)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #25	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120ml 9H 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDN0	SOIL	JUL 11 2012	0828	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN M. NATHWANI	DATE/TIME 07/19/12 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium-{Tritium} H3 9H 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-078	PAGE 1 OF 1
COLLECTOR John Fulton	COMPANY CONTACT TRENT, SJ H473C	TELEPHONE NO. 373-5869 (7738)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #26	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120ml 9H 10/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDN3	SOIL	JUL 11 2012	0834	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1420	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU#1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN [illegible]	DATE/TIME 07/19/12 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium-H3 {Tritium}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-081	PAGE 1 OF 1
COLLECTOR John Fulton	COMPANY CONTACT TRENT, SJ H4736	TELEPHONE NO. 373-5869 (7738)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #27	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120ml 9H 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDN6	SOIL	JUL 11 2012	0838	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EXPRESS	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN FEDEX [illegible]	DATE/TIME 07/19/12 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium-H3 {Tritium3}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-084	PAGE 1 OF 1
COLLECTOR John Fulton	COMPANY CONTACT TRENT, SJ H4736	TELEPHONE NO. 373-5869 (7738)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #28	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 7052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60ml~~ 120ml 9H 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDN9	SOIL	JUL 11 2012	0941	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN J E WATKINS	DATE/TIME 07/19/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium - H3 {Tritium}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-087	PAGE 1 OF 1
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT TRENT, SJ H4736	TELEPHONE NO. 373-5869 (7738)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #29	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-193	FIELD LOGBOOK NO. HNF-N-502-25	ACTUAL SAMPLE DEPTH 0"-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO.<	SEE PTR ~~786~~ 7986 2803 9052 AGM 7/17/12	

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None
		HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	~~60mL~~ 120mL QH 6/28/12
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDP2	SOIL	JUL 10 2012	0740	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME JUL 10 2012 1335	RECEIVED BY/STORED IN SSmith	DATE/TIME JUL 10 2012 1335	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. (1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63}; Tritium - H3 {Tritium}
RELINQUISHED BY/REMOVED FROM SSmith	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230	
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1740	RECEIVED BY/STORED IN FED EX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN M. Heatherington	DATE/TIME 07/19/12 0940	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-090	PAGE 1 OF 1
COLLECTOR John Fulton	COMPANY CONTACT TRENT, SJ H4736	TELEPHONE NO. 373-5869 (7738)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #30	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120ml 9H 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDP5	SOIL	JUL 11 2012	0741	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSUH1	JUL 11 2012 1430
SSUH1	JUL 16 2012 1230	Don Brotherton	JUL 16 2012 1230
Don Brotherton	JUL 16 2012 1400	FED EX	
FED EX		F. DEA TAWAMAN	07/19/12 0920

SPECIAL INSTRUCTIONS
The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63}; Tritium- H3 {Tritium}.
9H 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-093	PAGE 1 OF 1
COLLECTOR John Fulton	COMPANY CONTACT TRENT, SJ H4736	TELEPHONE NO. 373-5869 (7738)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION John Fulton Area AG Zone 2 Verification Sample #31	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

OH 6/28/12

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDP8	SOIL	JUL 11 2012	0752	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSUH1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSUH1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN FEDEX	DATE/TIME 07/19/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium - H3 {Tritium}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-096	PAGE 1 OF 1
COLLECTOR John Fulton	COMPANY CONTACT TRENT, SJ H4736	TELEPHONE NO. 373-5869 (7738)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #32	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS - 192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None
		HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	~~60mL~~ 120ml 9H 6/28/12
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDR1	SOIL	JUL 11 2012	0855	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN [illegible] 07/19/12 0920	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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63}; Tritium-H3 {Tritium}

9H 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME	
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME	

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-099	PAGE 1 OF 1
COLLECTOR John Fulton	COMPANY CONTACT TRENT, SJ H4736	TELEPHONE NO. 373-5869 (7738)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #33	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None
		HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	~~60mL~~ 120 ml 9/6/20/12
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDR4	SOIL	JUL 11 2012	0949	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME JUL 16 2012	RECEIVED BY/STORED IN [illegible]	DATE/TIME 07/19/12 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63}; Tritium- H3 {Tritium3}

9/6/20/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME	
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME	

PRINTED ON 12/8/2011

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1.0 GENERAL

CH2M Hill Plateau Remediation Company (CHPRC) Sample Delivery Group H4737 was composed of fourteen soil samples designated under SAF No. F12-005 with a Project Designation of: Area AG Zone 2 Sampling Verification Sampling – Soil.

The samples were received as stated on the Chain-of-Custody documents. Any discrepancies are noted on the Eberline Analytical Sample Receipt Checklist.

2.0 ANALYSIS NOTES

2.1 Tritium Analysis

No problems were encountered during the course of the analyses. The results for both the original and duplicate analyses were less than their respective MDAs, therefore no RPD or statistical control limit is calculated.

2.2 Carbon-14 Analysis

No problems were encountered during the course of the analyses. The results for both the original and duplicate analyses were less than their respective MDAs, therefore no RPD or statistical control limit is calculated.

2.3 Nickel-63 Analysis

No problems were encountered during the course of the analyses. The results for both the original and duplicate analyses were less than their respective MDAs, therefore no RPD or statistical control limit is calculated.

3.0 Case Narrative Certification Statement

"I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data obtained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature."

_____ _____

Joseph Verville **Date**
Client Services Manager

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-102	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ H4737	TELEPHONE NO. 373-5869 (7739)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #34	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-507-25-	ACTUAL SAMPLE DEPTH 0-6 inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None
		HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	~~60mL~~ 120ml 9H 6/28/12
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDR7	SOIL	JUN 12 2012	0724	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUN 12 2012 1100	The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. (1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63}; Tritium- H3 {Tritium} 9H 6/28/12
RELINQUISHED BY/REMOVED FROM SSU#1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230	
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME	
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME 07/19/12 0920	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-105	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ HW737	TELEPHONE NO. 373-5869 (7739)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #35	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6 inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120ml 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDT0	SOIL	JUN 12 2012	0701	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUN 12 2012 1100
RELINQUISHED BY/REMOVED FROM SSU#1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN M. MATTAUSCHAN	DATE/TIME 07/19/12 0900
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium - H3 {Tritium3}
6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-108	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ 14737	TELEPHONE NO. 373-5869 (7739)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #36	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GOS-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6 inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDT3	SOIL	JUN 12 2012	0704	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUN 12 2012 1100
RELINQUISHED BY/REMOVED FROM SSU#1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN [illegible] 07/19/12	DATE/TIME 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium-H3 {Tritiam}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-111	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ H4737	TELEPHONE NO. 373-5869 (7739)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #37	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS - 192	FIELD LOGBOOK NO. HNF-N-507-25.	ACTUAL SAMPLE DEPTH 0-6 inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

gll 6/20/12

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDT6	SOIL	JUN 12 2012	0656	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUN 12 2012 1100
RELINQUISHED BY/REMOVED FROM SSU#1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN [illegible]	DATE/TIME 07/19/12 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium- H3 {Tritium}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-114	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ H4737	TELEPHONE NO. 373-5869 (7739)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #38	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-192	FIELD LOGBOOK NO. HNF-N-507-35	ACTUAL SAMPLE DEPTH 0-6 inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL DLH 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDT9	SOIL	JUN 12 2012	0731	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUN 12 2012 1100
RELINQUISHED BY/REMOVED FROM SSU #1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN TF MATAWAMU	DATE/TIME 07/19/12 0900
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium - H3 {Tritium3}
DLH 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-117	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ H4737	TELEPHONE NO. 373-5869 (7739)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #39	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS - 192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6 inches	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	None
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	~~60mL~~ 120ml 04 6/28/12
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDV2	SOIL	JUN 12 2012	0714	✓

CHAIN OF POSSESSION	SIGN/ PRINT NAMES		
RELINQUISHED BY/REMOVED FROM DJ Sparks CHPRC	DATE/TIME JUN 12 2012 1100	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUN 12 2012 1100
RELINQUISHED BY/REMOVED FROM SSU#1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN M. MATTHEWS	DATE/TIME 07/19/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium- H3 {Tritium3}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-120	PAGE 1 OF 1
COLLECTOR John Fulton	COMPANY CONTACT TRENT, SJ H4737	TELEPHONE NO. 373-5869 (7739)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #40	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS - 192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120ml 9H 6/29/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDV5	SOIL	JUL 11 2012	0803	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN [illegible]	DATE/TIME 07/19/12 0900
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium- H3 {Tritium}
9H 6/29/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-123	PAGE 1 OF 1
COLLECTOR John Fulton	COMPANY CONTACT TRENT, SJ H4737	TELEPHONE NO. 373-5869 (7739)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #41	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GW5 -192	FIELD LOGBOOK NO. HNF -N-507- 25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120ml 6/20/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JDV8	SOIL	JUL 11 2012	0846	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN MF Nettles	DATE/TIME 07/19/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium- H3 {Tritium3}

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-186	PAGE 1 OF 1
COLLECTOR Kevin Patterson	COMPANY CONTACT TRENT, SJ H4737	TELEPHONE NO. 373-5869 (7739)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #62	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS-192 ~~(N/A)~~	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL 9/4 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JF31	SOIL	JUL 09 2012	1018	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM Kevin Patterson	DATE/TIME JUL 09 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 09 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN FREDRICK SANDS	DATE/TIME 07/19/12 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium H-3 {Tritium3} 9/4 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME	
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME	

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-189	PAGE 1 OF 1
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT TRENT, SJ H4737	TELEPHONE NO. 373-5869 (7739)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Area AG Zone 2 Verification Sample #63	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. 605-192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0"-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL 9H 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JF34	SOIL	JUL 10 2012	0750	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME JUL 10 2012	RECEIVED BY/STORED IN SSU#1	DATE/TIME JUL 10 2012
RELINQUISHED BY/REMOVED FROM SSU#1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN Fred Tate	DATE/TIME 07/19/12 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
tritium H-3 {Tritium 3}
9H 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-192	PAGE 1 OF 1
COLLECTOR John Fulton	COMPANY CONTACT TRENT, SJ H4737	TELEPHONE NO. 373-5869 (7739)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #64	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS - 192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 8052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL JM 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JF37	SOIL	JUL 11 2012	0855	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN [illegible]	DATE/TIME 07/19/12 0930
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium H-3 (Tritium) JM 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME	
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME	

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-198	PAGE 1 OF 1
COLLECTOR Kevin Patterson	COMPANY CONTACT TRENT, SJ H4737	TELEPHONE NO. 373-5869 (7739)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #66	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GUS - 192	FIELD LOGBOOK NO. HNF-N-507-2523	ACTUAL SAMPLE DEPTH N/A	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL JH 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JF43	SOIL	JUL 0 9 2012	0910	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM Kevin Patterson	DATE/TIME JUL 0 9 2012 1400	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 0 9 2012 1400
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 1 6 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 1 6 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 1 6 2012 1400	RECEIVED BY/STORED IN FED EX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN [illegible]	DATE/TIME 07/19/12 0970
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium H-3 (Tritium) JH 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-201	PAGE 1 OF 1
COLLECTOR DJ Sparks CHPRC	COMPANY CONTACT TRENT, SJ H4737	TELEPHONE NO. 373-5869 (7739)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #67	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS 288	FIELD LOGBOOK NO. HNF-N-507 ~~25~~.	ACTUAL SAMPLE DEPTH NA	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR 79380354(310		BILL OF LADING/AIR BILL NO. SEE PTR		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	None
HOLDING TIME	6 Months
TYPE OF CONTAINER	G/P
NO. OF CONTAINER(S)	1
VOLUME	~~60mL~~ 120mL JA 6/28/12
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JF46	SOIL	JUL 17 2012	1250	X

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515		JUL 17 2012 1515
	JUL 18 2012 0730	ARMSTRONG	JUL 18 2012 0730
ARMSTRONG	JUL 18 2012 1400	FED EX	
FED EX		F. NEATHERMAN	07/19/12 0900

SPECIAL INSTRUCTIONS
The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium H-3 (Tritium)
JA 6/28/12

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-204	PAGE 1 OF 1
COLLECTOR John Fulton	COMPANY CONTACT TRENT, SJ H4737	TELEPHONE NO. 373-5869 (7739)	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #68	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005		
ICE CHEST NO. GWS - 192	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Eberline Services	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7986 2803 9052		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS		
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)	PRESERVATION	None
		HOLDING TIME	6 Months
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINER(S)	1
		VOLUME	~~60mL~~ 120mL JH 6/28/12
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B2JF49	SOIL	JUL 11 2012	0808	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM John Fulton	DATE/TIME JUL 11 2012 1430	RECEIVED BY/STORED IN SSU-1	DATE/TIME JUL 11 2012 1430
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME JUL 16 2012 1230	RECEIVED BY/STORED IN Don Brotherton	DATE/TIME JUL 16 2012 1230
RELINQUISHED BY/REMOVED FROM Don Brotherton	DATE/TIME JUL 16 2012 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN [illegible] 07/19/12	DATE/TIME 0920
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 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) Carbon-14 {Carbon-14}; Nickel-63 {Nickel-63};
Tritium H-3 (Tritium)

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Attachment 2
Narrative Rev1
WSCF120788

Revision 1: P&D to correct 3-nitroaniline MDL and PQL – this case narrative replaces the prior in its entirety.

Introduction

A sample was received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The sample was analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Master Contract 39818, Revision 3, "Laboratory Analytical Services to CHPRC Soil and Groundwater Remediation Project."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

The following generic data qualifiers (i.e., B, D, U and J) may be applicable to this report, as appropriate

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Attachment 2
Narrative Rev1
WSCF120788

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Vanadium and Copper – Detected in the Blank and evaluated. No sample results in this batch were affected. "C" Flags not required.

- All other applicable QC controls are within the established limits.

Organic Comments

PCB – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- The Method Blank, LCS, MS, MSD and sample B2JDD8 (120788001) did not meet the acceptance limits for surrogate Nitrobenzene-d5. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.

- The Method Blank did not meet the acceptance limits for surrogate Terphenyl-d14. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.

- All other applicable QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – The hold time requirement for this analysis was met. A Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gamma Energy Analysis:

Attachment 2
Narrative Rev1
WSCF120788

- Europium-155 - Duplicate Relative Percent Difference (RPD) could not be reported by the LIMS system because it cannot perform the calculation from a value divisible by zero.

- All applicable QC controls are within the established limits.

Americium-241:

- Americium-241 – The Blank is less than two times the RDL. "B" Flag not required.

- Americium-241 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results near the minimum detectable activity. No flags issued.

- All other applicable QC controls are within the established limits.

Isotopic Plutonium analysis:

- Plutonium-239/240 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results near the minimum detectable activity. No flags issued.

- All other applicable QC controls are within the established limits.

Isotopic Uranium analysis:

- Uranium-234 and Uranium-238 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.

- Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.

- All other applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

Attachment 2
Narrative Rev1
WSCF120788

Problem and Discrepancy Report

WSCF

SDG WSCF120788

07/26/2012

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1. The data package has the following issues:

a) The electronic data, as well as, the sample result, MDL and PQL is missing for 3-Nitroaniline page 23 of the hardcopy data package, sample B2JDD8.

Resolution: *Provide appropriate correction*

Lab Response: **The MDL and PQL have been added**

Please correct the issues and resubmit the electronic **and** hardcopy data packages.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-013

PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #5

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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
WT=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

120788

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS PC2	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GCA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am Au SR	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDD8 1	SOIL	JUN 18 2012	1016

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Frank Hall	JUN 18 2012 1300	TA Fowler	JUN 18 2012 1300

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

F12-005-013 — PAGE 2 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample 45	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N 507 - 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6002-618 (REV 2)

REVISED120788 -

Attachment 2
Narrative
WSCF120894

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Master Contract 39818, Revision 3, "Laboratory Analytical Services to CHPRC Soil and Groundwater Remediation Project."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

The following generic data qualifiers (i.e., B, C, D, J and U) may be applicable to this report, as appropriate.

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **C** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were C flagged (applies to inorganic and wet chemical analyses).
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **B (organic analyses)** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were B flagged.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Attachment 2
Narrative
WSCF120894

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Manganese Matrix Spike Duplicate recovery is outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- All other applicable QC controls are within the established limits.

Organic Comments

PCB – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – The hold time requirement for this analysis was met. A Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gamma Energy Analysis:

- All applicable QC controls are within the established limits.

Attachment 2
Narrative
WSCF120894

Americium-241:

- All applicable QC controls are within the established limits.

Isotopic Plutonium analysis:

- Batch QC 204881
  - Plutonium-239/240 – Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - All other applicable QC controls are within the established limits.

Isotopic Uranium analysis:

- Batch QC 204881
  - Uranium-238 – The Blank is less than two times the RDL. "B" Flag not required.
  - Uranium-238 – The duplicate is outside of default RPD limits. RPD limit does not apply to results with greater than 20% counting uncertainty.
- Batch QC 204882
  - Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.
  - All other applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-184

PAGE 1 OF 2

COLLECTOR: Kevin Patterson

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #62

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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)

120894

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 y/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex /196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270 SVOA SP EDAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**
B2JF29	SOIL	JUL 09 2012	1018

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	[illegible]	7/16/12 0800
[illegible]	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-184

PAGE 2 OF 2

COLLECTOR: Kevin Patterson	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #62	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005	AIR QUALITY: ☐	
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N-507-25	ACTUAL SAMPLE DEPTH: 6"	COA: 302677ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9" 6/20/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-025 — PAGE 1 OF 2

COLLECTOR: Kevin Patterson	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days		
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #9	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil	SAF NO.: F12-005	AIR QUALITY: ☐
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N-507-25	ACTUAL SAMPLE DEPTH: 6"	COA: 302677ES10
METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL		
SHIPPED TO: Waste Sampling & Characterization	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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP EQUAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDH0	SOIL	JUL 09 2012	1109	✓	✓			✓	✓	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	ARMS Tech	7/16/12 0800
ARMS Tech	7/16/12 1100	TA Frazier	7/16/12 1100

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

PRINTED ON 12/8/2011 — A 6003 618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-025 — PAGE 2 OF 2

COLLECTOR Kevin Patterson	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #9	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 6/28/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-019

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #7

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-28

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex -(Tritium);
SAMPLE NO.	B2JDF4							
MATRIX*	3 SOIL							
SAMPLE DATE	JUL 09 2012							
SAMPLE TIME	1018							

9H 07/20/12

9H 07/20/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	AKMcIntyre	7/16/12 0800
AKMcIntyre	7/16/12 1100		7/16/12 1100
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F12-005-019	PAGE 2 OF 2
COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: BC
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #7	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005	AIR QUALITY: ☐
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N- 507-25	ACTUAL SAMPLE DEPTH: 6"	COA: 302677ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A	

DATA TURNAROUND: 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 12/8/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-022

PAGE 1 OF 2

COLLECTOR: Kevin Patterson

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #8

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP EDMA;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Rn U Ra SR	Tritium - Liq Ex (Tritium);

JH 6/29/12 JH 6/29/12

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDF7	4 SOIL	JUL 09 2012	1049	✓	✓			✓	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1100	SSU-1	JUL 09 2012 1110
SSU-1	7/16/12 0800	AR McIntyre	7/16/12 0800
AR McIntyre	7/16/12 1100		7/16/12 1100

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

PRINTED ON 12/8/2011

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-022	PAGE 2 OF 2
COLLECTOR: Kevin Patterson	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: BC	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #8	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005	AIR QUALITY: ☐	
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N- 507-25	ACTUAL SAMPLE DEPTH: 6"	COA: 302677ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ gjt 12/12/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-196

PAGE 1 OF 2

COLLECTOR: Kevin Patterson

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #66

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: F-N-507-23.23

ACTUAL SAMPLE DEPTH: N/A

COA: 302677E510

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	3G	3G	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP EDAM;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - on Fe (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JF41	5	SOIL	JUL 09 2012	0910

9/12/12 9/12/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1410	SSU-1	JUL 09 2012 1410
SSU-1	7/16/12 0800	ARMS Entry	7/16/12 0800
ARMS Entry	7/16/12 1100	TA Frazier	7/16/12 1100

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

PRINTED ON 12/8/2012

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-196	PAGE 2 OF 2
COLLECTOR: Kevin Patterson	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #66	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005	AIR QUALITY: ☐	ORIGINAL
ICE CHEST NO.	FIELD LOGBOOK NO.: INF -N-507- 25-23	ACTUAL SAMPLE DEPTH: N/A	COA: 302677ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS	
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1260};~~ 4/23/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-016

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #6

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - /196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (1mLm);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDF1	6	SOIL	JUL 09 2012	0945	✓	✓		✓	✓	✓	

JH 6/29/12 JH 6/29/12 JH 6/29/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Kevin Patterson	JUL 09 2012 1400	SSU-1	JUL 09 2012 1400
SSU-1	7/16/12 0800	ARMGritzke	7/16/12 0800
ARMGritzke	7/16/12 1100	TAFrazier	7/16/12 1100

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	

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-016 — PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #6	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ GJK 6/28/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-034

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #12

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-302-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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 concentrat ons that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 7008	Chromium Hex - 7196	SEE ITEM (2) IN SPECIAL INSTRUCTIONS PCB	8270_SVOA_SPECIAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am U Pu Sr	Tritium - Liq Sc (Tritium)
SAMPLE NO. / MATRIX* / SAMPLE DATE / SAMPLE TIME								
B2JDH9 / 7 / SOIL / JUL 10 2012 0923	X	X	X	X	X	X	X	X

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	SS Wall	JUL 10 2012 1330
SS Wall	7/16/12 0800	Alm Cintyre	7/16/12 0800
Alm Cintyre	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A 6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-034** — **PAGE 2 OF 2**

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #12	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-[illegible]	**ACTUAL SAMPLE DEPTH** 0" - 6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-031 PAGE 1 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #11	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0'-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE BC
AIR QUALITY ☐
DATA TURNAROUND 15 Days / 15 Days
METHOD OF SHIPMENT GOVERNMENT VEHICLE
ORIGINAL

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium Ion Ex (Tritium);

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**								
B2JDH6	8 SOIL	JUL 10 2012	0915	X	X	X	X	X	X	X	

7/16/12 11:10

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	SJ Trent	JUL 10 2012 1330
SJ Trent	7/16/12 0800	ARM Equipment	7/16/12 0800
ARM Equipment	7/16/12 1100	TA Processing	7/16/12 1100

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**

PRINTED ON 12/8/2011

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-031

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRG	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #11	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soi.	**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120895

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

The following generic data qualifiers (i.e., B, C, D, J and U) may be applicable to this report, as appropriate

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **C** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were C flagged (applies to inorganic and wet chemical analyses).
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **B (organic analyses)** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were B flagged.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Inorganic Comments

Attachment 2
Narrative
WSCF120895

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204913
  - Sulfate – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

  - All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204901
  - Manganese – Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

Organic Comments

PCB – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

  - B2JDV3 (120895003) did not meet the acceptance limits for surrogate Decachlorobiphenyl. Sample results were not flagged. The quality control report was flagged for surrogate recovery failure.
  - All other applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 205183
  - 3, 3-Dichlorobenzidine did not meet the LCS acceptance limits. Sample results for these analytes were "X" flagged.

- All other applicable QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – The hold time requirement for this analysis was met. A Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Americium-241:
  - Batch QC 204922
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
    - All other applicable QC controls are within the established limits.
- Gamma Energy Analysis:
    - All applicable QC controls are within the established limits.
- Isotopic Plutonium analysis:
  - Batch QC 204922
    - Plutonium 239/240—the blank is less than 2X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
    - Plutonium 239/240— Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
    - All other applicable QC controls are within the established limits.
- Isotopic Uranium analysis:
  - Batch QC 204882
    - Uranium-234 and Uranium-238 — The blank is less than 5X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
    - All other applicable QC controls are within the established limits.
- Strontium-89/90:
    - All applicable QC controls are within the established limits.

Narrative

Attachment 2
Narrative
WSCF120895

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-073 PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #25

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6'

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250ml	60ml	250ml	250ml	60ml	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2008 ✓	Chromium Hex - 7196; ✓	SEE ITEM (2) IN SPECIAL INSTRUCTIONS ✓	8270_SVOA_SPECIAL; ✓	SEE ITEM (3) IN SPECIAL INSTRUCTIONS ICV	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEIZV	SEE ITEM (5) IN SPECIAL INSTRUCTIONS ✓	Tritium - Liq Ex (Tritium);

120895

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDM8	SOIL	JUL 11 2012	0828	✓	✓	✓	✓	✓	✓	✓	

7/16/2012

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMCIntyre	7/16/12 0800
ARMCIntyre	7/16/12 1100	TA Pmzim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-073** | **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #25	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY ☐	**ICE CHEST NO.** (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"
COA 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**	
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-076

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #26

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507 25

ACTUAL SAMPLE DEPTH: 0-6'

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250ml	250ml	60ml	500ml	120mL	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDN1 2	SOIL	JUL 11 2012	0834	✓	✓	✓	✓	✓	✓	✓

9K 7/20/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMCIUTYRE	7/16/12 0800
ARMCIUTYRE	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-076** | **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #26	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-118 PAGE 1 OF 2

COLLECTOR John Fulton

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #40

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY [ ]

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF -N-507- 25

ACTUAL SAMPLE DEPTH 0-6"

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196,	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SvOA_SPECIAL,	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDV3 3	SOIL	JUL 11 2012	0803	✓	✓	✓	✓	✓	✓	✓	

OK 6/26/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-118** — **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #40	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-61'	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-091

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #31

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium (Low Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDP6	4	SOIL	JUL 11 2012	0752	✓	✓	✓	✓	✓	✓	✓	

07/16/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSintyre	7/16/12 0800
ARMSintyre	7/16/12 1100		7/16/12 1100

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

PRINTED ON 12/8/2011

A 6003 618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-091** | **PAGE 2 OF 2**

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #31	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY [ ]

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-082

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #28

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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, Sd=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270 SVOA SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDN7 5	SOIL	JUL 11 2012	0941	✓	✓	✓	✓	✓	✓	✓

WH 6/26/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM Guthrie	7/16/12 0800
ARM Guthrie	7/16/12 1100		7/16/12 1100
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION — RECEIVED BY — TITLE — DATE/TIME

FINAL SAMPLE DISPOSITION — DISPOSAL METHOD — DISPOSED BY — DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-082	PAGE 2 OF 2
COLLECTOR John Fulton	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #28	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	
ICE CHEST NO. (N/A)	FIELD LOGBOOK NO. HNF-N-507-2.5	ACTUAL SAMPLE DEPTH 0-6"	COA 302677ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-079

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #27

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: | |

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF -N-507- 25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196,	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL,	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDN4	SOIL	JUL 11 2012	0838

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM Chitwood	7/16/12 0800
ARM Chitwood	7/16/12 1100	[illegible]	7/16/12 1100
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION: RECEIVED BY | TITLE | DATE/TIME

FINAL SAMPLE DISPOSITION: DISPOSAL METHOD | DISPOSED BY | DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-079 — PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #27	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
AIR QUALITY			
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** 1F-N-507-2.5	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120900

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

The following generic data qualifiers (i.e., B, C, D, J and U) may be applicable to this report, as appropriate

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **C** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were C flagged (applies to inorganic and wet chemical analyses).
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **B (organic analyses)** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were B flagged.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Inorganic Comments

Attachment 2
Narrative
WSCF120900

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204923
  - Chloride and Sulfate – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

  - All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 204901
  - Manganese – Matrix Spike Duplicate recovery was outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- Batch QC 204902
  - Manganese, Barium and Strontium – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - All other applicable QC controls are within the established limits.

Organic Comments

PCB – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

  - All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Batch QC 205183

- 3, 3-Dichlorobenzidine did not meet the LCS acceptance limits. Sample results for these analytes were "X" flagged.
- All other applicable QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – The hold time requirement for this analysis was met. A Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.
- Americium-241:
  - Batch QC 204922
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
  - Batch QC 204884
    - Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the minimum detectable activity. No flags issued.
  - Batch QC 204884
    - Americium-243 Tracer for sample B2JDJ8—tracer recovery was slightly above the established laboratory limits. No flags issued.
    - All other applicable QC controls are within the established limits.
- Gamma Energy Analysis:
    - All applicable QC controls are within the established limits.
- Isotopic Plutonium analysis:
  - Batch QC 204884
    - Plutonium 239/240—the blank is less than 2X the MDC and is acceptable, per S&GRP SOW.
  - Batch QC 204922

Attachment 2
Narrative
WSCF120900

- Plutonium 239/240—the blank is less than 2X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
- Plutonium 239/240— Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
- All other applicable QC controls are within the established limits.

- Isotopic Uranium analysis:
  - Batch QC 204882
    - Uranium-234 and Uranium-238—the blank is less than 5X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
  - Batch QC 204883
    - Uranium-234—the blank is less than 5X the MDC and is acceptable, per S&GRP SOW.
    - Uranium-235— Duplicate Relative Percent Difference(s) (RPD) did not meet the established laboratory limits. Duplicate Relative Percent Difference (RPD) does not apply to results below 5X the Minimum Detectable Activity. No flags issued.
  - Batch QC 204884
    - Uranium-234— the blank is less than 5X the MDC and is acceptable, per S&GRP SOW. The blank activity is NORM.
    - All other applicable QC controls are within the established limits.
- Strontium-89/90:
    - All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-112

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #38

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35.

ACTUAL SAMPLE DEPTH

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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)

140900

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120ml
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 3008	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS PCB	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am U Pu SR	Tritium - Ton Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDT7	SOIL	JUN 12 2012	0931	✓	✓	✓	✓	✓	✓	✓

gk 7/20/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU#1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMCIntake	7/16/12 0800
ARMCIntake	7/16/12 1100	[illegible]	7/16/12 1100
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION — RECEIVED BY — TITLE — DATE/TIME

FINAL SAMPLE DISPOSITION — DISPOSAL METHOD — DISPOSED BY — DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-112

PAGE 2 OF 2

COLLECTOR
DJ Sparks
CHPRC

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND
15 Days / 15 Days

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #38

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.
F12-005

AIR QUALITY

ICE CHEST NO.
(N/A)

FIELD LOGBOOK NO.
HNF-N-507-25

ACTUAL SAMPLE DEPTH
0-6 inches

COA
302677FS10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO
Waste Sampling & Characterization

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-109

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #37

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	ntium - on Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDT4	2	SOIL	JUN 12 2012	0656	✓	✓	✓	✓	✓	✓	✓

GK 7/12/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMCintyre	7/16/12 0800
ARMCintyre	7/16/12 1100	[illegible]	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-109** — **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #37	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-20	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677E510
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-028

PAGE 1 OF 2

COLLECTOR KC Patterson CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #10

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-25

ACTUAL SAMPLE DEPTH 0'-6'

COA 3026//ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

OFFSITE PROPERTY NO. N/A

BILL OF LADING/AIR BILL NO. N/A

MATRIX*
A=Air
DI=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium).

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDH3	3	SOIL	JUL 10 2012	0730	✓	✓	✓	✓	✓	✓	✓	

7/16/2012

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	KC Patterson CHPRC	JUL 10 2012 1330
SSLH1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12		7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-028** | **PAGE 2 OF 2**

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #10	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0"-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-049

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #17

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.:

FIELD LOGBOOK NO.: HNF-N-507-25.

ACTUAL SAMPLE DEPTH: 6-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7199;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Thorium - Ion Ex (Thorium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDK4	4	SOIL	JUN 12 2012	0755

OH 6/12/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU#1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMSEntyre	7/16/12 0800
ARMSEntyre	7/16/12 1100	TA Pnozin	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-049** | **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #17	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-807-25.	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-040

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #14

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.:

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: C-Lunches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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:

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDJ5 5	SOIL	JUN 12 2012	0819	✓	✓	✓	✓	✓	✓	✓

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks	JUN 12 2012 1000	SSU#1	JUN 12 2012 1100
SSU#1	7/16/12 0800	ALMELITYRE	7/16/12 0800
ALMELITYRE	7/16/12 1100	TA Amazin Jones	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company | **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** | **F12-005-040** | **PAGE 2 OF 2**

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #14	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 | A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-115

PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #39

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);
SAMPLE NO. / MATRIX* / SAMPLE DATE / SAMPLE TIME								
B2JDV0 6 SOIL JUN 12 2012 0714	✓	✓	✓	✓	✓	✓	✓	

ok 7/16/2012

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU#1	JUN 12 2012 1100
SSU#1	7/16/12 0800	ARMENTA	7/16/12 0800
ARMENTA	7/16/12 1100	TA Pnazim Jefferson	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6008-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-115

PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #39	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6 inches	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-085 — PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #29

ICE CHEST NO.: (N/A)

SHIPPED TO: Waste Sampling & Characterization

COMPANY CONTACT: TRENT, SJ — **TELEPHONE NO.:** 373-5869

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

FIELD LOGBOOK NO.: HNF-N-507-25 — **ACTUAL SAMPLE DEPTH:** 0"-6"

OFFSITE PROPERTY NO.: N/A

PROJECT COORDINATOR: TRENT, SJ — **PRICE CODE:** 8C — **DATA TURNAROUND:** 15 Days / 15 Days

SAF NO.: F12-005 — **AIR QUALITY:** 1

COA: 302677ES10 — **METHOD OF SHIPMENT:** GOVERNMENT VEHICLE — **ORIGINAL**

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:

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/10 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Non Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDP0 7	SOIL	JUL 10 2012	0740	X	X	X	X	X	X	X	

9/12/2012

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1331	Scott	JUL 10 2012 1331
Scott	7/16/12 0800	APM Courier	7/16/12 0800
APM Courier	7/16/12 1100	TA Rnazim Jerez Trigo	7/16/12 1100

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

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-085

PAGE 2 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample 429	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-22-25	**ACTUAL SAMPLE DEPTH** 0'-6'	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-103

PAGE 1 OF 2

COLLECTOR: DJ Sparks, CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #35

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDR8	8	SOIL	JUN 12 2012	0701	✓	✓	✓	✓	✓	✓	✓	

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	AMKeintze	7/16/12 0800
AMKeintze	7/16/12 1100	TA Frazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-103

PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #35

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-25

ACTUAL SAMPLE DEPTH 0-6 inches

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

OFFSITE PROPERTY NO. N/A

BILL OF LADING/AIR BILL NO. N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium 155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-106

PAGE 1 OF 2

COLLECTOR: DJ Sparks, CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #36

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6 inches

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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
SF=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS / REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);
SAMPLE NO.	B2JDT1							
MATRIX*	9 SOIL							
SAMPLE DATE	JUN 12 2012							
SAMPLE TIME	0707							

7/16/12

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMCintyre	7/16/12 0800
ARMCintyre	7/16/12 1100	JA Frazim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-106

PAGE 2 OF 2

COLLECTOR: DJ Sparks CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days		
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #36	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO.: F12-005
AIR QUALITY: ☐			
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N-507-25	ACTUAL SAMPLE DEPTH: 0-6 inches	COA: 302677ES10
METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL		
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium 154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-187

PAGE 1 OF 2

COLLECTOR: KC Patterson CHPRC

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #63

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0'-6'

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool<4C	Cool<4C	Cool<4C	Cool<4C	Cool<4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270 SVOA SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JF32	10 SOIL	JUL 10 2012	0750	X	X	X	X	X	X	X

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012 1330	3Suite1	JUL 10 2012 1336
3Suite1	7/16/12 0800	ARMCintyre	7/16/12 0800
ARMCintyre	7/16/12 1100	TA Pmzim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-187	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #63	PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil		SAF NO. F12-005	AIR QUALITY ☐	
ICE CHEST NO. (N/A)	FIELD LOGBOOK NO. HNF-N-507-25	ACTUAL SAMPLE DEPTH 6'-6'	COA 302677ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-043

PAGE 1 OF 2

COLLECTOR
KC Patterson
CHPRC

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND
15 Days / 15 Days

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #15

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.
F12-005

AIR QUALITY ☐

ICE CHEST NO.
(N/A)

FIELD LOGBOOK NO.
HNF-N- 507-25

ACTUAL SAMPLE DEPTH
0"-6"

COA
302677ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO
Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Lim Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDJ8	11	SOIL	JUL 10 2012	0750	X	X	X	X	X	X	X	

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	JUL 10 2012		JUL 10 2012
	7/16/12 0800	ARMCintyre	7/16/12 0800
ARMCintyre	7/16/12 1100	TARizzim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-043

PAGE 2 OF 2

COLLECTOR: KC Patterson, CHPRC	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #15	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling Soil		SAF NO.: F12-005
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N-367-25	ACTUAL SAMPLE DEPTH: 0"- 6"	COA: 302677ES10
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium 152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-097

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #33

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDR2	12 SOIL	JUL 11 2012	0949	✓	✓	✓	✓	✓	✓	✓

7/16/2012

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARM Dutyee	7/16/12 0800
ARM Dutyee	7/16/12 1100	TA Fnazim	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-097

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #33	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-100 | PAGE 1 OF 2

COLLECTOR: DJ Sparks, CHPRC

COMPANY CONTACT: TRENT, SJ | TELEPHONE NO.: 373-5869 | PROJECT COORDINATOR: TRENT, SJ | PRICE CODE: 8C | DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #34

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soi | SAF NO.: F12-005 | AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25 | ACTUAL SAMPLE DEPTH: 0-6 inches | COA: 302677ES10 | METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDR5	13 SOIL	JUN 12 2012	0724	✓	✓	✓	✓	✓	✓	✓

7/28/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUN 12 2012 1100	SSU #1	JUN 12 2012 1100
SSU #1	7/16/12 0800	ARMSTRONG	7/16/12 0800
ARMSTRONG	7/16/12 1100	TA FRAZIER	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-100

PAGE 2 OF 2

COLLECTOR DJ Sparks CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #34

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-25

ACTUAL SAMPLE DEPTH 0-6 inches

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

OFFSITE PROPERTY NO. N/A

BILL OF LADING/AIR BILL NO. N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-613 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-088 PAGE 1 OF 2

COLLECTOR John Fulton

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #30

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF-N-507-25

ACTUAL SAMPLE DEPTH 0-6"

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDP3	14	SOIL	JUL 11 2012	0741	✓	✓	✓	✓	✓	✓	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSLL-1	JUL 11 2012 1830
SSLL-1	7/16/12 0800	ARMENTAGE	7/16/12 0800
ARMENTAGE	7/16/12 1100	TAMAZIM	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-088

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #30	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soi		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-094 — PAGE 1 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**AIR QUALITY** ☐	**DATA TURNAROUND** 15 Days / 15 Days	
SAMPLING LOCATION Area AG Zone 2 Verification Sample #32	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/18 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120m	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium Ion Ex (Tritium);

SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**
B2JDP9 15	SOIL	JUL 11 2012	0855

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSchutze	7/16/12 0800
ARMSchutze	7/16/12 1100	TA Frazier	7/16/12 1100

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**

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-094 — PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #32	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12 005
AIR QUALITY [ ]			
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** WMSJ-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A 6003 618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-121

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: BC

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #41

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDV6	16 SOIL	JUL 11 2012	0846	✓	✓	✓	✓	✓	✓	✓	

GH 7/25/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMS Courier	7/16/12 0800
ARMS Courier	7/16/12 1100	TA Fnazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F12-005-121	PAGE 2 OF 2
COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample #41	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-046 — PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #16

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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, SF=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDK1	17	SOIL	JUL 11 2012	0954	✓	✓	✓	✓	✓	✓	✓	

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSTUTYRE	7/16/12 0800
ARMSTUTYRE	7/16/12 1100	TA FNAZIM	7/16/12 1100

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**

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-046

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #16	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium 155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-190

PAGE 1 OF 2

COLLECTOR: John Fulton

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #64

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY:

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium-Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JF35	18 SOIL	JUL 11 2012	0855	✓	✓	✓	✓	✓	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430	SSU-1	JUL 11 2012 1430
SSU-1	7/16/12 0800	ARMSchutyre	7/16/12 0800
ARMSchutyre	7/16/12 1100	TAFrazier	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-190

PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #64	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT FEDERAL EXPRESS

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A 6003 618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-202 PAGE 1 OF 2

COLLECTOR John Fulton

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #68

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. (N/A)

FIELD LOGBOOK NO. HNF -N-507- 25

ACTUAL SAMPLE DEPTH 0-6"

COA 302677ES10

METHOD OF SHIPMENT FEDERAL EXPRESS

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - /196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270, SVOA SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JF47	19	SOIL	JUL 11 2012	0808	✓	✓	✓	✓	✓	✓	✓	

7/16/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
John Fulton	JUL 11 2012 1430		JUL 11 2012 1430
SSU #1	7/16/12 0800	ARMSTRYE	7/16/12 0800
ARMSTRYE	7/16/12 1100	TA FRAZIER	7/16/12 1100

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-202 — PAGE 2 OF 2

COLLECTOR John Fulton	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #68	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507-75	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT FEDERAL EXPRESS

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Attachment 2
Narrative
WSCF120922

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Master Contract 39818, Revision 3, "Laboratory Analytical Services to CHPRC Soil and Groundwater Remediation Project."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

- Sample Issue Resolution Form SDR12-308 regarding missing sample collector on COC is attached to this report.

The following generic data qualifiers (i.e., B, C, D, J and U) may be applicable to this report, as appropriate.

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **C** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were C flagged (applies to inorganic and wet chemical analyses).
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **B (organic analyses)** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were B flagged.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Attachment 2
Narrative
WSCF120922

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Hexavalent Chromium – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Vanadium, Strontium, Zinc and Barium – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- Vanadium and Manganese were detected in the Blank and evaluated.
- Manganese – Exceeded spiking levels by a factor of 4. Spike recoveries and associated RPDs are not valid.
- All other applicable QC controls are within the established limits.

Organic Comments

PCB – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – The hold time requirement for this analysis was met. A Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

Attachment 2
Narrative
WSCF120922

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gamma Energy Analysis:

- All applicable QC controls are within the established limits.

Americium-241:

- The Blank is less than two times the RDL. "B" Flag not required.
- Americium-243 - Tracer recovery did not meet the established laboratory limits. No flags issued on sample results. The quality control report was flagged for the failure.
- All other applicable QC controls are within the established limits.

Isotopic Plutonium analysis:

- All applicable QC controls are within the established limits.

Isotopic Uranium analysis:

- Uranium-234 and Uranium-238 – The Blank is less than five times the MDC. "B" Flag not required.
- All other applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

Narrative

Attachment 2
Narrative
WSCF120922

SAMPLE ISSUE RESOLUTION

SIR NUM	SDR12-308
REV NUM	0
DATE INITIATED	7/18/2012

SAMPLE EVENT INFORMATION

SAF NUM(S)	F12-005
OPERABLE UNIT(S)	100-KR-2
PROJECT(S)	100 K RA
SAMPLE EVENT TITLE(S)	100 K Remedial Action
LABORATORY	Waste Sampling & Characterization

SAMPLING INFORMATION

NUMBER OF SAMPLES	1
SAMPLE NUMBERS	B2JDL3
SAMPLE MATRIX	
COLLECTION DATE	-
SDG NUM	

ISSUE BACKGROUND

CLASS	Chain of Custody Issue (Field)
TYPE	No/Illegible Sample Collector Listed on COC
DESCRIPTION	No/Illegible Sample Collector Listed on COC

DISPOSITION

DESCRIPTION	Proposed Disposition: Document the excursion and close the SIR.
JUSTIFICATION	Accepted Disposition: Accept the proposed resolution.

Submitted by: Joe Hale/WSCF DATE: 7/18/12
Accepted by: Susan Puckett/CHPRC DATE: 7/18/12

A-6003-640 (03/30)

PAGE 1 of 1

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-055

PAGE 1 OF 2

COLLECTOR: DJ Sparks

SAMPLING LOCATION: Area AG Zone 2 Verificaton Sample #19

ICE CHEST NO.: (N/A)

SHIPPED TO: Waste Sampling & Characterization

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: [ ]

FIELD LOGBOOK NO.: HNF-N-507-22

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

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: 120922

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 2052	Chromium Hex 7196	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	SEE ITEM (4) IN SPECIAL INSTRUCTIONS GEA	SEE ITEM (5) IN SPECIAL INSTRUCTIONS Am U Pu Sr	Tritium - Ion Ex (Tritium)

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDL0	/ SOIL	JUL 17 2012	1413	X	X	X	X	X	X	X	X

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU-1	JUL 17 2012 1515
[redacted]	7-18-12 0730	ARMCINTYRE	7/18/12 0730
ARMCINTYRE	7/18/12 0800	TA Frazier	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-055** — **PAGE 2 OF 2**

COLLECTOR	**COMPANY CONTACT**	**TELEPHONE NO.**	**PROJECT COORDINATOR**	**PRICE CODE** 8C	**DATA TURNAROUND**
	TRENT, SJ	373-5869	TRENT, SJ		
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**	**AIR QUALITY** ☐	**15 Days / 15 Days**
Area AG Zone 2 Verification Sample #19	Area AG Zone 2 Sampling Verification Sampling Soil		F12-005		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	**ORIGINAL**
(N/A)	HNF-N-507-25	6-6'	302677ES10	GOVERNMENT VEHICLE	
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
Waste Sampling & Characterization	N/A		N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ GH 4/29/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-058

PAGE 1 OF 2

COLLECTOR

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5859

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #20

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507 D.

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);
SAMPLE NO.	B2JDL3	2						
MATRIX*	SOIL							
SAMPLE DATE / SAMPLE TIME	JUL 17 2012 1420							
	X	X			X	X	X	

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks	JUL 17 2012 1515	SSU-1	JUL 17 2012 1515
CHPRC SSU-1	JUL 18 2012 0730	Randy Ellingsworth	JUL 18 2012 0730
Randy Ellingsworth	JUL 18 2012 0800	TA Frazier	JUL 18 2012 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — **F12-005-058** — **PAGE 2 OF 2**

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #20	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.

** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.

(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};

~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9/4/29/12

(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};

(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};

(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-061

PAGE 1 OF 2

COLLECTOR
DJ Sparks
CHPRC

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #21

ICE CHEST NO.
(N/A)

SHIPPED TO
Waste Sampling & Characterization

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

FIELD LOGBOOK NO.
HNF -N-507-25

ACTUAL SAMPLE DEPTH
6-6"

OFFSITE PROPERTY NO.
N/A

PROJECT COORDINATOR
TRENT, SJ

SAF NO.
F12-005

COA
302677ES10

BILL OF LADING/AIR BILL NO.
N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

DATA TURNAROUND
15 Days / 15 Days

ORIGINAL

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 y/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	RCRA_SVOA_SP EC/AL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Non Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JDL6	3	SOIL	JUL 17 2012	1313	X	X	X	X	X	X	X	

7-23-12 JH 7/29/12

JH 7/27/12

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU #1	JUL 17 2012 1515
SSU #1	7.18.12 0730	ARM Intyre	7.18.12 0730
AR McIntyre	7.18.12 0800	TA Kazien	7/18/12 0800

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**

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-061 PAGE 2 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #21	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ -- 8H 6/29/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-064

PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #22

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: HNF-N-507-25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool--4C	Cool--4C	Cool--4C	Cool--4C	Cool--4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	B2VU_SVOA_SP FETAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDL9	4	SOIL	JUN 16 2012	0954

7/4 6/20/12

7/4 6/20/12

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: Frank Hall	DATE/TIME: JUN 16 2012 1515	RECEIVED BY/STORED IN: SSU #1	DATE/TIME: JUN 16 2012 1515
RELINQUISHED BY/REMOVED FROM: SSU #1	DATE/TIME: 7-18-12 0730	RECEIVED BY/STORED IN: ARM Stutzo	DATE/TIME: 7-18-12 0730
RELINQUISHED BY/REMOVED FROM: ARM Stutzo	DATE/TIME: 7/18/12 0800	RECEIVED BY/STORED IN: TA Frazier	DATE/TIME: 7/18/12 0800
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-064 **PAGE 2 OF 2**

COLLECTOR
Frank Hall

COMPANY CONTACT
TRENT, SJ

TELEPHONE NO.
373-5869

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND
15 Days / 15 Days

SAMPLING LOCATION
Area AG Zone 2 Verification Sample #22

PROJECT DESIGNATION
Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.
F12-005

AIR QUALITY ☐

ICE CHEST NO.
(N/A)

FIELD LOGBOOK NO.
HNF-N-507-25

ACTUAL SAMPLE DEPTH
0-6"

COA
302677ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO
Waste Sampling & Characterization

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9/17/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-067 — PAGE 1 OF 2

COLLECTOR: Frank Hall	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: TRENT, SJ
PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days		
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #23	PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil	SAF NO.: F12-005	AIR QUALITY: ☐
ICE CHEST NO.: (N/A)	FIELD LOGBOOK NO.: HNF-N-507-25	ACTUAL SAMPLE DEPTH: 0-6"	COA: 302677ES10
METHOD OF SHIPMENT: GOVERNMENT VEHICLE	ORIGINAL		
SHIPPED TO: Waste Sampling & Characterization	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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDM2 5	SOIL	JUN 16 2012	1024

JH 6/29/12 — JH 6/28/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Frank Hall	JUN 16 2012 1515	SSU #1	JUN 16 2012 1515
SSU #1	7.18.12 0730	ARM Courier	7.18.12 0730
ARM Courier	7.18.12 0820	TA Frazier	7/18/12 0800

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

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-067

PAGE 2 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
PRICE CODE 8C	**DATA TURNAROUND** 15 Days / 15 Days		
SAMPLING LOCATION Area AG Zone 2 Verification Sample #23	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil	**SAF NO.** F12-005	**AIR QUALITY** ☐
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
METHOD OF SHIPMENT GOVERNMENT VEHICLE	**ORIGINAL**		
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A	**BILL OF LADING/AIR BILL NO.** N/A	

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9H 4/29/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-070 — PAGE 1 OF 2

COLLECTOR: Frank Hall

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT COORDINATOR: TRENT, SJ

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #24

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO.: F12-005

AIR QUALITY: ☐

ICE CHEST NO.: (N/A)

FIELD LOGBOOK NO.: YNF-N-507- 25

ACTUAL SAMPLE DEPTH: 0-6"

COA: 302677ES10

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO: Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120ml	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP ECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Low Ex (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME
B2JDM5	6	SOIL	JUN 16 2012	0940

9/4 6/28/12

9/4 6/29/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Frank Hall	JUN 16 2012 1500	SSU #1	JUN 16 2012 1500
SSU-1	JUL 18 2012 0730	Randy Ellingsworth	JUL 18 2012 0730
Randy Ellingsworth	JUL 18 2012 0800	TA Fragzin	JUL 18 2012 0800
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS

SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 12/8/2011

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-070

PAGE 2 OF 2

COLLECTOR Frank Hall	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #24	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF -N-507- 25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677E510
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY [ ]

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
~~(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};~~ 9H 6/29/12
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-199 — PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC
SAMPLING LOCATION: Area AG Zone 2 Verification Sample #67
ICE CHEST NO.: NA
SHIPPED TO: Waste Sampling & Characterization NA

COMPANY CONTACT: TRENT, SJ
TELEPHONE NO.: 373-5869
PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil
FIELD LOGBOOK NO.: HNF-N-507-25
ACTUAL SAMPLE DEPTH: NA
OFFSITE PROPERTY NO.: N/A

PROJECT COORDINATOR: TRENT, SJ
SAF NO.: F12-005
COA: 302677ES10
BILL OF LADING/AIR BILL NO.: N/A

PRICE CODE: 8C
AIR QUALITY: ☐
METHOD OF SHIPMENT: FEDERAL EXPRESS
DATA TURNAROUND: 15 Days / 15 Days
ORIGINAL

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - (3196);	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SP &CEAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - (in Fe (Tritium);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME								
B2JF44	7	SOIL	JUL 17 2012	1250	X	X	X	X	X	X	X	

PJK 07/23/12

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	CSU #1	JUL 17 2012 1515
SSU #1	7.18.12 0730	AHM Sulgre	7.18.12 0730
AHM Sulgre	7.18.12 0800	TA Fnazisa	7/18/12 0800

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

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-199

PAGE 2 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #67	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO.	**FIELD LOGBOOK NO.** HNF -N-507-25	**ACTUAL SAMPLE DEPTH** N/A	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT FEDERAL EXPRESS

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-037 — PAGE 1 OF 2

COLLECTOR: DJ Sparks CHPRC

SAMPLING LOCATION: Area AG Zone 2 Verification Sample #13

ICE CHEST NO.: (N/A)

SHIPPED TO: Waste Sampling & Characterization

COMPANY CONTACT: TRENT, SJ

TELEPHONE NO.: 373-5869

PROJECT DESIGNATION: Area AG Zone 2 Sampling Verification Sampling - Soil

FIELD LOGBOOK NO.: HNF-N-507-35

ACTUAL SAMPLE DEPTH: 0-6'

OFFSITE PROPERTY NO.: N/A

PROJECT COORDINATOR: TRENT, SJ

SAF NO.: F12-005

COA: 302677ES10

BILL OF LADING/AIR BILL NO.: N/A

PRICE CODE: 8C

AIR QUALITY: ☐

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

DATA TURNAROUND: 15 Days / 15 Days

ORIGINAL

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, Wi=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE:

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None	
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months	
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle Poly	G/P	G	
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1	
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Indium - Ion Ex (Thallium);	
SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**						
B2JDJ2	S SOIL	JUL 17 2012	1355	X	X	X	X	X	X

Qt Metallic

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU #1	JUL 17 2012 1515
SSU #1	7.18.12 0730	ARM Eastyre	7.18.12 0730
ARM Eastyre	7.18.12 0800	TA Franzim	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-037 — PAGE 2 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ	**PRICE CODE** 8C	**DATA TURNAROUND** 15 Days / 15 Days
SAMPLING LOCATION Area AG Zone 2 Verification Sample # 13	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005	**AIR QUALITY** ☐	
ICE CHEST NO. (N/A)	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE	**ORIGINAL**
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

PRINTED ON 12/8/2011 — A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F12-005-052

PAGE 1 OF 2

COLLECTOR DJ Sparks CHPRC

COMPANY CONTACT TRENT, SJ

TELEPHONE NO. 373-5869

PROJECT COORDINATOR TRENT, SJ

PRICE CODE 8C

DATA TURNAROUND 15 Days / 15 Days

SAMPLING LOCATION Area AG Zone 2 Verification Sample #18

PROJECT DESIGNATION Area AG Zone 2 Sampling Verification Sampling - Soil

SAF NO. F12-005

AIR QUALITY ☐

ICE CHEST NO. N/A

FIELD LOGBOOK NO. HNF -N-507-23

ACTUAL SAMPLE DEPTH 0 - 6"

COA 302677ES10

METHOD OF SHIPMENT GOVERNMENT VEHICLE

ORIGINAL

SHIPPED TO Waste Sampling & Characterization

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

PRESERVATION	Cool~4C	Cool~4C	Cool~4C	Cool~4C	Cool~4C	None	None	None
HOLDING TIME	6 Months	30 Days	1 yr/1 yr	14/40 Days	28 Days/48 Hours	6 Months	6 Months	6 Months
TYPE OF CONTAINER	G/P	G/P	aG	aG	G/P	Square Bottle - Poly	G/P	G
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1
VOLUME	250mL	60mL	250mL	250mL	60mL	500mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	Chromium Hex - 7196;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	8270_SVOA_SPECIAL;	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	Tritium - Ion Ex (Tritium);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B2JDK7	9 SOIL	JUL 17 2012	1305	X	X	X	X	X	X	X

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
DJ Sparks CHPRC	JUL 17 2012 1515	SSU #1	JUL 17 2012 1515
SSU #1	7.18.12 0730	ARM CENTURE	7.18.12 0730
ARM CENTURE	7.18.12 0830	TA FRAZIER	7/18/12 0800

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

PRINTED ON 12/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F12-005-052 — PAGE 2 OF 2

COLLECTOR	**COMPANY CONTACT** TRENT, SJ	**TELEPHONE NO.** 373-5869	**PROJECT COORDINATOR** TRENT, SJ
SAMPLING LOCATION Area AG Zone 2 Verification Sample #18	**PROJECT DESIGNATION** Area AG Zone 2 Sampling Verification Sampling - Soil		**SAF NO.** F12-005
ICE CHEST NO. NA	**FIELD LOGBOOK NO.** HNF-N-507-25	**ACTUAL SAMPLE DEPTH** 0-6"	**COA** 302677ES10
SHIPPED TO Waste Sampling & Characterization	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A

PRICE CODE 8C

AIR QUALITY ☐

METHOD OF SHIPMENT GOVERNMENT VEHICLE

DATA TURNAROUND 15 Days / 15 Days

ORIGINAL

SPECIAL INSTRUCTIONS

** The CACN for WSCF Analytical is 402580ES20.
** The 100 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1) ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Boron, Lead, Molybdenum, Selenium, Strontium, Tin, Uranium}; 200.8_HG - ICPMS {Mercury};
(2) PCBs - 8082 {Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268};
(3) IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate};
(4) Gamma Spectroscopy {Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155};
(5) Americium-241; Isotopic Plutonium {Plutonium-238, Plutonium-239/240}; Isotopic Uranium {Uranium-233/234, Uranium-235, Uranium-238}; Strontium-89,90 -- Total Sr;

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Appendix 5

Data Validation Supporting Documentation

Appendix B - Radiochemical Data Validation Checklist

RADIOCHEMICAL DATA VALIDATION CHECKLIST

VALIDATION LEVEL:	A	B	(C)	D	E
PROJECT: 100-K			DATA PACKAGE: VSR12-021		
VALIDATOR: Eyda Hergenreder		LAB: Eberline, WSCF		DATE: 08-10-2012	
SDGs: H4727, H4735, H4736, H4737			SDG: WSCF120788, WSCF120894, WSCF120895, WSCF120900, WSCF120922		
ANALYSES PERFORMED					
Gross Alpha/Beta	Strontium-90 X	Technetium-99	Alpha Spectroscopy X	Gamma Spectroscopy X	Ni-63 X
Total Uranium	Radium-22	Tritium X	C-14 X	I-129	

SAMPLES/MATRIX Soil samples
SDG H4727: B2JDF0
SDG H4735: B2JDF3, B2JDF6, B2JDF9, B2JDH2, B2JDH5, B2JDH8, B2JDJ1, B2JDJ4, B2JDJ7, B2JDK0, B2JDK3, B2JDK6, B2JDK9, B2JDL2
SDG H4736: B2JDL5, B2JDL8, B2JDM1, B2JDM4, B2JDM7, B2JDN0, B2JDN3, B2JDN6, B2JDN9, B2JDP2, B2JDP5, B2JDP8, B2JDR1, B2JDR4,
SDG H4737: B2JDR7, B2JDT0, B2JDT3, B2JDT6, B2JDT9, B2JDV2, B2JDV5, B2JDV8, B2JF31, B2JF34, B2JF37, B2JF43, B2JF46, B2JF49
WSCF120788: B2JDD8,
WSCF120894: B2JF29, B2JDH0, B2JDF4, B2JDF7, B2JF41, B2JDF1, B2JDH9, B2JDH6
continue on last page

1. Completeness ..... ☐ N/A

Technical verification forms present? ..... (Yes) No N/A

Comments: None

2. Initial Calibration (Levels D, E) ..... ☒ N/A

Instruments/detectors calibrated? ..... Yes No N/A

Initial calibration acceptable? ..... Yes No N/A

Standards NIST traceable? ..... Yes No N/A

Standards Expired? ..... Yes No N/A

Calculation check acceptable? ..... Yes No N/A

Comments:

3. Continuing Calibration (Levels D, E)..... ☒ N/A

Calibration checked within required frequency? ..... Yes No N/A

Calibration check acceptable? ..... Yes No N/A

Calibration check standards traceable? ..... Yes No N/A

Calibration check standards expired? ..... Yes No N/A

Calculation check acceptable?..... Yes No N/A

Comments:

4. Background Counts (Levels D, E) ..... ☒ N/A

Background Counts checked within required frequency? ..... Yes No N/A

Background Counts acceptable? ..... Yes No N/A

Calculation check acceptable?..... Yes No N/A

Comments:

5. Blanks (Levels B, C, D, E) ☐ N/A

Method blank analyzed within required frequency? (Yes) No N/A

Method blank results acceptable? Yes (No) N/A

Analytes detected in method blank? (Yes) No N/A

Field blank(s) analyzed? (Yes) No N/A

Field blank results acceptable? Yes (No) N/A

Analytes detected in field blank(s)? (Yes) No N/A

Transcription/Calculation Errors? (Levels D, E) Yes No (N/A)

Comments:
MBs all in pCi/g
WSCF120788: Am-241 0.020; U-234 0.029; U-238 0.014
WSCF120894: (batch 204881) U-238 0.022; (batch 204882) U-234 0.034; U-238 0.022
WSCF120895: (batch 204882) U-234 0.034; U-238 0.022 (batch 204922) Pu-239/240 0.013
WSCF120900: (batch 204882) U-234 0.034; U-238 0.022 (batch 204883) U-234 0.0074; Pu-239/240 0.0084
(batch 204884) Pu-239/240 0.0059 (batch 204884) U-234 0.018 (batch 204922) Pu-239/240 0.013
WSCF120922: Am-241 0.024; U-233/234 0.015; U-238 0.015

Equipment blank sample B2JF44: U-234 0.044; U-238 0.039, Pu-239/240 0.0074

6. Laboratory Control Samples or Blank Spike Samples (Levels C, D, E) ☐ N/A

LCS /BSS analyzed within required frequency? (Yes) No N/A

LCS/BSS recoveries acceptable? (Yes) No N/A

LCS/BSS traceable? (Levels D,E) Yes No (N/A)

LCS/BSS expired? (Levels D,E) Yes No (N/A)

LCS/BSS levels correct? (Levels D,E) Yes No (N/A)

Transcription/Calculation Errors? (Levels D, E) Yes No (N/A)

Comments: None

7. Chemical Carrier Recovery (Levels C, D, E) ..... ☐ N/A

Chemical carrier added? ..... (Yes) No N/A

Chemical recovery acceptable? ..... (Yes) No N/A

Chemical carrier traceable? (Levels D, E) ..... Yes No (N/A)

Chemical carrier expired? (Levels D, E) ..... Yes No (N/A)

Transcription/Calculation errors? (Levels D, E) ..... Yes No (N/A)

Comments: None

8. Tracer Recovery (Levels C, D, E) ..... ☐ N/A

Tracer added? ..... (Yes) No N/A

Tracer recovery acceptable? ..... (Yes) No N/A

Tracer traceable? (Levels D, E) ..... Yes No (N/A)

Tracer expired? (Levels D, E) ..... Yes No (N/A)

Transcription/Calculation errors? (Levels D, E) ..... Yes No (N/A)

Comments: None

9. Matrix Spikes (Levels C, D, E)..... ☐ N/A

Matrix spike analyzed?..... Yes No (N/A)

Spike recoveries acceptable? ..... Yes No (N/A)

Spike source traceable? (Levels D, E) ..... Yes No (N/A)

Spike source expired? Levels D, E) ..... Yes No (N/A)

Transcription/Calculation Errors? (Levels D, E)..... Yes No (N/A)

Comments: None

10. Duplicates (Levels C, D, E) ..... ☐ N/A

Duplicates Analyzed at required frequency? ..... (Yes) No N/A

RPD Values Acceptable?..... (Yes) No N/A

Transcription/Calculation Errors? (Levels D, E)..... Yes No (N/A)

Comments: None

11. Field QC Samples (Levels C, D E) ..... ☐ N/A

Field duplicate sample(s) analyzed? ..... (Yes) No N/A

Field duplicate RPD values acceptable? ..... (Yes) No N/A

Field split sample(s) analyzed? ..... Yes No (N/A)

Field split RPD values acceptable? ..... Yes No (N/A)

Performance audit sample(s) analyzed? ..... Yes No (N/A)

Performance audit sample results acceptable? ..... Yes No (N/A)

Comments: None

12. Holding Times (All levels)

Are sample holding times acceptable? ..... (Yes) No N/A

Comments: None

13. Results and Detection Limits (All Levels) ..... ☐ N/A

Results reported for all required sample analyses? ..... (Yes) No N/A

Results supported in raw data?(Levels D, E) ..... Yes No (N/A)

Results Acceptable? (Levels D, E) ..... Yes No (N/A)

Transcription/Calculation errors? (Levels D, E) ..... Yes No (N/A)

MDA's meet required detection limits? ..... Yes (No) N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No (N/A)

Comments:

MDCs > CRDLs for associated non-detect sample results

For all C14 sample results

Eu-155 B2JDH0, B2JDF4, B2JDF7, B2JDF1, B2JDH9, B2JDN1, B2JDV3, B2JDP6, B2JDN7, B2JDN4, B2JDT4, B2JDH3, B2JDK4, B2JDJ5, B2JDV0, B2JDP0, B2JDT1, B2JF32, B2JDJ8, B2JDR2, B2JDR5, B2JDV6, B2JDK1, B2JF35, B2JDL3, B2JDL6, B2JDL9, B2JDM2, B2JDK7,

Eu-152; Eu-154: B2JDH9, B2JDN4, B2JDR5, B2JDV6, B2JF35, B2JDM2

WSCF120895: B2JDM8, B2JDN1, B2JDV3, B2JDP6, B2JDN7, B2JDN4
WSCF120900: B2JDT7, B2JDT4, B2JDH3, B2JDK4, B2JDJ5, B2JDV0, B2JDP0, B2JDR8, B2JDT1, B2JF32, B2JDJ8, B2JDR2, B2JDR5, B2JDP3, B2JDP9, B2JDV6, B2JDK1, B2JF35, B2JF47
WSCF120922: B2JDL0, B2JDL3, B2JDL6, B2JDL9, B2JDM2, B2JDM5, B2JF44, B2JDJ2, B2JDK7,

Appendix 6

Additional Documentation Requested By Client

EBERLINE ANALYTICAL-RICHMOND

SAMPLE DELIVERY GROUP H4727

7728-003 Method Blank

METHOD BLANK

SDG	7728	Client/Case no	Hanford	SDG_H4727	
Contact	Joseph Verville	Contract	No. S00W235A01		
Lab sample id	S206083-03	Client sample id	Method Blank		
Dept sample id	7728-003	Material/Matrix		SOIL	
		SAF No	F12-005		

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.16	2.8	3.89	400	U	H
Carbon 14	14762-75-5	-1.22	2.2	3.86	50.0	U	C
Nickel 63	13981-37-8	1.04	1.6	2.73	30.0	U	NI_L

QC-BLANK #82017

Lab id	EBRLNE
Protocol	CHPRC
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	07/11/12

EBERLINE ANALYTICAL-RICHMOND

SAMPLE DELIVERY GROUP H4727

7728-002 Lab Control Sample

LAB CONTROL SAMPLE

SDG 7728
Contact Joseph Verville
Client/Case no Hanford SDG H4727
Contract No. S00W235A01

Lab sample id S206083-02
Dept sample id 7728-002
Client sample id Lab Control Sample
Material/Matrix SOIL
SAF No F12-005

ANALYTE	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST	ADDED pCi/g	2σ ERR pCi/g	REC %	3σ LMTS (TOTAL)	PROTOCOL LIMITS
Tritium	645	16	5.38	400		H	650	26	99	84-116	80-120
Carbon 14	1900	38	8.30	50.0		C	2130	85	89	85-115	80-120
Nickel 63	228	6.0	2.69	30.0		NI_L	258	10	88	84-116	80-120

QC-LCS #82016

Lab id EBRLNE
Protocol CHPRC
Version Ver 1.0
Form DVD-LCS
Version 3.06
Report date 07/11/12

EBERLINE ANALYTICAL-RICHMOND

SAMPLE DELIVERY GROUP H4727

7728-004 B2JDF0

DUPLICATE

SDG	7728			Client/Case no	Hanford SDG H4727
Contact	Joseph Verville			Contract	No. S00W235A01
	DUPLICATE		ORIGINAL		
Lab sample id	S206083-04	Lab sample id	S206083-01	Client sample id	B2JDF0
Dept sample id	7728-004	Dept sample id	7728-001	Location/Matrix	Area AG Zone 2 Verif.#5 SOIL
		Received	06/26/12	Collected/Weight	06/18/12 10:16 181 g
% solids	94.1	% solids	94.1	Custody/SAF No	F12-005-015 F12-005

ANALYTE	DUPLICATE pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST	ORIGINAL pCi/g	2σ ERR (COUNT)	MDA pCi/g	QUALI-FIERS	RPD %	3σ TOT	DER σ
Tritium	-2.97	3.0	5.49	400	U	H	-0.963	3.1	5.51	U	-		0.9
Carbon 14	-0.881	2.1	3.63	50.0	U	C	-1.31	2.2	3.77	U	-		0.3
Nickel 63	0.322	1.7	2.97	30.0	U	NI_L	-0.081	1.7	2.99	U	-		0.3

QC-DUP#1 82018

Area AG Zone 2 Sampling Verification Sampling-Soil

Lab id	EBRLNE
Protocol	CHPRC
Version	Ver 1.0
Form	DVD-DUP
Version	3.06
Report date	07/11/12

EBERLINE ANALYTICAL-RICHMOND

SAMPLE DELIVERY GROUP H4727

Test C Matrix SOIL
SDG 7728
Contact Joseph Verville

LAB METHOD SUMMARY

CARBON 14 IN SOLIDS
LIQUID SCINTILLATION COUNTING

Client Hanford
Contract No. S00W235A01
Contract SDG H4727

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Carbon 14
Preparation batch 7732-074					
S206083-01			7728-001	B2JDF0	U
S206083-02			7728-002	Lab Control Sample	ok
S206083-03			7728-003	Method Blank	U
S206083-04			7728-004	Duplicate (S206083-01)	- U
Nominal values and limits from method				RDLs (pCi/g)	50.0

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7732-074			2σ prep error 10.0 % Reference Lab Notebook 7732 pg. 74													
S206083-01			B2JDF0	3.77	0.325			100		50			15	06/30/12	07/03	LSC-007
S206083-02			Lab Control Sample	8.30	0.300			100		10				06/30/12	07/03	LSC-007
S206083-03			Method Blank	3.86	0.300			100		50				06/30/12	07/03	LSC-007
S206083-04			Duplicate (S206083-01)	3.63	0.329			100		50			15	06/30/12	07/03	LSC-007
Nominal values and limits from method				50.0	0.300					50			180			

PROCEDURES REFERENCE C14_LSC
CP-251 Tritium/Carbon-14 Oxidation, rev 11

AVERAGES ± 2 SD MDA 4.89 ± 4.55
FOR 4 SAMPLES YIELD 100 ± 0

Lab id EBRLNE
Protocol CHPRC
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 07/11/12

EBERLINE ANALYTICAL-RICHMOND

SAMPLE DELIVERY GROUP H4727

Test H Matrix SOIL
SDG 7728
Contact Joseph Verville

LAB METHOD SUMMARY

TRITIUM IN SOLIDS
LIQUID SCINTILLATION COUNTING

Client Hanford
Contract No. S00W235A01
Contract SDG H4727

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Tritium	
Preparation batch 7732-074						
S206083-01			7728-001	B2JDF0	U	
S206083-02			7728-002	Lab Control Sample	ok	
S206083-03			7728-003	Method Blank	U	
S206083-04			7728-004	Duplicate (S206083-01)	-	U
Nominal values and limits from method				RDLs (pCi/g)	400	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7732-074			2σ prep error 10.0 % Reference Lab Notebook 7732 pg. 74													
S206083-01			B2JDF0	5.51	0.325			100		50			15	06/30/12	07/03	LSC-007
S206083-02			Lab Control Sample	5.38	0.300			100		50				06/30/12	07/03	LSC-007
S206083-03			Method Blank	3.89	0.300			100		100				06/30/12	07/03	LSC-007
S206083-04			Duplicate (S206083-01)	5.49	0.329			100		50			15	06/30/12	07/03	LSC-007
Nominal values and limits from method				400	0.300					50			180			

PROCEDURES	REFERENCE	TRITIUM_COX_LSC
	CP-251	Tritium/Carbon-14 Oxidation, rev 11

AVERAGES ± 2 SD FOR 4 SAMPLES
MDA 5.07 ± 1.57
YIELD 100 ± 0

Lab id EBRLNE
Protocol CHPRC
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 07/11/12

EBERLINE ANALYTICAL-RICHMOND

SAMPLE DELIVERY GROUP H4727

Test NI L Matrix SOIL
SDG 7728
Contact Joseph Verville

LAB METHOD SUMMARY

NICKEL 63 IN SOLIDS
LIQUID SCINTILLATION COUNTING

Client Hanford
Contract No. S00W235A01
Contract SDG H4727

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Nickel 63	
Preparation batch 7732-074						
S206083-01			7728-001	B2JDF0	U	
S206083-02			7728-002	Lab Control Sample	ok	
S206083-03			7728-003	Method Blank	U	
S206083-04			7728-004	Duplicate (S206083-01)	-	U
Nominal values and limits from method				RDLs (pCi/g)	30.0	

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7732-074			2σ prep error 11.2 % Reference Lab Notebook 7732 pg. 74													
S206083-01			B2JDF0	2.99	0.500			93		50			16	07/03/12	07/04	LSC-007
S206083-02			Lab Control Sample	2.69	0.500			100		50				07/03/12	07/04	LSC-007
S206083-03			Method Blank	2.73	0.500			100		50				07/03/12	07/04	LSC-007
S206083-04			Duplicate (S206083-01)	2.97	0.500			92		50			16	07/03/12	07/04	LSC-007
Nominal values and limits from method				30.0	0.500			40-110		25			180			

PROCEDURES	REFERENCE	NI63_LSC
	SPP-071	Soil Dissolution, > 1.0g Aliquot, rev 1
	CP-281	Nickel-63 Purification By Extraction Chromatography, rev 5

AVERAGES ± 2 SD FOR 4 SAMPLES
MDA 2.84 ± 0.314
YIELD 96 ± 9

Lab id EBRLNE
Protocol CHPRC
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 07/11/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-016 Method Blank

METHOD BLANK

SDG	7737	Client/Case no	CHPRC	SDG_H4735	
Contact	Joseph Verville	Contract	No. 33677		
Lab sample id	S207055-16	Client sample id	Method Blank		
Dept sample id	7737-016	Material/Matrix		SOIL	
		SAF No	F12-005		

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	0.356	2.9	5.05	400	U	H
Carbon 14	14762-75-5	-0.972	2.8	4.74	50.0	U	C
Nickel 63	13981-37-8	-0.847	2.1	3.62	30.0	U	NI_L

QC-BLANK #82161

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-015

Lab Control Sample

LAB CONTROL SAMPLE

SDG 7737

Contact Joseph Verville

Client/Case no CHPRC SDG H4735

Contract No. 33677

Lab sample id S207055-15

Dept sample id 7737-015

Client sample id Lab Control Sample

Material/Matrix SOIL

SAF No F12-005

ANALYTE	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST	ADDED pCi/g	2σ ERR pCi/g	REC %	3σ LMTS (TOTAL)	PROTOCOL LIMITS
Tritium	608	19	4.25	400		H	629	25	97	84-116	80-120
Carbon 14	2000	40	9.78	50.0		C	2060	82	97	84-116	80-120
Nickel 63	195	5.7	3.02	30.0		NI_L	214	8.6	91	83-117	80-120

QC-LCS #82160

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LCS
Version 3.06
Report date 08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

7737-017 B2JDF3

DUPLICATE

SDG	7737			Client/Case no	CHPRC SDG H4735
Contact	Joseph Verville			Contract	No. 33677
DUPLICATE		ORIGINAL			
Lab sample id	S207055-17	Lab sample id	S207055-01	Client sample id	B2JDF3
Dept sample id	7737-017	Dept sample id	7737-001	Location/Matrix	Area AG Zone 2 Verif #6 SOIL
		Received	07/19/12	Collected/Weight	07/09/12 09:49 175 g
% solids	98.3	% solids	98.3	Custody/SAF No	F12-005-018 F12-005

ANALYTE	DUPLICATE pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST	ORIGINAL pCi/g	2σ ERR (COUNT)	MDA pCi/g	QUALI-FIERS	RPD %	3σ TOT	DER σ
Tritium	2.07	3.1	5.12	400	U	H	-0.999	2.9	5.16	U	-		1.4
Carbon 14	-0.909	2.6	4.43	50.0	U	C	0.134	2.7	4.59	U	-		0.6
Nickel 63	0.570	2.0	3.31	30.0	U	NI_L	-0.370	1.9	3.34	U	-		0.7

QC-DUP#1 82162

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DUP
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

Test C Matrix SOIL
SDG 7737
Contact Joseph Verville

LAB METHOD SUMMARY

CARBON 14 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4735

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Carbon 14	
Preparation batch 7734-085						
S207055-01			7737-001	B2JDF3	U	
S207055-02			7737-002	B2JDF6	U	
S207055-03			7737-003	B2JDF9	U	
S207055-04			7737-004	B2JDH2	U	
S207055-05			7737-005	B2JDH5	U	
S207055-06			7737-006	B2JDH8	U	
S207055-07			7737-007	B2JDJ1	U	
S207055-08			7737-008	B2JDJ4	U	
S207055-09			7737-009	B2JDJ7	U	
S207055-10			7737-010	B2JDK0	U	
S207055-11			7737-011	B2JDK3	U	
S207055-12			7737-012	B2JDK6	U	
S207055-13			7737-013	B2JDK9	U	
S207055-14			7737-014	B2JDL2	U	
S207055-15			7737-015	Lab Control Sample	ok	
S207055-16			7737-016	Method Blank	U	
S207055-17			7737-017	Duplicate (S207055-01)	-	U

Nominal values and limits from method RDLs (pCi/g) 50.0

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

Test C Matrix SOIL
SDG 7737
Contact Joseph Verville

LAB METHOD SUMMARY

CARBON 14 IN SOLIDS
LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4735

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7734-085			2σ prep error 10.0 %	Reference Lab Notebook 7734 pg. 085												
S207055-01			B2JDF3	4.59	0.314			100		50			18	07/26/12	07/27	LSC-006
S207055-02			B2JDF6	4.22	0.333			100		50			18	07/26/12	07/27	LSC-006
S207055-03			B2JDF9	4.34	0.320			100		50			18	07/26/12	07/27	LSC-006
S207055-04			B2JDH2	4.55	0.317			100		50			18	07/26/12	07/27	LSC-006
S207055-05			B2JDH5	4.91	0.308			100		50			17	07/26/12	07/27	LSC-006
S207055-06			B2JDH8	4.29	0.335			100		50			17	07/26/12	07/27	LSC-006
S207055-07			B2JDJ1	4.64	0.317			100		50			17	07/26/12	07/27	LSC-006
S207055-08			B2JDJ4	4.40	0.325			100		50			10	07/26/12	07/27	LSC-006
S207055-09			B2JDJ7	4.83	0.318			100		50			15	07/26/12	07/27	LSC-006
S207055-10			B2JDK0	4.51	0.332			100		50			17	07/26/12	07/27	LSC-006
S207055-11			B2JDK3	4.61	0.321			100		50			16	07/26/12	07/27	LSC-006
S207055-12			B2JDK6	4.68	0.309			100		50			15	07/26/12	07/27	LSC-006
S207055-13			B2JDK9	4.48	0.316			100		50			10	07/26/12	07/27	LSC-006
S207055-14			B2JDL2	4.70	0.322			100		50			10	07/26/12	07/27	LSC-006
S207055-15			Lab Control Sample	9.78	0.310			100		10				07/26/12	07/27	LSC-006
S207055-16			Method Blank	4.74	0.310			100		50				07/26/12	07/27	LSC-006
S207055-17			Duplicate (S207055-01)	4.43	0.315			100		50			18	07/26/12	07/27	LSC-006
Nominal values and limits from method				50.0	0.320					50			180			

PROCEDURES REFERENCE C14_LSC
CP-251 Tritium/Carbon-14 Oxidation, rev 11

AVERAGES ± 2 SD FOR 17 SAMPLES
MDA 4.86 ± 2.56
YIELD 100 ± 0

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

Test H Matrix SOIL
SDG 7737
Contact Joseph Verville

LAB METHOD SUMMARY

TRITIUM IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4735

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Tritium	
Preparation batch 7734-085						
S207055-01			7737-001	B2JDF3	U	
S207055-02			7737-002	B2JDF6	U	
S207055-03			7737-003	B2JDF9	U	
S207055-04			7737-004	B2JDH2	U	
S207055-05			7737-005	B2JDH5	U	
S207055-06			7737-006	B2JDH8	U	
S207055-07			7737-007	B2JDJ1	U	
S207055-08			7737-008	B2JDJ4	U	
S207055-09			7737-009	B2JDJ7	U	
S207055-10			7737-010	B2JDK0	U	
S207055-11			7737-011	B2JDK3	U	
S207055-12			7737-012	B2JDK6	U	
S207055-13			7737-013	B2JDK9	U	
S207055-14			7737-014	B2JDL2	U	
S207055-15			7737-015	Lab Control Sample	ok	
S207055-16			7737-016	Method Blank	U	
S207055-17			7737-017	Duplicate (S207055-01)	-	U

Nominal values and limits from method RDLs (pCi/g) 400

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

Test H Matrix SOIL
SDG 7737
Contact Joseph Verville

LAB METHOD SUMMARY

TRITIUM IN SOLIDS
LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4735

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7734-085			2σ prep error 10.0 %	Reference Lab Notebook 7734 pg. 085												
S207055-01			B2JDF3	5.16	0.314			100		50			18	07/26/12	07/27	LSC-007
S207055-02			B2JDF6	4.82	0.333			100		50			18	07/26/12	07/27	LSC-007
S207055-03			B2JDF9	5.08	0.320			100		50			18	07/26/12	07/27	LSC-007
S207055-04			B2JDH2	5.06	0.317			100		50			18	07/26/12	07/27	LSC-007
S207055-05			B2JDH5	5.19	0.308			100		50			17	07/26/12	07/27	LSC-007
S207055-06			B2JDH8	4.80	0.335			100		50			17	07/26/12	07/27	LSC-007
S207055-07			B2JDJ1	5.09	0.317			100		50			17	07/26/12	07/27	LSC-007
S207055-08			B2JDJ4	4.94	0.325			100		50			10	07/26/12	07/27	LSC-007
S207055-09			B2JDJ7	5.01	0.318			100		50			15	07/26/12	07/27	LSC-007
S207055-10			B2JDK0	4.79	0.332			100		50			17	07/26/12	07/27	LSC-007
S207055-11			B2JDK3	4.95	0.321			100		50			16	07/26/12	07/27	LSC-007
S207055-12			B2JDK6	5.09	0.309			100		50			15	07/26/12	07/27	LSC-007
S207055-13			B2JDK9	4.98	0.316			100		50			10	07/26/12	07/27	LSC-007
S207055-14			B2JDL2	4.92	0.322			100		50			10	07/26/12	07/27	LSC-007
S207055-15			Lab Control Sample	4.25	0.310			100		100				07/26/12	07/28	LSC-007
S207055-16			Method Blank	5.05	0.310			100		50				07/26/12	07/27	LSC-007
S207055-17			Duplicate (S207055-01)	5.12	0.315			100		50			18	07/26/12	07/27	LSC-007
Nominal values and limits from method				400	0.320					50			180			

PROCEDURES REFERENCE TRITIUM_COX_LSC
CP-251 Tritium/Carbon-14 Oxidation, rev 11

AVERAGES ± 2 SD FOR 17 SAMPLES
MDA 4.96 ± 0.438
YIELD 100 ± 0

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

Test NI L Matrix SOIL
SDG 7737
Contact Joseph Verville

LAB METHOD SUMMARY

NICKEL 63 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4735

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Nickel 63	
Preparation batch 7734-085						
S207055-01			7737-001	B2JDF3	U	
S207055-02			7737-002	B2JDF6	U	
S207055-03			7737-003	B2JDF9	U	
S207055-04			7737-004	B2JDH2	U	
S207055-05			7737-005	B2JDH5	U	
S207055-06			7737-006	B2JDH8	U	
S207055-07			7737-007	B2JDJ1	U	
S207055-08			7737-008	B2JDJ4	U	
S207055-09			7737-009	B2JDJ7	U	
S207055-10			7737-010	B2JDK0	U	
S207055-11			7737-011	B2JDK3	U	
S207055-12			7737-012	B2JDK6	U	
S207055-13			7737-013	B2JDK9	U	
S207055-14			7737-014	B2JDL2	U	
S207055-15			7737-015	Lab Control Sample	ok	
S207055-16			7737-016	Method Blank	U	
S207055-17			7737-017	Duplicate (S207055-01)	-	U

Nominal values and limits from method RDLs (pCi/g) 30.0

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4735

Test NI L Matrix SOIL
SDG 7737
Contact Joseph Verville

LAB METHOD SUMMARY

NICKEL 63 IN SOLIDS
LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4735

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7734-085			2σ prep error 11.2 %		Reference Lab Notebook 7734 pg. 085											
S207055-01			B2JDF3	3.34	0.500			91		50			19	07/27/12	07/28	LSC-004
S207055-02			B2JDF6	3.41	0.500			88		50			19	07/27/12	07/28	LSC-004
S207055-03			B2JDF9	3.12	0.500			97		50			19	07/27/12	07/28	LSC-004
S207055-04			B2JDH2	3.32	0.500			92		50			19	07/27/12	07/28	LSC-004
S207055-05			B2JDH5	3.58	0.500			84		50			18	07/27/12	07/28	LSC-004
S207055-06			B2JDH8	3.35	0.500			89		50			18	07/27/12	07/28	LSC-004
S207055-07			B2JDJ1	3.27	0.500			91		50			18	07/27/12	07/28	LSC-004
S207055-08			B2JDJ4	3.26	0.500			92		50			11	07/27/12	07/28	LSC-004
S207055-09			B2JDJ7	3.49	0.500			84		50			16	07/27/12	07/28	LSC-004
S207055-10			B2JDK0	3.23	0.500			92		50			18	07/27/12	07/28	LSC-004
S207055-11			B2JDK3	3.50	0.500			88		50			17	07/27/12	07/28	LSC-004
S207055-12			B2JDK6	3.28	0.500			90		50			16	07/27/12	07/28	LSC-004
S207055-13			B2JDK9	3.64	0.500			83		50			11	07/27/12	07/28	LSC-004
S207055-14			B2JDL2	3.38	0.500			88		50			11	07/27/12	07/28	LSC-004
S207055-15			Lab Control Sample	3.02	0.500			100		50				07/27/12	07/28	LSC-004
S207055-16			Method Blank	3.62	0.500			85		50				07/27/12	07/28	LSC-004
S207055-17			Duplicate (S207055-01)	3.31	0.500			92		50			19	07/27/12	07/28	LSC-004
Nominal values and limits from method				30.0	0.500			40-110		25			180			

PROCEDURES	REFERENCE	NI63_LSC
	SPP-071	Soil Dissolution, > 1.0g Aliquot, rev 1
	CP-281	Nickel-63 Purification By Extraction Chromatography, rev 5

AVERAGES ± 2 SD FOR 17 SAMPLES				
	MDA	3.36	±	0.337
	YIELD	90	±	9

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-016 Method Blank

METHOD BLANK

SDG	7738	Client/Case no	CHPRC	SDG H4736	
Contact	Joseph Verville	Contract	No. 33677		
Lab sample id	S207056-16	Client sample id	Method Blank		
Dept sample id	7738-016	Material/Matrix		SOIL	
		SAF No	F12-005		

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.14	3.6	6.29	400	U	H
Carbon 14	14762-75-5	0.452	1.6	2.76	50.0	U	C
Nickel 63	13981-37-8	1.55	1.8	2.94	30.0	U	NI_L

QC-BLANK #82164

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-015

Lab Control Sample

LAB CONTROL SAMPLE

SDG 7738

Contact Joseph Verville

Client/Case no CHPRC SDG H4736

Contract No. 33677

Lab sample id S207056-15

Dept sample id 7738-015

Client sample id Lab Control Sample

Material/Matrix SOIL

SAF No F12-005

ANALYTE	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST	ADDED pCi/g	2σ ERR pCi/g	REC %	3σ LMTS (TOTAL)	PROTOCOL LIMITS
Tritium	620	16	5.49	400		H	629	25	99	84-116	80-120
Carbon 14	2080	42	9.09	50.0		C	2060	82	101	83-117	80-120
Nickel 63	229	6.1	2.75	30.0		NI_L	258	10	89	84-116	80-120

QC-LCS #82163

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LCS
Version 3.06
Report date 08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

7738-017 B2JDL5

DUPLICATE

SDG	7738			Client/Case no	CHPRC SDG H4736
Contact	Joseph Verville			Contract	No. 33677
	DUPLICATE		ORIGINAL		
Lab sample id	S207056-17	Lab sample id	S207056-01	Client sample id	B2JDL5
Dept sample id	7738-017	Dept sample id	7738-001	Location/Matrix	Area AG Zone 2 Verif #6 SOIL
		Received	07/19/12	Collected/Weight	07/17/12 14:20 181 g
% solids	96.7	% solids	96.7	Custody/SAF No	F12-005-060 F12-005

ANALYTE	DUPLICATE pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST	ORIGINAL pCi/g	2σ ERR (COUNT)	MDA pCi/g	QUALI-FIERS	RPD %	3σ TOT	DER σ
Tritium	-2.28	3.4	6.05	400	U	H	-0.729	3.5	6.03	U	-		0.6
Carbon 14	0.199	1.5	2.55	50.0	U	C	-0.177	1.5	2.52	U	-		0.4
Nickel 63	1.53	1.9	3.14	30.0	U	NI_L	1.61	1.9	3.06	U	-		0.1

QC-DUP#1 82165

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-DUP
Version 3.06
Report date 08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

Test C Matrix SOIL
SDG 7738
Contact Joseph Verville

LAB METHOD SUMMARY

CARBON 14 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4736

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Carbon 14	
Preparation batch 7734-089						
S207056-01			7738-001	B2JDL5	U	
S207056-02			7738-002	B2JDL8	U	
S207056-03			7738-003	B2JDM1	U	
S207056-04			7738-004	B2JDM4	U	
S207056-05			7738-005	B2JDM7	U	
S207056-06			7738-006	B2JDN0	U	
S207056-07			7738-007	B2JDN3	U	
S207056-08			7738-008	B2JDN6	U	
S207056-09			7738-009	B2JDN9	U	
S207056-10			7738-010	B2JDP2	U	
S207056-11			7738-011	B2JDP5	U	
S207056-12			7738-012	B2JDP8	U	
S207056-13			7738-013	B2JDR1	U	
S207056-14			7738-014	B2JDR4	U	
S207056-15			7738-015	Lab Control Sample	ok	
S207056-16			7738-016	Method Blank	U	
S207056-17			7738-017	Duplicate (S207056-01)	-	U

Nominal values and limits from method RDLs (pCi/g) 50.0

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

Test C Matrix SOIL
SDG 7738
Contact Joseph Verville

LAB METHOD SUMMARY

CARBON 14 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4736

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7734-089			2σ prep error 10.0 %	Reference Lab Notebook 7734 pg. 089												
S207056-01			B2JDL5	2.52	0.333			100		100			12	07/29/12	07/29	LSC-007
S207056-02			B2JDL8	2.83	0.310			100		100			12	07/29/12	07/29	LSC-007
S207056-03			B2JDM1	2.76	0.307			100		100			13	07/29/12	07/29	LSC-007
S207056-04			B2JDM4	2.82	0.308			100		100			13	07/29/12	07/29	LSC-007
S207056-05			B2JDM7	2.84	0.320			100		100			13	07/29/12	07/29	LSC-007
S207056-06			B2JDN0	2.88	0.308			100		100			18	07/29/12	07/29	LSC-007
S207056-07			B2JDN3	3.94	0.319			100		50			20	07/29/12	07/31	LSC-007
S207056-08			B2JDN6	4.05	0.304			100		50			18	07/29/12	07/29	LSC-007
S207056-09			B2JDN9	3.83	0.316			100		50			18	07/29/12	07/29	LSC-007
S207056-10			B2JDP2	3.92	0.317			100		50			19	07/29/12	07/29	LSC-007
S207056-11			B2JDP5	4.18	0.302			100		50			18	07/29/12	07/29	LSC-007
S207056-12			B2JDP8	3.82	0.336			100		50			18	07/29/12	07/29	LSC-007
S207056-13			B2JDR1	4.01	0.302			100		50			18	07/29/12	07/29	LSC-007
S207056-14			B2JDR4	4.15	0.313			100		50			18	07/29/12	07/29	LSC-007
S207056-15			Lab Control Sample	9.09	0.310			100		10				07/29/12	07/30	LSC-007
S207056-16			Method Blank	2.76	0.310			100		100				07/29/12	07/29	LSC-007
S207056-17			Duplicate (S207056-01)	2.55	0.335			100		100			12	07/29/12	07/29	LSC-007
Nominal values and limits from method				50.0	0.320					50			180			

PROCEDURES REFERENCE C14_LSC
CP-251 Tritium/Carbon-14 Oxidation, rev 11

AVERAGES ± 2 SD FOR 17 SAMPLES
MDA 3.70 ± 3.05
YIELD 100 ± 0

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

Test H Matrix SOIL
SDG 7738
Contact Joseph Verville

LAB METHOD SUMMARY

TRITIUM IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4736

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Tritium	
Preparation batch 7734-089						
S207056-01			7738-001	B2JDL5	U	
S207056-02			7738-002	B2JDL8	U	
S207056-03			7738-003	B2JDM1	U	
S207056-04			7738-004	B2JDM4	U	
S207056-05			7738-005	B2JDM7	U	
S207056-06			7738-006	B2JDN0	U	
S207056-07			7738-007	B2JDN3	U	
S207056-08			7738-008	B2JDN6	U	
S207056-09			7738-009	B2JDN9	U	
S207056-10			7738-010	B2JDP2	U	
S207056-11			7738-011	B2JDP5	U	
S207056-12			7738-012	B2JDP8	U	
S207056-13			7738-013	B2JDR1	U	
S207056-14			7738-014	B2JDR4	U	
S207056-15			7738-015	Lab Control Sample	ok	
S207056-16			7738-016	Method Blank	U	
S207056-17			7738-017	Duplicate (S207056-01)	-	U

Nominal values and limits from method RDLs (pCi/g) 400

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

Test H Matrix SOIL
SDG 7738
Contact Joseph Verville

LAB METHOD SUMMARY

TRITIUM IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4736

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7734-089			2σ prep error 10.0 %	Reference Lab Notebook 7734 pg. 089												
S207056-01			B2JDL5	6.03	0.333			100		50			13	07/29/12	07/30	LSC-004
S207056-02			B2JDL8	6.40	0.310			100		50			13	07/29/12	07/30	LSC-004
S207056-03			B2JDM1	6.25	0.307			100		50			14	07/29/12	07/30	LSC-004
S207056-04			B2JDM4	6.19	0.308			100		50			14	07/29/12	07/30	LSC-004
S207056-05			B2JDM7	5.93	0.320			100		50			14	07/29/12	07/30	LSC-004
S207056-06			B2JDN0	6.35	0.308			100		50			19	07/29/12	07/30	LSC-004
S207056-07			B2JDN3	5.20	0.319			100		50			20	07/29/12	07/31	LSC-004
S207056-08			B2JDN6	6.16	0.304			100		50			19	07/29/12	07/30	LSC-004
S207056-09			B2JDN9	6.18	0.316			100		50			19	07/29/12	07/30	LSC-004
S207056-10			B2JDP2	6.02	0.317			100		50			20	07/29/12	07/30	LSC-004
S207056-11			B2JDP5	6.45	0.302			100		50			19	07/29/12	07/30	LSC-004
S207056-12			B2JDP8	5.75	0.336			100		50			19	07/29/12	07/30	LSC-004
S207056-13			B2JDR1	6.38	0.302			100		50			19	07/29/12	07/30	LSC-004
S207056-14			B2JDR4	6.31	0.313			100		50			19	07/29/12	07/30	LSC-004
S207056-15			Lab Control Sample	5.49	0.310			100		50				07/29/12	07/30	LSC-004
S207056-16			Method Blank	6.29	0.310			100		50				07/29/12	07/30	LSC-004
S207056-17			Duplicate (S207056-01)	6.05	0.335			100		50			13	07/29/12	07/30	LSC-004
Nominal values and limits from method				400	0.320					50			180			

PROCEDURES REFERENCE TRITIUM_COX_LSC
CP-251 Tritium/Carbon-14 Oxidation, rev 11

AVERAGES ± 2 SD MDA 6.08 ± 0.674
FOR 17 SAMPLES YIELD 100 ± 0

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

Test NI L Matrix SOIL
SDG 7738
Contact Joseph Verville

LAB METHOD SUMMARY

NICKEL 63 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4736

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Nickel 63	
Preparation batch 7734-089						
S207056-01			7738-001	B2JDL5	U	
S207056-02			7738-002	B2JDL8	U	
S207056-03			7738-003	B2JDM1	U	
S207056-04			7738-004	B2JDM4	U	
S207056-05			7738-005	B2JDM7	U	
S207056-06			7738-006	B2JDN0	U	
S207056-07			7738-007	B2JDN3	U	
S207056-08			7738-008	B2JDN6	U	
S207056-09			7738-009	B2JDN9	U	
S207056-10			7738-010	B2JDP2	U	
S207056-11			7738-011	B2JDP5	U	
S207056-12			7738-012	B2JDP8	U	
S207056-13			7738-013	B2JDR1	U	
S207056-14			7738-014	B2JDR4	U	
S207056-15			7738-015	Lab Control Sample	ok	
S207056-16			7738-016	Method Blank	U	
S207056-17			7738-017	Duplicate (S207056-01)	-	U

Nominal values and limits from method RDLs (pCi/g) 30.0

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4736

Test NI L Matrix SOIL
SDG 7738
Contact Joseph Verville

LAB METHOD SUMMARY

NICKEL 63 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4736

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7734-089			2σ prep error 11.2 % Reference Lab Notebook 7734 pg. 089													
S207056-01			B2JDL5	3.06	0.500			90		50			13	07/30/12	07/30	LSC-006
S207056-02			B2JDL8	3.19	0.500			88		50			13	07/30/12	07/30	LSC-006
S207056-03			B2JDM1	2.92	0.500			96		50			14	07/30/12	07/30	LSC-006
S207056-04			B2JDM4	2.99	0.500			93		50			14	07/30/12	07/30	LSC-006
S207056-05			B2JDM7	3.04	0.500			91		50			14	07/30/12	07/30	LSC-006
S207056-06			B2JDN0	3.26	0.500			87		50			19	07/30/12	07/30	LSC-006
S207056-07			B2JDN3	3.15	0.500			88		50			19	07/30/12	07/30	LSC-006
S207056-08			B2JDN6	3.25	0.500			85		50			19	07/30/12	07/30	LSC-006
S207056-09			B2JDN9	3.01	0.500			92		50			19	07/30/12	07/30	LSC-006
S207056-10			B2JDP2	3.21	0.500			87		50			20	07/30/12	07/30	LSC-006
S207056-11			B2JDP5	3.14	0.500			90		50			19	07/30/12	07/30	LSC-006
S207056-12			B2JDP8	3.13	0.500			89		50			19	07/30/12	07/30	LSC-006
S207056-13			B2JDR1	2.84	0.500			98		50			19	07/30/12	07/30	LSC-006
S207056-14			B2JDR4	3.12	0.500			89		50			19	07/30/12	07/30	LSC-006
S207056-15			Lab Control Sample	2.75	0.500			100		50				07/30/12	07/30	LSC-006
S207056-16			Method Blank	2.94	0.500			95		50				07/30/12	07/30	LSC-006
S207056-17			Duplicate (S207056-01)	3.14	0.500			89		50			13	07/30/12	07/30	LSC-006
Nominal values and limits from method				30.0	0.500			40-110		25			180			

PROCEDURES	REFERENCE	NI63_LSC
	SPP-071	Soil Dissolution, > 1.0g Aliquot, rev 1
	CP-281	Nickel-63 Purification By Extraction Chromatography, rev 5

AVERAGES ± 2 SD	MDA	3.07	±	0.287
FOR 17 SAMPLES	YIELD	91	±	8

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/08/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-016 Method Blank

METHOD BLANK

SDG	7739	Client/Case no	CHPRC	SDG_H4737	
Contact	Joseph Verville	Contract	No. 33677		
Lab sample id	S207057-16	Client sample id	Method Blank		
Dept sample id	7739-016	Material/Matrix		SOIL	
		SAF No	F12-005		

ANALYTE	CAS NO	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST
Tritium	10028-17-8	-1.76	2.9	5.15	400	U	H
Carbon 14	14762-75-5	-0.084	2.5	4.32	50.0	U	C
Nickel 63	13981-37-8	0.489	1.7	2.82	30.0	U	NI_L

QC-BLANK #82167

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DS
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-015

Lab Control Sample

LAB CONTROL SAMPLE

SDG 7739
Contact Joseph Verville

Client/Case no CHPRC SDG H4737
Contract No. 33677

Lab sample id S207057-15
Dept sample id 7739-015

Client sample id Lab Control Sample
Material/Matrix SOIL
SAF No F12-005

ANALYTE	RESULT pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST	ADDED pCi/g	2σ ERR pCi/g	REC %	3σ LMTS (TOTAL)	PROTOCOL LIMITS
Tritium	571	14	4.84	400		H	609	24	94	84-116	80-120
Carbon 14	2270	46	10.4	50.0		C	1990	80	114	82-118	80-120
Nickel 63	194	5.6	2.81	30.0		NI_L	214	8.6	91	83-117	80-120

QC-LCS #82166

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LCS
Version 3.06
Report date 08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

7739-017 B2JDR7

DUPLICATE

SDG	7739			Client/Case no	CHPRC SDG H4737
Contact	Joseph Verville			Contract	No. 33677
	DUPLICATE		ORIGINAL		
Lab sample id	S207057-17	Lab sample id	S207057-01	Client sample id	B2JDR7
Dept sample id	7739-017	Dept sample id	7739-001	Location/Matrix	Area AG Zone 2 Verif #34 SOIL
		Received	07/19/12	Collected/Weight	07/12/12 07:24 141 g
		% solids	97.2	Custody/SAF No	F12-005-102 F12-005

ANALYTE	DUPLICATE pCi/g	2σ ERR (COUNT)	MDA pCi/g	RDL pCi/g	QUALI-FIERS	TEST	ORIGINAL pCi/g	2σ ERR (COUNT)	MDA pCi/g	QUALI-FIERS	RPD %	3σ TOT	DER σ
Tritium	1.35	2.9	4.92	400	U	H	0	2.9	4.96	U	-		0.7
Carbon 14	-0.416	2.5	4.26	50.0	U	C	-1.09	2.4	4.14	U	-		0.4
Nickel 63	0.602	1.9	3.22	30.0	U	NI_L	0.997	2.0	3.40	U	-		0.3

QC-DUP#1 82168

Area AG Zone 2 Sampling Verification Sampling - Soil

Lab id	EBRLNE
Protocol	F12-005
Version	Ver 1.0
Form	DVD-DUP
Version	3.06
Report date	08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

Test C Matrix SOIL
SDG 7739
Contact Joseph Verville

LAB METHOD SUMMARY

CARBON 14 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4737

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Carbon 14	
Preparation batch 7734-095						
S207057-01			7739-001	B2JDR7	U	
S207057-02			7739-002	B2JDT0	U	
S207057-03			7739-003	B2JDT3	U	
S207057-04			7739-004	B2JDT6	U	
S207057-05			7739-005	B2JDT9	U	
S207057-06			7739-006	B2JDV2	U	
S207057-07			7739-007	B2JDV5	U	
S207057-08			7739-008	B2JDV8	U	
S207057-09			7739-009	B2JF31	U	
S207057-10			7739-010	B2JF34	U	
S207057-11			7739-011	B2JF37	U	
S207057-12			7739-012	B2JF43	U	
S207057-13			7739-013	B2JF46	U	
S207057-14			7739-014	B2JF49	U	
S207057-15			7739-015	Lab Control Sample	ok	
S207057-16			7739-016	Method Blank	U	
S207057-17			7739-017	Duplicate (S207057-01)	-	U

Nominal values and limits from method RDLs (pCi/g) 50.0

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

Test C Matrix SOIL
SDG 7739
Contact Joseph Verville

LAB METHOD SUMMARY

CARBON 14 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4737

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7734-095			2σ prep error 10.0 %		Reference Lab Notebook 7734 pg. 095											
S207057-01			B2JDR7	4.14	0.329			100		50			21	08/01/12	08/02	LSC-006
S207057-02			B2JDT0	4.46	0.320			100		50			21	08/01/12	08/02	LSC-006
S207057-03			B2JDT3	4.20	0.329			100		50			21	08/01/12	08/02	LSC-006
S207057-04			B2JDT6	4.20	0.333			100		50			21	08/01/12	08/02	LSC-006
S207057-05			B2JDT9	4.20	0.335			100		50			21	08/01/12	08/02	LSC-006
S207057-06			B2JDV2	4.20	0.332			100		50			21	08/01/12	08/02	LSC-006
S207057-07			B2JDV5	4.34	0.318			100		50			22	08/01/12	08/02	LSC-006
S207057-08			B2JDV8	4.12	0.339			100		50			21	08/01/12	08/01	LSC-006
S207057-09			B2JF31	4.08	0.342			100		50			23	08/01/12	08/01	LSC-006
S207057-10			B2JF34	3.97	0.343			100		50			22	08/01/12	08/01	LSC-006
S207057-11			B2JF37	4.38	0.320			100		50			21	08/01/12	08/01	LSC-006
S207057-12			B2JF43	4.42	0.318			100		50			23	08/01/12	08/01	LSC-006
S207057-13			B2JF46	4.16	0.328			100		50			15	08/01/12	08/01	LSC-006
S207057-14			B2JF49	4.13	0.337			100		50			21	08/01/12	08/01	LSC-006
S207057-15			Lab Control Sample	10.4	0.320			100		8				08/01/12	08/01	LSC-006
S207057-16			Method Blank	4.32	0.320			100		50				08/01/12	08/02	LSC-006
S207057-17			Duplicate (S207057-01)	4.26	0.329			100		50			21	08/01/12	08/02	LSC-006
Nominal values and limits from method				50.0	0.320					50			180			

PROCEDURES REFERENCE C14_LSC
CP-251 Tritium/Carbon-14 Oxidation, rev 11

AVERAGES ± 2 SD FOR 17 SAMPLES
MDA 4.59 ± 3.01
YIELD 100 ± 0

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

Test H Matrix SOIL
SDG 7739
Contact Joseph Verville

LAB METHOD SUMMARY

TRITIUM IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4737

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Tritium	
Preparation batch 7734-095						
S207057-01			7739-001	B2JDR7	U	
S207057-02			7739-002	B2JDT0	U	
S207057-03			7739-003	B2JDT3	U	
S207057-04			7739-004	B2JDT6	U	
S207057-05			7739-005	B2JDT9	U	
S207057-06			7739-006	B2JDV2	U	
S207057-07			7739-007	B2JDV5	U	
S207057-08			7739-008	B2JDV8	U	
S207057-09			7739-009	B2JF31	U	
S207057-10			7739-010	B2JF34	U	
S207057-11			7739-011	B2JF37	U	
S207057-12			7739-012	B2JF43	U	
S207057-13			7739-013	B2JF46	U	
S207057-14			7739-014	B2JF49	U	
S207057-15			7739-015	Lab Control Sample	ok	
S207057-16			7739-016	Method Blank	U	
S207057-17			7739-017	Duplicate (S207057-01)	-	U

Nominal values and limits from method RDLs (pCi/g) 400

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

Test H Matrix SOIL
SDG 7739
Contact Joseph Verville

LAB METHOD SUMMARY

TRITIUM IN SOLIDS
LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4737

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7734-095			2σ prep error 10.0 % Reference Lab Notebook 7734 pg. 095													
S207057-01			B2JDR7	4.96	0.329			100		50			21	08/01/12	08/02	LSC-007
S207057-02			B2JDT0	5.06	0.320			100		50			21	08/01/12	08/02	LSC-007
S207057-03			B2JDT3	4.93	0.329			100		50			21	08/01/12	08/02	LSC-007
S207057-04			B2JDT6	4.79	0.333			100		50			21	08/01/12	08/02	LSC-007
S207057-05			B2JDT9	4.79	0.335			100		50			21	08/01/12	08/02	LSC-007
S207057-06			B2JDV2	4.83	0.332			100		50			21	08/01/12	08/02	LSC-007
S207057-07			B2JDV5	5.12	0.318			100		50			22	08/01/12	08/02	LSC-007
S207057-08			B2JDV8	4.78	0.339			100		50			22	08/01/12	08/02	LSC-007
S207057-09			B2JF31	4.79	0.342			100		50			24	08/01/12	08/02	LSC-007
S207057-10			B2JF34	4.75	0.343			100		50			23	08/01/12	08/02	LSC-007
S207057-11			B2JF37	5.09	0.320			100		50			22	08/01/12	08/02	LSC-007
S207057-12			B2JF43	5.16	0.318			100		50			24	08/01/12	08/02	LSC-007
S207057-13			B2JF46	4.94	0.328			100		50			16	08/01/12	08/02	LSC-007
S207057-14			B2JF49	4.82	0.337			100		50			22	08/01/12	08/02	LSC-007
S207057-15			Lab Control Sample	4.84	0.320			100		50				08/01/12	08/02	LSC-007
S207057-16			Method Blank	5.15	0.320			100		50				08/01/12	08/02	LSC-007
S207057-17			Duplicate (S207057-01)	4.92	0.329			100		50			21	08/01/12	08/02	LSC-007
Nominal values and limits from method				400	0.320					50			180			

PROCEDURES REFERENCE TRITIUM_COX_LSC
CP-251 Tritium/Carbon-14 Oxidation, rev 11

AVERAGES ± 2 SD FOR 17 SAMPLES
MDA 4.92 ± 0.285
YIELD 100 ± 0

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

Test NI L Matrix SOIL
SDG 7739
Contact Joseph Verville

LAB METHOD SUMMARY

NICKEL 63 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4737

RESULTS

LAB SAMPLE ID	RAW TEST	SUF-FIX	PLANCHET	CLIENT SAMPLE ID	Nickel 63	
Preparation batch 7734-095						
S207057-01			7739-001	B2JDR7	U	
S207057-02			7739-002	B2JDT0	U	
S207057-03			7739-003	B2JDT3	U	
S207057-04			7739-004	B2JDT6	U	
S207057-05			7739-005	B2JDT9	U	
S207057-06			7739-006	B2JDV2	U	
S207057-07			7739-007	B2JDV5	U	
S207057-08			7739-008	B2JDV8	U	
S207057-09			7739-009	B2JF31	U	
S207057-10			7739-010	B2JF34	U	
S207057-11			7739-011	B2JF37	U	
S207057-12			7739-012	B2JF43	U	
S207057-13			7739-013	B2JF46	U	
S207057-14			7739-014	B2JF49	U	
S207057-15			7739-015	Lab Control Sample	ok	
S207057-16			7739-016	Method Blank	U	
S207057-17			7739-017	Duplicate (S207057-01)	-	U

Nominal values and limits from method RDLs (pCi/g) 30.0

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/07/12

EBERLINE ANALYTICAL/RICHMOND

SAMPLE DELIVERY GROUP H4737

Test NI L Matrix SOIL
SDG 7739
Contact Joseph Verville

LAB METHOD SUMMARY

NICKEL 63 IN SOLIDS

LIQUID SCINTILLATION COUNTING

Client CHPRC
Contract No. 33677
Contract SDG H4737

METHOD PERFORMANCE

LAB SAMPLE ID	RAW TEST	SUF-FIX	CLIENT SAMPLE ID	MDA pCi/g	ALIQ g	PREP FAC	DILU-TION	YIELD %	EFF %	COUNT min	FWHM keV	DRIFT KeV	DAYS HELD	PREPARED	ANAL-YZED	DETECTOR
Preparation batch 7734-095			2σ prep error 11.2 % Reference Lab Notebook 7734 pg. 095													
S207057-01			B2JDR7	3.40	0.500			85		50			20	08/01/12	08/01	LSC-006
S207057-02			B2JDT0	3.51	0.500			80		50			20	08/01/12	08/01	LSC-006
S207057-03			B2JDT3	3.09	0.500			91		50			20	08/01/12	08/01	LSC-006
S207057-04			B2JDT6	3.07	0.500			93		50			20	08/01/12	08/01	LSC-006
S207057-05			B2JDT9	3.04	0.500			93		50			20	08/01/12	08/01	LSC-006
S207057-06			B2JDV2	3.12	0.500			93		50			20	08/01/12	08/01	LSC-006
S207057-07			B2JDV5	3.15	0.500			90		50			21	08/01/12	08/01	LSC-006
S207057-08			B2JDV8	3.37	0.500			84		50			21	08/01/12	08/01	LSC-006
S207057-09			B2JF31	3.06	0.500			91		50			23	08/01/12	08/01	LSC-006
S207057-10			B2JF34	3.12	0.500			91		50			22	08/01/12	08/01	LSC-006
S207057-11			B2JF37	3.18	0.500			90		50			21	08/01/12	08/01	LSC-006
S207057-12			B2JF43	2.87	0.500			98		50			23	08/01/12	08/01	LSC-006
S207057-13			B2JF46	2.88	0.500			97		50			15	08/01/12	08/01	LSC-006
S207057-14			B2JF49	2.78	0.500			100		50			21	08/01/12	08/01	LSC-006
S207057-15			Lab Control Sample	2.81	0.500			100		50				08/01/12	08/01	LSC-006
S207057-16			Method Blank	2.82	0.500			100		50				08/01/12	08/01	LSC-006
S207057-17			Duplicate (S207057-01)	3.22	0.500			88		50			20	08/01/12	08/01	LSC-006
Nominal values and limits from method				30.0	0.500			40-110		25			180			

PROCEDURES	REFERENCE	NI63_LSC
	SPP-071	Soil Dissolution, > 1.0g Aliquot, rev 1
	CP-281	Nickel-63 Purification By Extraction Chromatography, rev 5

AVERAGES ± 2 SD FOR 17 SAMPLES
MDA 3.09 ± 0.426
YIELD 92 ± 12

Lab id EBRLNE
Protocol F12-005
Version Ver 1.0
Form DVD-LMS
Version 3.06
Report date 08/07/12

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120788

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
203495	203753	1	DUP	77075	B2LPX0(120787001DUP)	120787001	Plutonium (AEA)
203495	203753	5	SAMPLE	120788001	B2JDD8		Plutonium (AEA)
203495	203753	6	BLANK	77073	BLANK		Plutonium (AEA)
203495	203753	7	LCS	77074	LCS		Plutonium (AEA)
203495	203754	1	DUP	77075	B2LPX0(120787001DUP)	120787001	Americium/Curium (AEA)
203495	203754	5	SAMPLE	120788001	B2JDD8		Americium/Curium (AEA)
203495	203754	6	BLANK	77073	BLANK		Americium/Curium (AEA)
203495	203754	7	LCS	77074	LCS		Americium/Curium (AEA)
203495	203755	1	DUP	77075	B2LPX0(120787001DUP)	120787001	Uranium (AEA)
203495	203755	5	SAMPLE	120788001	B2JDD8		Uranium (AEA)
203495	203755	6	BLANK	77073	BLANK		Uranium (AEA)
203495	203755	7	LCS	77074	LCS		Uranium (AEA)
203558	203571	1	IBLANK	77083	IBLANK		Gamma Energy Analysis-general
203558	203571	2	LCS	77084	LCS		Gamma Energy Analysis-general
203558	203571	3	DUP	77085	B2LPX0(120787001DUP)	120787001	Gamma Energy Analysis-general
203558	203571	7	SAMPLE	120788001	B2JDD8		Gamma Energy Analysis-general
203666	203861	1	BLANK	77251	BLANK		Strontium 89/90 (GPC/GEA)
203666	203861	2	LCS	77252	LCS		Strontium 89/90 (GPC/GEA)
203666	203861	3	DUP	77253	B2LPX0(120787001DUP)	120787001	Strontium 89/90 (GPC/GEA)
203666	203861	7	SAMPLE	120788001	B2JDD8		Strontium 89/90 (GPC/GEA)

REVISED120788 -

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120788

Analytical Batch 203571 (QC Batch: 203558) **Test** Gamma Energy Analysis-general
Associated Samples 120788001

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
IBLANK			**QC Sample #77083**								
Cesium-137	10045-97-3		4.5E-3	pCi/g						U	06/20/12
Cobalt-60	10198-40-0		-5.9E-3	pCi/g						U	06/20/12
Europium-152	14683-23-9		0.0020	pCi/g						U	06/20/12
Europium-154	15585-10-1		6.8E-3	pCi/g						U	06/20/12
Europium-155	14391-16-3		-0.013	pCi/g						U	06/20/12
LCS			**QC Sample #77084**								
Cesium-137	10045-97-3		6400	pCi/sample	106.5	80 - 120					06/20/12
Cobalt-60	10198-40-0		10000	pCi/sample	102.8	80 - 120					06/20/12
DUP			**QC Sample #77085**								
			Original 120787001								
Cesium-137	10045-97-3		-3.9E-3	pCi/g			1175.00	30	*	U	06/20/12
Cobalt-60	10198-40-0		0.0030	pCi/g			239.60	30	*	U	06/20/12
Europium-152	14683-23-9		7.5E-4	pCi/g			176.50	30	*	U	06/20/12
Europium-154	15585-10-1		2.1E-4	pCi/g			-252.80	30	*	U	06/20/12
Europium-155	14391-16-3		0.012	pCi/g						U	06/20/12

* - QC result out of range n/a - Not Applicable

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Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120788

Analytical Batch 203753 (QC Batch: 203495) **Test** Plutonium (AEA)
Associated Samples 120788001

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #77073**								
Plutonium-238	13981-16-3		6.9E-3	pCi/g						U	06/26/12
Plutonium-239_240	PU-239/240		1.7E-3	pCi/g						U	06/26/12
LCS			**QC Sample #77074**								
Plutonium-239_240	PU-239/240		23	pCi/sample	101.2	80 - 120					06/26/12
DUP			**QC Sample #77075**								
			Original 120787001								
Plutonium-238	13981-16-3		-6.2E-3	pCi/g			-110.00	30	*	U	06/26/12
Plutonium-239_240	PU-239/240		6.2E-3	pCi/g			83.00	30	*	X	06/26/12

* - QC result out of range n/a - Not Applicable

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Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120788

Analytical Batch 203754 (QC Batch: 203495)
Associated Samples 120788001

Test Americium/Curium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #77073**								
Americium-241	14596-10-2		0.020	pCi/g						X	06/26/12
LCS			**QC Sample #77074**								
Americium-241	14596-10-2		23	pCi/sample	102	80 - 120					06/26/12
DUP			**QC Sample #77075**								
			Original 120787001								
Americium-241	14596-10-2		0.017	pCi/g			42.90	30	*	X	06/26/12

* - QC result out of range n/a - Not Applicable

REVISED120788 -

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120788

Analytical Batch 203755 (QC Batch: 203495) **Test** Uranium (AEA)
Associated Samples 120788001

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #77073**								
Uranium-234	U-233/234		0.029	pCi/g						X	06/26/12
Uranium-235	15117-96-1		0.0020	pCi/g						U	06/26/12
Uranium-238	U-238		0.014	pCi/g						X	06/26/12
LCS			**QC Sample #77074**								
Uranium-234	U-233/234		34	pCi/sample	103.6	80 - 120					06/26/12
DUP			**QC Sample #77075**								
			Original 120787001								
Uranium-234	U-233/234		0.023	pCi/g			80.50	30	*	X	06/26/12
Uranium-235	15117-96-1		3.2E-3	pCi/g			17.10	30		U	06/26/12
Uranium-238	U-238		0.030	pCi/g			57.10	30	*	X	06/26/12

* - QC result out of range n/a - Not Applicable

REVISED120788 -

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120788

Analytical Batch 203861 (QC Batch: 203666)
Associated Samples 120788001

Test Strontium 89/90 (GPC/GEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #77251**								
Strontium-89_90	SR-RAD		-2.5E-3	pCi/g						U	06/28/12
LCS			**QC Sample #77252**								
Strontium-89_90	SR-RAD		21	pCi/g	114.6	80 - 120					06/28/12
DUP			**QC Sample #77253**								
			Original 120787001								
Strontium-89_90	SR-RAD		0.030	pCi/g			-252.20	30	*	U	06/28/12

* - QC result out of range n/a - Not Applicable

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Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120788

Analytical Batch 203753 (QC Batch: 203495)
Associated Samples 120788001

Test Plutonium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120788001**							
Plutonium-242 Tracer	13982-10-0				79.1	25 - 105				06/26/12
BLANK			**QC Sample #77073**							
Plutonium-242 Tracer	13982-10-0				92.8	25 - 105				06/26/12
LCS			**QC Sample #77074**							
Plutonium-242 Tracer	13982-10-0				88.2	25 - 105				06/26/12
DUP			**QC Sample #77075**							
			Original 120787001							
Plutonium-242 Tracer	13982-10-0				90.3	25 - 105	n/a			06/26/12

* - QC result out of range n/a - Not Applicable

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Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120788

Analytical Batch 203754 (QC Batch: 203495)
Associated Samples 120788001

Test Americium/Curium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120788001**							
Americium-243 Tracer	14993-75-0				93.2	25 - 105				06/26/12
BLANK			**QC Sample #77073**							
Americium-243 Tracer	14993-75-0				90.4	25 - 105				06/26/12
LCS			**QC Sample #77074**							
Americium-243 Tracer	14993-75-0				91.6	25 - 105				06/26/12
DUP			**QC Sample #77075**							
			Original 120787001							
Americium-243 Tracer	14993-75-0				88.8	25 - 105	n/a			06/26/12

* - QC result out of range n/a - Not Applicable

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Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120788

Analytical Batch 203755 (QC Batch: 203495)
Associated Samples 120788001

Test Uranium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120788001**							
Uranium-232 Tracer	14158-29-3				90	25 - 105				06/26/12
BLANK			**QC Sample #77073**							
Uranium-232 Tracer	14158-29-3				89.1	25 - 105				06/26/12
LCS			**QC Sample #77074**							
Uranium-232 Tracer	14158-29-3				77.6	25 - 105				06/26/12
DUP			**QC Sample #77075**							
			Original 120787001							
Uranium-232 Tracer	14158-29-3				93.5	25 - 105	n/a			06/26/12

* - QC result out of range n/a - Not Applicable

REVISED120788 -

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204855	204891	1	IBLANK	78060	IBLANK		Gamma Energy Analysis-general
204855	204891	2	LCS	78061	LCS		Gamma Energy Analysis-general
204855	204891	3	DUP	78062	B2JF29(120894001DUP)	120894001	Gamma Energy Analysis-general
204855	204891	4	SAMPLE	120894001	B2JF29		Gamma Energy Analysis-general
204855	204891	5	SAMPLE	120894002	B2JDH0		Gamma Energy Analysis-general
204855	204891	6	SAMPLE	120894003	B2JDF4		Gamma Energy Analysis-general
204855	204891	7	SAMPLE	120894004	B2JDF7		Gamma Energy Analysis-general
204855	204891	8	SAMPLE	120894005	B2JF41		Gamma Energy Analysis-general
204855	204891	9	SAMPLE	120894006	B2JDF1		Gamma Energy Analysis-general
204855	204891	10	SAMPLE	120894007	B2JDH9		Gamma Energy Analysis-general
204855	204891	11	SAMPLE	120894008	B2JDH6		Gamma Energy Analysis-general
204881	205007	1	DUP	78121	B2JF29(120894001DUP)	120894001	Uranium (AEA)
204881	205007	2	SAMPLE	120894001	B2JF29		Uranium (AEA)
204881	205007	3	SAMPLE	120894002	B2JDH0		Uranium (AEA)
204881	205007	4	SAMPLE	120894003	B2JDF4		Uranium (AEA)
204881	205007	5	SAMPLE	120894004	B2JDF7		Uranium (AEA)
204881	205007	6	SAMPLE	120894005	B2JF41		Uranium (AEA)
204881	205007	7	SAMPLE	120894006	B2JDF1		Uranium (AEA)
204881	205007	8	SAMPLE	120894007	B2JDH9		Uranium (AEA)
204881	205007	9	BLANK	78119	BLANK		Uranium (AEA)
204881	205007	10	LCS	78120	LCS		Uranium (AEA)
204881	205008	1	DUP	78121	B2JF29(120894001DUP)	120894001	Plutonium (AEA)
204881	205008	2	SAMPLE	120894001	B2JF29		Plutonium (AEA)

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204881	205008	3	SAMPLE	120894002	B2JDH0		Plutonium (AEA)
204881	205008	4	SAMPLE	120894003	B2JDF4		Plutonium (AEA)
204881	205008	5	SAMPLE	120894004	B2JDF7		Plutonium (AEA)
204881	205008	6	SAMPLE	120894005	B2JF41		Plutonium (AEA)
204881	205008	7	SAMPLE	120894006	B2JDF1		Plutonium (AEA)
204881	205008	8	SAMPLE	120894007	B2JDH9		Plutonium (AEA)
204881	205008	9	BLANK	78119	BLANK		Plutonium (AEA)
204881	205008	10	LCS	78120	LCS		Plutonium (AEA)
204881	205009	1	DUP	78121	B2JF29(120894001DUP)	120894001	Americium/Curium (AEA)
204881	205009	2	SAMPLE	120894001	B2JF29		Americium/Curium (AEA)
204881	205009	3	SAMPLE	120894002	B2JDH0		Americium/Curium (AEA)
204881	205009	4	SAMPLE	120894003	B2JDF4		Americium/Curium (AEA)
204881	205009	5	SAMPLE	120894004	B2JDF7		Americium/Curium (AEA)
204881	205009	6	SAMPLE	120894005	B2JF41		Americium/Curium (AEA)
204881	205009	7	SAMPLE	120894006	B2JDF1		Americium/Curium (AEA)
204881	205009	8	SAMPLE	120894007	B2JDH9		Americium/Curium (AEA)
204881	205009	9	BLANK	78119	BLANK		Americium/Curium (AEA)
204881	205009	10	LCS	78120	LCS		Americium/Curium (AEA)
204882	205010	1	DUP	78124	B2JDH6(120894008DUP)	120894008	Uranium (AEA)
204882	205010	2	SAMPLE	120894008	B2JDH6		Uranium (AEA)
204882	205010	9	BLANK	78122	BLANK		Uranium (AEA)
204882	205010	10	LCS	78123	LCS		Uranium (AEA)
204882	205150	1	DUP	78124	B2JDH6(120894008DUP)	120894008	Plutonium (AEA)

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204882	205150	2	SAMPLE	120894008	B2JDH6		Plutonium (AEA)
204882	205150	9	BLANK	78122	BLANK		Plutonium (AEA)
204882	205150	10	LCS	78123	LCS		Plutonium (AEA)
204882	205152	1	DUP	78124	B2JDH6(120894008DUP)	120894008	Americium/Curium (AEA)
204882	205152	2	SAMPLE	120894008	B2JDH6		Americium/Curium (AEA)
204882	205152	9	BLANK	78122	BLANK		Americium/Curium (AEA)
204882	205152	10	LCS	78123	LCS		Americium/Curium (AEA)
204914	205002	1	BLANK	78246	BLANK		Strontium 89/90 (GPC/GEA)
204914	205002	2	LCS	78247	LCS		Strontium 89/90 (GPC/GEA)
204914	205002	3	DUP	78248	B2JF29(120894001DUP)	120894001	Strontium 89/90 (GPC/GEA)
204914	205002	4	SAMPLE	120894001	B2JF29		Strontium 89/90 (GPC/GEA)
204914	205002	5	SAMPLE	120894002	B2JDH0		Strontium 89/90 (GPC/GEA)
204914	205002	6	SAMPLE	120894003	B2JDF4		Strontium 89/90 (GPC/GEA)
204914	205002	7	SAMPLE	120894004	B2JDF7		Strontium 89/90 (GPC/GEA)
204914	205002	8	SAMPLE	120894005	B2JF41		Strontium 89/90 (GPC/GEA)
204914	205002	9	SAMPLE	120894006	B2JDF1		Strontium 89/90 (GPC/GEA)
204914	205002	10	SAMPLE	120894007	B2JDH9		Strontium 89/90 (GPC/GEA)
204915	205001	1	BLANK	78249	BLANK		Strontium 89/90 (GPC/GEA)
204915	205001	2	LCS	78250	LCS		Strontium 89/90 (GPC/GEA)
204915	205001	3	DUP	78251	B2JDH6(120894008DUP)	120894008	Strontium 89/90 (GPC/GEA)
204915	205001	4	SAMPLE	120894008	B2JDH6		Strontium 89/90 (GPC/GEA)

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 204891 (QC Batch: 204855) **Test** Gamma Energy Analysis-general
Associated Samples 120894001, 120894002, 120894003, 120894004, 120894005, 120894006, 120894007, 120894008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
IBLANK			**QC Sample #78060**								
Cesium-137	10045-97-3		-0.024	pCi/g						U	07/18/12
Cobalt-60	10198-40-0		4.3E-3	pCi/g						U	07/18/12
Europium-152	14683-23-9		-0.016	pCi/g						U	07/18/12
Europium-154	15585-10-1		-0.051	pCi/g						U	07/18/12
Europium-155	14391-16-3		0.030	pCi/g						U	07/18/12
LCS			**QC Sample #78061**								
Cesium-137	10045-97-3		6600	pCi/sample	108.8	80 - 120					07/18/12
Cobalt-60	10198-40-0		10000	pCi/sample	103.8	80 - 120					07/18/12
DUP			**QC Sample #78062**								
			Original 120894001								
Cesium-137	10045-97-3	0.21	0.23	pCi/g			9.50	30			07/18/12
Cobalt-60	10198-40-0	0.012	3.5E-4	pCi/g			189.00	30	*	U	07/18/12
Europium-152	14683-23-9	0.15	0.16	pCi/g			6.50	30			07/18/12
Europium-154	15585-10-1	0.028	7.7E-3	pCi/g			113.00	30	*	U	07/18/12
Europium-155	14391-16-3	0.011	0.13	pCi/g			171.40	30	*	U	07/18/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205001 (QC Batch: 204915)
Associated Samples 120894008

Test Strontium 89/90 (GPC/GEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78249**								
Strontium-89_90	SR-RAD		1.1E-3	pCi/g						U	07/26/12
LCS			**QC Sample #78250**								
Strontium-89_90	SR-RAD		21	pCi/g	101.2	80 - 120					07/26/12
DUP			**QC Sample #78251**								
			Original 120894008								
Strontium-89_90	SR-RAD	0.0080	0.33	pCi/g			190.60	30	*	U	07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205002 (QC Batch: 204914) **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120894001, 120894002, 120894003, 120894004, 120894005, 120894006, 120894007

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78246**								
Strontium-89_90	SR-RAD		-0.090	pCi/g						U	07/26/12
LCS			**QC Sample #78247**								
Strontium-89_90	SR-RAD		21	pCi/g	102.4	80 - 120					07/26/12
DUP			**QC Sample #78248**								
			Original 120894001								
Strontium-89_90	SR-RAD	0.54	0.36	pCi/g			40.90	30	*	U	07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205007 (QC Batch: 204881) **Test** Uranium (AEA)
Associated Samples 120894001, 120894002, 120894003, 120894004, 120894005, 120894006, 120894007

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78119**								
Uranium-234	U-233/234		0.010	pCi/g						U	07/23/12
Uranium-235	15117-96-1		8.2E-3	pCi/g						U	07/23/12
Uranium-238	U-238		0.022	pCi/g						X	07/23/12
LCS			**QC Sample #78120**								
Uranium-234	U-233/234		34	pCi/sample	105	80 - 120					07/23/12
DUP			**QC Sample #78121**								
			Original 120894001								
Uranium-234	U-233/234	0.17	0.16	pCi/g			6.10	30			07/23/12
Uranium-235	15117-96-1	6.9E-3	0.012	pCi/g			56.70	30	*	U	07/23/12
Uranium-238	U-238	0.20	0.14	pCi/g			30.30	30	*	X	07/23/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205008 (QC Batch: 204881) **Test** Plutonium (AEA)
Associated Samples 120894001, 120894002, 120894003, 120894004, 120894005, 120894006, 120894007

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78119**								
Plutonium-238	13981-16-3		2.7E-3	pCi/g						U	07/23/12
Plutonium-239_240	PU-239/240		5.4E-3	pCi/g						U	07/23/12
LCS			**QC Sample #78120**								
Plutonium-239_240	PU-239/240		23	pCi/sample	100.5	80 - 120					07/23/12
DUP			**QC Sample #78121**								
			Original 120894001								
Plutonium-238	13981-16-3	0.026	8.1E-3	pCi/g			102.10	30	*	U	07/23/12
Plutonium-239_240	PU-239/240	0.021	0.036	pCi/g			52.60	30	*	X	07/23/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205009 (QC Batch: 204881) **Test** Americium/Curium (AEA)
Associated Samples 120894001, 120894002, 120894003, 120894004, 120894005, 120894006, 120894007

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78119**							
Americium-241	14596-10-2		2.3E-3	pCi/g					U	07/23/12
LCS			**QC Sample #78120**							
Americium-241	14596-10-2		23	pCi/sample	103.9	80 - 120				07/23/12
DUP			**QC Sample #78121**							
			Original 120894001							
Americium-241	14596-10-2	0.033	0.038	pCi/g			17.10	30		07/23/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205010 (QC Batch: 204882) **Test** Uranium (AEA)
Associated Samples 120894008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78122**							
Uranium-234	U-233/234		0.034	pCi/g					X	07/24/12
Uranium-235	15117-96-1		0.017	pCi/g					U	07/24/12
Uranium-238	U-238		0.022	pCi/g					X	07/24/12
LCS			**QC Sample #78123**							
Uranium-234	U-233/234		33	pCi/sample	101.1	80 - 120				07/24/12
DUP			**QC Sample #78124**							
			Original 120894008							
Uranium-234	U-233/234	0.20	0.19	pCi/g			0.00	30		07/24/12
Uranium-235	15117-96-1	0.026	0.023	pCi/g			8.30	30		07/24/12
Uranium-238	U-238	0.19	0.20	pCi/g			5.10	30		07/24/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205150 (QC Batch: 204882) **Test** Plutonium (AEA)
Associated Samples 120894008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78122**								
Plutonium-238	13981-16-3		-0.012	pCi/g						U	07/24/12
Plutonium-239_240	PU-239/240		0.017	pCi/g						U	07/24/12
LCS			**QC Sample #78123**								
Plutonium-239_240	PU-239/240		23	pCi/sample	99.7	80 - 120					07/24/12
DUP			**QC Sample #78124**								
			Original 120894008								
Plutonium-238	13981-16-3	4.6E-3	0.014	pCi/g			102.70	30	*	U	07/24/12
Plutonium-239_240	PU-239/240	0.011	5.7E-3	pCi/g			63.50	30	*	U	07/24/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205152 (QC Batch: 204882)
Associated Samples 120894008

Test Americium/Curium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78122**								
Americium-241	14596-10-2		-7.7E-3	pCi/g						U	07/24/12
LCS			**QC Sample #78123**								
Americium-241	14596-10-2		22	pCi/sample	101.3	80 - 120					07/24/12
DUP			**QC Sample #78124**								
			Original 120894008								
Americium-241	14596-10-2	0.021	0.011	pCi/g			62.50	30	*	U	07/24/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205001 (QC Batch: 204915)
Associated Samples 120894008

Test Strontium 89/90 (GPC/GEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120894008**							
Strontium-85	13967-73-2			pCi/sample	63.3	25 - 105				07/26/12
BLANK			**QC Sample #78249**							
Strontium-85	13967-73-2			pCi/sample	69.2	25 - 105				07/26/12
LCS			**QC Sample #78250**							
Strontium-85	13967-73-2			pCi/sample	73	25 - 105				07/26/12
DUP			**QC Sample #78251**							
			Original 120894008							
Strontium-85	13967-73-2	27		pCi/sample	60.2	25 - 105	n/a			07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205002 (QC Batch: 204914) **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120894001, 120894002, 120894003, 120894004, 120894005, 120894006, 120894007

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120894001**							
Strontium-85	13967-73-2			pCi/sample	54.8	25 - 105				07/26/12
SAMPLE			**Sample #120894002**							
Strontium-85	13967-73-2			pCi/sample	74.1	25 - 105				07/26/12
SAMPLE			**Sample #120894003**							
Strontium-85	13967-73-2			pCi/sample	58.1	25 - 105				07/26/12
SAMPLE			**Sample #120894004**							
Strontium-85	13967-73-2			pCi/sample	59.6	25 - 105				07/26/12
SAMPLE			**Sample #120894005**							
Strontium-85	13967-73-2			pCi/sample	77.6	25 - 105				07/26/12
SAMPLE			**Sample #120894006**							
Strontium-85	13967-73-2			pCi/sample	65.2	25 - 105				07/26/12
SAMPLE			**Sample #120894007**							
Strontium-85	13967-73-2			pCi/sample	60.7	25 - 105				07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78246**							
Strontium-85	13967-73-2			pCi/sample	78.2	25 - 105				07/26/12
LCS			**QC Sample #78247**							
Strontium-85	13967-73-2			pCi/sample	78.3	25 - 105				07/26/12
DUP			**QC Sample #78248**							
			Original 120894001							
Strontium-85	13967-73-2	24		pCi/sample	53.1	25 - 105	n/a			07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205007 (QC Batch: 204881) **Test** Uranium (AEA)
Associated Samples 120894001, 120894002, 120894003, 120894004, 120894005, 120894006, 120894007

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120894001**							
Uranium-232 Tracer	14158-29-3				72.5	25 - 105				07/23/12
SAMPLE			**Sample #120894002**							
Uranium-232 Tracer	14158-29-3				81.8	25 - 105				07/23/12
SAMPLE			**Sample #120894003**							
Uranium-232 Tracer	14158-29-3				81.7	25 - 105				07/23/12
SAMPLE			**Sample #120894004**							
Uranium-232 Tracer	14158-29-3				82.3	25 - 105				07/23/12
SAMPLE			**Sample #120894005**							
Uranium-232 Tracer	14158-29-3				79.1	25 - 105				07/23/12
SAMPLE			**Sample #120894006**							
Uranium-232 Tracer	14158-29-3				88.6	25 - 105				07/23/12
SAMPLE			**Sample #120894007**							
Uranium-232 Tracer	14158-29-3				86.5	25 - 105				07/23/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78119**							
Uranium-232 Tracer	14158-29-3				80.6	25 - 105				07/23/12
LCS			**QC Sample #78120**							
Uranium-232 Tracer	14158-29-3				65.6	25 - 105				07/23/12
DUP			**QC Sample #78121**							
			Original 120894001							
Uranium-232 Tracer	14158-29-3				84.2	25 - 105	n/a			07/23/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205008 (QC Batch: 204881) **Test** Plutonium (AEA)
Associated Samples 120894001, 120894002, 120894003, 120894004, 120894005, 120894006, 120894007

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120894001**							
Plutonium-242 Tracer	13982-10-0				77.2	25 - 105				07/23/12
SAMPLE			**Sample #120894002**							
Plutonium-242 Tracer	13982-10-0				63.7	25 - 105				07/23/12
SAMPLE			**Sample #120894003**							
Plutonium-242 Tracer	13982-10-0				85.2	25 - 105				07/23/12
SAMPLE			**Sample #120894004**							
Plutonium-242 Tracer	13982-10-0				68.3	25 - 105				07/23/12
SAMPLE			**Sample #120894005**							
Plutonium-242 Tracer	13982-10-0				77.6	25 - 105				07/23/12
SAMPLE			**Sample #120894006**							
Plutonium-242 Tracer	13982-10-0				88.6	25 - 105				07/23/12
SAMPLE			**Sample #120894007**							
Plutonium-242 Tracer	13982-10-0				81.9	25 - 105				07/23/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78119**							
Plutonium-242 Tracer	13982-10-0				60.5	25 - 105				07/23/12
LCS			**QC Sample #78120**							
Plutonium-242 Tracer	13982-10-0				79.3	25 - 105				07/23/12
DUP			**QC Sample #78121**							
			Original 120894001							
Plutonium-242 Tracer	13982-10-0				78.6	25 - 105	n/a			07/23/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205009 (QC Batch: 204881) **Test** Americium/Curium (AEA)
Associated Samples 120894001, 120894002, 120894003, 120894004, 120894005, 120894006, 120894007

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120894001**							
Americium-243 Tracer	14993-75-0				86.9	25 - 105				07/23/12
SAMPLE			**Sample #120894002**							
Americium-243 Tracer	14993-75-0				86.2	25 - 105				07/23/12
SAMPLE			**Sample #120894003**							
Americium-243 Tracer	14993-75-0				104	25 - 105				07/23/12
SAMPLE			**Sample #120894004**							
Americium-243 Tracer	14993-75-0				87.9	25 - 105				07/23/12
SAMPLE			**Sample #120894005**							
Americium-243 Tracer	14993-75-0				77.4	25 - 105				07/23/12
SAMPLE			**Sample #120894006**							
Americium-243 Tracer	14993-75-0				96.2	25 - 105				07/23/12
SAMPLE			**Sample #120894007**							
Americium-243 Tracer	14993-75-0				83.1	25 - 105				07/23/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78119**							
Americium-243 Tracer	14993-75-0				69.6	25 - 105				07/23/12
LCS			**QC Sample #78120**							
Americium-243 Tracer	14993-75-0				60.6	25 - 105				07/23/12
DUP			**QC Sample #78121**							
			Original 120894001							
Americium-243 Tracer	14993-75-0				98.9	25 - 105	n/a			07/23/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205010 (QC Batch: 204882)
Associated Samples 120894008

Test Uranium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120894008**							
Uranium-232 Tracer	14158-29-3				80.3	25 - 105				07/24/12
BLANK			**QC Sample #78122**							
Uranium-232 Tracer	14158-29-3				66.2	25 - 105				07/24/12
LCS			**QC Sample #78123**							
Uranium-232 Tracer	14158-29-3				61.7	25 - 105				07/24/12
DUP			**QC Sample #78124**							
			Original 120894008							
Uranium-232 Tracer	14158-29-3				70.3	25 - 105	n/a			07/24/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205150 (QC Batch: 204882)
Associated Samples 120894008

Test Plutonium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120894008**							
Plutonium-242 Tracer	13982-10-0				78.2	25 - 105				07/24/12
BLANK			**QC Sample #78122**							
Plutonium-242 Tracer	13982-10-0				57.2	25 - 105				07/24/12
LCS			**QC Sample #78123**							
Plutonium-242 Tracer	13982-10-0				70.7	25 - 105				07/24/12
DUP			**QC Sample #78124**							
			Original 120894008							
Plutonium-242 Tracer	13982-10-0				57	25 - 105	n/a			07/24/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120894

Analytical Batch 205152 (QC Batch: 204882)
Associated Samples 120894008

Test Americium/Curium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120894008**							
Americium-243 Tracer	14993-75-0				86.7	25 - 105				07/24/12
BLANK			**QC Sample #78122**							
Americium-243 Tracer	14993-75-0				62.9	25 - 105				07/24/12
LCS			**QC Sample #78123**							
Americium-243 Tracer	14993-75-0				81.9	25 - 105				07/24/12
DUP			**QC Sample #78124**							
			Original 120894008							
Americium-243 Tracer	14993-75-0				81.6	25 - 105	n/a			07/24/12

* - QC result out of range n/a - Not Applicable

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204856	204890	1	IBLANK	78063	IBLANK		Gamma Energy Analysis-general
204856	204890	2	LCS	78064	LCS		Gamma Energy Analysis-general
204856	204890	3	DUP	78065	B2JDM8(120895001DUP)	120895001	Gamma Energy Analysis-general
204856	204890	4	SAMPLE	120895001	B2JDM8		Gamma Energy Analysis-general
204856	204890	5	SAMPLE	120895002	B2JDN1		Gamma Energy Analysis-general
204856	204890	6	SAMPLE	120895003	B2JDV3		Gamma Energy Analysis-general
204856	204890	7	SAMPLE	120895004	B2JDP6		Gamma Energy Analysis-general
204856	204890	8	SAMPLE	120895005	B2JDN7		Gamma Energy Analysis-general
204856	204890	9	SAMPLE	120895006	B2JDN4		Gamma Energy Analysis-general
204882	205010	1	DUP	78124	B2JDH6(120894008DUP)	120894008	Uranium (AEA)
204882	205010	3	SAMPLE	120895002	B2JDN1		Uranium (AEA)
204882	205010	4	SAMPLE	120895003	B2JDV3		Uranium (AEA)
204882	205010	5	SAMPLE	120895004	B2JDP6		Uranium (AEA)
204882	205010	6	SAMPLE	120895005	B2JDN7		Uranium (AEA)
204882	205010	7	SAMPLE	120895006	B2JDN4		Uranium (AEA)
204882	205010	9	BLANK	78122	BLANK		Uranium (AEA)
204882	205010	10	LCS	78123	LCS		Uranium (AEA)
204882	205150	1	DUP	78124	B2JDH6(120894008DUP)	120894008	Plutonium (AEA)
204882	205150	3	SAMPLE	120895002	B2JDN1		Plutonium (AEA)
204882	205150	4	SAMPLE	120895003	B2JDV3		Plutonium (AEA)
204882	205150	5	SAMPLE	120895004	B2JDP6		Plutonium (AEA)
204882	205150	6	SAMPLE	120895005	B2JDN7		Plutonium (AEA)
204882	205150	7	SAMPLE	120895006	B2JDN4		Plutonium (AEA)

Batch QC List

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Group # WSCF120895

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204882	205150	9	BLANK	78122	BLANK		Plutonium (AEA)
204882	205150	10	LCS	78123	LCS		Plutonium (AEA)
204882	205152	1	DUP	78124	B2JDH6(120894008DUP)	120894008	Americium/Curium (AEA)
204882	205152	3	SAMPLE	120895002	B2JDN1		Americium/Curium (AEA)
204882	205152	4	SAMPLE	120895003	B2JDV3		Americium/Curium (AEA)
204882	205152	5	SAMPLE	120895004	B2JDP6		Americium/Curium (AEA)
204882	205152	6	SAMPLE	120895005	B2JDN7		Americium/Curium (AEA)
204882	205152	7	SAMPLE	120895006	B2JDN4		Americium/Curium (AEA)
204882	205152	9	BLANK	78122	BLANK		Americium/Curium (AEA)
204882	205152	10	LCS	78123	LCS		Americium/Curium (AEA)
204915	205001	1	BLANK	78249	BLANK		Strontium 89/90 (GPC/GEA)
204915	205001	2	LCS	78250	LCS		Strontium 89/90 (GPC/GEA)
204915	205001	3	DUP	78251	B2JDH6(120894008DUP)	120894008	Strontium 89/90 (GPC/GEA)
204915	205001	5	SAMPLE	120895002	B2JDN1		Strontium 89/90 (GPC/GEA)
204915	205001	6	SAMPLE	120895003	B2JDV3		Strontium 89/90 (GPC/GEA)
204915	205001	7	SAMPLE	120895004	B2JDP6		Strontium 89/90 (GPC/GEA)
204915	205001	8	SAMPLE	120895005	B2JDN7		Strontium 89/90 (GPC/GEA)
204915	205001	9	SAMPLE	120895006	B2JDN4		Strontium 89/90 (GPC/GEA)
204918	205162	1	BLANK	78258	BLANK		Strontium 89/90 (GPC/GEA)
204918	205162	2	LCS	78259	LCS		Strontium 89/90 (GPC/GEA)
204918	205162	3	DUP	78260	B2JDV6(120900016DUP)	120900016	Strontium 89/90 (GPC/GEA)
204918	205162	8	SAMPLE	120895001	B2JDM8		Strontium 89/90 (GPC/GEA)
204922	205249	1	BLANK	78267	BLANK		Plutonium (AEA)

Batch QC List

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Group # WSCF120895

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204922	205249	2	LCS	78268	LCS		Plutonium (AEA)
204922	205249	4	DUP	78269	B2JDV6(120900016DUP)	120900016	Plutonium (AEA)
204922	205249	8	SAMPLE	120895001	B2JDM8		Plutonium (AEA)
204922	205250	1	BLANK	78267	BLANK		Americium/Curium (AEA)
204922	205250	2	LCS	78268	LCS		Americium/Curium (AEA)
204922	205250	4	DUP	78269	B2JDV6(120900016DUP)	120900016	Americium/Curium (AEA)
204922	205250	8	SAMPLE	120895001	B2JDM8		Americium/Curium (AEA)
204922	205251	1	BLANK	78267	BLANK		Uranium (AEA)
204922	205251	2	LCS	78268	LCS		Uranium (AEA)
204922	205251	4	DUP	78269	B2JDV6(120900016DUP)	120900016	Uranium (AEA)
204922	205251	8	SAMPLE	120895001	B2JDM8		Uranium (AEA)

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Group # WSCF120895

Analytical Batch 204890 (QC Batch: 204856) **Test** Gamma Energy Analysis-general
Associated Samples 120895001, 120895002, 120895003, 120895004, 120895005, 120895006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
IBLANK			**QC Sample #78063**								
Cesium-137	10045-97-3		-4.7E-3	pCi/g						U	07/18/12
Cobalt-60	10198-40-0		-2.5E-3	pCi/g						U	07/18/12
Europium-152	14683-23-9		-0.017	pCi/g						U	07/18/12
Europium-154	15585-10-1		0.024	pCi/g						U	07/18/12
Europium-155	14391-16-3		4.4E-3	pCi/g						U	07/18/12
LCS			**QC Sample #78064**								
Cesium-137	10045-97-3		6400	pCi/sample	106.6	80 - 120					07/18/12
Cobalt-60	10198-40-0		10000	pCi/sample	103.8	80 - 120					07/18/12
DUP			**QC Sample #78065**								
			Original 120895001								
Cesium-137	10045-97-3	0.037	0.035	pCi/g			2.80	30			07/18/12
Cobalt-60	10198-40-0	3.6E-3	0.015	pCi/g			122.60	30	*	U	07/18/12
Europium-152	14683-23-9	1.8E-3	-5.9E-3	pCi/g			-380.00	30	*	U	07/18/12
Europium-154	15585-10-1	5.7E-3	0.027	pCi/g			129.10	30	*	U	07/18/12
Europium-155	14391-16-3	0.017	0.055	pCi/g			105.60	30	*	U	07/18/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120895

Analytical Batch 205001 (QC Batch: 204915) **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120895002, 120895003, 120895004, 120895005, 120895006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78249**								
Strontium-89_90	SR-RAD		1.1E-3	pCi/g						U	07/26/12
LCS			**QC Sample #78250**								
Strontium-89_90	SR-RAD		21	pCi/g	101.2	80 - 120					07/26/12
DUP			**QC Sample #78251**								
			Original 120894008								
Strontium-89_90	SR-RAD		0.33	pCi/g			190.60	30	*	U	07/26/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120895

Analytical Batch 205010 (QC Batch: 204882) **Test** Uranium (AEA)
Associated Samples 120895002, 120895003, 120895004, 120895005, 120895006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78122**							
Uranium-234	U-233/234		0.034	pCi/g					X	07/24/12
Uranium-235	15117-96-1		0.017	pCi/g					U	07/24/12
Uranium-238	U-238		0.022	pCi/g					X	07/24/12
LCS			**QC Sample #78123**							
Uranium-234	U-233/234		33	pCi/sample	101.1	80 - 120				07/24/12
DUP			**QC Sample #78124**							
			Original 120894008							
Uranium-234	U-233/234		0.19	pCi/g			0.00	30		07/24/12
Uranium-235	15117-96-1		0.023	pCi/g			8.30	30		07/24/12
Uranium-238	U-238		0.20	pCi/g			5.10	30		07/24/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120895

Analytical Batch 205150 (QC Batch: 204882) **Test** Plutonium (AEA)
Associated Samples 120895002, 120895003, 120895004, 120895005, 120895006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78122**								
Plutonium-238	13981-16-3		-0.012	pCi/g						U	07/24/12
Plutonium-239_240	PU-239/240		0.017	pCi/g						U	07/24/12
LCS			**QC Sample #78123**								
Plutonium-239_240	PU-239/240		23	pCi/sample	99.7	80 - 120					07/24/12
DUP			**QC Sample #78124**								
			Original 120894008								
Plutonium-238	13981-16-3		0.014	pCi/g			102.70	30	*	U	07/24/12
Plutonium-239_240	PU-239/240		5.7E-3	pCi/g			63.50	30	*	U	07/24/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120895

Analytical Batch 205152 (QC Batch: 204882) **Test** Americium/Curium (AEA)
Associated Samples 120895002, 120895003, 120895004, 120895005, 120895006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78122**								
Americium-241	14596-10-2		-7.7E-3	pCi/g						U	07/24/12
LCS			**QC Sample #78123**								
Americium-241	14596-10-2		22	pCi/sample	101.3	80 - 120					07/24/12
DUP			**QC Sample #78124**								
			Original 120894008								
Americium-241	14596-10-2		0.011	pCi/g			62.50	30	*	U	07/24/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120895

Analytical Batch 205162 (QC Batch: 204918)
Associated Samples 120895001

Test Strontium 89/90 (GPC/GEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78258**								
Strontium-89_90	SR-RAD		0.052	pCi/g						U	07/27/12
LCS			**QC Sample #78259**								
Strontium-89_90	SR-RAD		24	pCi/g	113.8	80 - 120					07/27/12
DUP			**QC Sample #78260**								
			Original 120900016								
Strontium-89_90	SR-RAD		0.43	pCi/g			138.00	30	*	U	07/27/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120895

Analytical Batch 205249 (QC Batch: 204922)
Associated Samples 120895001

Test Plutonium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78267**								
Plutonium-238	13981-16-3		-0.010	pCi/g						U	07/27/12
Plutonium-239_240	PU-239/240		0.013	pCi/g						X	07/27/12
LCS			**QC Sample #78268**								
Plutonium-239_240	PU-239/240		23	pCi/sample	100.4	80 - 120					07/27/12
DUP			**QC Sample #78269**								
			Original 120900016								
Plutonium-238	13981-16-3		2.7E-3	pCi/g			41.20	30	*	U	07/27/12
Plutonium-239_240	PU-239/240		0.019	pCi/g			78.40	30	*	X	07/27/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120895

Analytical Batch 205250 (QC Batch: 204922)
Associated Samples 120895001

Test Americium/Curium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78267**								
Americium-241	14596-10-2		5.3E-3	pCi/g						U	07/27/12
LCS			**QC Sample #78268**								
Americium-241	14596-10-2		23	pCi/sample	104.3	80 - 120					07/27/12
DUP			**QC Sample #78269**								
			Original 120900016								
Americium-241	14596-10-2		0.030	pCi/g			85.70	30	*	X	07/27/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120895

Analytical Batch 205251 (QC Batch: 204922)
Associated Samples 120895001

Test Uranium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78267**								
Uranium-234	U-233/234		0.022	pCi/g						U	07/27/12
Uranium-235	15117-96-1		9.5E-3	pCi/g						U	07/27/12
Uranium-238	U-238		0.015	pCi/g						U	07/27/12
LCS			**QC Sample #78268**								
Uranium-234	U-233/234		37	pCi/sample	112.5	80 - 120					07/27/12
DUP			**QC Sample #78269**								
			Original 120900016								
Uranium-234	U-233/234		0.13	pCi/g			14.30	30			07/27/12
Uranium-235	15117-96-1		0.0010	pCi/g			186.70	30	*	U	07/27/12
Uranium-238	U-238		0.15	pCi/g			12.50	30			07/27/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120895

Analytical Batch 205001 (QC Batch: 204915) **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120895002, 120895003, 120895004, 120895005, 120895006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120895002**							
Strontium-85	13967-73-2			pCi/sample	69.2	25 - 105				07/26/12
SAMPLE			**Sample #120895003**							
Strontium-85	13967-73-2			pCi/sample	54.9	25 - 105				07/26/12
SAMPLE			**Sample #120895004**							
Strontium-85	13967-73-2			pCi/sample	71.7	25 - 105				07/26/12
SAMPLE			**Sample #120895005**							
Strontium-85	13967-73-2			pCi/sample	65.7	25 - 105				07/26/12
SAMPLE			**Sample #120895006**							
Strontium-85	13967-73-2			pCi/sample	53.7	25 - 105				07/26/12
BLANK			**QC Sample #78249**							
Strontium-85	13967-73-2			pCi/sample	69.2	25 - 105				07/26/12
LCS			**QC Sample #78250**							
Strontium-85	13967-73-2			pCi/sample	73	25 - 105				07/26/12

* - QC result out of range n/a - Not Applicable

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Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
DUP			**QC Sample #78251**							
			Original 120894008							
Strontium-85	13967-73-2			pCi/sample	60.2	25 - 105	n/a			07/26/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120895

Analytical Batch 205010 (QC Batch: 204882) **Test** Uranium (AEA)
Associated Samples 120895002, 120895003, 120895004, 120895005, 120895006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120895002**							
Uranium-232 Tracer	14158-29-3				77.9	25 - 105				07/24/12
SAMPLE			**Sample #120895003**							
Uranium-232 Tracer	14158-29-3				76.5	25 - 105				07/24/12
SAMPLE			**Sample #120895004**							
Uranium-232 Tracer	14158-29-3				82.6	25 - 105				07/24/12
SAMPLE			**Sample #120895005**							
Uranium-232 Tracer	14158-29-3				89.6	25 - 105				07/24/12
SAMPLE			**Sample #120895006**							
Uranium-232 Tracer	14158-29-3				82.5	25 - 105				07/24/12
BLANK			**QC Sample #78122**							
Uranium-232 Tracer	14158-29-3				66.2	25 - 105				07/24/12
LCS			**QC Sample #78123**							
Uranium-232 Tracer	14158-29-3				61.7	25 - 105				07/24/12

* - QC result out of range n/a - Not Applicable

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Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
DUP			**QC Sample #78124**							
			Original 120894008							
Uranium-232 Tracer	14158-29-3				70.3	25 - 105	n/a			07/24/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120895

Analytical Batch 205150 (QC Batch: 204882) **Test** Plutonium (AEA)
Associated Samples 120895002, 120895003, 120895004, 120895005, 120895006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120895002**							
Plutonium-242 Tracer	13982-10-0				81.5	25 - 105				07/24/12
SAMPLE			**Sample #120895003**							
Plutonium-242 Tracer	13982-10-0				68.4	25 - 105				07/24/12
SAMPLE			**Sample #120895004**							
Plutonium-242 Tracer	13982-10-0				68.8	25 - 105				07/24/12
SAMPLE			**Sample #120895005**							
Plutonium-242 Tracer	13982-10-0				68.2	25 - 105				07/24/12
SAMPLE			**Sample #120895006**							
Plutonium-242 Tracer	13982-10-0				67.9	25 - 105				07/24/12
BLANK			**QC Sample #78122**							
Plutonium-242 Tracer	13982-10-0				57.2	25 - 105				07/24/12
LCS			**QC Sample #78123**							
Plutonium-242 Tracer	13982-10-0				70.7	25 - 105				07/24/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
DUP			**QC Sample #78124**							
			Original 120894008							
Plutonium-242 Tracer	13982-10-0				57	25 - 105	n/a			07/24/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120895

Analytical Batch 205152 (QC Batch: 204882) **Test** Americium/Curium (AEA)
Associated Samples 120895002, 120895003, 120895004, 120895005, 120895006

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120895002**							
Americium-243 Tracer	14993-75-0				90.9	25 - 105				07/24/12
SAMPLE			**Sample #120895003**							
Americium-243 Tracer	14993-75-0				88	25 - 105				07/24/12
SAMPLE			**Sample #120895004**							
Americium-243 Tracer	14993-75-0				67.3	25 - 105				07/24/12
SAMPLE			**Sample #120895005**							
Americium-243 Tracer	14993-75-0				90.5	25 - 105				07/24/12
SAMPLE			**Sample #120895006**							
Americium-243 Tracer	14993-75-0				92.9	25 - 105				07/24/12
BLANK			**QC Sample #78122**							
Americium-243 Tracer	14993-75-0				62.9	25 - 105				07/24/12
LCS			**QC Sample #78123**							
Americium-243 Tracer	14993-75-0				81.9	25 - 105				07/24/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120895

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
DUP			**QC Sample #78124**							
			Original 120894008							
Americium-243 Tracer	14993-75-0				81.6	25 - 105	n/a			07/24/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120895

Analytical Batch 205162 (QC Batch: 204918)
Associated Samples 120895001

Test Strontium 89/90 (GPC/GEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120895001**							
Strontium-85	13967-73-2			pCi/sample	28.3	25 - 105				07/27/12
BLANK			**QC Sample #78258**							
Strontium-85	13967-73-2			pCi/sample	70	25 - 105				07/27/12
LCS			**QC Sample #78259**							
Strontium-85	13967-73-2			pCi/sample	71.1	25 - 105				07/27/12
DUP			**QC Sample #78260**							
			Original 120900016							
Strontium-85	13967-73-2			pCi/sample	34.7	25 - 105	n/a			07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

Analytical Batch 205249 (QC Batch: 204922)
Associated Samples 120895001

Test Plutonium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120895001**							
Plutonium-242 Tracer	13982-10-0				77.3	25 - 105				07/27/12
BLANK			**QC Sample #78267**							
Plutonium-242 Tracer	13982-10-0				86.7	25 - 105				07/27/12
LCS			**QC Sample #78268**							
Plutonium-242 Tracer	13982-10-0				84.1	25 - 105				07/27/12
DUP			**QC Sample #78269**							
			Original 120900016							
Plutonium-242 Tracer	13982-10-0				61.7	25 - 105	n/a			07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

Analytical Batch 205250 (QC Batch: 204922)
Associated Samples 120895001

Test Americium/Curium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120895001**							
Americium-243 Tracer	14993-75-0				74.2	25 - 105				07/27/12
BLANK			**QC Sample #78267**							
Americium-243 Tracer	14993-75-0				87.3	25 - 105				07/27/12
LCS			**QC Sample #78268**							
Americium-243 Tracer	14993-75-0				89	25 - 105				07/27/12
DUP			**QC Sample #78269**							
			Original 120900016							
Americium-243 Tracer	14993-75-0				94.5	25 - 105	n/a			07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120895

Analytical Batch 205251 (QC Batch: 204922)
Associated Samples 120895001

Test Uranium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120895001**							
Uranium-232 Tracer	14158-29-3				86.9	25 - 105				07/27/12
BLANK			**QC Sample #78267**							
Uranium-232 Tracer	14158-29-3				84.7	25 - 105				07/27/12
LCS			**QC Sample #78268**							
Uranium-232 Tracer	14158-29-3				59.7	25 - 105				07/27/12
DUP			**QC Sample #78269**							
			Original 120900016							
Uranium-232 Tracer	14158-29-3				92.6	25 - 105	n/a			07/27/12

* - QC result out of range n/a - Not Applicable

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204857	204889	1	IBLANK	78066	IBLANK		Gamma Energy Analysis-general
204857	204889	2	LCS	78067	LCS		Gamma Energy Analysis-general
204857	204889	3	DUP	78068	B2JDT7(120900001DUP)	120900001	Gamma Energy Analysis-general
204857	204889	4	SAMPLE	120900001	B2JDT7		Gamma Energy Analysis-general
204857	204889	5	SAMPLE	120900002	B2JDT4		Gamma Energy Analysis-general
204857	204889	6	SAMPLE	120900003	B2JDH3		Gamma Energy Analysis-general
204857	204889	7	SAMPLE	120900004	B2JDK4		Gamma Energy Analysis-general
204857	204889	8	SAMPLE	120900005	B2JDJ5		Gamma Energy Analysis-general
204857	204889	9	SAMPLE	120900006	B2JDV0		Gamma Energy Analysis-general
204857	204889	10	SAMPLE	120900007	B2JDP0		Gamma Energy Analysis-general
204858	204892	1	IBLANK	78069	IBLANK		Gamma Energy Analysis-general
204858	204892	2	LCS	78070	LCS		Gamma Energy Analysis-general
204858	204892	3	DUP	78071	B2JDR8(120900008DUP)	120900008	Gamma Energy Analysis-general
204858	204892	4	SAMPLE	120900008	B2JDR8		Gamma Energy Analysis-general
204858	204892	5	SAMPLE	120900009	B2JDT1		Gamma Energy Analysis-general
204858	204892	6	SAMPLE	120900010	B2JF32		Gamma Energy Analysis-general
204858	204892	7	SAMPLE	120900011	B2JDJ8		Gamma Energy Analysis-general
204858	204892	8	SAMPLE	120900012	B2JDR2		Gamma Energy Analysis-general
204858	204892	9	SAMPLE	120900013	B2JDR5		Gamma Energy Analysis-general
204858	204892	10	SAMPLE	120900014	B2JDP3		Gamma Energy Analysis-general
204859	204893	1	IBLANK	78072	IBLANK		Gamma Energy Analysis-general
204859	204893	2	LCS	78073	LCS		Gamma Energy Analysis-general
204859	204893	3	DUP	78074	B2JDP9(120900015DUP)	120900015	Gamma Energy Analysis-general

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204859	204893	4	SAMPLE	120900015	B2JDP9		Gamma Energy Analysis-general
204859	204893	5	SAMPLE	120900016	B2JDV6		Gamma Energy Analysis-general
204859	204893	6	SAMPLE	120900017	B2JDK1		Gamma Energy Analysis-general
204859	204893	7	SAMPLE	120900018	B2JF35		Gamma Energy Analysis-general
204859	204893	8	SAMPLE	120900019	B2JF47		Gamma Energy Analysis-general
204882	205010	1	DUP	78124	B2JDH6(120894008DUP)	120894008	Uranium (AEA)
204882	205010	8	SAMPLE	120900001	B2JDT7		Uranium (AEA)
204882	205010	9	BLANK	78122	BLANK		Uranium (AEA)
204882	205010	10	LCS	78123	LCS		Uranium (AEA)
204882	205150	1	DUP	78124	B2JDH6(120894008DUP)	120894008	Plutonium (AEA)
204882	205150	8	SAMPLE	120900001	B2JDT7		Plutonium (AEA)
204882	205150	9	BLANK	78122	BLANK		Plutonium (AEA)
204882	205150	10	LCS	78123	LCS		Plutonium (AEA)
204882	205152	1	DUP	78124	B2JDH6(120894008DUP)	120894008	Americium/Curium (AEA)
204882	205152	8	SAMPLE	120900001	B2JDT7		Americium/Curium (AEA)
204882	205152	9	BLANK	78122	BLANK		Americium/Curium (AEA)
204882	205152	10	LCS	78123	LCS		Americium/Curium (AEA)
204883	205187	1	DUP	78127	B2JDT4(120900002DUP)	120900002	Uranium (AEA)
204883	205187	2	SAMPLE	120900002	B2JDT4		Uranium (AEA)
204883	205187	3	SAMPLE	120900003	B2JDH3		Uranium (AEA)
204883	205187	4	SAMPLE	120900004	B2JDK4		Uranium (AEA)
204883	205187	5	SAMPLE	120900005	B2JDJ5		Uranium (AEA)
204883	205187	6	SAMPLE	120900006	B2JDV0		Uranium (AEA)

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204883	205187	7	SAMPLE	120900007	B2JDP0		Uranium (AEA)
204883	205187	8	SAMPLE	120900008	B2JDR8		Uranium (AEA)
204883	205187	9	BLANK	78125	BLANK		Uranium (AEA)
204883	205187	10	LCS	78126	LCS		Uranium (AEA)
204883	205188	1	DUP	78127	B2JDT4(120900002DUP)	120900002	Plutonium (AEA)
204883	205188	2	SAMPLE	120900002	B2JDT4		Plutonium (AEA)
204883	205188	3	SAMPLE	120900003	B2JDH3		Plutonium (AEA)
204883	205188	4	SAMPLE	120900004	B2JDK4		Plutonium (AEA)
204883	205188	5	SAMPLE	120900005	B2JDJ5		Plutonium (AEA)
204883	205188	6	SAMPLE	120900006	B2JDV0		Plutonium (AEA)
204883	205188	7	SAMPLE	120900007	B2JDP0		Plutonium (AEA)
204883	205188	8	SAMPLE	120900008	B2JDR8		Plutonium (AEA)
204883	205188	9	BLANK	78125	BLANK		Plutonium (AEA)
204883	205188	10	LCS	78126	LCS		Plutonium (AEA)
204883	205189	1	DUP	78127	B2JDT4(120900002DUP)	120900002	Americium/Curium (AEA)
204883	205189	2	SAMPLE	120900002	B2JDT4		Americium/Curium (AEA)
204883	205189	3	SAMPLE	120900003	B2JDH3		Americium/Curium (AEA)
204883	205189	4	SAMPLE	120900004	B2JDK4		Americium/Curium (AEA)
204883	205189	5	SAMPLE	120900005	B2JDJ5		Americium/Curium (AEA)
204883	205189	6	SAMPLE	120900006	B2JDV0		Americium/Curium (AEA)
204883	205189	7	SAMPLE	120900007	B2JDP0		Americium/Curium (AEA)
204883	205189	8	SAMPLE	120900008	B2JDR8		Americium/Curium (AEA)
204883	205189	9	BLANK	78125	BLANK		Americium/Curium (AEA)

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204883	205189	10	LCS	78126	LCS		Americium/Curium (AEA)
204884	205219	1	BLANK	78128	BLANK		Americium/Curium (AEA)
204884	205219	2	LCS	78129	LCS		Americium/Curium (AEA)
204884	205219	3	SAMPLE	120900009	B2JDT1		Americium/Curium (AEA)
204884	205219	4	DUP	78130	B2JDT1(120900009DUP)	120900009	Americium/Curium (AEA)
204884	205219	5	SAMPLE	120900010	B2JF32		Americium/Curium (AEA)
204884	205219	6	SAMPLE	120900011	B2JDJ8		Americium/Curium (AEA)
204884	205219	7	SAMPLE	120900012	B2JDR2		Americium/Curium (AEA)
204884	205219	8	SAMPLE	120900013	B2JDR5		Americium/Curium (AEA)
204884	205219	9	SAMPLE	120900014	B2JDP3		Americium/Curium (AEA)
204884	205219	10	SAMPLE	120900015	B2JDP9		Americium/Curium (AEA)
204884	205220	1	DUP	78130	B2JDT1(120900009DUP)	120900009	Plutonium (AEA)
204884	205220	2	SAMPLE	120900009	B2JDT1		Plutonium (AEA)
204884	205220	3	SAMPLE	120900010	B2JF32		Plutonium (AEA)
204884	205220	4	SAMPLE	120900011	B2JDJ8		Plutonium (AEA)
204884	205220	5	SAMPLE	120900012	B2JDR2		Plutonium (AEA)
204884	205220	6	SAMPLE	120900013	B2JDR5		Plutonium (AEA)
204884	205220	7	SAMPLE	120900014	B2JDP3		Plutonium (AEA)
204884	205220	8	SAMPLE	120900015	B2JDP9		Plutonium (AEA)
204884	205220	9	BLANK	78128	BLANK		Plutonium (AEA)
204884	205220	10	LCS	78129	LCS		Plutonium (AEA)
204884	205221	1	DUP	78130	B2JDT1(120900009DUP)	120900009	Uranium (AEA)
204884	205221	2	SAMPLE	120900009	B2JDT1		Uranium (AEA)

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204884	205221	3	SAMPLE	120900010	B2JF32		Uranium (AEA)
204884	205221	4	SAMPLE	120900011	B2JDJ8		Uranium (AEA)
204884	205221	5	SAMPLE	120900012	B2JDR2		Uranium (AEA)
204884	205221	6	SAMPLE	120900013	B2JDR5		Uranium (AEA)
204884	205221	7	SAMPLE	120900014	B2JDP3		Uranium (AEA)
204884	205221	8	SAMPLE	120900015	B2JDP9		Uranium (AEA)
204884	205221	9	BLANK	78128	BLANK		Uranium (AEA)
204884	205221	10	LCS	78129	LCS		Uranium (AEA)
204915	205001	1	BLANK	78249	BLANK		Strontium 89/90 (GPC/GEA)
204915	205001	2	LCS	78250	LCS		Strontium 89/90 (GPC/GEA)
204915	205001	3	DUP	78251	B2JDH6(120894008DUP)	120894008	Strontium 89/90 (GPC/GEA)
204915	205001	10	SAMPLE	120900001	B2JDT7		Strontium 89/90 (GPC/GEA)
204916	205161	1	BLANK	78252	BLANK		Strontium 89/90 (GPC/GEA)
204916	205161	2	LCS	78253	LCS		Strontium 89/90 (GPC/GEA)
204916	205161	3	DUP	78254	B2JDT4(120900002DUP)	120900002	Strontium 89/90 (GPC/GEA)
204916	205161	4	SAMPLE	120900002	B2JDT4		Strontium 89/90 (GPC/GEA)
204916	205161	5	SAMPLE	120900003	B2JDH3		Strontium 89/90 (GPC/GEA)
204916	205161	6	SAMPLE	120900004	B2JDK4		Strontium 89/90 (GPC/GEA)
204916	205161	7	SAMPLE	120900005	B2JDJ5		Strontium 89/90 (GPC/GEA)
204916	205161	8	SAMPLE	120900006	B2JDV0		Strontium 89/90 (GPC/GEA)
204916	205161	9	SAMPLE	120900007	B2JDP0		Strontium 89/90 (GPC/GEA)
204916	205161	10	SAMPLE	120900008	B2JDR8		Strontium 89/90 (GPC/GEA)
204917	205003	1	BLANK	78255	BLANK		Strontium 89/90 (GPC/GEA)

Batch QC List

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Department Radiochemistry

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204917	205003	2	LCS	78256	LCS		Strontium 89/90 (GPC/GEA)
204917	205003	3	DUP	78257	B2JDT1(120900009DUP)	120900009	Strontium 89/90 (GPC/GEA)
204917	205003	4	SAMPLE	120900009	B2JDT1		Strontium 89/90 (GPC/GEA)
204917	205003	5	SAMPLE	120900010	B2JF32		Strontium 89/90 (GPC/GEA)
204917	205003	6	SAMPLE	120900011	B2JDJ8		Strontium 89/90 (GPC/GEA)
204917	205003	7	SAMPLE	120900012	B2JDR2		Strontium 89/90 (GPC/GEA)
204917	205003	8	SAMPLE	120900013	B2JDR5		Strontium 89/90 (GPC/GEA)
204917	205003	9	SAMPLE	120900014	B2JDP3		Strontium 89/90 (GPC/GEA)
204917	205003	10	SAMPLE	120900015	B2JDP9		Strontium 89/90 (GPC/GEA)
204918	205162	1	BLANK	78258	BLANK		Strontium 89/90 (GPC/GEA)
204918	205162	2	LCS	78259	LCS		Strontium 89/90 (GPC/GEA)
204918	205162	3	DUP	78260	B2JDV6(120900016DUP)	120900016	Strontium 89/90 (GPC/GEA)
204918	205162	4	SAMPLE	120900016	B2JDV6		Strontium 89/90 (GPC/GEA)
204918	205162	5	SAMPLE	120900017	B2JDK1		Strontium 89/90 (GPC/GEA)
204918	205162	6	SAMPLE	120900018	B2JF35		Strontium 89/90 (GPC/GEA)
204918	205162	7	SAMPLE	120900019	B2JF47		Strontium 89/90 (GPC/GEA)
204922	205249	1	BLANK	78267	BLANK		Plutonium (AEA)
204922	205249	2	LCS	78268	LCS		Plutonium (AEA)
204922	205249	3	SAMPLE	120900016	B2JDV6		Plutonium (AEA)
204922	205249	4	DUP	78269	B2JDV6(120900016DUP)	120900016	Plutonium (AEA)
204922	205249	5	SAMPLE	120900017	B2JDK1		Plutonium (AEA)
204922	205249	6	SAMPLE	120900018	B2JF35		Plutonium (AEA)
204922	205249	7	SAMPLE	120900019	B2JF47		Plutonium (AEA)

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204922	205250	1	BLANK	78267	BLANK		Americium/Curium (AEA)
204922	205250	2	LCS	78268	LCS		Americium/Curium (AEA)
204922	205250	3	SAMPLE	120900016	B2JDV6		Americium/Curium (AEA)
204922	205250	4	DUP	78269	B2JDV6(120900016DUP)	120900016	Americium/Curium (AEA)
204922	205250	5	SAMPLE	120900017	B2JDK1		Americium/Curium (AEA)
204922	205250	6	SAMPLE	120900018	B2JF35		Americium/Curium (AEA)
204922	205250	7	SAMPLE	120900019	B2JF47		Americium/Curium (AEA)
204922	205251	1	BLANK	78267	BLANK		Uranium (AEA)
204922	205251	2	LCS	78268	LCS		Uranium (AEA)
204922	205251	3	SAMPLE	120900016	B2JDV6		Uranium (AEA)
204922	205251	4	DUP	78269	B2JDV6(120900016DUP)	120900016	Uranium (AEA)
204922	205251	5	SAMPLE	120900017	B2JDK1		Uranium (AEA)
204922	205251	6	SAMPLE	120900018	B2JF35		Uranium (AEA)
204922	205251	7	SAMPLE	120900019	B2JF47		Uranium (AEA)

Quality Control Report

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Group # WSCF120900

Analytical Batch 204889 (QC Batch: 204857) **Test** Gamma Energy Analysis-general
Associated Samples 120900001, 120900002, 120900003, 120900004, 120900005, 120900006, 120900007

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
IBLANK			**QC Sample #78066**								
Cesium-137	10045-97-3		-0.025	pCi/g						U	07/18/12
Cobalt-60	10198-40-0		-0.012	pCi/g						U	07/18/12
Europium-152	14683-23-9		-0.014	pCi/g						U	07/18/12
Europium-154	15585-10-1		-0.015	pCi/g						U	07/18/12
Europium-155	14391-16-3		-0.035	pCi/g						U	07/18/12
LCS			**QC Sample #78067**								
Cesium-137	10045-97-3		6500	pCi/sample	107.7	80 - 120					07/18/12
Cobalt-60	10198-40-0		10000	pCi/sample	105.5	80 - 120					07/18/12
DUP			**QC Sample #78068**								
			Original 120900001								
Cesium-137	10045-97-3	4.6E-3	7.4E-3	pCi/g			46.20	30	*	U	07/18/12
Cobalt-60	10198-40-0	-1.1E-3	-4.2E-3	pCi/g			-115.40	30	*	U	07/18/12
Europium-152	14683-23-9	-7.4E-3	-2.3E-3	pCi/g			-104.20	30	*	U	07/18/12
Europium-154	15585-10-1	0.017	2.3E-3	pCi/g			152.30	30	*	U	07/18/12
Europium-155	14391-16-3	-3.5E-3	7.7E-3	pCi/g			531.70	30	*	U	07/18/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 204892 (QC Batch: 204858) **Test** Gamma Energy Analysis-general
Associated Samples 120900008, 120900009, 120900010, 120900011, 120900012, 120900013, 120900014

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
IBLANK			**QC Sample #78069**								
Cesium-137	10045-97-3		-0.015	pCi/g						U	07/18/12
Cobalt-60	10198-40-0		-0.0040	pCi/g						U	07/18/12
Europium-152	14683-23-9		-0.059	pCi/g						U	07/18/12
Europium-154	15585-10-1		8.3E-3	pCi/g						U	07/18/12
Europium-155	14391-16-3		0.011	pCi/g						U	07/18/12
LCS			**QC Sample #78070**								
Cesium-137	10045-97-3		6500	pCi/sample	108.4	80 - 120					07/19/12
Cobalt-60	10198-40-0		10000	pCi/sample	104.3	80 - 120					07/19/12
DUP			**QC Sample #78071**								
			Original 120900008								
Cesium-137	10045-97-3	0.013	0.010	pCi/g			18.20	30		U	07/18/12
Cobalt-60	10198-40-0	2.6E-3	-4.7E-5	pCi/g			207.50	30	*	U	07/18/12
Europium-152	14683-23-9	7.7E-3	-0.014	pCi/g			-661.50	30	*	U	07/18/12
Europium-154	15585-10-1	-0.023	9.3E-3	pCi/g			-476.90	30	*	U	07/18/12
Europium-155	14391-16-3	0.048	0.031	pCi/g			44.20	30	*	U	07/18/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 204893 (QC Batch: 204859) **Test** Gamma Energy Analysis-general
Associated Samples 120900015, 120900016, 120900017, 120900018, 120900019

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
IBLANK			**QC Sample #78072**								
Cesium-137	10045-97-3		-2.3E-3	pCi/g						U	07/18/12
Cobalt-60	10198-40-0		0.024	pCi/g						U	07/18/12
Europium-152	14683-23-9		5.8E-4	pCi/g						U	07/18/12
Europium-154	15585-10-1		0.016	pCi/g						U	07/18/12
Europium-155	14391-16-3		0.068	pCi/g						U	07/18/12
LCS			**QC Sample #78073**								
Cesium-137	10045-97-3		6300	pCi/sample	104.6	80 - 120					07/18/12
Cobalt-60	10198-40-0		10000	pCi/sample	102.8	80 - 120					07/18/12
DUP			**QC Sample #78074**								
			Original 120900015								
Cesium-137	10045-97-3	9.1E-3	8.3E-4	pCi/g			166.60	30	*	U	07/18/12
Cobalt-60	10198-40-0	1.2E-3	-3.6E-3	pCi/g			-383.30	30	*	U	07/18/12
Europium-152	14683-23-9	0.012	-0.038	pCi/g			-384.60	30	*	U	07/18/12
Europium-154	15585-10-1	-0.020	0.012	pCi/g			-885.70	30	*	U	07/18/12
Europium-155	14391-16-3	0.020	-0.012	pCi/g			800.00	30	*	U	07/18/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205001 (QC Batch: 204915)
Associated Samples 120900001

Test Strontium 89/90 (GPC/GEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78249**								
Strontium-89_90	SR-RAD		1.1E-3	pCi/g						U	07/26/12
LCS			**QC Sample #78250**								
Strontium-89_90	SR-RAD		21	pCi/g	101.2	80 - 120					07/26/12
DUP			**QC Sample #78251**								
			Original 120894008								
Strontium-89_90	SR-RAD		0.33	pCi/g			190.60	30	*	U	07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205003 (QC Batch: 204917) **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120900009, 120900010, 120900011, 120900012, 120900013, 120900014, 120900015

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78255**								
Strontium-89_90	SR-RAD		-4.8E-3	pCi/g						U	07/27/12
LCS			**QC Sample #78256**								
Strontium-89_90	SR-RAD		25	pCi/g	115.7	80 - 120					07/27/12
DUP			**QC Sample #78257**								
			Original 120900009								
Strontium-89_90	SR-RAD	0.17	0.12	pCi/g			42.90	30	*	U	07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205010 (QC Batch: 204882) **Test** Uranium (AEA)
Associated Samples 120900001

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78122**							
Uranium-234	U-233/234		0.034	pCi/g					X	07/24/12
Uranium-235	15117-96-1		0.017	pCi/g					U	07/24/12
Uranium-238	U-238		0.022	pCi/g					X	07/24/12
LCS			**QC Sample #78123**							
Uranium-234	U-233/234		33	pCi/sample	101.1	80 - 120				07/24/12
DUP			**QC Sample #78124**							
			Original 120894008							
Uranium-234	U-233/234		0.19	pCi/g			0.00	30		07/24/12
Uranium-235	15117-96-1		0.023	pCi/g			8.30	30		07/24/12
Uranium-238	U-238		0.20	pCi/g			5.10	30		07/24/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205150 (QC Batch: 204882) **Test** Plutonium (AEA)
Associated Samples 120900001

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78122**								
Plutonium-238	13981-16-3		-0.012	pCi/g						U	07/24/12
Plutonium-239_240	PU-239/240		0.017	pCi/g						U	07/24/12
LCS			**QC Sample #78123**								
Plutonium-239_240	PU-239/240		23	pCi/sample	99.7	80 - 120					07/24/12
DUP			**QC Sample #78124**								
			Original 120894008								
Plutonium-238	13981-16-3		0.014	pCi/g			102.70	30	*	U	07/24/12
Plutonium-239_240	PU-239/240		5.7E-3	pCi/g			63.50	30	*	U	07/24/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205152 (QC Batch: 204882)
Associated Samples 120900001

Test Americium/Curium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78122**								
Americium-241	14596-10-2		-7.7E-3	pCi/g						U	07/24/12
LCS			**QC Sample #78123**								
Americium-241	14596-10-2		22	pCi/sample	101.3	80 - 120					07/24/12
DUP			**QC Sample #78124**								
			Original 120894008								
Americium-241	14596-10-2		0.011	pCi/g			62.50	30	*	U	07/24/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205161 (QC Batch: 204916) **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120900002, 120900003, 120900004, 120900005, 120900006, 120900007, 120900008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78252**								
Strontium-89_90	SR-RAD		-0.12	pCi/g						U	07/27/12
LCS			**QC Sample #78253**								
Strontium-89_90	SR-RAD		18	pCi/g	81.5	80 - 120					07/27/12
DUP			**QC Sample #78254**								
			Original 120900002								
Strontium-89_90	SR-RAD	0.035	0.18	pCi/g			136.40	30	*	U	07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205162 (QC Batch: 204918)
Associated Samples 120900016, 120900017, 120900018, 120900019

Test Strontium 89/90 (GPC/GEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78258**								
Strontium-89_90	SR-RAD		0.052	pCi/g						U	07/27/12
LCS			**QC Sample #78259**								
Strontium-89_90	SR-RAD		24	pCi/g	113.8	80 - 120					07/27/12
DUP			**QC Sample #78260**								
			Original 120900016								
Strontium-89_90	SR-RAD	0.079	0.43	pCi/g			138.00	30	*	U	07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205187 (QC Batch: 204883) **Test** Uranium (AEA)
Associated Samples 120900002, 120900003, 120900004, 120900005, 120900006, 120900007, 120900008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78125**								
Uranium-234	U-233/234		7.4E-3	pCi/g						X	07/25/12
Uranium-235	15117-96-1		1.8E-3	pCi/g						U	07/25/12
Uranium-238	U-238		2.9E-3	pCi/g						U	07/25/12
LCS			**QC Sample #78126**								
Uranium-234	U-233/234		36	pCi/sample	110.5	80 - 120					07/25/12
DUP			**QC Sample #78127**								
			Original 120900002								
Uranium-234	U-233/234	0.18	0.13	pCi/g			26.70	30			07/25/12
Uranium-235	15117-96-1	7.9E-3	0.016	pCi/g			68.90	30	*	X	07/25/12
Uranium-238	U-238	0.19	0.18	pCi/g			5.40	30			07/25/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205188 (QC Batch: 204883) **Test** Plutonium (AEA)
Associated Samples 120900002, 120900003, 120900004, 120900005, 120900006, 120900007, 120900008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78125**								
Plutonium-238	13981-16-3		-8.4E-3	pCi/g						U	07/25/12
Plutonium-239_240	PU-239/240		8.4E-3	pCi/g							07/25/12
LCS			**QC Sample #78126**								
Plutonium-239_240	PU-239/240		22	pCi/sample	93.1	80 - 120					07/25/12
DUP			**QC Sample #78127**								
			Original 120900002								
Plutonium-238	13981-16-3	0.019	8.4E-3	pCi/g			77.40	30	*	U	07/25/12
Plutonium-239_240	PU-239/240	8.4E-3	4.2E-3	pCi/g			65.60	30	*	U	07/25/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205189 (QC Batch: 204883) **Test** Americium/Curium (AEA)
Associated Samples 120900002, 120900003, 120900004, 120900005, 120900006, 120900007, 120900008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78125**							
Americium-241	14596-10-2		-1.6E-6	pCi/g					U	07/25/12
LCS			**QC Sample #78126**							
Americium-241	14596-10-2		23	pCi/sample	101.7	80 - 120				07/25/12
DUP			**QC Sample #78127**							
			Original 120900002							
Americium-241	14596-10-2	0.022	0.020	pCi/g			9.50	30	U	07/25/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205219 (QC Batch: 204884) **Test** Americium/Curium (AEA)
Associated Samples 120900009, 120900010, 120900011, 120900012, 120900013, 120900014, 120900015

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78128**								
Americium-241	14596-10-2		-2.5E-3	pCi/g						U	07/26/12
LCS			**QC Sample #78129**								
Americium-241	14596-10-2		23	pCi/sample	104	80 - 120					07/26/12
DUP			**QC Sample #78130**								
			Original 120900009								
Americium-241	14596-10-2	0.016	0.024	pCi/g			46.20	30	*	X	07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205220 (QC Batch: 204884) **Test** Plutonium (AEA)
Associated Samples 120900009, 120900010, 120900011, 120900012, 120900013, 120900014, 120900015

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78128**								
Plutonium-238	13981-16-3		-0.0040	pCi/g						U	07/26/12
Plutonium-239_240	PU-239/240		5.9E-3	pCi/g						X	07/26/12
LCS			**QC Sample #78129**								
Plutonium-239_240	PU-239/240		24	pCi/sample	103.1	80 - 120					07/26/12
DUP			**QC Sample #78130**								
			Original 120900009								
Plutonium-238	13981-16-3	-0.0020	8.3E-3	pCi/g			318.80	30	*	U	07/26/12
Plutonium-239_240	PU-239/240	0.012	0.015	pCi/g			22.20	30			07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205221 (QC Batch: 204884) **Test** Uranium (AEA)
Associated Samples 120900009, 120900010, 120900011, 120900012, 120900013, 120900014, 120900015

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78128**							
Uranium-234	U-233/234		0.018	pCi/g					X	07/26/12
Uranium-235	15117-96-1		0.0	pCi/g					U	07/26/12
Uranium-238	U-238		0.0080	pCi/g					U	07/26/12
LCS			**QC Sample #78129**							
Uranium-234	U-233/234		36	pCi/sample	110.6	80 - 120				07/26/12
DUP			**QC Sample #78130**							
			Original 120900009							
Uranium-234	U-233/234	0.16	0.16	pCi/g			0.00	30		07/26/12
Uranium-235	15117-96-1	7.7E-3	9.1E-3	pCi/g			19.30	30		07/26/12
Uranium-238	U-238	0.17	0.15	pCi/g			6.50	30		07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205249 (QC Batch: 204922) **Test** Plutonium (AEA)
Associated Samples 120900016, 120900017, 120900018, 120900019

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78267**								
Plutonium-238	13981-16-3		-0.010	pCi/g						U	07/27/12
Plutonium-239_240	PU-239/240		0.013	pCi/g						X	07/27/12
LCS			**QC Sample #78268**								
Plutonium-239_240	PU-239/240		23	pCi/sample	100.4	80 - 120					07/27/12
DUP			**QC Sample #78269**								
			Original 120900016								
Plutonium-238	13981-16-3	4.2E-3	2.7E-3	pCi/g			41.20	30	*	U	07/27/12
Plutonium-239_240	PU-239/240	8.5E-3	0.019	pCi/g			78.40	30	*	X	07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205250 (QC Batch: 204922)
Associated Samples 120900016, 120900017, 120900018, 120900019

Test Americium/Curium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78267**								
Americium-241	14596-10-2		5.3E-3	pCi/g						U	07/27/12
LCS			**QC Sample #78268**								
Americium-241	14596-10-2		23	pCi/sample	104.3	80 - 120					07/27/12
DUP			**QC Sample #78269**								
			Original 120900016								
Americium-241	14596-10-2	0.013	0.030	pCi/g			85.70	30	*	X	07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205251 (QC Batch: 204922) **Test** Uranium (AEA)
Associated Samples 120900016, 120900017, 120900018, 120900019

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78267**								
Uranium-234	U-233/234		0.022	pCi/g						U	07/27/12
Uranium-235	15117-96-1		9.5E-3	pCi/g						U	07/27/12
Uranium-238	U-238		0.015	pCi/g						U	07/27/12
LCS			**QC Sample #78268**								
Uranium-234	U-233/234		37	pCi/sample	112.5	80 - 120					07/27/12
DUP			**QC Sample #78269**								
			Original 120900016								
Uranium-234	U-233/234	0.15	0.13	pCi/g			14.30	30			07/27/12
Uranium-235	15117-96-1	0.030	0.0010	pCi/g			186.70	30	*	U	07/27/12
Uranium-238	U-238	0.18	0.15	pCi/g			12.50	30			07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205001 (QC Batch: 204915)
Associated Samples 120900001

Test Strontium 89/90 (GPC/GEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900001**							
Strontium-85	13967-73-2			pCi/sample	60.6	25 - 105				07/26/12
BLANK			**QC Sample #78249**							
Strontium-85	13967-73-2			pCi/sample	69.2	25 - 105				07/26/12
LCS			**QC Sample #78250**							
Strontium-85	13967-73-2			pCi/sample	73	25 - 105				07/26/12
DUP			**QC Sample #78251**							
			Original 120894008							
Strontium-85	13967-73-2			pCi/sample	60.2	25 - 105	n/a			07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205003 (QC Batch: 204917) **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120900009, 120900010, 120900011, 120900012, 120900013, 120900014, 120900015

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900009**							
Strontium-85	13967-73-2			pCi/sample	60.1	25 - 105				07/27/12
SAMPLE			**Sample #120900010**							
Strontium-85	13967-73-2			pCi/sample	63.2	25 - 105				07/27/12
SAMPLE			**Sample #120900011**							
Strontium-85	13967-73-2			pCi/sample	71.6	25 - 105				07/27/12
SAMPLE			**Sample #120900012**							
Strontium-85	13967-73-2			pCi/sample	66.8	25 - 105				07/27/12
SAMPLE			**Sample #120900013**							
Strontium-85	13967-73-2			pCi/sample	60.8	25 - 105				07/27/12
SAMPLE			**Sample #120900014**							
Strontium-85	13967-73-2			pCi/sample	59.4	25 - 105				07/27/12
SAMPLE			**Sample #120900015**							
Strontium-85	13967-73-2			pCi/sample	53.8	25 - 105				07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

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Department Radiochemistry

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78255**							
Strontium-85	13967-73-2			pCi/sample	69.4	25 - 105				07/27/12
LCS			**QC Sample #78256**							
Strontium-85	13967-73-2			pCi/sample	68.4	25 - 105				07/27/12
DUP			**QC Sample #78257**							
			Original 120900009							
Strontium-85	13967-73-2	26		pCi/sample	68.6	25 - 105	n/a			07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205010 (QC Batch: 204882)
Associated Samples 120900001

Test Uranium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900001**							
Uranium-232 Tracer	14158-29-3				81.3	25 - 105				07/24/12
BLANK			**QC Sample #78122**							
Uranium-232 Tracer	14158-29-3				66.2	25 - 105				07/24/12
LCS			**QC Sample #78123**							
Uranium-232 Tracer	14158-29-3				61.7	25 - 105				07/24/12
DUP			**QC Sample #78124**							
			Original 120894008							
Uranium-232 Tracer	14158-29-3				70.3	25 - 105	n/a			07/24/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205150 (QC Batch: 204882)
Associated Samples 120900001

Test Plutonium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900001**							
Plutonium-242 Tracer	13982-10-0				71.3	25 - 105				07/24/12
BLANK			**QC Sample #78122**							
Plutonium-242 Tracer	13982-10-0				57.2	25 - 105				07/24/12
LCS			**QC Sample #78123**							
Plutonium-242 Tracer	13982-10-0				70.7	25 - 105				07/24/12
DUP			**QC Sample #78124**							
			Original 120894008							
Plutonium-242 Tracer	13982-10-0				57	25 - 105	n/a			07/24/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205152 (QC Batch: 204882)
Associated Samples 120900001

Test Americium/Curium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900001**							
Americium-243 Tracer	14993-75-0				88.1	25 - 105				07/24/12
BLANK			**QC Sample #78122**							
Americium-243 Tracer	14993-75-0				62.9	25 - 105				07/24/12
LCS			**QC Sample #78123**							
Americium-243 Tracer	14993-75-0				81.9	25 - 105				07/24/12
DUP			**QC Sample #78124**							
			Original 120894008							
Americium-243 Tracer	14993-75-0				81.6	25 - 105	n/a			07/24/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205161 (QC Batch: 204916) **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120900002, 120900003, 120900004, 120900005, 120900006, 120900007, 120900008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900002**							
Strontium-85	13967-73-2			pCi/sample	75.2	25 - 105				07/27/12
SAMPLE			**Sample #120900003**							
Strontium-85	13967-73-2			pCi/sample	75.2	25 - 105				07/27/12
SAMPLE			**Sample #120900004**							
Strontium-85	13967-73-2			pCi/sample	69.4	25 - 105				07/27/12
SAMPLE			**Sample #120900005**							
Strontium-85	13967-73-2			pCi/sample	77.7	25 - 105				07/27/12
SAMPLE			**Sample #120900006**							
Strontium-85	13967-73-2			pCi/sample	75.2	25 - 105				07/27/12
SAMPLE			**Sample #120900007**							
Strontium-85	13967-73-2			pCi/sample	73.6	25 - 105				07/27/12
SAMPLE			**Sample #120900008**							
Strontium-85	13967-73-2			pCi/sample	74.4	25 - 105				07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78252**							
Strontium-85	13967-73-2			pCi/sample	76.9	25 - 105				07/27/12
LCS			**QC Sample #78253**							
Strontium-85	13967-73-2			pCi/sample	101.7	25 - 105				07/27/12
DUP			**QC Sample #78254**							
			Original 120900002							
Strontium-85	13967-73-2	25		pCi/sample	72.7	25 - 105	n/a			07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205162 (QC Batch: 204918)
Associated Samples 120900016, 120900017, 120900018, 120900019

Test Strontium 89/90 (GPC/GEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900016**							
Strontium-85	13967-73-2			pCi/sample	58.6	25 - 105				07/27/12
SAMPLE			**Sample #120900017**							
Strontium-85	13967-73-2			pCi/sample	64.9	25 - 105				07/27/12
SAMPLE			**Sample #120900018**							
Strontium-85	13967-73-2			pCi/sample	43.5	25 - 105				07/27/12
SAMPLE			**Sample #120900019**							
Strontium-85	13967-73-2			pCi/sample	58.6	25 - 105				07/27/12
BLANK			**QC Sample #78258**							
Strontium-85	13967-73-2			pCi/sample	70	25 - 105				07/27/12
LCS			**QC Sample #78259**							
Strontium-85	13967-73-2			pCi/sample	71.1	25 - 105				07/27/12
DUP			**QC Sample #78260**							
			Original 120900016							
Strontium-85	13967-73-2	25		pCi/sample	34.7	25 - 105	n/a			07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205187 (QC Batch: 204883) **Test** Uranium (AEA)
Associated Samples 120900002, 120900003, 120900004, 120900005, 120900006, 120900007, 120900008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900002**							
Uranium-232 Tracer	14158-29-3				87.5	25 - 105				07/25/12
SAMPLE			**Sample #120900003**							
Uranium-232 Tracer	14158-29-3				82.9	25 - 105				07/25/12
SAMPLE			**Sample #120900005**							
Uranium-232 Tracer	14158-29-3				92.8	25 - 105				07/25/12
SAMPLE			**Sample #120900006**							
Uranium-232 Tracer	14158-29-3				91.7	25 - 105				07/25/12
SAMPLE			**Sample #120900007**							
Uranium-232 Tracer	14158-29-3				80	25 - 105				07/25/12
SAMPLE			**Sample #120900008**							
Uranium-232 Tracer	14158-29-3				84.2	25 - 105				07/25/12
BLANK			**QC Sample #78125**							
Uranium-232 Tracer	14158-29-3				80.6	25 - 105				07/25/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #78126**							
Uranium-232 Tracer	14158-29-3				64.4	25 - 105				07/25/12
DUP			**QC Sample #78127**							
			Original 120900002							
Uranium-232 Tracer	14158-29-3				83.4	25 - 105	n/a			07/25/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205188 (QC Batch: 204883) **Test** Plutonium (AEA)
Associated Samples 120900002, 120900003, 120900004, 120900005, 120900006, 120900007, 120900008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900002**							
Plutonium-242 Tracer	13982-10-0				86.4	25 - 105				07/25/12
SAMPLE			**Sample #120900003**							
Plutonium-242 Tracer	13982-10-0				72.2	25 - 105				07/25/12
SAMPLE			**Sample #120900004**							
Plutonium-242 Tracer	13982-10-0				80.5	25 - 105				07/25/12
SAMPLE			**Sample #120900005**							
Plutonium-242 Tracer	13982-10-0				75.3	25 - 105				07/25/12
SAMPLE			**Sample #120900006**							
Plutonium-242 Tracer	13982-10-0				78.7	25 - 105				07/25/12
SAMPLE			**Sample #120900007**							
Plutonium-242 Tracer	13982-10-0				80.2	25 - 105				07/25/12
SAMPLE			**Sample #120900008**							
Plutonium-242 Tracer	13982-10-0				84.3	25 - 105				07/25/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78125**							
Plutonium-242 Tracer	13982-10-0				88.5	25 - 105				07/25/12
LCS			**QC Sample #78126**							
Plutonium-242 Tracer	13982-10-0				82.8	25 - 105				07/25/12
DUP			**QC Sample #78127**							
			Original 120900002							
Plutonium-242 Tracer	13982-10-0				78.8	25 - 105	n/a			07/25/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205189 (QC Batch: 204883) **Test** Americium/Curium (AEA)
Associated Samples 120900002, 120900003, 120900004, 120900005, 120900006, 120900007, 120900008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900002**							
Americium-243 Tracer	14993-75-0				90.3	25 - 105				07/25/12
SAMPLE			**Sample #120900003**							
Americium-243 Tracer	14993-75-0				81.9	25 - 105				07/25/12
SAMPLE			**Sample #120900004**							
Americium-243 Tracer	14993-75-0				98.2	25 - 105				07/25/12
SAMPLE			**Sample #120900005**							
Americium-243 Tracer	14993-75-0				83.1	25 - 105				07/25/12
SAMPLE			**Sample #120900006**							
Americium-243 Tracer	14993-75-0				83	25 - 105				07/25/12
SAMPLE			**Sample #120900007**							
Americium-243 Tracer	14993-75-0				94.4	25 - 105				07/25/12
SAMPLE			**Sample #120900008**							
Americium-243 Tracer	14993-75-0				89.3	25 - 105				07/25/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78125**							
Americium-243 Tracer	14993-75-0				82.7	25 - 105				07/25/12
LCS			**QC Sample #78126**							
Americium-243 Tracer	14993-75-0				92.8	25 - 105				07/25/12
DUP			**QC Sample #78127**							
			Original 120900002							
Americium-243 Tracer	14993-75-0				88.4	25 - 105	n/a			07/25/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205219 (QC Batch: 204884) **Test** Americium/Curium (AEA)
Associated Samples 120900009, 120900010, 120900011, 120900012, 120900013, 120900014, 120900015

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900009**							
Americium-243 Tracer	14993-75-0				96.2	25 - 105				07/26/12
SAMPLE			**Sample #120900010**							
Americium-243 Tracer	14993-75-0				92.3	25 - 105				07/26/12
SAMPLE			**Sample #120900011**							
Americium-243 Tracer	14993-75-0				107.2	25 - 105			X	07/26/12
SAMPLE			**Sample #120900012**							
Americium-243 Tracer	14993-75-0				92.2	25 - 105				07/26/12
SAMPLE			**Sample #120900013**							
Americium-243 Tracer	14993-75-0				88.4	25 - 105				07/26/12
SAMPLE			**Sample #120900014**							
Americium-243 Tracer	14993-75-0				87.4	25 - 105				07/26/12
SAMPLE			**Sample #120900015**							
Americium-243 Tracer	14993-75-0				85.3	25 - 105				07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78128**							
Americium-243 Tracer	14993-75-0				59.5	25 - 105				07/26/12
LCS			**QC Sample #78129**							
Americium-243 Tracer	14993-75-0				74.8	25 - 105				07/26/12
DUP			**QC Sample #78130**							
			Original 120900009							
Americium-243 Tracer	14993-75-0				93.8	25 - 105	n/a			07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205220 (QC Batch: 204884) **Test** Plutonium (AEA)
Associated Samples 120900009, 120900010, 120900011, 120900012, 120900013, 120900014, 120900015

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900009**							
Plutonium-242 Tracer	13982-10-0				89.4	25 - 105				07/26/12
SAMPLE			**Sample #120900010**							
Plutonium-242 Tracer	13982-10-0				69.6	25 - 105				07/26/12
SAMPLE			**Sample #120900011**							
Plutonium-242 Tracer	13982-10-0				78.2	25 - 105				07/26/12
SAMPLE			**Sample #120900012**							
Plutonium-242 Tracer	13982-10-0				83.2	25 - 105				07/26/12
SAMPLE			**Sample #120900013**							
Plutonium-242 Tracer	13982-10-0				77.8	25 - 105				07/26/12
SAMPLE			**Sample #120900014**							
Plutonium-242 Tracer	13982-10-0				83.1	25 - 105				07/26/12
SAMPLE			**Sample #120900015**							
Plutonium-242 Tracer	13982-10-0				79.3	25 - 105				07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78128**							
Plutonium-242 Tracer	13982-10-0				75.3	25 - 105				07/26/12
LCS			**QC Sample #78129**							
Plutonium-242 Tracer	13982-10-0				70.5	25 - 105				07/26/12
DUP			**QC Sample #78130**							
			Original 120900009							
Plutonium-242 Tracer	13982-10-0				77.4	25 - 105	n/a			07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205221 (QC Batch: 204884) **Test** Uranium (AEA)
Associated Samples 120900009, 120900010, 120900011, 120900012, 120900013, 120900014, 120900015

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900009**							
Uranium-232 Tracer	14158-29-3				87.8	25 - 105				07/26/12
SAMPLE			**Sample #120900010**							
Uranium-232 Tracer	14158-29-3				84.5	25 - 105				07/26/12
SAMPLE			**Sample #120900011**							
Uranium-232 Tracer	14158-29-3				79	25 - 105				07/26/12
SAMPLE			**Sample #120900012**							
Uranium-232 Tracer	14158-29-3				82.5	25 - 105				07/26/12
SAMPLE			**Sample #120900013**							
Uranium-232 Tracer	14158-29-3				77.3	25 - 105				07/26/12
SAMPLE			**Sample #120900014**							
Uranium-232 Tracer	14158-29-3				78.8	25 - 105				07/26/12
SAMPLE			**Sample #120900015**							
Uranium-232 Tracer	14158-29-3				83.2	25 - 105				07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78128**							
Uranium-232 Tracer	14158-29-3				74.3	25 - 105				07/26/12
LCS			**QC Sample #78129**							
Uranium-232 Tracer	14158-29-3				54.5	25 - 105				07/26/12
DUP			**QC Sample #78130**							
			Original 120900009							
Uranium-232 Tracer	14158-29-3				86.5	25 - 105	n/a			07/26/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205249 (QC Batch: 204922)
Associated Samples 120900016, 120900017, 120900018, 120900019

Test Plutonium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900016**							
Plutonium-242 Tracer	13982-10-0				85.1	25 - 105				07/27/12
SAMPLE			**Sample #120900017**							
Plutonium-242 Tracer	13982-10-0				75.8	25 - 105				07/27/12
SAMPLE			**Sample #120900018**							
Plutonium-242 Tracer	13982-10-0				75.6	25 - 105				07/27/12
SAMPLE			**Sample #120900019**							
Plutonium-242 Tracer	13982-10-0				88.7	25 - 105				07/27/12
BLANK			**QC Sample #78267**							
Plutonium-242 Tracer	13982-10-0				86.7	25 - 105				07/27/12
LCS			**QC Sample #78268**							
Plutonium-242 Tracer	13982-10-0				84.1	25 - 105				07/27/12
DUP			**QC Sample #78269**							
			Original 120900016							
Plutonium-242 Tracer	13982-10-0				61.7	25 - 105	n/a			07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205250 (QC Batch: 204922)
Associated Samples 120900016, 120900017, 120900018, 120900019

Test Americium/Curium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900016**							
Americium-243 Tracer	14993-75-0				90.8	25 - 105				07/27/12
SAMPLE			**Sample #120900017**							
Americium-243 Tracer	14993-75-0				88.6	25 - 105				07/27/12
SAMPLE			**Sample #120900018**							
Americium-243 Tracer	14993-75-0				86.5	25 - 105				07/27/12
SAMPLE			**Sample #120900019**							
Americium-243 Tracer	14993-75-0				90.3	25 - 105				07/27/12
BLANK			**QC Sample #78267**							
Americium-243 Tracer	14993-75-0				87.3	25 - 105				07/27/12
LCS			**QC Sample #78268**							
Americium-243 Tracer	14993-75-0				89	25 - 105				07/27/12
DUP			**QC Sample #78269**							
			Original 120900016							
Americium-243 Tracer	14993-75-0				94.5	25 - 105	n/a			07/27/12

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120900

Analytical Batch 205251 (QC Batch: 204922)
Associated Samples 120900016, 120900017, 120900018, 120900019

Test Uranium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120900016**							
Uranium-232 Tracer	14158-29-3				94.1	25 - 105				07/27/12
SAMPLE			**Sample #120900017**							
Uranium-232 Tracer	14158-29-3				82.6	25 - 105				07/27/12
SAMPLE			**Sample #120900018**							
Uranium-232 Tracer	14158-29-3				83.9	25 - 105				07/27/12
SAMPLE			**Sample #120900019**							
Uranium-232 Tracer	14158-29-3				99.2	25 - 105				07/27/12
BLANK			**QC Sample #78267**							
Uranium-232 Tracer	14158-29-3				84.7	25 - 105				07/27/12
LCS			**QC Sample #78268**							
Uranium-232 Tracer	14158-29-3				59.7	25 - 105				07/27/12
DUP			**QC Sample #78269**							
			Original 120900016							
Uranium-232 Tracer	14158-29-3				92.6	25 - 105	n/a			07/27/12

* - QC result out of range n/a - Not Applicable

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204924	204995	1	IBLANK	78275	IBLANK		Gamma Energy Analysis-general
204924	204995	2	LCS	78276	LCS		Gamma Energy Analysis-general
204924	204995	3	DUP	78277	B2JDL0(120922001DUP)	120922001	Gamma Energy Analysis-general
204924	204995	4	SAMPLE	120922001	B2JDL0		Gamma Energy Analysis-general
204924	204995	5	SAMPLE	120922002	B2JDL3		Gamma Energy Analysis-general
204924	204995	6	SAMPLE	120922003	B2JDL6		Gamma Energy Analysis-general
204924	204995	7	SAMPLE	120922004	B2JDL9		Gamma Energy Analysis-general
204924	204995	8	SAMPLE	120922005	B2JDM2		Gamma Energy Analysis-general
204925	204997	1	IBLANK	78278	IBLANK		Gamma Energy Analysis-general
204925	204997	2	LCS	78279	LCS		Gamma Energy Analysis-general
204925	204997	3	DUP	78280	B2JDM5(120922006DUP)	120922006	Gamma Energy Analysis-general
204925	204997	4	SAMPLE	120922006	B2JDM5		Gamma Energy Analysis-general
204925	204997	5	SAMPLE	120922007	B2JF44		Gamma Energy Analysis-general
204925	204997	6	SAMPLE	120922008	B2JDJ2		Gamma Energy Analysis-general
204925	204997	7	SAMPLE	120922009	B2JDK7		Gamma Energy Analysis-general
204938	205252	1	BLANK	78325	BLANK		Americium/Curium (AEA)
204938	205252	2	LCS	78326	LCS		Americium/Curium (AEA)
204938	205252	3	SAMPLE	120922001	B2JDL0		Americium/Curium (AEA)
204938	205252	4	DUP	78327	B2JDL0(120922001DUP)	120922001	Americium/Curium (AEA)
204938	205252	5	SAMPLE	120922002	B2JDL3		Americium/Curium (AEA)
204938	205252	6	SAMPLE	120922003	B2JDL6		Americium/Curium (AEA)
204938	205252	7	SAMPLE	120922004	B2JDL9		Americium/Curium (AEA)
204938	205252	8	SAMPLE	120922005	B2JDM2		Americium/Curium (AEA)

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF120922

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204938	205252	9	SAMPLE	120922006	B2JDM5		Americium/Curium (AEA)
204938	205252	10	SAMPLE	120922007	B2JF44		Americium/Curium (AEA)
204938	205252	11	SAMPLE	120922008	B2JDJ2		Americium/Curium (AEA)
204938	205252	12	SAMPLE	120922009	B2JDK7		Americium/Curium (AEA)
204938	205253	1	BLANK	78325	BLANK		Plutonium (AEA)
204938	205253	2	LCS	78326	LCS		Plutonium (AEA)
204938	205253	3	SAMPLE	120922001	B2JDL0		Plutonium (AEA)
204938	205253	4	DUP	78327	B2JDL0(120922001DUP)	120922001	Plutonium (AEA)
204938	205253	5	SAMPLE	120922002	B2JDL3		Plutonium (AEA)
204938	205253	6	SAMPLE	120922003	B2JDL6		Plutonium (AEA)
204938	205253	7	SAMPLE	120922004	B2JDL9		Plutonium (AEA)
204938	205253	8	SAMPLE	120922005	B2JDM2		Plutonium (AEA)
204938	205253	9	SAMPLE	120922006	B2JDM5		Plutonium (AEA)
204938	205253	10	SAMPLE	120922007	B2JF44		Plutonium (AEA)
204938	205253	11	SAMPLE	120922008	B2JDJ2		Plutonium (AEA)
204938	205253	12	SAMPLE	120922009	B2JDK7		Plutonium (AEA)
204938	205254	1	BLANK	78325	BLANK		Uranium (AEA)
204938	205254	2	LCS	78326	LCS		Uranium (AEA)
204938	205254	3	SAMPLE	120922001	B2JDL0		Uranium (AEA)
204938	205254	4	DUP	78327	B2JDL0(120922001DUP)	120922001	Uranium (AEA)
204938	205254	5	SAMPLE	120922002	B2JDL3		Uranium (AEA)
204938	205254	6	SAMPLE	120922003	B2JDL6		Uranium (AEA)
204938	205254	7	SAMPLE	120922004	B2JDL9		Uranium (AEA)

Batch QC List

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Group # WSCF120922

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
204938	205254	8	SAMPLE	120922005	B2JDM2		Uranium (AEA)
204938	205254	9	SAMPLE	120922006	B2JDM5		Uranium (AEA)
204938	205254	10	SAMPLE	120922007	B2JF44		Uranium (AEA)
204938	205254	11	SAMPLE	120922008	B2JDJ2		Uranium (AEA)
204938	205254	12	SAMPLE	120922009	B2JDK7		Uranium (AEA)
204965	205005	1	BLANK	78386	BLANK		Strontium 89/90 (GPC/GEA)
204965	205005	2	LCS	78387	LCS		Strontium 89/90 (GPC/GEA)
204965	205005	3	DUP	78388	B2JDL0(120922001DUP)	120922001	Strontium 89/90 (GPC/GEA)
204965	205005	4	SAMPLE	120922001	B2JDL0		Strontium 89/90 (GPC/GEA)
204965	205005	5	SAMPLE	120922002	B2JDL3		Strontium 89/90 (GPC/GEA)
204965	205005	6	SAMPLE	120922003	B2JDL6		Strontium 89/90 (GPC/GEA)
204965	205005	7	SAMPLE	120922004	B2JDL9		Strontium 89/90 (GPC/GEA)
204965	205005	8	SAMPLE	120922005	B2JDM2		Strontium 89/90 (GPC/GEA)
204965	205005	9	SAMPLE	120922006	B2JDM5		Strontium 89/90 (GPC/GEA)
204965	205005	10	SAMPLE	120922007	B2JF44		Strontium 89/90 (GPC/GEA)
204965	205005	11	SAMPLE	120922008	B2JDJ2		Strontium 89/90 (GPC/GEA)
204965	205005	12	SAMPLE	120922009	B2JDK7		Strontium 89/90 (GPC/GEA)

Quality Control Report

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Group # WSCF120922

Analytical Batch 204995 (QC Batch: 204924) **Test** Gamma Energy Analysis-general
Associated Samples 120922001, 120922002, 120922003, 120922004, 120922005

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
IBLANK			**QC Sample #78275**								
Cesium-137	10045-97-3		-0.013	pCi/g						U	07/23/12
Cobalt-60	10198-40-0		-0.0020	pCi/g						U	07/23/12
Europium-152	14683-23-9		0.028	pCi/g						U	07/23/12
Europium-154	15585-10-1		-0.032	pCi/g						U	07/23/12
Europium-155	14391-16-3		0.031	pCi/g						U	07/23/12
LCS			**QC Sample #78276**								
Cesium-137	10045-97-3		6500	pCi/sample	107.4	80 - 120					07/23/12
Cobalt-60	10198-40-0		11000	pCi/sample	106.2	80 - 120					07/23/12
DUP			**QC Sample #78277**								
			Original 120922001								
Cesium-137	10045-97-3	4.6E-3	-3.7E-3	pCi/g			1800.00	30	*	U	07/23/12
Cobalt-60	10198-40-0	1.8E-3	5.4E-3	pCi/g			101.40	30	*	U	07/23/12
Europium-152	14683-23-9	7.1E-3	1.8E-4	pCi/g			190.40	30	*	U	07/23/12
Europium-154	15585-10-1	0.028	0.017	pCi/g			54.50	30	*	U	07/23/12
Europium-155	14391-16-3	0.036	0.081	pCi/g			77.20	30	*	U	07/23/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120922

Analytical Batch 204997 (QC Batch: 204925) **Test** Gamma Energy Analysis-general
Associated Samples 120922006, 120922007, 120922008, 120922009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
IBLANK			**QC Sample #78278**								
Cesium-137	10045-97-3		1.8E-3	pCi/g						U	07/23/12
Cobalt-60	10198-40-0		-2.7E-3	pCi/g						U	07/23/12
Europium-152	14683-23-9		-0.030	pCi/g						U	07/23/12
Europium-154	15585-10-1		-0.036	pCi/g						U	07/23/12
Europium-155	14391-16-3		-0.0010	pCi/g						U	07/23/12
LCS			**QC Sample #78279**								
Cesium-137	10045-97-3		6400	pCi/sample	105.6	80 - 120					07/23/12
Cobalt-60	10198-40-0		10000	pCi/sample	103	80 - 120					07/23/12
DUP			**QC Sample #78280**								
			Original 120922006								
Cesium-137	10045-97-3	0.015	0.014	pCi/g			7.40	30		U	07/23/12
Cobalt-60	10198-40-0	-2.9E-3	-9.1E-3	pCi/g			-102.60	30	*	U	07/23/12
Europium-152	14683-23-9	4.4E-3	0.023	pCi/g			135.90	30	*	U	07/23/12
Europium-154	15585-10-1	6.8E-3	0.019	pCi/g			92.70	30	*	U	07/23/12
Europium-155	14391-16-3	7.5E-3	-0.022	pCi/g			-404.30	30	*	U	07/23/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120922

Analytical Batch 205005 (QC Batch: 204965) **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120922001, 120922002, 120922003, 120922004, 120922005, 120922006, 120922007, 120922008, 120922009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78386**								
Strontium-89_90	SR-RAD		-0.19	pCi/g						U	07/27/12
LCS			**QC Sample #78387**								
Strontium-89_90	SR-RAD		25	pCi/g	116.4	80 - 120					07/27/12
DUP			**QC Sample #78388**								
			Original 120922001								
Strontium-89_90	SR-RAD	-0.13	0.33	pCi/g			440.00	30	*	U	07/27/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120922

Analytical Batch 205252 (QC Batch: 204938) **Test** Americium/Curium (AEA)
Associated Samples 120922001, 120922002, 120922003, 120922004, 120922005, 120922006, 120922007, 120922008, 120922009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #78325**							
Americium-241	14596-10-2		0.024	pCi/g					X	07/30/12
LCS			**QC Sample #78326**							
Americium-241	14596-10-2		23	pCi/sample	103.7	80 - 120				07/30/12
DUP			**QC Sample #78327**							
			Original 120922001							
Americium-241	14596-10-2	0.017	0.016	pCi/g			0.00	30	U	07/30/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120922

Analytical Batch 205253 (QC Batch: 204938) **Test** Plutonium (AEA)
Associated Samples 120922001, 120922002, 120922003, 120922004, 120922005, 120922006, 120922007, 120922008, 120922009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78325**								
Plutonium-238	13981-16-3		-0.015	pCi/g						U	07/29/12
Plutonium-239_240	PU-239/240		0.015	pCi/g						U	07/29/12
LCS			**QC Sample #78326**								
Plutonium-239_240	PU-239/240		22	pCi/sample	96.2	80 - 120					07/29/12
DUP			**QC Sample #78327**								
			Original 120922001								
Plutonium-238	13981-16-3	2.2E-3	-2.3E-3	pCi/g			-4400.00	30	*	U	07/29/12
Plutonium-239_240	PU-239/240	6.6E-3	4.6E-3	pCi/g			32.70	30	*	U	07/29/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120922

Analytical Batch 205254 (QC Batch: 204938) **Test** Uranium (AEA)
Associated Samples 120922001, 120922002, 120922003, 120922004, 120922005, 120922006, 120922007, 120922008, 120922009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #78325**								
Uranium-234	U-233/234		0.015	pCi/g						X	07/31/12
Uranium-235	15117-96-1		6.9E-3	pCi/g						U	07/31/12
Uranium-238	U-238		0.015	pCi/g						X	07/31/12
LCS			**QC Sample #78326**								
Uranium-234	U-233/234		35	pCi/sample	107.3	80 - 120					07/31/12
DUP			**QC Sample #78327**								
			Original 120922001								
Uranium-234	U-233/234	0.14	0.15	pCi/g			6.90	30			07/31/12
Uranium-235	15117-96-1	0.019	4.8E-3	pCi/g			115.80	30	*	U	07/31/12
Uranium-238	U-238	0.14	0.17	pCi/g			19.40	30			07/31/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120922

Analytical Batch 205005 (QC Batch: 204965) **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 120922001, 120922002, 120922003, 120922004, 120922005, 120922006, 120922007, 120922008, 120922009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120922001**							
Strontium-85	13967-73-2			pCi/sample	64.8	25 - 105				07/27/12
SAMPLE			**Sample #120922002**							
Strontium-85	13967-73-2			pCi/sample	79.3	25 - 105				07/27/12
SAMPLE			**Sample #120922003**							
Strontium-85	13967-73-2			pCi/sample	57	25 - 105				07/27/12
SAMPLE			**Sample #120922004**							
Strontium-85	13967-73-2			pCi/sample	59.1	25 - 105				07/27/12
SAMPLE			**Sample #120922005**							
Strontium-85	13967-73-2			pCi/sample	75.5	25 - 105				07/27/12
SAMPLE			**Sample #120922006**							
Strontium-85	13967-73-2			pCi/sample	56.4	25 - 105				07/27/12
SAMPLE			**Sample #120922007**							
Strontium-85	13967-73-2			pCi/sample	58.8	25 - 105				07/27/12

* - QC result out of range n/a - Not Applicable

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Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120922008**							
Strontium-85	13967-73-2			pCi/sample	59.8	25 - 105				07/27/12
SAMPLE			**Sample #120922009**							
Strontium-85	13967-73-2			pCi/sample	63.1	25 - 105				07/27/12
BLANK			**QC Sample #78386**							
Strontium-85	13967-73-2			pCi/sample	73.3	25 - 105				07/27/12
LCS			**QC Sample #78387**							
Strontium-85	13967-73-2			pCi/sample	66.3	25 - 105				07/27/12
DUP			**QC Sample #78388**							
			Original 120922001							
Strontium-85	13967-73-2	28		pCi/sample	59.6	25 - 105	n/a			07/27/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120922

Analytical Batch 205252 (QC Batch: 204938) **Test** Americium/Curium (AEA)
Associated Samples 120922001, 120922002, 120922003, 120922004, 120922005, 120922006, 120922007, 120922008, 120922009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120922001**							
Americium-243 Tracer	14993-75-0				95.6	25 - 105				07/30/12
SAMPLE			**Sample #120922002**							
Americium-243 Tracer	14993-75-0				80.2	25 - 105				07/30/12
SAMPLE			**Sample #120922003**							
Americium-243 Tracer	14993-75-0				99.7	25 - 105				07/30/12
SAMPLE			**Sample #120922004**							
Americium-243 Tracer	14993-75-0				98.2	25 - 105				07/30/12
SAMPLE			**Sample #120922005**							
Americium-243 Tracer	14993-75-0				95.9	25 - 105				07/30/12
SAMPLE			**Sample #120922006**							
Americium-243 Tracer	14993-75-0				93.1	25 - 105				07/30/12
SAMPLE			**Sample #120922007**							
Americium-243 Tracer	14993-75-0				84.7	25 - 105				07/30/12

* - QC result out of range n/a - Not Applicable

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Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120922008**							
Americium-243 Tracer	14993-75-0				105.4	25 - 105			X	07/30/12
SAMPLE			**Sample #120922009**							
Americium-243 Tracer	14993-75-0				78.4	25 - 105				07/30/12
BLANK			**QC Sample #78325**							
Americium-243 Tracer	14993-75-0				82.9	25 - 105				07/30/12
LCS			**QC Sample #78326**							
Americium-243 Tracer	14993-75-0				82.2	25 - 105				07/30/12
DUP			**QC Sample #78327**							
			Original 120922001							
Americium-243 Tracer	14993-75-0				92.2	25 - 105	n/a			07/30/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120922

Analytical Batch 205253 (QC Batch: 204938) **Test** Plutonium (AEA)
Associated Samples 120922001, 120922002, 120922003, 120922004, 120922005, 120922006, 120922007, 120922008, 120922009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120922001**							
Plutonium-242 Tracer	13982-10-0				76.5	25 - 105				07/29/12
SAMPLE			**Sample #120922002**							
Plutonium-242 Tracer	13982-10-0				68.8	25 - 105				07/29/12
SAMPLE			**Sample #120922003**							
Plutonium-242 Tracer	13982-10-0				77.1	25 - 105				07/29/12
SAMPLE			**Sample #120922004**							
Plutonium-242 Tracer	13982-10-0				78.2	25 - 105				07/30/12
SAMPLE			**Sample #120922005**							
Plutonium-242 Tracer	13982-10-0				65.2	25 - 105				07/30/12
SAMPLE			**Sample #120922006**							
Plutonium-242 Tracer	13982-10-0				88	25 - 105				07/30/12
SAMPLE			**Sample #120922007**							
Plutonium-242 Tracer	13982-10-0				80.2	25 - 105				07/30/12

* - QC result out of range n/a - Not Applicable

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Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120922008**							
Plutonium-242 Tracer	13982-10-0				77.2	25 - 105				07/30/12
SAMPLE			**Sample #120922009**							
Plutonium-242 Tracer	13982-10-0				74.1	25 - 105				07/30/12
BLANK			**QC Sample #78325**							
Plutonium-242 Tracer	13982-10-0				72	25 - 105				07/29/12
LCS			**QC Sample #78326**							
Plutonium-242 Tracer	13982-10-0				104.8	25 - 105				07/29/12
DUP			**QC Sample #78327**							
			Original 120922001							
Plutonium-242 Tracer	13982-10-0				69.1	25 - 105	n/a			07/29/12

* - QC result out of range n/a - Not Applicable

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Group # WSCF120922

Analytical Batch 205254 (QC Batch: 204938) **Test** Uranium (AEA)
Associated Samples 120922001, 120922002, 120922003, 120922004, 120922005, 120922006, 120922007, 120922008, 120922009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120922001**							
Uranium-232 Tracer	14158-29-3				93.5	25 - 105				07/31/12
SAMPLE			**Sample #120922002**							
Uranium-232 Tracer	14158-29-3				86.8	25 - 105				07/31/12
SAMPLE			**Sample #120922003**							
Uranium-232 Tracer	14158-29-3				94	25 - 105				07/31/12
SAMPLE			**Sample #120922004**							
Uranium-232 Tracer	14158-29-3				89.8	25 - 105				07/31/12
SAMPLE			**Sample #120922005**							
Uranium-232 Tracer	14158-29-3				87	25 - 105				07/31/12
SAMPLE			**Sample #120922006**							
Uranium-232 Tracer	14158-29-3				87.6	25 - 105				07/31/12
SAMPLE			**Sample #120922007**							
Uranium-232 Tracer	14158-29-3				83.1	25 - 105				07/31/12

* - QC result out of range n/a - Not Applicable

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Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #120922008**							
Uranium-232 Tracer	14158-29-3				81.7	25 - 105				07/31/12
SAMPLE			**Sample #120922009**							
Uranium-232 Tracer	14158-29-3				94.7	25 - 105				07/31/12
BLANK			**QC Sample #78325**							
Uranium-232 Tracer	14158-29-3				84.6	25 - 105				07/31/12
LCS			**QC Sample #78326**							
Uranium-232 Tracer	14158-29-3				56.5	25 - 105				07/31/12
DUP			**QC Sample #78327**							
			Original 120922001							
Uranium-232 Tracer	14158-29-3				98.8	25 - 105	n/a			07/31/12

* - QC result out of range n/a - Not Applicable