CHPRC - REVIEW COMMENT RECORD (RCR)

1. Date	2. Review No.
1/9/12	RCR-VSR12-006
3. Project No. Outer Area BRA	Page 1 of 1

5. Document Number(s)/Title(s)	6. Program/Project/Building Number	7. Reviewer	8. Organization/Group	9. Location/Phone
VSR12-006, Ecological Baseline Risk Assessment Project Outer Area BRA	SGRP	SL Huggins	SGRP QA	MO-2216/A101 373-3630

17. Comment Submittal Approval	10. Agreement With Indicated Comment Disposition(s)	11. CLOSED
Date / Organization Manager (optional) (print and sign)	Reviewer/Point of Contact (print and sign): 1/9/12 Date; SL Huggins Author/Originator (print and sign)	Reviewer/Point of Contact (print and sign): 1/9/12 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	No issues noted.					

CHPRC - REVIEW COMMENT RECORD (RCR)

1. Date	2. Review No.
01/05/2012	
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5. Document Number(s)/Title(s)	6. Program/Project/Building Number	7. Reviewer	8. Organization/Group	9. Location/Phone
VSR12-006		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): ____	Reviewer/Point of Contact (print and sign): Scot Fitzgerald Date: 01/05/2012 Author/Originator (print and sign):	Reviewer/Point of Contact (print and sign): Scot Fitzgerald Date: 01/05/2012 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	No issues noted.					

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

VSR12-006
Ecological Baseline Risk Assessment
Project Outer Area BRA

Chemical & Radiochemical Validation - Level C

Validation Performed By: Eyda Hergenreder **Date: 12-28-2011**

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Date: 28 December 2011
To: CH2M Hill (technical representative)
From: Analytical Quality Associates, Inc.
Project: Ecological Baseline Risk Assessment
Subject: Semivolatile Organics - Sample Data Group (SDG) SL1043

INTRODUCTION

This memorandum presents the results of data validation for SDG SL1043 prepared by TestAmerica. 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
B2BP15	2/14/11	Soil	C	8270C
B2BP16	2/14/11	Soil	C	8270C
B2BP17	2/14/11	Soil	C	8270C
B2BP18	2/14/11	Soil	C	8270C
B2BP14	2/14/11	Soil	C	8270C
B2BP20	2/10/11	Soil	C	8270C
B2BP21	2/10/11	Soil	C	8270C
B2BP22	2/10/11	Soil	C	8270C
B2BP23	2/10/11	Soil	C	8270C
B2BP24	2/10/11	Soil	C	8270C

Data validation was conducted in accordance with the CHPRC validation statement of work and the Sampling and Analysis Plan for Ex-Situ Plant and Invertebrate Bioassays to Evaluate Terrestrial Environments across the Hanford Site, DOE/RL-2010-118, Draft A, (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 semivolatile organics in soil are extraction within 14 days of sample collection and analysis within 40 days of sample extraction. Sample preservation requires chilling to 4 degree 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

The field blank results were acceptable.

It should be noted that field trip blank sample B2BPF2 was included in SDG SL1044.

Equipment Blanks

The equipment blank results were acceptable.

It should be noted that equipment blank sample B2BPF1 was included in SDG SL1044.

- **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% at a minimum, and the ones established by the analytical laboratory if more stringent. The limits for reported analytes not listed in the SAP are specified by the DV procedure.

Surrogates

All surrogate recoveries were acceptable.

It should be noted that per client request DV procedure HNF-20433, Rev 0 was used for target analyte associated to the surrogates.

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

All MS/MSD recoveries were acceptable with the following exceptions.

The MS recovery for 4,6-dinitro-2-methylphenol was below the lower acceptance limit. All sample results were non-detects and should be qualified as estimates and flagged "UJ." See table in Appendix 2 for a listing of all affected sample results.

The MSD recovery for hexachlorobenzene was above the upper acceptance limit. All sample results were non-detects and should not be qualified.

Pentachloronitrobenzene was not represented in the MS/MSDs. All associated sample results were non-detects and should be qualified as estimates and flagged "UJ." See table in Appendix 2 for a listing of all affected sample results.

Laboratory Control Samples (LCSs)

All LCS recoveries were acceptable with the following exception. Pentachloronitrobenzene was not represented in the LCS. All associated sample results were non-detects and should be qualified as estimates and flagged "UJ." See table in Appendix 2 for a listing of all affected sample results.

- **Precision**

Precision is evaluated by reviewing MS/MSD results, field duplicate sample results, 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) was ±50% at minimum and the ones established by the analytical laboratory if more stringent. 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 relative percent difference 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**

SDG SL1043 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 as estimates for 4,6-dinitro-2-methylphenol due to MS infraction and for pentachloronitrobenzene due to MS/MSD and LCS non-represented QC data and. See 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.

HNF-20433, Rev. 0, Data Validation Procedure for Chemical Analyses, June 2004.

DOE/RL-2010-118, Draft A, *Sampling and Analysis Plan for Ex-Situ Plant and Invertebrate Bioassays to Evaluate Terrestrial Environments across the Hanford Site*, March 2011.

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			
SDG: SL1043	Reviewer: AQA	Project: Ecological Baseline Risk Assessment	Page 1 of 1
Analyte(s)	**Qualifier**	**Samples Affected**	**Reason**
4,6-dinitro-2-methylphenol	UJ	B2BP15, B2BP16, B2BP17, B2BP18, B2PB14, B2BP20, B2BP21, B2BP22, B2BP23, B2BP24	Low MS recovery
pentachloronitrobenzene	UJ	B2BP15, B2BP16, B2BP17, B2BP18, B2PB14, B2BP20, B2BP21, B2BP22, B2BP23, B2BP24	Non-represented MS/MSD and LCS data

Comments: None

Appendix 3

Annotated Laboratory Reports

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP15

GC/MS Semivolatiles

Lot-Sample #...: F1B170522-001 **Work Order #...:** MEJ0P1AD **Matrix.....:** SOLID
Date Sampled...: 02/14/11 **Date Received..:** 02/17/11
Prep Date.....: 02/24/11 **Analysis Date..:** 03/01/11
Prep Batch #...: 1055089
Dilution Factor: 1
% Moisture.....: 6.7 **Method.....:** SW846 8270C

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,6-Dinitro-2-methylphenol	UJ	ND	1700	ug/kg	350
Hexachlorobenzene		ND T	350	ug/kg	36
Pentachloronitrobenzene	UJ	ND	1700	ug/kg	36
Pentachlorophenol		ND	710	ug/kg	350

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	84	(49 - 88)
Phenol-d5	89	(51 - 92)
Nitrobenzene-d5	83	(41 - 98)
2-Fluorobiphenyl	82	(53 - 98)
2,4,6-Tribromophenol	80	(42 - 115)
Terphenyl-d14	103	(47 - 107)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

T Spike sample recovery is outside control limits.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

B2BP15

GC/MS Semivolatiles

Lot-Sample #: F1B170522-001 **Work Order #:** MEJ0P1AD **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown aldol condensate		4700 J	M	4.1164	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP16

GC/MS Semivolatiles

Lot-Sample #...: F1B170522-002 Work Order #...: MEJ041AD Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 03/01/11
Prep Batch #...: 1055089
Dilution Factor: 1
% Moisture.....: 5.8 Method.....: SW846 8270C

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,6-Dinitro-2-methylphenol	UJ	ND	1700	ug/kg	350
Hexachlorobenzene		ND T	350	ug/kg	35
Pentachloronitrobenzene	UJ	ND	1700	ug/kg	35
Pentachlorophenol		ND	700	ug/kg	350

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	82	(49 - 88)
Phenol-d5	87	(51 - 92)
Nitrobenzene-d5	81	(41 - 98)
2-Fluorobiphenyl	79	(53 - 98)
2,4,6-Tribromophenol	80	(42 - 115)
Terphenyl-d14	105	(47 - 107)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

T Spike sample recovery is outside control limits.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

B2BP16

GC/MS Semivolatiles

Lot-Sample #: F1B170522-002 **Work Order #:** MEJ041AD **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown aldol condensate		4400 J	M	4.0984	ug/kg
Unknown		370 J	M	16.561	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP17

GC/MS Semivolatiles

Lot-Sample #...: F1B170522-003 Work Order #...: MEJ081AD Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 03/01/11
Prep Batch #...: 1055089
Dilution Factor: 1
% Moisture.....: 6.4 Method.....: SW846 8270C

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,6-Dinitro-2-methylphenol	UJ	ND	1700	ug/kg	350
Hexachlorobenzene		ND T	350	ug/kg	36
Pentachloronitrobenzene	UJ	ND	1700	ug/kg	36
Pentachlorophenol		ND	700	ug/kg	350

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	85	(49 - 88)
Phenol-d5	89	(51 - 92)
Nitrobenzene-d5	86	(41 - 98)
2-Fluorobiphenyl	84	(53 - 98)
2,4,6-Tribromophenol	85	(42 - 115)
Terphenyl-d14	106	(47 - 107)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

T Spike sample recovery is outside control limits.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

B2BP17

GC/MS Semivolatiles

Lot-Sample #: F1B170522-003 **Work Order #:** MEJ081AD **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Acetone	67-64-1	160 J	M	2.6613	ug/kg
Unknown aldol condensate		4500 J	M	4.1303	ug/kg
Unknown		390 J	M	16.582	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP18

GC/MS Semivolatiles

Lot-Sample #...: F1B170522-004 Work Order #...: MEJ1A1AD Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 03/01/11
Prep Batch #...: 1055089
Dilution Factor: 1
% Moisture.....: 6.6 Method.....: SW846 8270C

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,6-Dinitro-2-methylphenol	UJ	ND	1700	ug/kg	350
Hexachlorobenzene		ND T	350	ug/kg	36
Pentachloronitrobenzene	UJ	ND	1700	ug/kg	36
Pentachlorophenol		ND	710	ug/kg	350

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	80	(49 - 88)
Phenol-d5	85	(51 - 92)
Nitrobenzene-d5	80	(41 - 98)
2-Fluorobiphenyl	79	(53 - 98)
2,4,6-Tribromophenol	68	(42 - 115)
Terphenyl-d14	101	(47 - 107)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

T Spike sample recovery is outside control limits.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

B2BP18

GC/MS Semivolatiles

Lot-Sample #: F1B170522-004 **Work Order #:** MEJ1A1AD **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown aldol condensate		4300 J	M	4.1121	ug/kg
Unknown		180 J	M	18.45	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP14

GC/MS Semivolatiles

Lot-Sample #...: F1B170522-005 Work Order #...: MEJ1D1AD Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 03/01/11
Prep Batch #...: 1055089
Dilution Factor: 1
% Moisture.....: 5.7 Method.....: SW846 8270C

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,6-Dinitro-2-methylphenol	UJ	ND	1700	ug/kg	350
Hexachlorobenzene		ND T	350	ug/kg	35
Pentachloronitrobenzene	UJ	ND	1700	ug/kg	35
Pentachlorophenol		ND	700	ug/kg	350

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	76	(49 - 88)
Phenol-d5	81	(51 - 92)
Nitrobenzene-d5	77	(41 - 98)
2-Fluorobiphenyl	77	(53 - 98)
2,4,6-Tribromophenol	73	(42 - 115)
Terphenyl-d14	97	(47 - 107)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

T Spike sample recovery is outside control limits.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

B2BP14

GC/MS Semivolatiles

Lot-Sample #: F1B170522-005 **Work Order #:** MEJ1D1AD **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown aldol condensate		4200 J	M	4.0986	ug/kg
Unknown alkane		160 J	M	20.888	ug/kg
Unknown alkane		160 J	M	22.358	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP20

GC/MS Semivolatiles

Lot-Sample #...: F1B170522-006 **Work Order #...:** MEJ1G1AD **Matrix.....:** SOLID
Date Sampled...: 02/10/11 **Date Received..:** 02/17/11
Prep Date.....: 02/24/11 **Analysis Date..:** 03/01/11
Prep Batch #...: 1055089
Dilution Factor: 1
% Moisture.....: 5.9 **Method.....:** SW846 8270C

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,6-Dinitro-2-methylphenol	UJ	ND	1700	ug/kg	350
Hexachlorobenzene		ND T	350	ug/kg	35
Pentachloronitrobenzene	UJ	ND	1700	ug/kg	35
Pentachlorophenol		ND	700	ug/kg	350

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	81	(49 - 88)
Phenol-d5	87	(51 - 92)
Nitrobenzene-d5	80	(41 - 98)
2-Fluorobiphenyl	80	(53 - 98)
2,4,6-Tribromophenol	83	(42 - 115)
Terphenyl-d14	79	(47 - 107)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

T Spike sample recovery is outside control limits.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

B2BP20

GC/MS Semivolatiles

Lot-Sample #: F1B170522-006 **Work Order #:** MEJ1G1AD **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		200 J	M	3.5036	ug/kg
Unknown aldol condensate		4000 J	M	4.0912	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP21

GC/MS Semivolatiles

Lot-Sample #...:	F1B170522-007	**Work Order #...:**	MEJ1J1AD	**Matrix.....:**	SOLID
Date Sampled...:	02/10/11	**Date Received..:**	02/17/11		
Prep Date.....:	02/24/11	**Analysis Date..:**	03/01/11		
Prep Batch #...:	1055089				
Dilution Factor:	1				
% Moisture.....:	5.8	**Method.....:**	SW846 8270C		

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,6-Dinitro-2-methylphenol	UJ	ND	1700	ug/kg	350
Hexachlorobenzene		ND T	350	ug/kg	35
Pentachloronitrobenzene	UJ	ND	1700	ug/kg	35
Pentachlorophenol		ND	700	ug/kg	350

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	75	(49 - 88)
Phenol-d5	84	(51 - 92)
Nitrobenzene-d5	74	(41 - 98)
2-Fluorobiphenyl	79	(53 - 98)
2,4,6-Tribromophenol	88	(42 - 115)
Terphenyl-d14	80	(47 - 107)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

T Spike sample recovery is outside control limits.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

B2BP21

GC/MS Semivolatiles

Lot-Sample #: F1B170522-007 **Work Order #:** MEJ1J1AD **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown aldol condensate		4000 J	M	4.0877	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP22

GC/MS Semivolatiles

Lot-Sample #...: F1B170522-008 **Work Order #...:** MEJ1K1AD **Matrix.....:** SOLID
Date Sampled...: 02/10/11 **Date Received..:** 02/17/11
Prep Date.....: 02/24/11 **Analysis Date..:** 03/01/11
Prep Batch #...: 1055089
Dilution Factor: 1
% Moisture.....: 5.6 **Method.....:** SW846 8270C

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,6-Dinitro-2-methylphenol	UJ	ND	1700	ug/kg	350
Hexachlorobenzene		ND T	350	ug/kg	35
Pentachloronitrobenzene	UJ	ND	1700	ug/kg	35
Pentachlorophenol		ND	700	ug/kg	350

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	74	(49 - 88)
Phenol-d5	83	(51 - 92)
Nitrobenzene-d5	75	(41 - 98)
2-Fluorobiphenyl	83	(53 - 98)
2,4,6-Tribromophenol	92	(42 - 115)
Terphenyl-d14	77	(47 - 107)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

T Spike sample recovery is outside control limits.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

B2BP22

GC/MS Semivolatiles

Lot-Sample #: F1B170522-008 **Work Order #:** MEJ1K1AD **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown aldol condensate		4000 J	M	4.0895	ug/kg
Unknown alkane		310 J	M	12.385	ug/kg
Unknown alkane		320 J	M	13.299	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP23

GC/MS Semivolatiles

Lot-Sample #...: F1B170522-009 Work Order #...: MEJ1N1AD Matrix.....: SOLID
Date Sampled...: 02/10/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 03/01/11
Prep Batch #...: 1055089
Dilution Factor: 1
% Moisture.....: 6.1 Method.....: SW846 8270C

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,6-Dinitro-2-methylphenol	UJ	ND	1700	ug/kg	350
Hexachlorobenzene		ND T	350	ug/kg	35
Pentachloronitrobenzene	UJ	ND	1700	ug/kg	35
Pentachlorophenol		ND	700	ug/kg	350

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	74	(49 - 88)
Phenol-d5	81	(51 - 92)
Nitrobenzene-d5	75	(41 - 98)
2-Fluorobiphenyl	78	(53 - 98)
2,4,6-Tribromophenol	87	(42 - 115)
Terphenyl-d14	77	(47 - 107)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

T Spike sample recovery is outside control limits.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

B2BP23

GC/MS Semivolatiles

Lot-Sample #: F1B170522-009 **Work Order #:** MEJ1N1AD **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		180 J	M	2.6581	ug/kg
Unknown		3000 J	M	3.4808	ug/kg
Unknown aldol condensate		4900 J	M	4.1112	ug/kg
N-hexadecanoic acid	57-10-3	310 J	M	14.581	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP24

GC/MS Semivolatiles

Lot-Sample #...: F1B170522-010 Work Order #...: MEJ1R1AD Matrix.....: SOLID
Date Sampled...: 02/10/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 03/01/11
Prep Batch #...: 1055089
Dilution Factor: 1
% Moisture.....: 5.8 Method.....: SW846 8270C

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,6-Dinitro-2-methylphenol	UJ	ND	1700	ug/kg	350
Hexachlorobenzene		ND T	350	ug/kg	35
Pentachloronitrobenzene	UJ	ND	1700	ug/kg	35
Pentachlorophenol		ND	700	ug/kg	350

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	80	(49 - 88)
Phenol-d5	84	(51 - 92)
Nitrobenzene-d5	82	(41 - 98)
2-Fluorobiphenyl	83	(53 - 98)
2,4,6-Tribromophenol	89	(42 - 115)
Terphenyl-d14	79	(47 - 107)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

T Spike sample recovery is outside control limits.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

B2BP24

GC/MS Semivolatiles

Lot-Sample #: F1B170522-010 **Work Order #:** MEJ1R1AD **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown		500 J	M	3.5106	ug/kg
Unknown aldol condensate		4700 J	M	4.1143	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 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
March 9, 2011
Attention: Mike Neely

TestAmerica Laboratories, Inc.

SDG	: SL1043
Number of Samples	: 10 samples
Sample Matrix	: Solid
Data Deliverable	: Summary
Date SDG Closed	: February 17, 2011

II. Introduction

On February 17, 2011, 10 solid 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: F11-068

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.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CH2M Hill Plateau Remediation Company
March 9, 2011
SDG: SL1043

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.

Semivolatiles

Batch: 1055089

Sample F1B170552-009 had a layer of water on top of the sample. The water layer was discarded and the extraction carried out according to the SOP.
Affected Samples:
F1B170522 (9): B2BP23

The Method Blank surrogate recoveries are outside acceptance limits. Samples, associated with this method blank, demonstrated acceptable surrogate recoveries indicating the surrogate excursion is isolated to the method blank and not indicative of the batch.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

The MSD recovery for Hexachlorobenzene is outside the upper QC limit, indicating a potential positive bias for this analyte. This analyte was not observed above the reporting limit in the associated samples; therefore the sample data was not adversely affected by this excursion. The MSD Surrogate Recovery for Terphenyl-d14 is outside the upper QC limit. Surrogate recovery for the original sample is within limits.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17

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F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

Pesticides

Batch: 1055092

The sample was analyzed at a dilution due to high concentrations of target analytes. The reporting limit has been adjusted only for those targets reported from the dilution run. As a result of the dilution, the surrogates were diluted out. The target analytes reported form the dilution are qualified with a "D" flag.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

There was insufficient sample provided for F1B170522-002 to perform the analysis at the method specified amount. A reduced sample amount of 21.7g was prepared. The reporting limit has been elevated accordingly. Due to software limitations, the dilution factor field was used to adjust the detection limits for the sample volume. No dilution was performed on the initial analysis.
Affected Samples:
F1B170522 (2): B2BP16

Sample surrogate recovery is outside established QC limits. This excursion is attributed to a matrix interference which is physically evident in the sample. The sample extract was a light yellowish color and also exhibited slight properties like soap was in the extract.
Affected Samples:
F1B170522 (5): B2BP14

The closing CCV recovery was outside the lower QC limit (greater than 20% RSD) for Toxaphene indicating a potential low bias for those analytes in the samples associated with this CCV. This was on the confirmation column only.
Affected Samples:

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F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

Herbicides

Batch: 1055090

The MS/MSD RPD for Dinoseb is not within method acceptance criteria. MS/MSD recoveries are within QC limits demonstrating good extraction performance in the sample matrix.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

TKN

Batch: 1054060

The samples were analyzed at a dilution due to high concentrations of target analytes. The reporting limit has been adjusted for the dilution. The analyte is qualified with a "D" flag.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

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CH2M Hill Plateau Remediation Company
March 9, 2011
SDG: SL1043

TestAmerica Laboratories, Inc.

When performing a sample dilution due to high concentrations of target analytes for, the matrix spike was diluted outside reliable detection, making QC recoveries unreliable. The analyte is qualified with an "N" flag.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

TOC

Batch: 1066187

The samples were reanalyzed at a dilution (with a lesser sample aliquot), based on high concentrations of TOC when the standard 100mg of sample was analyzed. The analyte is qualified with a "D" flag.
Affected Samples:
F1B170522 (6): B2BP20
F1B170522 (9): B2BP23

The matrix spike recovery was below the lower acceptable QC limit. This sample and its duplicate exhibited acceptable RPD (within 30%). The matrix spike recovery, when calculated against the duplicate result, is acceptable. The analyte is qualified with an "N" flag.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CH2M Hill Plateau Remediation Company

March 9, 2011

SDG: SL1043

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:

Michael Franks
St. Louis Project Manager

12/20/2011

Problem and Discrepancy Report
TASL
SDG SL1043b

---

1. **The data package has the following issues:**

   a) The matrix spike sample data report is missing for Herbicides.

Resolution: *Provide appropriate correction.*

Lab Response: Matrix spike data report included in revised report.

Please correct the issues and resubmit the electronic **and** hard copy data package.

COC 495

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-054

28 lbs

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8C	DATA TURNAROUND
D. Sparks	WIDRIG, DL	376-2858	BAUER, RG	AIR QUALITY ☐	15 Days / 15 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
600-220 Target 3-2	Ecological Baseline Risk Assessment - Soils		F11-068		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
6WS-099	HNF-N-507-16-32	0-12"	302427ES10	FEDERAL EXPRESS	**ORIGINAL**
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
TestAmerica St. Louis	SEE PTR		~~SEE PTR~~ 7967 6887 8445		

DW. 2/16/11

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV3

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP15	SOIL	FEB 14 2011	1010	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
D. Sparks	FEB 14 2011 1250	SSU- 1	FEB 14 2011 1250
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
SSU- 1	FEB 16 2011 0700	L.D. Wall	FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
L.D. Wall CHPRC	FEB 16 2011 1400	FEDEX	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FED EX		B-1 Brian Daniels	2/17/11 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
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 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-054	PAGE 2 OF 2
COLLECTOR D Sparks	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 3-2	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. 6WS-099	FIELD LOGBOOK NO. HNF-N-507-16-32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7967 6887 8445 2-16-11		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

SDG# SL1043

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-055	PAGE 1 OF 2
COLLECTOR: J. Scales	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND
SAMPLING LOCATION: 600-220 Target 3-3	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	15 Days / 15 Days
ICE CHEST NO.: GWS-099	FIELD LOGBOOK NO.: HNF-N-507-16.32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7967 6887 8445 LW. 2/16/11		

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV4

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 {Total organic carbon};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP16	SOIL	FEB 14 2011	1026	✓	✓	✓

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES: RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM: J. Scales	FEB 14 2011 1250	SSU-1	FEB 14 2011 1250
RELINQUISHED BY/REMOVED FROM: SSU-1	FEB 16 2011 0700	L.D. Wall	FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM: L.D. Wall	FEB 16 2011 1400	FEDEX	
RELINQUISHED BY/REMOVED FROM: FEDEX		RECEIVED BY/STORED IN: B-1 Brian Daniels	2/17/11 0930
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-055	PAGE 2 OF 2
SL104B COLLECTOR J. Scales	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 3-3	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. GWS-099	FIELD LOGBOOK NO. HNF-N-507-~~116-32~~	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7967 6887 8445 2-16-11		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SDG# SL1043

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-056

COLLECTOR: J. Scales	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
PRICE CODE: 8C	AIR QUALITY: ☐	DATA TURNAROUND: 15 Days / 15 Days	
SAMPLING LOCATION: 600-220 Target 3-3 DUP	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils	SAF NO.: F11-068	
ICE CHEST NO.: GWS-099	FIELD LOGBOOK NO.: HNF-N-507-16 32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL		
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR	BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7967 6887 8445 RW. 2/16/11	

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV5

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP17	SOIL	FEB 14 2011	1026	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: J. Scales	DATE/TIME: FEB 14 2011 1250	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: FEB 14 2011 1250
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: FEB 16 2011 0700	RECEIVED BY/STORED IN: L.D. Wall L.D. Wall CHPRC	DATE/TIME: FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM: L.D. Wall L.D. Wall CHPRC	DATE/TIME: FEB 16 2011 1400	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FED EX	DATE/TIME:	RECEIVED BY/STORED IN: Brian Daniels	DATE/TIME: 2/17/11 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
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 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-056	PAGE 2 OF 2
COLLECTOR J. Scales	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-220 Target 3-3 DUP	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-099	FIELD LOGBOOK NO. HNF-N-507-16.32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7967 6887 8445		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-057

PAGE 1 OF 2

COLLECTOR: J. Scales	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
SAMPLING LOCATION: 600-220 Target 3-4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068
ICE CHEST NO.: GWS-099	FIELD LOGBOOK NO.: HNF-N-507-16.32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7967 6887 8445

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

LW. 2/16/11

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV6

		PRESERVATION	Cool~4C	Cool~4C	Cool~4C
		HOLDING TIME	14/40 Days	28 Days	28 Days
		TYPE OF CONTAINER	aG	G/P	aG
		NO. OF CONTAINER(S)	1	1	1
		VOLUME	120mL	120mL	120mL
		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP18	SOIL	FEB 14 2011	1040	X	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: J. Scales	DATE/TIME: FEB 14 2011 1250	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: FEB 14 2011 1250
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: FEB 16 2011 0700	RECEIVED BY/STORED IN: L.D. Wall SUPPO R.D. Wall	DATE/TIME: FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM: L.D. Wall SUPPO R.D. Wall	DATE/TIME: FEB 16 2011 1400	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FED EX	DATE/TIME:	RECEIVED BY/STORED IN: B-1 Brian Daniels	DATE/TIME: 2/17/11 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
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 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-057	PAGE 2 OF 2
COLLECTOR J. Scales	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 3-4	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. GWS-099	FIELD LOGBOOK NO. HNF-N-507-16.32	ACTUAL SAMPLE DEPTH 0-12ft	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 2-16-11 7967 6887 8445		

SPECIAL INSTRUCTIONS

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(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SDG# SL1043

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-053

COLLECTOR: D. Sparks	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
SAMPLING LOCATION: 600-220 Target 3-1	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068
ICE CHEST NO.: GWS-099	FIELD LOGBOOK NO.: HNF-N-507-16-32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7967 6887 8445

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

RW 2/16/11

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV2

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP14	SOIL	FEB 14 2011	0955	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
D. Sparks	FEB 14 2011 1250	SSU- 1	FEB 14 2011 1250
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
SSU- 1	FEB 16 2011 0700	L.D. Wall	FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
L.D. Wall	FEB 16 2011 1400	FEDEX	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FED EX		B-1	2/17/11 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
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 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-053	PAGE 2 OF 2
COLLECTOR D. Sparks	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-220 Target 3-1	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-099	FIELD LOGBOOK NO. HNF-N-507-16.32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7967 6887 8445 2-16-11		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SDG# SL1043

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-059 | PAGE 1 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** WIDRIG, DL	**TELEPHONE NO.** 376-2858	**PROJECT COORDINATOR** BAUER, RG
SAMPLING LOCATION 600-220 Target 4-1	**PROJECT DESIGNATION** Ecological Baseline Risk Assessment - Soils		**SAF NO.** F11-068
ICE CHEST NO. 2/16/11 GWS-115 GWS-115	**FIELD LOGBOOK NO.** HNF-N-507-16-32	**ACTUAL SAMPLE DEPTH** 0-12"	**COA** 302427ES10
SHIPPED TO TestAmerica St. Louis	**OFFSITE PROPERTY NO.** SEE PTR		**BILL OF LADING/AIR BILL NO.** ~~SEE PTR~~ 7944 3167 1918 2-16-11

PRICE CODE 8C | **AIR QUALITY** ☐ | **DATA TURNAROUND** 15 Days / 15 Days | **METHOD OF SHIPMENT** FEDERAL EXPRESS | **ORIGINAL**

71.16

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV8

PRESERVATION				Cool~4C	Cool~4C	Cool~4C
HOLDING TIME				14/40 Days	28 Days	28 Days
TYPE OF CONTAINER				aG	G/P	aG
NO. OF CONTAINER(S)				1	1	1
VOLUME				120mL	120mL	120mL
SAMPLE ANALYSIS				SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);
SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**			
B2BP20	SOIL	FEB 10 2011	1142	✓	✓	✓

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

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	FEB 10 2011 1500	SSU-1	FEB 10 2011 1500
SSU-1	FEB 16 2011 0700	L.D. Wall CHPRC	FEB 16 2011 0700
L.D. Wall CHPRC	FEB 16 2011 1400	FEDEX	
FED EX		Brian Daniels	2/17/11 0930

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 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-059	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 4-1	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. 6WS-115	FIELD LOGBOOK NO. HNF-N-507-~~116-32~~	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7944 3167 1918 2-16-11		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-060

COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days	AIR QUALITY: ☐	
SAMPLING LOCATION: 600-220 Target 4-2	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils	SAF NO.: F11-068	
ICE CHEST NO.: GWS-115	FIELD LOGBOOK NO.: HNF-N-507-16.32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL		
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR	BILL OF LADING/AIR BILL NO.: SEE PTR 7944 3167 1918	

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV9

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 {Total organic carbon};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP21	SOIL	FEB 10 2011	1220	✓	✓	✓

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES: RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	FEB 10 2011 1500	RECEIVED BY/STORED IN: SSU-1	FEB 10 2011 1500
RELINQUISHED BY/REMOVED FROM: SSU-1	FEB 16 2011 0700	RECEIVED BY/STORED IN: L.D. Wall L.D. Wall	FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM: L.D. Wall L.D. Wall	FEB 16 2011 1400	RECEIVED BY/STORED IN: FEDEX	
RELINQUISHED BY/REMOVED FROM: FED EX		RECEIVED BY/STORED IN: Brian Daniels	2/17/11 0930
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-060	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-220 Target 4-2	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-115	FIELD LOGBOOK NO. HNF-N-507-16.32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7944 3167 198 2-16-11		

SPECIAL INSTRUCTIONS

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(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-061

COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
PRICE CODE: 8C	AIR QUALITY: ☐	DATA TURNAROUND: 15 Days / 15 Days	
SAMPLING LOCATION: 600-220 Target 4-3	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils	SAF NO.: F11-068	
ICE CHEST NO.: 6WS-115	FIELD LOGBOOK NO.: HNF-N-507-16.32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL		
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR	BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7944 3167 1918 2-16-11	

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNW0

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 {Total organic carbon};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP22	SOIL	FEB 10 2011	1230	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: FEB 10 2011 1500	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: FEB 10 2011 1500
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: FEB 16 2011 0700	RECEIVED BY/STORED IN: L.D. Wall L.D. Wall CHPRC	DATE/TIME: FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM: L.D. Wall L.D. Wall CHPRC	DATE/TIME: FEB 16 2011 1400	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FED EX	DATE/TIME:	RECEIVED BY/STORED IN: B- Brian Daniel	DATE/TIME: 2/17/11 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
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 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-061	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 4-3	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. GWS-115	FIELD LOGBOOK NO. HNF-N-507-16.32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7944 3167 1918 2-1641		

SPECIAL INSTRUCTIONS

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(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-062

COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
SAMPLING LOCATION: 600-220 Target 4-4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068
ICE CHEST NO.: GWS-115	FIELD LOGBOOK NO.: HNF-N-507-16.32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7944 3167 1918 2-16-11

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

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
RADIOACTIVE TIE TO: B2BNW1

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP23	SOIL	FEB 10 2011	1250	✓	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	FEB 10 2011 1500	SSU-1	FEB 10 2011 1500
SSU-1	FEB 16 2011 0700	L.D. Wall K.D. Wall	FEB 16 2011 0700
L.D. Wall K.D. Wall CHPRC	FEB 16 2011 1400	FEDEX	
FED EX		B-1 Brian Daniels	2/12/11 0930

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 2/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-062	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 4-4	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. GWS-115	FIELD LOGBOOK NO. HNF-N-507-16-32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7944 3167 1918 2-16-11		

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(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

SDG# SL1043

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-063

COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days		
SAMPLING LOCATION: 600-220 Target 4-5	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils	SAF NO.: F11-068	AIR QUALITY ☐
ICE CHEST NO.: GWS-115	FIELD LOGBOOK NO.: HNF-N-507-16-32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL		
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR	BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7944 3167 1918 2-16-11	

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

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

SPECIAL HANDLING AND/OR STORAGE: RADIOACTIVE TIE TO: B2BNW2

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 {Total organic carbon};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP24	SOIL	FEB 10 2011	1320	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: FEB 10 2011 1420	RECEIVED BY/STORED IN: SSU #1	DATE/TIME: FEB 10 2011 1420
RELINQUISHED BY/REMOVED FROM: SSU #1	DATE/TIME: FEB 16 2011 0700	RECEIVED BY/STORED IN: L.D. Wall CHPRC	DATE/TIME: FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM: L.D. Wall CHPRC	DATE/TIME: FEB 16 2011 1400	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FED EX	DATE/TIME:	RECEIVED BY/STORED IN: Brian Daniels	DATE/TIME: 2/17/11 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: 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 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-063	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 4-5	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. GWS-115	FIELD LOGBOOK NO. HNF-N-507-16-22	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7944 3167 1918 2-16-11		

SPECIAL INSTRUCTIONS

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

(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

Appendix 5

Data Validation Supporting Documentation

Appendix A - Chemical Data Validation Checklist

VALIDATION LEVEL:	A	B	C	D	E
PROJECT: Ecological Baseline Risk Assessment			DATA PACKAGE: VSR12-006		
VALIDATOR: Eyda Hergenreder		LAB: TestAmerica		DATE: 12-28-2011	
			SDG: SL1043		
ANALYSES PERFORMED					
SW-846 8260		SW-846 8260 (TCLP)	SW-846 8270 X		SW-846 8270 (TCLP)

SAMPLES/MATRIX Soil samples

B2BP15, B2BP16, B2BP17, B2BP18, B2BP14, B2BP20, B2BP21, B2BP22, B2BP23, B2PB24,

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:
Field trip blank sample B2BPF2 and EB sample B2BPF1 were included in SDG SL1044

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:
MS: 4,6-dinitro-2-methylphenol 46%
MSD: hexachlorobenzene 100% (client limit)

pentachloronitrobenzene was not represented in MS/MSD and LCS spiking solution

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): None

Appendix 6

Additional Documentation Requested By Client

METHOD BLANK REPORT

GC/MS Semivolatiles

Client Lot #...: SL1043 **Work Order #...:** MERPC1AA **Matrix.....:** SOLID
MB Lot-Sample #: F1B240000-089

Prep Date.....: 02/24/11
Analysis Date..: 03/01/11 **Prep Batch #...:** 1055089
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
4,6-Dinitro-2-methylphenol	ND	1600	ug/kg	SW846 8270C
Hexachlorobenzene	ND	330	ug/kg	SW846 8270C
Pentachloronitrobenzene	ND	1600	ug/kg	SW846 8270C
Pentachlorophenol	ND	660	ug/kg	SW846 8270C

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	84	(49 - 88)
Phenol-d5	93 *	(51 - 92)
Nitrobenzene-d5	83	(41 - 98)
2-Fluorobiphenyl	84	(53 - 98)
2,4,6-Tribromophenol	85	(42 - 115)
Terphenyl-d14	109 *	(47 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

* Surrogate recovery is outside stated control limits.

CH2M Hill Plateau Remediation DOE RL

Method Blank Report

GC/MS Semivolatiles

Lot-Sample #: F1B240000-089 B **Work Order #:** MERPC1AA **Matrix:** SOLID

MASS SPECTROMETER/DATA SYSTEM (MSDS) TENTATIVELY IDENTIFIED COMPOUNDS

PARAMETER	CAS #	ESTIMATED RESULT		RETENTION TIME	UNITS
Unknown Aldol Condensate		5000 J	M	4.121	ug/kg

NOTE(S):

M: Result was measured against nearest internal standard assuming a response factor of 1.

LABORATORY CONTROL SAMPLE DATA REPORT

GC/MS Semivolatiles

Client Lot #...: SL1043 **Work Order #...:** MERPC1AC **Matrix.....:** SOLID
LCS Lot-Sample#: F1B240000-089
Prep Date.....: 02/24/11 **Analysis Date..:** 03/01/11
Prep Batch #...: 1055089
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Hexachlorobenzene	**3330**	**3020**	**ug/kg**	**90**	**SW846 8270C**
Pentachlorophenol	**3330**	**2900**	**ug/kg**	**87**	**SW846 8270C**
4,6-Dinitro-2-methylphenol	**3330**	**2190**	**ug/kg**	**66**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	85	(54 - 94)
Phenol-d5	88	(55 - 94)
Nitrobenzene-d5	68	(47 - 99)
2-Fluorobiphenyl	86	(54 - 101)
2,4,6-Tribromophenol	100	(45 - 116)
Terphenyl-d14	103	(49 - 111)

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

GC/MS Semivolatiles

Client Lot #...: SL1043 Work Order #...: MEJ081AH-MS Matrix.....: SOLID
MS Lot-Sample #: F1B170522-003 MEJ081AJ-MSD
Date Sampled...: 02/14/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 03/01/11
Prep Batch #...: 1055089
Dilution Factor: 1 % Moisture.....: 6.4

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
4,6-Dinitro-2-methylphenol	**ND**	**3550**	**1620**	**ug/kg**	**46**		**SW846 8270C**
	ND	**3560**	**2090**	**ug/kg**	**59**	**25**	**SW846 8270C**
Hexachlorobenzene	**ND**	**3550**	**3120**	**ug/kg**	**88**		**SW846 8270C**
	ND	**3560**	**3570**	**ug/kg**	**100**	**13**	**SW846 8270C**
	Qualifiers:	T					
Pentachlorophenol	**ND**	**3550**	**2330**	**ug/kg**	**66**		**SW846 8270C**
	ND	**3560**	**2630**	**ug/kg**	**74**	**12**	**SW846 8270C**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2-Fluorophenol	81	(49 - 88)
	87	(49 - 88)
Phenol-d5	84	(51 - 92)
	90	(51 - 92)
Nitrobenzene-d5	66	(41 - 98)
	70	(41 - 98)
2-Fluorobiphenyl	81	(53 - 98)
	90	(53 - 98)
2,4,6-Tribromophenol	89	(42 - 115)
	101	(42 - 115)
Terphenyl-d14	96	(47 - 107)
	109 *	(47 - 107)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

T Spike sample recovery is outside control limits.

Date: 28 December 2011
To: CH2M Hill (technical representative)
From: Analytical Quality Associates, Inc.
Project: Ecological Baseline Risk Assessment
Subject: Pesticides and Herbicides - Sample Data Groups (SDG) SL1043

INTRODUCTION

This memorandum presents the results of data validation for SDG SL1043 prepared by TestAmerica. 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
B2BP15	2/14/11	Soil	C	8081A & 8151A
B2BP16	2/14/11	Soil	C	8081A & 8151A
B2BP17	2/14/11	Soil	C	8081A & 8151A
B2BP18	2/14/11	Soil	C	8081A & 8151A
B2BP14	2/14/11	Soil	C	8081A & 8151A
B2BP20	2/10/11	Soil	C	8081A & 8151A
B2BP21	2/10/11	Soil	C	8081A & 8151A
B2BP22	2/10/11	Soil	C	8081A & 8151A
B2BP23	2/10/11	Soil	C	8081A & 8151A
B2BP24	2/10/11	Soil	C	8081A & 8151A

Data validation was conducted in accordance with the CHPRC validation statement of work and the Sampling and Analysis Plan for Ex-Situ Plant and Invertebrate Bioassays to Evaluate Terrestrial Environments across the Hanford Site, DOE/RL-2010-118, Draft A, (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 pesticides and herbicides 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 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

All field blank results were acceptable.

It should be noted that field trip blank sample B2BPF2 was included in SDG SL1044.

Equipment Blanks

All equipment blank results were acceptable.

It should be noted that equipment blank sample B2BPF1 was included in SDG SL1044.

- **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 accuracy for pesticides and herbicides are 50% to 150% at minimum and the ones established by the analytical laboratory if more stringent. The surrogate accuracy limits were the ones specified by the DV procedure (30% to 150%).

Surrogates

All surrogate recoveries were acceptable with the following exceptions.

The decachlorobiphenyl surrogate recovery for sample B2BP14 was >150% but ≤200%. The 4,4′-DDT sample result was a detect and should be qualified as an estimate and flagged "J." All other sample results were non-detects and should not be qualified.

The tetrachloro-m-xylene and decachlorobiphenyl surrogate recoveries for samples B2BP15(10X), B2BP16(10X), B2BP17(100X), B2BP18(10X), B2BP14(10X), B2BP21(10X),

B2BP22(10X), B2BP23(10X) and B2BP24(10X) were <10%. These samples were analyzed at dilutions and sample results were detects and should be qualified as estimates and flagged "J." See table in Appendix 2 for listing of all affected sample results.

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

All MS/MSD recoveries were acceptable with the following exceptions. The MS recovery for dinoseb was < the lower acceptance limit and <20% and the MSD recovery was < the lower acceptance limit but >20%. All sample results were non-detects and based on professional judgment would be qualified as estimate and flagged UJ, however were further qualified as unusable and flagged "UR" due to very low LCS recovery. See table in Appendix 2 for listing of all affected sample results.

It should be mentioned that MS/MSD analyses were not performed for multi-component analyte toxaphene. No sample data are qualified as a result.

Laboratory Control Samples (LCSs)

All LCS recoveries were acceptable with the following exception. The LCS recovery for dinoseb was < the lower acceptance limit. All sample results were non-detects and should be qualified as unusable and flagged "UR." See table in Appendix 2 for listing of all affected sample results.

It should be mentioned that LCS analysis was not performed for multi-component analyte toxaphene. No sample data are qualified as a result.

- **Precision**

Precision is evaluated by reviewing MS/MSD results, field duplicate sample results, 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 for pesticides and herbicides are ±50% at a minimum and the ones established by the analytical laboratory if more stringent. 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 relative percent differences (RPDs) 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 with associated non-detected sample results were below the CRDLs with the following exceptions. The toxaphene MDLs for all samples were greater than the CRDL.

- **Completeness**

SDG SL1043 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 for method 8151A is 50%. The completion percentage for method 8081A was 100%.

MAJOR DEFICIENCIES

A major deficiencies leading to qualification of dinoseb results for all samples as unusable was due to severe LCS infraction.

MINOR DEFICIENCIES

Minor deficiencies leading to qualification of sample results as estimates were due to MS/MSD and surrogate infractions. See 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-2010-118, Draft A, *Sampling and Analysis Plan Ex-Situ Plant and Invertebrate Bioassays to Evaluate Terrestrial Environments across the Hanford Site*, March 2011.

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

Pesticide & Herbicide Data Qualification Summary			
SDG: SL1043	Reviewer: AQA	Project: Ecological Baseline Risk Assessment	Page 1 of 1
Analyte(s)	**Qualifier**	**Samples Affected**	**Reason**
4,4′-DDT	J	B2BP14	high surrogate recovery
4,4′-DDE	J	B2BP15(10X) B2BP16(10X) B2BP17(100X) B2BP18(10X) B2BP14(10X) B2BP21(10X) B2BP22(10X) B2BP23(10X) B2BP24(10X)	very low surrogate recoveries
4,4′-DDT	J	B2BP22(10X) B2BP24(10X)	very low surrogate recoveries
dinoseb	**UR**	B2BP15, B2BP16, B2BP17, B2BP18, B2BP14, B2BP20, B2BP21, B2BP22, B2BP23, B2BP24	very low LCS recovery, low MS/MSD recoveries

Comments: None

Appendix 3

Annotated Laboratory Reports

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP15

GC Semivolatiles

Lot-Sample #...: F1B170522-001 **Work Order #...:** MEJ0P1AE **Matrix.....:** SOLID
Date Sampled...: 02/14/11 **Date Received..:** 02/17/11
Prep Date.....: 02/24/11 **Analysis Date..:** 02/27/11
Prep Batch #...: 1055092
Dilution Factor: 1
% Moisture.....: 6.7 **Method.....:** SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	1.8	ug/kg	0.14
beta-BHC	ND	1.8	ug/kg	0.32
delta-BHC	ND	1.8	ug/kg	0.26
gamma-BHC (Lindane)	ND	1.8	ug/kg	0.18
alpha-Chlordane	ND	1.8	ug/kg	0.61
gamma-Chlordane	ND	1.8	ug/kg	0.17
4,4'-DDD	ND	1.8	ug/kg	0.088
4,4'-DDT	**24**	**1.8**	**ug/kg**	**0.67**
Dieldrin	ND	1.8	ug/kg	0.23
Endosulfan I	ND	1.8	ug/kg	0.61
Endosulfan II	ND	1.8	ug/kg	0.25
Endosulfan sulfate	ND	1.8	ug/kg	0.27
Endrin	ND	1.8	ug/kg	0.15
Endrin aldehyde	ND	1.8	ug/kg	0.42
Endrin ketone	ND	1.8	ug/kg	0.32
Heptachlor	ND	1.8	ug/kg	0.10
Heptachlor epoxide	ND	1.8	ug/kg	0.46
Methoxychlor	ND	3.5	ug/kg	0.77
Toxaphene	ND	72	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	89	(30 - 130)
Decachlorobiphenyl	87	(17 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP15

GC Semivolatiles

Lot-Sample #...: F1B170522-001 Work Order #...: MEJ0P2AE Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 02/28/11
Prep Batch #...: 1055092
Dilution Factor: 10
% Moisture.....: 6.7 Method.....: SW846 8081A

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,4'-DDE	J	54 D	18	ug/kg	4.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	DIL	(30 - 130)
Decachlorobiphenyl	DIL	(17 - 150)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP16

GC Semivolatiles

Lot-Sample #...: F1B170522-002 **Work Order #...:** MEJ041AE **Matrix.....:** SOLID
Date Sampled...: 02/14/11 **Date Received..:** 02/17/11
Prep Date.....: 02/24/11 **Analysis Date..:** 02/27/11
Prep Batch #...: 1055092
Dilution Factor: 1.38
% Moisture.....: 5.8 **Method.....:** SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	2.5	ug/kg	0.19
beta-BHC	ND	2.5	ug/kg	0.44
delta-BHC	ND	2.5	ug/kg	0.35
gamma-BHC (Lindane)	ND	2.5	ug/kg	0.25
alpha-Chlordane	ND	2.5	ug/kg	0.83
gamma-Chlordane	ND	2.5	ug/kg	0.23
4,4'-DDD	ND	2.5	ug/kg	0.12
4,4'-DDT	**26**	**2.5**	**ug/kg**	**0.92**
Dieldrin	ND	2.5	ug/kg	0.32
Endosulfan I	ND	2.5	ug/kg	0.84
Endosulfan II	ND	2.5	ug/kg	0.34
Endosulfan sulfate	ND	2.5	ug/kg	0.36
Endrin	ND	2.5	ug/kg	0.20
Endrin aldehyde	**1.9 J**	**2.5**	**ug/kg**	**0.57**
Endrin ketone	ND	2.5	ug/kg	0.44
Heptachlor	ND	2.5	ug/kg	0.14
Heptachlor epoxide	ND	2.5	ug/kg	0.63
Methoxychlor	ND	4.8	ug/kg	1.1
Toxaphene	ND	98	ug/kg	22

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	80	(30 - 130)
Decachlorobiphenyl	80	(17 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

J Estimated result. Result is less than RL.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP16

GC Semivolatiles

Lot-Sample #...: F1B170522-002 Work Order #...: MEJ042AE Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 02/28/11
Prep Batch #...: 1055092
Dilution Factor: 10
% Moisture.....: 5.8 Method.....: SW846 8081A

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,4'-DDE	J	480 D	18	ug/kg	4.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	DIL	(30 - 130)
Decachlorobiphenyl	DIL	(17 - 150)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP17

GC Semivolatiles

Lot-Sample #...: F1B170522-003 **Work Order #...:** MEJ081AE **Matrix.....:** SOLID
Date Sampled...: 02/14/11 **Date Received..:** 02/17/11
Prep Date.....: 02/24/11 **Analysis Date..:** 02/27/11
Prep Batch #...: 1055092
Dilution Factor: 1
% Moisture.....: 6.4 **Method.....:** SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	1.8	ug/kg	0.14
beta-BHC	ND	1.8	ug/kg	0.32
delta-BHC	ND	1.8	ug/kg	0.26
gamma-BHC (Lindane)	ND	1.8	ug/kg	0.18
alpha-Chlordane	ND	1.8	ug/kg	0.61
gamma-Chlordane	ND	1.8	ug/kg	0.17
4,4'-DDD	ND	1.8	ug/kg	0.088
4,4'-DDT	**34**	**1.8**	**ug/kg**	**0.67**
Dieldrin	ND	1.8	ug/kg	0.23
Endosulfan I	ND	1.8	ug/kg	0.61
Endosulfan II	ND	1.8	ug/kg	0.25
Endosulfan sulfate	ND	1.8	ug/kg	0.27
Endrin	ND	1.8	ug/kg	0.15
Endrin aldehyde	**3.4**	**1.8**	**ug/kg**	**0.42**
Endrin ketone	ND	1.8	ug/kg	0.32
Heptachlor	ND	1.8	ug/kg	0.10
Heptachlor epoxide	ND	1.8	ug/kg	0.46
Methoxychlor	ND	3.5	ug/kg	0.77
Toxaphene	ND	72	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	86	(30 - 130)
Decachlorobiphenyl	89	(17 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP17

GC Semivolatiles

Lot-Sample #...:	F1B170522-003	Work Order #...:	MEJ082AE	Matrix.....:	SOLID
Date Sampled...:	02/14/11	Date Received..:	02/17/11		
Prep Date.....:	02/24/11	Analysis Date..:	02/28/11		
Prep Batch #...:	1055092				
Dilution Factor:	100				
% Moisture.....:	6.4	Method.....:	SW846 8081A		

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,4'-DDE	J	530 D	180	ug/kg	42

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	DIL	(30 - 130)
Decachlorobiphenyl	DIL	(17 - 150)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP18

GC Semivolatiles

Lot-Sample #...: F1B170522-004 **Work Order #...:** MEJ1A1AE **Matrix.....:** SOLID
Date Sampled...: 02/14/11 **Date Received..:** 02/17/11
Prep Date.....: 02/24/11 **Analysis Date..:** 02/27/11
Prep Batch #...: 1055092
Dilution Factor: 1
% Moisture.....: 6.6 **Method.....:** SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	1.8	ug/kg	0.14
beta-BHC	ND	1.8	ug/kg	0.32
delta-BHC	ND	1.8	ug/kg	0.26
gamma-BHC (Lindane)	ND	1.8	ug/kg	0.18
alpha-Chlordane	ND	1.8	ug/kg	0.61
gamma-Chlordane	ND	1.8	ug/kg	0.17
4,4'-DDD	ND	1.8	ug/kg	0.088
4,4'-DDT	**19**	**1.8**	**ug/kg**	**0.67**
Dieldrin	ND	1.8	ug/kg	0.23
Endosulfan I	ND	1.8	ug/kg	0.61
Endosulfan II	ND	1.8	ug/kg	0.25
Endosulfan sulfate	ND	1.8	ug/kg	0.27
Endrin	ND	1.8	ug/kg	0.15
Endrin aldehyde	ND	1.8	ug/kg	0.42
Endrin ketone	ND	1.8	ug/kg	0.32
Heptachlor	ND	1.8	ug/kg	0.10
Heptachlor epoxide	ND	1.8	ug/kg	0.46
Methoxychlor	ND	3.5	ug/kg	0.77
Toxaphene	ND	72	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	80	(30 - 130)
Decachlorobiphenyl	79	(17 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP18

GC Semivolatiles

Lot-Sample #...: F1B170522-004 Work Order #...: MEJ1A2AE Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 02/28/11
Prep Batch #...: 1055092
Dilution Factor: 10
% Moisture.....: 6.6 Method.....: SW846 8081A

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,4'-DDE	J	120 D	18	ug/kg	4.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	DIL	(30 - 130)
Decachlorobiphenyl	DIL	(17 - 150)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP14

GC Semivolatiles

Lot-Sample #...: F1B170522-005 **Work Order #...:** MEJ1D1AE **Matrix.....:** SOLID
Date Sampled...: 02/14/11 **Date Received..:** 02/17/11
Prep Date.....: 02/24/11 **Analysis Date..:** 02/27/11
Prep Batch #...: 1055092
Dilution Factor: 1
% Moisture.....: 5.7 **Method.....:** SW846 8081A

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC		ND	1.8	ug/kg	0.14
beta-BHC		ND	1.8	ug/kg	0.32
delta-BHC		ND	1.8	ug/kg	0.26
gamma-BHC (Lindane)		ND	1.8	ug/kg	0.18
alpha-Chlordane		ND	1.8	ug/kg	0.60
gamma-Chlordane		ND	1.8	ug/kg	0.17
4,4'-DDD		ND	1.8	ug/kg	0.087
4,4'-DDT	J	**24**	**1.8**	**ug/kg**	**0.67**
Dieldrin		ND	1.8	ug/kg	0.23
Endosulfan I		ND	1.8	ug/kg	0.60
Endosulfan II		ND	1.8	ug/kg	0.25
Endosulfan sulfate		ND	1.8	ug/kg	0.26
Endrin		ND	1.8	ug/kg	0.14
Endrin aldehyde		ND	1.8	ug/kg	0.41
Endrin ketone		ND	1.8	ug/kg	0.31
Heptachlor		ND	1.8	ug/kg	0.10
Heptachlor epoxide		ND	1.8	ug/kg	0.45
Methoxychlor		ND	3.5	ug/kg	0.76
Toxaphene		ND	71	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	87	(30 - 130)
Decachlorobiphenyl	188 *	(17 - 150)

NOTE(S):

* Surrogate recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP14

GC Semivolatiles

Lot-Sample #...: F1B170522-005 Work Order #...: MEJ1D2AE Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 02/28/11
Prep Batch #...: 1055092
Dilution Factor: 10
% Moisture.....: 5.7 Method.....: SW846 8081A

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,4'-DDE	J	150 D	18	ug/kg	4.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	DIL	(30 - 130)
Decachlorobiphenyl	DIL	(17 - 150)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP20

GC Semivolatiles

Lot-Sample #...: F1B170522-006 **Work Order #...:** MEJ1G1AE **Matrix.....:** SOLID
Date Sampled...: 02/10/11 **Date Received..:** 02/17/11
Prep Date.....: 02/24/11 **Analysis Date..:** 02/27/11
Prep Batch #...: 1055092
Dilution Factor: 1
% Moisture.....: 5.9 **Method.....:** SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	1.8	ug/kg	0.14
beta-BHC	ND	1.8	ug/kg	0.32
delta-BHC	ND	1.8	ug/kg	0.26
gamma-BHC (Lindane)	ND	1.8	ug/kg	0.18
alpha-Chlordane	ND	1.8	ug/kg	0.60
gamma-Chlordane	ND	1.8	ug/kg	0.17
4,4'-DDD	ND	1.8	ug/kg	0.087
4,4'-DDE	**34**	**1.8**	**ug/kg**	**0.41**
4,4'-DDT	**24**	**1.8**	**ug/kg**	**0.67**
Dieldrin	ND	1.8	ug/kg	0.23
Endosulfan I	ND	1.8	ug/kg	0.61
Endosulfan II	ND	1.8	ug/kg	0.25
Endosulfan sulfate	ND	1.8	ug/kg	0.26
Endrin	ND	1.8	ug/kg	0.14
Endrin aldehyde	ND	1.8	ug/kg	0.41
Endrin ketone	ND	1.8	ug/kg	0.32
Heptachlor	ND	1.8	ug/kg	0.10
Heptachlor epoxide	ND	1.8	ug/kg	0.46
Methoxychlor	ND	3.5	ug/kg	0.76
Toxaphene	ND	71	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	75	(30 - 130)
Decachlorobiphenyl	119	(17 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP21

GC Semivolatiles

Lot-Sample #...: F1B170522-007 **Work Order #...:** MEJ1J1AE **Matrix.....:** SOLID
Date Sampled...: 02/10/11 **Date Received..:** 02/17/11
Prep Date.....: 02/24/11 **Analysis Date..:** 02/27/11
Prep Batch #...: 1055092
Dilution Factor: 1
% Moisture.....: 5.8 **Method.....:** SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	1.8	ug/kg	0.14
beta-BHC	ND	1.8	ug/kg	0.32
delta-BHC	ND	1.8	ug/kg	0.26
gamma-BHC (Lindane)	ND	1.8	ug/kg	0.18
alpha-Chlordane	ND	1.8	ug/kg	0.60
gamma-Chlordane	ND	1.8	ug/kg	0.17
4,4'-DDD	ND	1.8	ug/kg	0.087
4,4'-DDT	**34**	**1.8**	**ug/kg**	**0.67**
Dieldrin	ND	1.8	ug/kg	0.23
Endosulfan I	ND	1.8	ug/kg	0.60
Endosulfan II	ND	1.8	ug/kg	0.25
Endosulfan sulfate	ND	1.8	ug/kg	0.26
Endrin	ND	1.8	ug/kg	0.14
Endrin aldehyde	ND	1.8	ug/kg	0.41
Endrin ketone	ND	1.8	ug/kg	0.32
Heptachlor	ND	1.8	ug/kg	0.10
Heptachlor epoxide	ND	1.8	ug/kg	0.46
Methoxychlor	ND	3.5	ug/kg	0.76
Toxaphene	ND	71	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	52	(30 - 130)
Decachlorobiphenyl	86	(17 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP21

GC Semivolatiles

Lot-Sample #...:	F1B170522-007	Work Order #...:	MEJ1J2AE	Matrix.....:	SOLID
Date Sampled...:	02/10/11	Date Received..:	02/17/11		
Prep Date.....:	02/24/11	Analysis Date..:	02/28/11		
Prep Batch #...:	1055092				
Dilution Factor:	10				
% Moisture.....:	5.8	Method.....:	SW846 8081A		

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,4'-DDE	J	96 D	18	ug/kg	4.1

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	DIL	(30 - 130)
Decachlorobiphenyl	DIL	(17 - 150)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP22

GC Semivolatiles

Lot-Sample #...: F1B170522-008 **Work Order #...:** MEJ1K1AE **Matrix.....:** SOLID
Date Sampled...: 02/10/11 **Date Received..:** 02/17/11
Prep Date.....: 02/24/11 **Analysis Date..:** 02/27/11
Prep Batch #...: 1055092
Dilution Factor: 1
% Moisture.....: 5.6 **Method.....:** SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	1.8	ug/kg	0.14
beta-BHC	ND	1.8	ug/kg	0.32
delta-BHC	ND	1.8	ug/kg	0.26
gamma-BHC (Lindane)	ND	1.8	ug/kg	0.18
alpha-Chlordane	ND	1.8	ug/kg	0.60
gamma-Chlordane	ND	1.8	ug/kg	0.17
4,4'-DDD	**4.2**	**1.8**	**ug/kg**	**0.087**
Dieldrin	ND	1.8	ug/kg	0.23
Endosulfan I	ND	1.8	ug/kg	0.60
Endosulfan II	ND	1.8	ug/kg	0.25
Endosulfan sulfate	ND	1.8	ug/kg	0.26
Endrin	ND	1.8	ug/kg	0.14
Endrin aldehyde	ND	1.8	ug/kg	0.41
Endrin ketone	ND	1.8	ug/kg	0.31
Heptachlor	ND	1.8	ug/kg	0.10
Heptachlor epoxide	ND	1.8	ug/kg	0.45
Methoxychlor	ND	3.5	ug/kg	0.76
Toxaphene	ND	71	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	92	(30 - 130)
Decachlorobiphenyl	78	(17 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP22

GC Semivolatiles

Lot-Sample #...: F1B170522-008 Work Order #...: MEJ1K2AE Matrix.....: SOLID
Date Sampled...: 02/10/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 02/28/11
Prep Batch #...: 1055092
Dilution Factor: 10
% Moisture.....: 5.6 Method.....: SW846 8081A

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,4'-DDE	J	180 D	18	ug/kg	4.1
4,4'-DDT	J	69 D	18	ug/kg	6.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	DIL	(30 - 130)
Decachlorobiphenyl	DIL	(17 - 150)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP23

GC Semivolatiles

Lot-Sample #...: F1B170522-009 **Work Order #...:** MEJ1N1AE **Matrix.....:** SOLID
Date Sampled...: 02/10/11 **Date Received..:** 02/17/11
Prep Date.....: 02/24/11 **Analysis Date..:** 02/27/11
Prep Batch #...: 1055092
Dilution Factor: 1
% Moisture.....: 6.1 **Method.....:** SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	1.8	ug/kg	0.14
beta-BHC	ND	1.8	ug/kg	0.32
delta-BHC	ND	1.8	ug/kg	0.26
gamma-BHC (Lindane)	ND	1.8	ug/kg	0.18
alpha-Chlordane	ND	1.8	ug/kg	0.60
gamma-Chlordane	ND	1.8	ug/kg	0.17
4,4'-DDD	ND	1.8	ug/kg	0.087
4,4'-DDT	**13**	**1.8**	**ug/kg**	**0.67**
Dieldrin	ND	1.8	ug/kg	0.23
Endosulfan I	ND	1.8	ug/kg	0.61
Endosulfan II	ND	1.8	ug/kg	0.25
Endosulfan sulfate	ND	1.8	ug/kg	0.27
Endrin	ND	1.8	ug/kg	0.14
Endrin aldehyde	ND	1.8	ug/kg	0.41
Endrin ketone	ND	1.8	ug/kg	0.32
Heptachlor	ND	1.8	ug/kg	0.10
Heptachlor epoxide	ND	1.8	ug/kg	0.46
Methoxychlor	ND	3.5	ug/kg	0.77
Toxaphene	ND	71	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	80	(30 - 130)
Decachlorobiphenyl	92	(17 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP23

GC Semivolatiles

Lot-Sample #...:	F1B170522-009	Work Order #...:	MEJ1N2AE	Matrix.....:	SOLID
Date Sampled...:	02/10/11	Date Received..:	02/17/11		
Prep Date.....:	02/24/11	Analysis Date..:	03/01/11		
Prep Batch #...:	1055092				
Dilution Factor:	10				
% Moisture.....:	6.1	Method.....:	SW846 8081A		

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,4'-DDE	J	61 D	18	ug/kg	4.2

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	DIL	(30 - 130)
Decachlorobiphenyl	DIL	(17 - 150)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP24

GC Semivolatiles

Lot-Sample #...: F1B170522-010 **Work Order #...:** MEJ1R1AE **Matrix.....:** SOLID
Date Sampled...: 02/10/11 **Date Received..:** 02/17/11
Prep Date.....: 02/24/11 **Analysis Date..:** 02/27/11
Prep Batch #...: 1055092
Dilution Factor: 1
% Moisture.....: 5.8 **Method.....:** SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
alpha-BHC	ND	1.8	ug/kg	0.14
beta-BHC	ND	1.8	ug/kg	0.32
delta-BHC	ND	1.8	ug/kg	0.26
gamma-BHC (Lindane)	ND	1.8	ug/kg	0.18
alpha-Chlordane	ND	1.8	ug/kg	0.60
gamma-Chlordane	ND	1.8	ug/kg	0.17
4,4'-DDD	**4.5**	**1.8**	**ug/kg**	**0.087**
Dieldrin	**2.5**	**1.8**	**ug/kg**	**0.23**
Endosulfan I	ND	1.8	ug/kg	0.61
Endosulfan II	ND	1.8	ug/kg	0.25
Endosulfan sulfate	ND	1.8	ug/kg	0.26
Endrin	ND	1.8	ug/kg	0.14
Endrin aldehyde	ND	1.8	ug/kg	0.41
Endrin ketone	ND	1.8	ug/kg	0.32
Heptachlor	ND	1.8	ug/kg	0.10
Heptachlor epoxide	ND	1.8	ug/kg	0.46
Methoxychlor	ND	3.5	ug/kg	0.76
Toxaphene	ND	71	ug/kg	16

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	78	(30 - 130)
Decachlorobiphenyl	65	(17 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP24

GC Semivolatiles

Lot-Sample #...: F1B170522-010 Work Order #...: MEJ1R2AE Matrix.....: SOLID
Date Sampled...: 02/10/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 03/01/11
Prep Batch #...: 1055092
Dilution Factor: 10
% Moisture.....: 5.8 Method.....: SW846 8081A

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
4,4'-DDE	J	41 D	18	ug/kg	4.1
4,4'-DDT	J	51 D	18	ug/kg	6.7

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	DIL	(30 - 130)
Decachlorobiphenyl	DIL	(17 - 150)

NOTE(S):

DIL The concentration is estimated or not reported due to dilution or the presence of interfering analytes.

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP15

GC Semivolatiles

Lot-Sample #...: F1B170522-001 Work Order #...: MEJ0P1AF Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 02/28/11
Prep Batch #...: 1055090
Dilution Factor: 1
% Moisture.....: 6.7 Method.....: SW846 8151A

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorprop		ND	86	ug/kg	84
Dinoseb	UR	ND	27	ug/kg	15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	104	(50 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP16

GC Semivolatiles

Lot-Sample #...:	F1B170522-002	**Work Order #...:**	MEJ041AF	**Matrix.....:**	SOLID
Date Sampled...:	02/14/11	**Date Received..:**	02/17/11		
Prep Date.....:	02/24/11	**Analysis Date..:**	02/28/11		
Prep Batch #...:	1055090				
Dilution Factor:	1				
% Moisture.....:	5.8	**Method.....:**	SW846 8151A		

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorprop		ND	85	ug/kg	83
Dinoseb	UR	ND	27	ug/kg	14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	89	(50 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP17

GC Semivolatiles

Lot-Sample #...:	F1B170522-003	**Work Order #...:**	MEJ081AF	**Matrix.....:**	SOLID
Date Sampled...:	02/14/11	**Date Received..:**	02/17/11		
Prep Date.....:	02/24/11	**Analysis Date..:**	02/28/11		
Prep Batch #...:	1055090				
Dilution Factor:	1				
% Moisture.....:	6.4	**Method.....:**	SW846 8151A		

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorprop		ND	85	ug/kg	83
Dinoseb	UR	ND	27	ug/kg	15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	89	(50 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP18

GC Semivolatiles

Lot-Sample #...: F1B170522-004 Work Order #...: MEJ1A1AF Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 02/28/11
Prep Batch #...: 1055090
Dilution Factor: 1
% Moisture.....: 6.6 Method.....: SW846 8151A

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorprop		ND	86	ug/kg	84
Dinoseb	UR	ND	27	ug/kg	15

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	90	(50 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP14

GC Semivolatiles

Lot-Sample #...: F1B170522-005 Work Order #...: MEJ1D1AF Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 02/28/11
Prep Batch #...: 1055090
Dilution Factor: 1
% Moisture.....: 5.7 Method.....: SW846 8151A

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorprop		ND	85	ug/kg	83
Dinoseb	UR	ND	27	ug/kg	14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	84	(50 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP20

GC Semivolatiles

Lot-Sample #...: F1B170522-006 Work Order #...: MEJ1G1AF Matrix.....: SOLID
Date Sampled...: 02/10/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 02/28/11
Prep Batch #...: 1055090
Dilution Factor: 1
% Moisture.....: 5.9 Method.....: SW846 8151A

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorprop		ND	85	ug/kg	83
Dinoseb	UR	ND	27	ug/kg	14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	63	(50 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP21

GC Semivolatiles

Lot-Sample #...: F1B170522-007 Work Order #...: MEJ1J1AF Matrix.....: SOLID
Date Sampled...: 02/10/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 02/28/11
Prep Batch #...: 1055090
Dilution Factor: 1
% Moisture.....: 5.8 Method.....: SW846 8151A

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorprop		ND	85	ug/kg	83
Dinoseb	UR	ND	27	ug/kg	14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	79	(50 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP22

GC Semivolatiles

Lot-Sample #...: F1B170522-008 Work Order #...: MEJ1K1AF Matrix.....: SOLID
Date Sampled...: 02/10/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 02/28/11
Prep Batch #...: 1055090
Dilution Factor: 1
% Moisture.....: 5.6 Method.....: SW846 8151A

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorprop		ND	85	ug/kg	83
Dinoseb	UR	ND	26	ug/kg	14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	76	(50 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP23

GC Semivolatiles

Lot-Sample #...: F1B170522-009 **Work Order #...:** MEJ1N1AF **Matrix.....:** SOLID
Date Sampled...: 02/10/11 **Date Received..:** 02/17/11
Prep Date.....: 02/24/11 **Analysis Date..:** 02/28/11
Prep Batch #...: 1055090
Dilution Factor: 1
% Moisture.....: 6.1 **Method.....:** SW846 8151A

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorprop		ND	85	ug/kg	83
Dinoseb	UR	ND	27	ug/kg	14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	93	(50 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP24

GC Semivolatiles

Lot-Sample #...: F1B170522-010 Work Order #...: MEJ1R1AF Matrix.....: SOLID
Date Sampled...: 02/10/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 02/28/11
Prep Batch #...: 1055090
Dilution Factor: 1
% Moisture.....: 5.8 Method.....: SW846 8151A

PARAMETER		RESULT	REPORTING LIMIT	UNITS	MDL
Dichlorprop		ND	85	ug/kg	83
Dinoseb	UR	ND	27	ug/kg	14

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	102	(50 - 150)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

EH
12/28/11

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
March 9, 2011
Attention: Mike Neely

TestAmerica Laboratories, Inc.

SDG	: SL1043
Number of Samples	: 10 samples
Sample Matrix	: Solid
Data Deliverable	: Summary
Date SDG Closed	: February 17, 2011

II. Introduction

On February 17, 2011, 10 solid 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: F11-068

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.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

CH2M Hill Plateau Remediation Company
March 9, 2011
SDG: SL1043

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.

Semivolatiles

Batch: 1055089

Sample F1B170552-009 had a layer of water on top of the sample. The water layer was discarded and the extraction carried out according to the SOP.
Affected Samples:
F1B170522 (9): B2BP23

The Method Blank surrogate recoveries are outside acceptance limits. Samples, associated with this method blank, demonstrated acceptable surrogate recoveries indicating the surrogate excursion is isolated to the method blank and not indicative of the batch.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

The MSD recovery for Hexachlorobenzene is outside the upper QC limit, indicating a potential positive bias for this analyte. This analyte was not observed above the reporting limit in the associated samples; therefore the sample data was not adversely affected by this excursion. The MSD Surrogate Recovery for Terphenyl-d14 is outside the upper QC limit. Surrogate recovery for the original sample is within limits.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17

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CH2M Hill Plateau Remediation Company
March 9, 2011
SDG: SL1043

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F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

Pesticides

Batch: 1055092

The sample was analyzed at a dilution due to high concentrations of target analytes. The reporting limit has been adjusted only for those targets reported from the dilution run. As a result of the dilution, the surrogates were diluted out. The target analytes reported form the dilution are qualified with a "D" flag.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

There was insufficient sample provided for F1B170522-002 to perform the analysis at the method specified amount. A reduced sample amount of 21.7g was prepared. The reporting limit has been elevated accordingly. Due to software limitations, the dilution factor field was used to adjust the detection limits for the sample volume. No dilution was performed on the initial analysis.
Affected Samples:
F1B170522 (2): B2BP16

Sample surrogate recovery is outside established QC limits. This excursion is attributed to a matrix interference which is physically evident in the sample. The sample extract was a light yellowish color and also exhibited slight properties like soap was in the extract.
Affected Samples:
F1B170522 (5): B2BP14

The closing CCV recovery was outside the lower QC limit (greater than 20% RSD) for Toxaphene indicating a potential low bias for those analytes in the samples associated with this CCV. This was on the confirmation column only.
Affected Samples:

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F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

Herbicides

Batch: 1055090

The MS/MSD RPD for Dinoseb is not within method acceptance criteria. MS/MSD recoveries are within QC limits demonstrating good extraction performance in the sample matrix.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

TKN

Batch: 1054060

The samples were analyzed at a dilution due to high concentrations of target analytes. The reporting limit has been adjusted for the dilution. The analyte is qualified with a "D" flag.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

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SDG: SL1043

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When performing a sample dilution due to high concentrations of target analytes for, the matrix spike was diluted outside reliable detection, making QC recoveries unreliable. The analyte is qualified with an "N" flag.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

TOC

Batch: 1066187

The samples were reanalyzed at a dilution (with a lesser sample aliquot), based on high concentrations of TOC when the standard 100mg of sample was analyzed. The analyte is qualified with a "D" flag.
Affected Samples:
F1B170522 (6): B2BP20
F1B170522 (9): B2BP23

The matrix spike recovery was below the lower acceptable QC limit. This sample and its duplicate exhibited acceptable RPD (within 30%). The matrix spike recovery, when calculated against the duplicate result, is acceptable. The analyte is qualified with an "N" flag.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

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THE LEADER IN ENVIRONMENTAL TESTING

CH2M Hill Plateau Remediation Company

March 9, 2011

SDG: SL1043

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:

Michael Franks
St. Louis Project Manager

12/20/2011

Problem and Discrepancy Report

TASL

SDG SL1043b

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1. **The data package has the following issues:**

   a) The matrix spike sample data report is missing for Herbicides.

Resolution: *Provide appropriate correction.*

Lab Response: Matrix spike data report included in revised report.

Please correct the issues and resubmit the electronic **and** hard copy data package.

COC 495

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-054

28 lbs

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8C	DATA TURNAROUND
D. Sparks	WIDRIG, DL	376-2858	BAUER, RG	AIR QUALITY ☐	15 Days / 15 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
600-220 Target 3-2	Ecological Baseline Risk Assessment - Soils		F11-068		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
6WS-099	HNF-N-507-16-32	0-12"	302427ES10	FEDERAL EXPRESS	**ORIGINAL**
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
TestAmerica St. Louis	SEE PTR		~~SEE PTR~~ 7967 6887 8445		

DW. 2/16/11

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV3

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP15	SOIL	FEB 14 2011	1010	✓	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
D. Sparks	FEB 14 2011 1250	SSU- 1	FEB 14 2011 1250
SSU- 1	FEB 16 2011 0700	L.D. Wall	FEB 16 2011 0700
L.D. Wall CHPRC	FEB 16 2011 1400	FEDEX	
FED EX		Brian Daniels	2/17/11 0930

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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SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-054	PAGE 2 OF 2
COLLECTOR D Sparks	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 3-2	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. 6WS-099	FIELD LOGBOOK NO. HNF-N-507-16-32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7967 6887 8445 2-16-11		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

SDG# SL1043

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-055

COLLECTOR: J. Scales	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
SAMPLING LOCATION: 600-220 Target 3-3	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068
ICE CHEST NO.: GWS-099	FIELD LOGBOOK NO.: HNF-N-507-16.32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7967 6887 8445 LW. 2/16/11

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

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
RADIOACTIVE TIE TO: B2BNV4

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP16	SOIL	FEB 14 2011	1026	✓	✓	✓

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES	DATE/TIME
RELINQUISHED BY/REMOVED FROM: J. Scales	FEB 14 2011 1250	RECEIVED BY/STORED IN: SSU-1	FEB 14 2011 1250
RELINQUISHED BY/REMOVED FROM: SSU-1	FEB 16 2011 0700	RECEIVED BY/STORED IN: L.D. Wall	FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM: L.D. Wall	FEB 16 2011 1400	RECEIVED BY/STORED IN: FEDEX	
RELINQUISHED BY/REMOVED FROM: FEDEX		RECEIVED BY/STORED IN: B-1 Brian Daniels	2/17/11 0930
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-055	PAGE 2 OF 2
SL104B COLLECTOR J. Scales	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 3-3	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. GWS-099	FIELD LOGBOOK NO. HNF-N-507-~~116-32~~	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	**ORIGINAL**
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7967 6887 8445 2-16-11		

SPECIAL INSTRUCTIONS

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

(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

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A-6003-618 (REV 2)

SDG# SL1043

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-056

COLLECTOR: J. Scales	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
PRICE CODE: 8C	AIR QUALITY: ☐	DATA TURNAROUND: 15 Days / 15 Days	
SAMPLING LOCATION: 600-220 Target 3-3 DUP	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils	SAF NO.: F11-068	
ICE CHEST NO.: GWS-099	FIELD LOGBOOK NO.: HNF-N-507-16 32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL		
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR	BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ RW. 2/16/11 7967 6887 8445	

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV5

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP17	SOIL	FEB 14 2011	1026	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: J. Scales	DATE/TIME: FEB 14 2011 1250	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: FEB 14 2011 1250
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: FEB 16 2011 0700	RECEIVED BY/STORED IN: L.D. Wall L.D. Wall CHPRC	DATE/TIME: FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM: L.D. Wall L.D. Wall CHPRC	DATE/TIME: FEB 16 2011 1400	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FED EX	DATE/TIME:	RECEIVED BY/STORED IN: Brian Daniels	DATE/TIME: 2/17/11 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
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 2/8/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-056	PAGE 2 OF 2
COLLECTOR J. Scales	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-220 Target 3-3 DUP	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-099	FIELD LOGBOOK NO. HNF-N-507-16.32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7967 6887 8445 2-16-11		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

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A-6003-618 (REV 2)

SDG# SL1043

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-057

COLLECTOR: J. Scales	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
SAMPLING LOCATION: 600-220 Target 3-4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068
ICE CHEST NO.: GWS-099	FIELD LOGBOOK NO.: HNF-N-507-16.32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7967 6887 8445

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

LW. 2/16/11

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV6

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP18	SOIL	FEB 14 2011	1040	X	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: J. Scales	DATE/TIME: FEB 14 2011 1250	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: FEB 14 2011 1250
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: FEB 16 2011 0700	RECEIVED BY/STORED IN: L.D. Wall SUPPO L.D. Wall	DATE/TIME: FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM: L.D. Wall SUPPO L.D. Wall	DATE/TIME: FEB 16 2011 1400	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FED EX	DATE/TIME:	RECEIVED BY/STORED IN: B-1 Brian Daniels	DATE/TIME: 2/17/11 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
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 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-057	PAGE 2 OF 2
COLLECTOR J. Scales	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 3-4	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. GWS-099	FIELD LOGBOOK NO. HNF-N-507-16.32	ACTUAL SAMPLE DEPTH 0-12ft	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 2-16-11	7967 6887 8445	

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SDG# SL1043

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-053

COLLECTOR: D. Sparks	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
SAMPLING LOCATION: 600-220 Target 3-1	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068
ICE CHEST NO.: GWS-099	FIELD LOGBOOK NO.: HNF-N-507-16-32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7967 6887 8445

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

RW 2/16/11

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV2

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP14	SOIL	FEB 14 2011	0955	✓	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
D. Sparks	FEB 14 2011 1250	SSU- 1	FEB 14 2011 1250
SSU- 1	FEB 16 2011 0700	L.D. Wall	FEB 16 2011 0700
L.D. Wall	FEB 16 2011 1400	FEDEX	
FED EX		B-1 Brian Daniel	2/17/11 0930

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 2/8/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-053	PAGE 2 OF 2
COLLECTOR D. Sparks	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-220 Target 3-1	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-099	FIELD LOGBOOK NO. HNF-N-507-16.32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7967 6887 8445		

2-16-11

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

SDG# SL1043

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-059

COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
SAMPLING LOCATION: 600-220 Target 4-1	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068
ICE CHEST NO.: 2/16/11 GWS-115 GWS-115	FIELD LOGBOOK NO.: HNF-N-507-16-32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7944 3167 1918 2-16-11

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

71.16

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV8

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP20	SOIL	FEB 10 2011	1142	✓	✓	✓

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES	DATE/TIME
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	FEB 10 2011 1500	RECEIVED BY/STORED IN: SSU-1	FEB 10 2011 1500
RELINQUISHED BY/REMOVED FROM: SSU-1	FEB 16 2011 0700	RECEIVED BY/STORED IN: L.D. Wall CHPRC	FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM: L.D. Wall CHPRC	FEB 16 2011 1400	RECEIVED BY/STORED IN: FEDEX	
RELINQUISHED BY/REMOVED FROM: FED EX		RECEIVED BY/STORED IN: Brian Daniels	2/17/11 0930
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-059	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 4-1	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. 6WS-115	FIELD LOGBOOK NO. HNF-N-507-110-32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7944 3167 1918 2-16-11		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-060

COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
SAMPLING LOCATION: 600-220 Target 4-2	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068
ICE CHEST NO.: GWS-115	FIELD LOGBOOK NO.: HNF-N-507-16.32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: SEE PTR 7944 3167 1918

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

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
RADIOACTIVE TIE TO: B2BNV9

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 {Total organic carbon};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP21	SOIL	FEB 10 2011	1220	✓	✓	✓

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES	DATE/TIME
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	FEB 10 2011 1500	RECEIVED BY/STORED IN: SSU-1	FEB 10 2011 1500
RELINQUISHED BY/REMOVED FROM: SSU-1	FEB 16 2011 0700	RECEIVED BY/STORED IN: L.D. Wall	FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM: L.D. Wall	FEB 16 2011 1400	RECEIVED BY/STORED IN: FEDEX	
RELINQUISHED BY/REMOVED FROM: FED EX		RECEIVED BY/STORED IN: Brian Daniels	2/17/11 0930
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-060	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-220 Target 4-2	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-115	FIELD LOGBOOK NO. HNF-N-507-16.32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7944 3167 198 2-16-11		

SPECIAL INSTRUCTIONS

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(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-061

COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
SAMPLING LOCATION: 600-220 Target 4-3	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068
ICE CHEST NO.: 6WS-115	FIELD LOGBOOK NO.: HNF-N-507-16.32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7944 3167 1918 2-16-11

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

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
RADIOACTIVE TIE TO: B2BNW0

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 {Total organic carbon};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP22	SOIL	FEB 10 2011	1230	✓	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	FEB 10 2011 1500	SSU-1	FEB 10 2011 1500
SSU-1	FEB 16 2011 0700	L.D. Wall CHPRC	FEB 16 2011 0700
L.D. Wall CHPRC	FEB 16 2011 1400	FEDEX	
FED EX		Brian Daniel	2/17/11 0930

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 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-061	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 4-3	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. GWS-115	FIELD LOGBOOK NO. HNF-N-507-16.32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7944 3167 1918 2-1641		

SPECIAL INSTRUCTIONS

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

(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-062

COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
SAMPLING LOCATION: 600-220 Target 4-4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068
ICE CHEST NO.: GWS-115	FIELD LOGBOOK NO.: HNF-N-507-16.32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7944 3167 1918 2-16-11

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

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
RADIOACTIVE TIE TO: B2BNW1

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP23	SOIL	FEB 10 2011	1250	✓	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	FEB 10 2011 1500	SSU-1	FEB 10 2011 1500
SSU-1	FEB 16 2011 0700	L.D. Wall K.D. Wall	FEB 16 2011 0700
L.D. Wall K.D. Wall CHPRC	FEB 16 2011 1400	FEDEX	
FED EX		B-1 Brian Daniels	2/12/11 0930

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 2/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-062	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 4-4	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. GWS-115	FIELD LOGBOOK NO. HNF-N-507-16-32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7944 3167 1918 2-16-11		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

SDG# SL1043

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-063

PAGE 1 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** WIDRIG, DL	**TELEPHONE NO.** 376-2858	**PROJECT COORDINATOR** BAUER, RG
SAMPLING LOCATION 600-220 Target 4-5	**PROJECT DESIGNATION** Ecological Baseline Risk Assessment - Soils		**SAF NO.** F11-068
ICE CHEST NO. GWS-115	**FIELD LOGBOOK NO.** HNF-N-507-16-32	**ACTUAL SAMPLE DEPTH** 0-12"	**COA** 302427ES10
SHIPPED TO TestAmerica St. Louis	**OFFSITE PROPERTY NO.** SEE PTR		**BILL OF LADING/AIR BILL NO.** ~~SEE PTR~~ 7944 3167 1918 2-16-11

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT FEDERAL EXPRESS

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
RADIOACTIVE TIE TO: B2BNW2

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 {Total organic carbon};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP24	SOIL	FEB 10 2011	1320	✓	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	FEB 10 2011 1420	SSU #1	FEB 10 2011 1420
SSU #1	FEB 16 2011 0700	L.D. Wall CHPRC	FEB 16 2011 0700
L.D. Wall CHPRC	FEB 16 2011 1400	FEDEX	
FED EX		Brian Daniels	2/17/11 0930

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 2/8/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-063	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 4-5	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. GWS-115	FIELD LOGBOOK NO. HNF-N-507-16-22	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7944 3167 1918 2-16-11		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

Appendix 5

Data Validation Supporting Documentation

VALIDATION LEVEL:	A	B	(C)	D	E
PROJECT: Ecological Baseline Risk Assessment			DATA PACKAGE: VSR12-006		
VALIDATOR: Eyda Hergenreder		LAB: TestAmerica		DATE: 12-28-2011	
			SDG: SL1043		
ANALYSES PERFORMED					
SW-846 8081 X	SW-846 8081 (TCLP)	SW-846 8082	SW-846 8081 (TCLP)	SW-846 8310	SW-846 8151A X
SAMPLES/MATRIX Soil samples B2BP15, B2BP16, B2BP17, B2BP18, B2BP14, B2BP20, B2BP21, B2BP22, B2BP23, B2BP24					

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:

Field trip blank sample B2BPF2 and EB sample B2BPF1 were included in SDG SL1044

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:

Surrogate

Samples B2BP15(10X), B2BP16(10X), B2BP17(100X), B2BP18(10X), B2BP14(10X), B2BP21(10X), B2BP22(10X), B2BP23(10X), B2BP24(10X): tetrachloro-m-xylene and decachlorobiphenyl surrogates < acceptance limit

Sample B2BP14 decachlorobiphenyl 188%

MS/MSD

Dinoseb MS/MSD 16%/26%

LCS

Dinoseb 22%

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: None

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: 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

Detection limits meet RDL? ..... Yes No N/A

Transcription/calculation errors? (Levels D, E) ..... Yes No N/A

Comments:

Toxaphene MDL >Required CRDL

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:

Appendix 6

Additional Documentation Requested By Client

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: SL1043 **Work Order #...:** MERPT1AA **Matrix.....:** SOLID
MB Lot-Sample #: F1B240000-092

Prep Date.....: 02/24/11
Analysis Date..: 02/27/11 **Prep Batch #...:** 1055092
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
alpha-BHC	ND	1.7	ug/kg	SW846 8081A
beta-BHC	ND	1.7	ug/kg	SW846 8081A
delta-BHC	ND	1.7	ug/kg	SW846 8081A
gamma-BHC (Lindane)	ND	1.7	ug/kg	SW846 8081A
alpha-Chlordane	ND	1.7	ug/kg	SW846 8081A
gamma-Chlordane	ND	1.7	ug/kg	SW846 8081A
4,4'-DDD	ND	1.7	ug/kg	SW846 8081A
4,4'-DDE	ND	1.7	ug/kg	SW846 8081A
4,4'-DDT	ND	1.7	ug/kg	SW846 8081A
Dieldrin	ND	1.7	ug/kg	SW846 8081A
Endosulfan I	ND	1.7	ug/kg	SW846 8081A
Endosulfan II	ND	1.7	ug/kg	SW846 8081A
Endosulfan sulfate	ND	1.7	ug/kg	SW846 8081A
Endrin	ND	1.7	ug/kg	SW846 8081A
Endrin aldehyde	ND	1.7	ug/kg	SW846 8081A
Endrin ketone	ND	1.7	ug/kg	SW846 8081A
Heptachlor	ND	1.7	ug/kg	SW846 8081A
Heptachlor epoxide	ND	1.7	ug/kg	SW846 8081A
Methoxychlor	ND	3.3	ug/kg	SW846 8081A
Toxaphene	ND	67	ug/kg	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	81	(30 - 130)
Decachlorobiphenyl	81	(17 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: SL1043 Work Order #...: MERPT1AC Matrix.....: SOLID
LCS Lot-Sample#: F1B240000-092
Prep Date.....: 02/24/11 Analysis Date..: 02/27/11
Prep Batch #...: 1055092
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
alpha-BHC	16.7	15.7	ug/kg	94	SW846 8081A
beta-BHC	16.7	14.8	ug/kg	89	SW846 8081A
delta-BHC	16.7	16.0	ug/kg	96	SW846 8081A
gamma-BHC (Lindane)	16.7	15.7	ug/kg	94	SW846 8081A
alpha-Chlordane	16.7	15.5	ug/kg	93	SW846 8081A
gamma-Chlordane	16.7	15.5	ug/kg	93	SW846 8081A
4,4'-DDD	16.7	16.6	ug/kg	100	SW846 8081A
4,4'-DDE	16.7	16.4	ug/kg	99	SW846 8081A
4,4'-DDT	16.7	15.9	ug/kg	95	SW846 8081A
Dieldrin	16.7	15.8	ug/kg	95	SW846 8081A
Endosulfan I	16.7	15.5	ug/kg	93	SW846 8081A
Endosulfan II	16.7	15.1	ug/kg	90	SW846 8081A
Endosulfan sulfate	16.7	14.8	ug/kg	89	SW846 8081A
Endrin	16.7	15.8	ug/kg	95	SW846 8081A
Endrin aldehyde	16.7	14.2	ug/kg	85	SW846 8081A
Endrin ketone	16.7	14.9	ug/kg	89	SW846 8081A
Heptachlor	16.7	15.9	ug/kg	95	SW846 8081A
Heptachlor epoxide	16.7	15.4	ug/kg	92	SW846 8081A
Methoxychlor	16.7	15.4	ug/kg	92	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	87	(41 - 131)
Decachlorobiphenyl	87	(52 - 136)

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

GC Semivolatiles

Client Lot #...: SL1043 Work Order #...: MEJ0P1AH-MS Matrix.....: SOLID
MS Lot-Sample #: F1B170522-001 MEJ0P1AJ-MSD
Date Sampled...: 02/14/11 Date Received..: 02/17/11
Prep Date.....: 02/24/11 Analysis Date..: 02/27/11
Prep Batch #...: 1055092
Dilution Factor: 1 % Moisture.....: 6.7

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
alpha-BHC	ND	17.9	15.5	ug/kg	87		SW846 8081A
	ND	17.8	16.4	ug/kg	92	5.9	SW846 8081A
beta-BHC	ND	17.9	14.8	ug/kg	83		SW846 8081A
	ND	17.8	15.6	ug/kg	88	5.2	SW846 8081A
delta-BHC	ND	17.9	15.8	ug/kg	88		SW846 8081A
	ND	17.8	16.6	ug/kg	93	5.1	SW846 8081A
gamma-BHC (Lindane)	ND	17.9	15.3	ug/kg	86		SW846 8081A
	ND	17.8	16.2	ug/kg	91	5.6	SW846 8081A
alpha-Chlordane	ND	17.9	15.3	ug/kg	86		SW846 8081A
	ND	17.8	16.2	ug/kg	91	5.3	SW846 8081A
gamma-Chlordane	ND	17.9	15.4	ug/kg	86		SW846 8081A
	ND	17.8	16.2	ug/kg	91	5.2	SW846 8081A
4,4'-DDD	ND	17.9	17.2	ug/kg	97		SW846 8081A
	ND	17.8	17.8	ug/kg	100	3.3	SW846 8081A
4,4'-DDE	56	17.9	74.7	ug/kg	103		SW846 8081A
	56	17.8	72.7	ug/kg	92	2.8	SW846 8081A
4,4'-DDT	24	17.9	35.2	ug/kg	65		SW846 8081A
	24	17.8	41.9	ug/kg	103	18	SW846 8081A
Dieldrin	ND	17.9	15.5	ug/kg	87		SW846 8081A
	ND	17.8	15.9	ug/kg	89	2.6	SW846 8081A
Endosulfan I	ND	17.9	14.5	ug/kg	81		SW846 8081A
	ND	17.8	14.8	ug/kg	83	1.9	SW846 8081A
Endosulfan II	ND	17.9	14.8	ug/kg	83		SW846 8081A
	ND	17.8	14.8	ug/kg	83	0.06	SW846 8081A
Endosulfan sulfate	ND	17.9	14.4	ug/kg	80		SW846 8081A
	ND	17.8	15.4	ug/kg	86	6.6	SW846 8081A
Endrin	ND	17.9	22.4	ug/kg	125		SW846 8081A
	ND	17.8	22.7	ug/kg	127	1.1	SW846 8081A
Endrin aldehyde	ND	17.9	15.3	ug/kg	86		SW846 8081A
	ND	17.8	15.5	ug/kg	87	1.3	SW846 8081A
Endrin ketone	ND	17.9	14.8	ug/kg	83		SW846 8081A
	ND	17.8	15.9	ug/kg	90	7.5	SW846 8081A
Heptachlor	ND	17.9	15.9	ug/kg	89		SW846 8081A
	ND	17.8	16.6	ug/kg	93	4.2	SW846 8081A
Heptachlor epoxide	ND	17.9	15.1	ug/kg	84		SW846 8081A
	ND	17.8	15.3	ug/kg	86	1.9	SW846 8081A
Methoxychlor	ND	17.9	15.2	ug/kg	85		SW846 8081A
	ND	17.8	15.5	ug/kg	87	1.7	SW846 8081A

(Continued on next page)

MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: SL1043 Work Order #...: MEJ0P1AH-MS Matrix.....: SOLID
MS Lot-Sample #: F1B170522-001 MEJ0P1AJ-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	80	(30 - 130)
	83	(30 - 130)
Decachlorobiphenyl	82	(17 - 150)
	84	(17 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: SL1043 **Work Order #...:** MERPH1AD **Matrix.....:** SOLID
MB Lot-Sample #: F1B240000-090

Prep Date.....: 02/24/11
Analysis Date..: 02/28/11 **Prep Batch #...:** 1055090
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Dichlorprop	ND	80	ug/kg	SW846 8151A
Dinoseb	ND	25	ug/kg	SW846 8151A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	83	(50 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: SL1043 **Work Order #...:** MERPH1AE **Matrix.....:** SOLID
LCS Lot-Sample#: F1B240000-090
Prep Date.....: 02/24/11 **Analysis Date..:** 02/28/11
Prep Batch #...: 1055090
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Dinoseb	**250**	**56.2**	**ug/kg**	**22**	**SW846 8151A**
Dichlorprop	**500**	**511**	**ug/kg**	**102**	**SW846 8151A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	88	(50 - 140)

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

GC Semivolatiles

Client Lot #...: SL1043 **Work Order #...:** MEJ1A1AK-MS **Matrix.....:** SOLID
MS Lot-Sample #: F1B170522-004 MEJ1A1AL-MSD
Date Sampled...: 02/14/11 **Date Received..:** 02/17/11
Prep Date.....: 02/24/11 **Analysis Date..:** 02/28/11
Prep Batch #...: 1055090
Dilution Factor: 1 **% Moisture.....:** 6.6

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Dichlorprop	**ND**	**537**	**531**	**ug/kg**	**99**		**SW846 8151A**
	ND	**534**	**562**	**ug/kg**	**105**	**5.7**	**SW846 8151A**
Dinoseb	**ND**	**268**	**43.2**	**ug/kg**	**16**		**SW846 8151A**
	ND	**267**	**69.9**	**ug/kg**	26	**47**	**SW846 8151A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
2,4-Dichlorophenylacetic acid	91	(50 - 150)
	91	(50 - 150)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

Date: 28 December 2011
To: CH2M Hill (technical representative)
From: Analytical Quality Associates, Inc.
Project: Ecological Baseline Risk Assessment
Subject: Inorganics - Sample Data Groups (SDGs) WSCF111547, WSCF111627 and WSCF112140

INTRODUCTION

This memorandum presents the results of data validation for SDGs WSCF111547, WSCF111627 and WSCF112140 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
B2BVN2	02/17/11	Soil	C	6010 & 200.8
B2BVN3	02/17/11	Soil	C	6010 & 200.8
B2BVN4	02/17/11	Soil	C	6010 & 200.8
B2BVN5	02/17/11	Soil	C	6010 & 200.8
B2BVN6	02/17/11	Soil	C	6010 & 200.8
B2BVN7	02/17/11	Soil	C	6010 & 200.8
B2BVN8	02/17/11	Soil	C	6010 & 200.8
B2BVN9	02/17/11	Soil	C	6010 & 200.8
B2C126	02/25/11	Soil	C	6010 & 200.8
B2C127	02/25/11	Soil	C	6010 & 200.8
B2C128	02/25/11	Soil	C	6010 & 200.8
B2C129	02/25/11	Soil	C	6010 & 200.8
B2C130	02/25/11	Soil	C	6010 & 200.8
B2C131	02/25/11	Soil	C	6010 & 200.8
B2C132	02/25/11	Soil	C	6010 & 200.8
B2C133	02/25/11	Soil	C	6010 & 200.8
B2C134	02/25/11	Soil	C	6010 & 200.8
B2C135	02/25/11	Soil	C	6010 & 200.8
B2C136	02/25/11	Soil	C	6010 & 200.8
B2C137	02/25/11	Soil	C	6010 & 200.8
B2C138	02/25/11	Soil	C	6010 & 200.8
B2C139	02/25/11	Soil	C	6010 & 200.8
B2C140	02/25/11	Soil	C	6010 & 200.8
B2C141	02/25/11	Soil	C	6010 & 200.8
B2C142	02/25/11	Soil	C	6010 & 200.8
B2C143	02/25/11	Soil	C	6010 & 200.8
B2C144	02/25/11	Soil	C	6010 & 200.8
B2C145	02/25/11	Soil	C	6010 & 200.8
B2C146	02/25/11	Soil	C	6010 & 200.8
B2BVM9	02/18/11	Soil	C	200.8
B2BVP2	02/23/11	Soil	C	200.8

B2BVP4	02/23/11	Soil	C	200.8
B2BVP5	02/23/11	Soil	C	200.8
B2BVP6	02/23/11	Soil	C	200.8
B2BVP7	02/23/11	Soil	C	200.8
B2BVP9	02/23/11	Soil	C	200.8

Data validation was conducted in accordance with the CHPRC validation statement of work and the Sampling and Analysis Plan for Ex-Situ Plant and Invertebrate Bioassays to Evaluate Terrestrial Environments across the Hanford Site, DOE/RL-2010-118, Draft A (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. Sample preservation for all analytes 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 with the following exceptions.

For SDG WSCF111547, the K and Mn laboratory blank results were > the method detection limit (MDL) but < the reporting limit (RL). All K and Mn sample results were well above the RLs and should not be qualified.

For SDG WSCF111627, the Na (batches 177969 and 177971) and the Cu and Mo (batch 177952) laboratory blank results were > the MDLs but < the RLs. The Mo results for samples B2C126, B2C127, B2C128, B2C129, B2C130, B2C131 and B2C133 were detects < the RLs and should be qualified as non-detects at the RL(1.0 mg/kg) and flagged “U.” All Na sample results

and all associated Cu sample results were detects well above the RLs and should not be qualified.

Trip Blanks

No trip blanks were submitted for validation.

Field Blanks

All field blank results were acceptable with the following exceptions. Cu was detected in field blank sample B2BW64 (SDG WSCF111588) and Mn, Cu, Zn were detected in field blank sample B2C1K4 (SDG WSCF111614).

Equipment Blanks

All equipment blank results were acceptable with the following exceptions. Na, Mn, Cu, Zn and Pb were detected in equipment blank sample B2BW63 (SDG WSCF111588) and Na was detected in equipment blank B2C1K5 (SDG WSCF111626).

- **Accuracy**

Accuracy is evaluated by reviewing matrix spike sample results, laboratory control sample results, and ICP-AES interference check 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 interference check sample limits are ones specified by the DV procedure.

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

All MS/MSD recoveries were acceptable with the following exceptions.

For SDG WSCF111547, the MS and MSD recoveries for Na (batch 177476) were > the upper acceptance limit. The Na results for samples B2BVN7, B2BVN8 and B2BVN9 were detects and should be qualified as estimates and flagged “J+.”

For SDG WSCF111627, the MS and/or MSD recoveries for Mn, Ni and Cr (batch 177952), for Mn and Ba (batch 177956) and for Na (batch 177971) were > the upper acceptance limit. All associated sample results were detects and should be qualified as estimates and flagged "J+." The MS and/or MSD recoveries for Cu and Zn (batch 177956) were < the lower acceptance limit but ≥30%. All associated sample results were detects and should be qualified as estimates and flagged "J-." See the table in Appendix 2 for a listing of all affected sample results.

Laboratory Control Samples (LCSs)

All LCS recoveries were acceptable with the following exceptions.

For SDG WSCF111547, the LCS recovery for Sb (batch 177457) was > the upper acceptance limit. All Sb sample results were non-detects and should be qualified unusable and flagged "UR." See the table in Appendix 2 for a listing of all affected sample result.

For SDG WSCF111627, the LCS recoveries for Sb (batches 177952 and 177956) were > 170%. All associated Sb sample results should be qualified as unusable and detects should be flagged "R" and non-detects should be flagged "UR." See the table in Appendix 2 for a listing of all affected sample results.

ICP-AES Interference Check Samples (ICSs)

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

- **Precision**

Precision is evaluated by reviewing MS/MSD results, field duplicate sample results, field split sample results, and ICP serial dilution 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 SAP required detection limits with differences <2X the required detection limits no precision infraction occurred. The serial dilution limits are ones specified by the DV procedure.

MS/MSD Samples

All MS/MSD RPD values were acceptable with the following exceptions.

For SDG WSCF111627, the Mn, Ni and Cr (batch 177952) and the Mn and Cu (batch 177956) were above the upper acceptance limit. All associated sample results were detects and should be qualified as estimates and flagged J; however all associated Mn, Ni and Cr were further flagged “J+” and all associated Cu were further flagged "J-" due to MS recovery infractions. See the table in Appendix 2 for a listing of all affected sample results.

Field Duplicate Samples

All field duplicate results were acceptable with the following exceptions. Samples B2C131/B2C132 RPDs K 38%, Ca 41%; Ni 131%; Sb 95%; Cr 65%; Cu 96%; Zn 57%; Pb 104%; As 32% and Mo and Sn difference >2X CRDL.

Field Split Samples

No field splits were submitted for validation.

ICP Serial Dilution Samples

ICS serial dilution data was not included in the data package. Sample results should not be qualified based on this.

- **ICP-MS Internal Standards**

The analysis of ICP-MS internal standards is used to determine the existences and magnitude of instrument drift and physical interferences. The criteria for evaluation of internal standard results apply to all samples (including QC) analyzed during the analytical run, beginning with the calibration.

ICP-MS 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 with associated non-detected sample results were below the CRDLs with the following exceptions. The B MDL for samples B2C133, B2C137, B2C139, B2C140, B2C141 and B2C142 were slightly greater than the CRDL.

- **Completeness**

SDGs WSCF111547, WSCF111627 and WSCF112140 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 for Sb was 0%. The completion percentage for remaining analytes was 100%.

MAJOR DEFICIENCIES

A major deficiency leading to qualification of Sb results as unusable was due to very high LCS recoveries. See the table in Appendix 2 for a listing of all affected sample results.

MINOR DEFICIENCIES

Minor deficiencies leading to qualification of sample results as estimates were due to a laboratory blank infraction for Mo and due to MS/MSD infractions for Na, Ni, Cr, Mn, Ba, Zn and Cu. See the table in Appendix 2 for a listing of all affected sample results.

It should be noted that samples chain of custody were not included in SDG WSCF112140, however the recheck, recount or reanalysis forms were submitted.

REFERENCES

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

DOE/RL-2010-118, Draft A, *Sampling and Analysis Plan for Ex-Situ Plant and Invertebrate Bioassays to Evaluate Terrestrial Environments across the Hanford Site*, March 2011.

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			
SDG: WSCF111547, WSCF111627, WSCF112140	Reviewer: AQA	Project: Ecological Baseline Risk Assessment	Page 1 of 2
Analyte(s)	**Qualifier**	**Samples Affected**	**Reason**
Mo	1.0U	B2C126, B2C127, B2C128, B2C129, B2C130, B2C131, B2C133	Laboratory blank contamination
Na	J+	B2BVN7, B2BVN8, B2BVN9, B2C143, B2C144, B2C145, B2C146	High MS/MSD recoveries
Ni, Cr	J+	B2C126, B2C127. B2C128, B2C129, B2C130, B2C131, B2C132, B2C133	High MS/MSD recoveries and poor MS/MSD precision
Mn,	J+	B2C126, B2C127. B2C128, B2C129, B2C130, B2C131, B2C132, B2C133, B2C134, B2C135, B2C136, B2C137, B2C138, B2C139, B2C140, B2C141, B2C142, B2C143, B2C144, B2C145, B2C146	High MS/MSD recoveries and poor MS/MSD precision
Ba	J+	B2C134, B2C135, B2C136, B2C137, B2C138, B2C139, B2C140, B2C141, B2C142, B2C143, B2C144, B2C145, B2C146	High MS/MSD recoveries
Zn	J-	B2C134, B2C135, B2C136, B2C137, B2C138, B2C139, B2C140, B2C141, B2C142, B2C143, B2C144, B2C145, B2C146	Low MS/MSD recoveries

Cu	J-	B2C134, B2C135, B2C136, B2C137, B2C138, B2C139, B2C140, B2C141, B2C142, B2C143, B2C144, B2C145, B2C146	Low MS/MSD recoveries and poor MS/MSD precision
Sb	**R**	B2C126, B2C127, B2C128, B2C129, B2C130, B2C131, B2C132, B2C133, B2C134, B2C135, B2C136,	Very high LCS recoveries
Sb	**UR**	B2BVN2, B2BVN3, B2BVN4, B2BVN5, B2BVN6, B2BVN7, B2BVN8, B2BVN9, B2C137, B2C138, B2C139, B2C140, B2C141, B2C142, B2C143, B2C144, B2C145, B2C146,	Very high LCS recoveries

Comments: None

Appendix 3

Annotated Laboratory Reports

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547001
SAF# F11-068
Sample ID B2BVN2

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/22/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4270		mg/kg	1	1.5	7.5	02/28/11
Potassium	7440-09-7	LA-505-411			1590		mg/kg	1	7.9	39	02/28/11
Sodium	7440-23-5	LA-505-411			189		mg/kg	1	1.2	5.9	02/28/11
Calcium	7440-70-2	LA-505-411			6570		mg/kg	1	3.0	15	02/28/11
Boron	7440-42-8	LA-505-411	B		8.62		mg/kg	1	4.4	22	02/28/11
Phosphorus	7723-14-0	LA-505-411			687		mg/kg	1	7.8	39	02/28/11
ICPMS Prep											**02/23/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			361		mg/kg	1	0.10	1.0	02/23/11
Nickel	7440-02-0	LA-505-412			10.5		mg/kg	1	0.20	2.0	02/23/11
Silver	7440-22-4	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	02/23/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.31		mg/kg	1	0.31	3.1	02/23/11
Barium	7440-39-3	LA-505-412			83.0		mg/kg	1	0.20	2.0	02/23/11
Beryllium	7440-41-7	LA-505-412	B		0.273		mg/kg	1	0.10	0.51	02/23/11
Cadmium	7440-43-9	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	02/23/11
Chromium	7440-47-3	LA-505-412			10.4		mg/kg	1	0.51	5.1	02/23/11
Cobalt	7440-48-4	LA-505-412			7.80		mg/kg	1	0.10	0.51	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547001
SAF# F11-068
Sample ID B2BVN2

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412		11.3		mg/kg	1	0.10	1.0	02/23/11
Vanadium	7440-62-2	LA-505-412		52.6		mg/kg	1	0.20	2.0	02/23/11
Zinc	7440-66-6	LA-505-412		41.6		mg/kg	1	0.82	5.1	02/23/11
Lead	7439-92-1	LA-505-412		5.10		mg/kg	1	0.10	1.0	02/23/11
Mercury	7439-97-6	LA-505-412	B	0.0651		mg/kg	1	0.051	0.20	02/23/11
Molybdenum	7439-98-7	LA-505-412	B	0.371		mg/kg	1	0.10	1.0	02/23/11
Thallium	7440-28-0	LA-505-412	B	0.120		mg/kg	1	0.10	0.51	02/23/11
Tin	7440-31-5	LA-505-412	B	0.404		mg/kg	1	0.10	0.51	02/23/11
Uranium	7440-61-1	LA-505-412	B	0.413		mg/kg	1	0.10	0.51	02/23/11
Arsenic	7440-38-2	LA-505-412	B	3.46		mg/kg	1	0.41	4.1	02/23/11
Selenium	7782-49-2	LA-505-412	B	0.618		mg/kg	1	0.31	3.1	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547002
SAF# F11-068
Sample ID B2BVN3

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/22/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4750		mg/kg	1	1.7	8.5	02/28/11
Potassium	7440-09-7	LA-505-411			2230		mg/kg	1	8.9	44	02/28/11
Sodium	7440-23-5	LA-505-411			215		mg/kg	1	1.3	6.7	02/28/11
Calcium	7440-70-2	LA-505-411			4070		mg/kg	1	3.4	17	02/28/11
Boron	7440-42-8	LA-505-411	B		10.3		mg/kg	1	5.0	25	02/28/11
Phosphorus	7723-14-0	LA-505-411			837		mg/kg	1	8.8	44	02/28/11
ICPMS Prep											**02/23/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			403		mg/kg	1	0.12	1.2	02/23/11
Nickel	7440-02-0	LA-505-412			11.1		mg/kg	1	0.23	2.3	02/23/11
Silver	7440-22-4	LA-505-412	U		<0.12		mg/kg	1	0.12	1.2	02/23/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.35		mg/kg	1	0.35	3.5	02/23/11
Barium	7440-39-3	LA-505-412			95.2		mg/kg	1	0.23	2.3	02/23/11
Beryllium	7440-41-7	LA-505-412	B		0.311		mg/kg	1	0.12	0.58	02/23/11
Cadmium	7440-43-9	LA-505-412	U		<0.12		mg/kg	1	0.12	1.2	02/23/11
Chromium	7440-47-3	LA-505-412			11.0		mg/kg	1	0.58	5.8	02/23/11
Cobalt	7440-48-4	LA-505-412			9.00		mg/kg	1	0.12	0.58	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547002
SAF# F11-068
Sample ID B2BVN3

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412		10.5		mg/kg	1	0.12	1.2	02/23/11
Vanadium	7440-62-2	LA-505-412		53.1		mg/kg	1	0.23	2.3	02/23/11
Zinc	7440-66-6	LA-505-412		43.9		mg/kg	1	0.93	5.8	02/23/11
Lead	7439-92-1	LA-505-412		5.32		mg/kg	1	0.12	1.2	02/23/11
Mercury	7439-97-6	LA-505-412	U	<0.058		mg/kg	1	0.058	0.23	02/23/11
Molybdenum	7439-98-7	LA-505-412	B	0.488		mg/kg	1	0.12	1.2	02/23/11
Thallium	7440-28-0	LA-505-412	B	0.124		mg/kg	1	0.12	0.58	02/23/11
Tin	7440-31-5	LA-505-412	B	0.415		mg/kg	1	0.12	0.58	02/23/11
Uranium	7440-61-1	LA-505-412	B	0.398		mg/kg	1	0.12	0.58	02/23/11
Arsenic	7440-38-2	LA-505-412	B	3.26		mg/kg	1	0.47	4.7	02/23/11
Selenium	7782-49-2	LA-505-412	B	1.03		mg/kg	1	0.35	3.5	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547003
SAF# F11-068
Sample ID B2BVN4

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/22/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4620		mg/kg	1	1.5	7.4	02/28/11
Potassium	7440-09-7	LA-505-411			2150		mg/kg	1	7.8	39	02/28/11
Sodium	7440-23-5	LA-505-411			201		mg/kg	1	1.2	5.8	02/28/11
Calcium	7440-70-2	LA-505-411			4100		mg/kg	1	3.0	15	02/28/11
Boron	7440-42-8	LA-505-411	B		10.2		mg/kg	1	4.4	22	02/28/11
Phosphorus	7723-14-0	LA-505-411			791		mg/kg	1	7.7	38	02/28/11
ICPMS Prep											**02/23/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			410		mg/kg	1	0.098	0.98	02/23/11
Nickel	7440-02-0	LA-505-412			11.7		mg/kg	1	0.20	2.0	02/23/11
Silver	7440-22-4	LA-505-412	U		<0.098		mg/kg	1	0.098	0.98	02/23/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.29		mg/kg	1	0.29	2.9	02/23/11
Barium	7440-39-3	LA-505-412			89.7		mg/kg	1	0.20	2.0	02/23/11
Beryllium	7440-41-7	LA-505-412	B		0.406		mg/kg	1	0.098	0.49	02/23/11
Cadmium	7440-43-9	LA-505-412	U		<0.098		mg/kg	1	0.098	0.98	02/23/11
Chromium	7440-47-3	LA-505-412			10.9		mg/kg	1	0.49	4.9	02/23/11
Cobalt	7440-48-4	LA-505-412			8.87		mg/kg	1	0.098	0.49	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547003
SAF# F11-068
Sample ID B2BVN4

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412		12.9		mg/kg	1	0.098	0.98	02/23/11
Vanadium	7440-62-2	LA-505-412		53.7		mg/kg	1	0.20	2.0	02/23/11
Zinc	7440-66-6	LA-505-412		42.5		mg/kg	1	0.78	4.9	02/23/11
Lead	7439-92-1	LA-505-412		5.60		mg/kg	1	0.098	0.98	02/23/11
Mercury	7439-97-6	LA-505-412	U	<0.049		mg/kg	1	0.049	0.20	02/23/11
Molybdenum	7439-98-7	LA-505-412	B	0.348		mg/kg	1	0.098	0.98	02/23/11
Thallium	7440-28-0	LA-505-412	B	0.101		mg/kg	1	0.098	0.49	02/23/11
Tin	7440-31-5	LA-505-412	B	0.415		mg/kg	1	0.098	0.49	02/23/11
Uranium	7440-61-1	LA-505-412		0.624		mg/kg	1	0.098	0.49	02/23/11
Arsenic	7440-38-2	LA-505-412	B	3.23		mg/kg	1	0.39	3.9	02/23/11
Selenium	7782-49-2	LA-505-412	B	0.970		mg/kg	1	0.29	2.9	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547004
SAF# F11-068
Sample ID B2BVN5

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/22/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			5110		mg/kg	1	1.5	7.4	02/28/11
Potassium	7440-09-7	LA-505-411			2510		mg/kg	1	7.7	39	02/28/11
Sodium	7440-23-5	LA-505-411			199		mg/kg	1	1.2	5.8	02/28/11
Calcium	7440-70-2	LA-505-411			7200		mg/kg	1	3.0	15	02/28/11
Boron	7440-42-8	LA-505-411	B		10.5		mg/kg	1	4.3	22	02/28/11
Phosphorus	7723-14-0	LA-505-411			730		mg/kg	1	7.6	38	02/28/11
ICPMS Prep											**02/23/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			374		mg/kg	1	0.099	0.99	02/23/11
Nickel	7440-02-0	LA-505-412			11.2		mg/kg	1	0.20	2.0	02/23/11
Silver	7440-22-4	LA-505-412	U		<0.099		mg/kg	1	0.099	0.99	02/23/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.30		mg/kg	1	0.30	3.0	02/23/11
Barium	7440-39-3	LA-505-412			91.9		mg/kg	1	0.20	2.0	02/23/11
Beryllium	7440-41-7	LA-505-412	B		0.411		mg/kg	1	0.099	0.50	02/23/11
Cadmium	7440-43-9	LA-505-412	U		<0.099		mg/kg	1	0.099	0.99	02/23/11
Chromium	7440-47-3	LA-505-412			11.0		mg/kg	1	0.50	5.0	02/23/11
Cobalt	7440-48-4	LA-505-412			8.03		mg/kg	1	0.099	0.50	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547004
SAF# F11-068
Sample ID B2BVN5

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412		10.2		mg/kg	1	0.099	0.99	02/23/11
Vanadium	7440-62-2	LA-505-412		47.9		mg/kg	1	0.20	2.0	02/23/11
Zinc	7440-66-6	LA-505-412		39.9		mg/kg	1	0.79	5.0	02/23/11
Lead	7439-92-1	LA-505-412		5.02		mg/kg	1	0.099	0.99	02/23/11
Mercury	7439-97-6	LA-505-412	U	<0.050		mg/kg	1	0.050	0.20	02/23/11
Molybdenum	7439-98-7	LA-505-412	B	0.282		mg/kg	1	0.099	0.99	02/23/11
Thallium	7440-28-0	LA-505-412	U	<0.099		mg/kg	1	0.099	0.50	02/23/11
Tin	7440-31-5	LA-505-412	B	0.364		mg/kg	1	0.099	0.50	02/23/11
Uranium	7440-61-1	LA-505-412	B	0.413		mg/kg	1	0.099	0.50	02/23/11
Arsenic	7440-38-2	LA-505-412	B	3.44		mg/kg	1	0.40	4.0	02/23/11
Selenium	7782-49-2	LA-505-412	B	1.03		mg/kg	1	0.30	3.0	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547005
SAF# F11-068
Sample ID B2BVN6

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/22/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4520		mg/kg	1	1.5	7.4	02/28/11
Potassium	7440-09-7	LA-505-411			1950		mg/kg	1	7.7	39	02/28/11
Sodium	7440-23-5	LA-505-411			230		mg/kg	1	1.2	5.8	02/28/11
Calcium	7440-70-2	LA-505-411			3860		mg/kg	1	3.0	15	02/28/11
Boron	7440-42-8	LA-505-411	B		12.0		mg/kg	1	4.4	22	02/28/11
Phosphorus	7723-14-0	LA-505-411			1110		mg/kg	1	7.6	38	02/28/11
ICPMS Prep											**02/23/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			348		mg/kg	1	0.10	1.0	02/23/11
Nickel	7440-02-0	LA-505-412			8.35		mg/kg	1	0.21	2.1	02/23/11
Silver	7440-22-4	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	02/23/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.31		mg/kg	1	0.31	3.1	02/23/11
Barium	7440-39-3	LA-505-412			79.0		mg/kg	1	0.21	2.1	02/23/11
Beryllium	7440-41-7	LA-505-412	B		0.283		mg/kg	1	0.10	0.52	02/23/11
Cadmium	7440-43-9	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	02/23/11
Chromium	7440-47-3	LA-505-412			7.37		mg/kg	1	0.52	5.2	02/23/11
Cobalt	7440-48-4	LA-505-412			7.66		mg/kg	1	0.10	0.52	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547005
SAF# F11-068
Sample ID B2BVN6

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412		10.2		mg/kg	1	0.10	1.0	02/23/11
Vanadium	7440-62-2	LA-505-412		58.7		mg/kg	1	0.21	2.1	02/23/11
Zinc	7440-66-6	LA-505-412		44.1		mg/kg	1	0.83	5.2	02/23/11
Lead	7439-92-1	LA-505-412		4.00		mg/kg	1	0.10	1.0	02/23/11
Mercury	7439-97-6	LA-505-412	U	<0.052		mg/kg	1	0.052	0.21	02/23/11
Molybdenum	7439-98-7	LA-505-412	B	0.371		mg/kg	1	0.10	1.0	02/23/11
Thallium	7440-28-0	LA-505-412	U	<0.10		mg/kg	1	0.10	0.52	02/23/11
Tin	7440-31-5	LA-505-412	B	0.355		mg/kg	1	0.10	0.52	02/23/11
Uranium	7440-61-1	LA-505-412	B	0.359		mg/kg	1	0.10	0.52	02/23/11
Arsenic	7440-38-2	LA-505-412	B	2.33		mg/kg	1	0.41	4.1	02/23/11
Selenium	7782-49-2	LA-505-412	B	0.922		mg/kg	1	0.31	3.1	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547006
SAF# F11-068
Sample ID B2BVN7

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/22/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			5150		mg/kg	1	1.5	7.4	03/02/11
Potassium	7440-09-7	LA-505-411			1720		mg/kg	1	7.7	38	03/02/11
Sodium	7440-23-5	LA-505-411	N	J+	248		mg/kg	1	1.2	5.8	03/02/11
Calcium	7440-70-2	LA-505-411			7470		mg/kg	1	3.0	15	03/02/11
Boron	7440-42-8	LA-505-411			26.4		mg/kg	1	4.3	22	03/02/11
Phosphorus	7723-14-0	LA-505-411			978		mg/kg	1	7.6	38	03/02/11
ICPMS Prep											**02/23/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			379		mg/kg	1	0.11	1.1	02/23/11
Nickel	7440-02-0	LA-505-412			10.9		mg/kg	1	0.21	2.1	02/23/11
Silver	7440-22-4	LA-505-412	U		<0.11		mg/kg	1	0.11	1.1	02/23/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.32		mg/kg	1	0.32	3.2	02/23/11
Barium	7440-39-3	LA-505-412			93.8		mg/kg	1	0.21	2.1	02/23/11
Beryllium	7440-41-7	LA-505-412	B		0.360		mg/kg	1	0.11	0.53	02/23/11
Cadmium	7440-43-9	LA-505-412	U		<0.11		mg/kg	1	0.11	1.1	02/23/11
Chromium	7440-47-3	LA-505-412			9.85		mg/kg	1	0.53	5.3	02/23/11
Cobalt	7440-48-4	LA-505-412			8.97		mg/kg	1	0.11	0.53	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547006
SAF# F11-068
Sample ID B2BVN7

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412		13.3		mg/kg	1	0.11	1.1	02/23/11
Vanadium	7440-62-2	LA-505-412		63.8		mg/kg	1	0.21	2.1	02/23/11
Zinc	7440-66-6	LA-505-412		46.5		mg/kg	1	0.85	5.3	02/23/11
Lead	7439-92-1	LA-505-412		6.54		mg/kg	1	0.11	1.1	02/23/11
Mercury	7439-97-6	LA-505-412	U	<0.053		mg/kg	1	0.053	0.21	02/23/11
Molybdenum	7439-98-7	LA-505-412	B	0.444		mg/kg	1	0.11	1.1	02/23/11
Thallium	7440-28-0	LA-505-412	U	<0.11		mg/kg	1	0.11	0.53	02/23/11
Tin	7440-31-5	LA-505-412	B	0.430		mg/kg	1	0.11	0.53	02/23/11
Uranium	7440-61-1	LA-505-412	B	0.393		mg/kg	1	0.11	0.53	02/23/11
Arsenic	7440-38-2	LA-505-412	B	3.88		mg/kg	1	0.43	4.3	02/23/11
Selenium	7782-49-2	LA-505-412	B	1.37		mg/kg	1	0.32	3.2	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547007
SAF# F11-068
Sample ID B2BVN8

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/22/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			5450		mg/kg	1	1.5	7.5	03/02/11
Potassium	7440-09-7	LA-505-411			1740		mg/kg	1	7.8	39	03/02/11
Sodium	7440-23-5	LA-505-411	N	J+	253		mg/kg	1	1.2	5.9	03/02/11
Calcium	7440-70-2	LA-505-411			7850		mg/kg	1	3.0	15	03/02/11
Boron	7440-42-8	LA-505-411			27.7		mg/kg	1	4.4	22	03/02/11
Phosphorus	7723-14-0	LA-505-411			1010		mg/kg	1	7.7	38	03/02/11
ICPMS Prep											**02/23/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			372		mg/kg	1	0.10	1.0	02/23/11
Nickel	7440-02-0	LA-505-412			10.2		mg/kg	1	0.20	2.0	02/23/11
Silver	7440-22-4	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	02/23/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.31		mg/kg	1	0.31	3.1	02/23/11
Barium	7440-39-3	LA-505-412			89.8		mg/kg	1	0.20	2.0	02/23/11
Beryllium	7440-41-7	LA-505-412	B		0.272		mg/kg	1	0.10	0.51	02/23/11
Cadmium	7440-43-9	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	02/23/11
Chromium	7440-47-3	LA-505-412			9.09		mg/kg	1	0.51	5.1	02/23/11
Cobalt	7440-48-4	LA-505-412			8.64		mg/kg	1	0.10	0.51	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547007
SAF# F11-068
Sample ID B2BVN8

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412		13.0		mg/kg	1	0.10	1.0	02/23/11
Vanadium	7440-62-2	LA-505-412		59.1		mg/kg	1	0.20	2.0	02/23/11
Zinc	7440-66-6	LA-505-412		45.7		mg/kg	1	0.81	5.1	02/23/11
Lead	7439-92-1	LA-505-412		5.65		mg/kg	1	0.10	1.0	02/23/11
Mercury	7439-97-6	LA-505-412	U	<0.051		mg/kg	1	0.051	0.20	02/23/11
Molybdenum	7439-98-7	LA-505-412	B	0.340		mg/kg	1	0.10	1.0	02/23/11
Thallium	7440-28-0	LA-505-412	U	<0.10		mg/kg	1	0.10	0.51	02/23/11
Tin	7440-31-5	LA-505-412	B	0.398		mg/kg	1	0.10	0.51	02/23/11
Uranium	7440-61-1	LA-505-412	B	0.402		mg/kg	1	0.10	0.51	02/23/11
Arsenic	7440-38-2	LA-505-412	B	3.78		mg/kg	1	0.41	4.1	02/23/11
Selenium	7782-49-2	LA-505-412	B	1.16		mg/kg	1	0.31	3.1	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547008
SAF# F11-068
Sample ID B2BVN9

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/22/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			5170		mg/kg	1	1.5	7.7	03/02/11
Potassium	7440-09-7	LA-505-411			2130		mg/kg	1	8.0	40	03/02/11
Sodium	7440-23-5	LA-505-411	N	J+	262		mg/kg	1	1.2	6.0	03/02/11
Calcium	7440-70-2	LA-505-411			4730		mg/kg	1	3.1	15	03/02/11
Boron	7440-42-8	LA-505-411			24.7		mg/kg	1	4.5	23	03/02/11
Phosphorus	7723-14-0	LA-505-411			931		mg/kg	1	7.9	40	03/02/11
ICPMS Prep											**02/23/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412			413		mg/kg	1	0.10	1.0	02/23/11
Nickel	7440-02-0	LA-505-412			10.7		mg/kg	1	0.20	2.0	02/23/11
Silver	7440-22-4	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	02/23/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.31		mg/kg	1	0.31	3.1	02/23/11
Barium	7440-39-3	LA-505-412			97.8		mg/kg	1	0.20	2.0	02/23/11
Beryllium	7440-41-7	LA-505-412	B		0.471		mg/kg	1	0.10	0.51	02/23/11
Cadmium	7440-43-9	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	02/23/11
Chromium	7440-47-3	LA-505-412			9.97		mg/kg	1	0.51	5.1	02/23/11
Cobalt	7440-48-4	LA-505-412			9.11		mg/kg	1	0.10	0.51	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111547

Sample # 111547008
SAF# F11-068
Sample ID B2BVN9

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412		15.2		mg/kg	1	0.10	1.0	02/23/11
Vanadium	7440-62-2	LA-505-412		56.0		mg/kg	1	0.20	2.0	02/23/11
Zinc	7440-66-6	LA-505-412		49.1		mg/kg	1	0.82	5.1	02/23/11
Lead	7439-92-1	LA-505-412		5.79		mg/kg	1	0.10	1.0	02/23/11
Mercury	7439-97-6	LA-505-412	U	<0.051		mg/kg	1	0.051	0.20	02/23/11
Molybdenum	7439-98-7	LA-505-412	B	0.336		mg/kg	1	0.10	1.0	02/23/11
Thallium	7440-28-0	LA-505-412	U	<0.10		mg/kg	1	0.10	0.51	02/23/11
Tin	7440-31-5	LA-505-412	B	0.471		mg/kg	1	0.10	0.51	02/23/11
Uranium	7440-61-1	LA-505-412		0.549		mg/kg	1	0.10	0.51	02/23/11
Arsenic	7440-38-2	LA-505-412	B	3.39		mg/kg	1	0.41	4.1	02/23/11
Selenium	7782-49-2	LA-505-412	B	1.37		mg/kg	1	0.31	3.1	02/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627001
SAF# F11-068
Sample ID B2C126

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4140		mg/kg	1	1.5	7.6	03/10/11
Potassium	7440-09-7	LA-505-411			2160		mg/kg	1	7.9	40	03/10/11
Sodium	7440-23-5	LA-505-411	C		219		mg/kg	1	1.2	6.0	03/10/11
Calcium	7440-70-2	LA-505-411			3390		mg/kg	1	3.0	15	03/10/11
Boron	7440-42-8	LA-505-411	BEX		4.99		mg/kg	1	4.4	22	03/10/11
Phosphorus	7723-14-0	LA-505-411			650		mg/kg	1	7.8	39	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	396		mg/kg	1	0.10	1.0	03/01/11
Nickel	7440-02-0	LA-505-412	N	J+	13.5		mg/kg	1	0.20	2.0	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	03/01/11
Antimony	7440-36-0	LA-505-412		R	15.3		mg/kg	1	0.30	3.0	03/01/11
Barium	7440-39-3	LA-505-412			95.1		mg/kg	1	0.20	2.0	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.339		mg/kg	1	0.10	0.50	03/01/11
Cadmium	7440-43-9	LA-505-412	B		0.116		mg/kg	1	0.10	1.0	03/01/11
Chromium	7440-47-3	LA-505-412	N	J+	13.3		mg/kg	1	0.50	5.0	03/01/11
Cobalt	7440-48-4	LA-505-412			7.84		mg/kg	1	0.10	0.50	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627001
SAF# F11-068
Sample ID B2C126

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412			27.7		mg/kg	1	0.10	1.0	03/01/11
Vanadium	7440-62-2	LA-505-412			44.4		mg/kg	1	0.20	2.0	03/01/11
Zinc	7440-66-6	LA-505-412			60.2		mg/kg	1	0.80	5.0	03/01/11
Lead	7439-92-1	LA-505-412			13.2		mg/kg	1	0.10	1.0	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.050		mg/kg	1	0.050	0.20	03/01/11
Molybdenum	7439-98-7	LA-505-412	BC	1.0U	0.360		mg/kg	1	0.10	1.0	03/01/11
Thallium	7440-28-0	LA-505-412	B		0.110		mg/kg	1	0.10	0.50	03/01/11
Tin	7440-31-5	LA-505-412			0.524		mg/kg	1	0.10	0.50	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.440		mg/kg	1	0.10	0.50	03/01/11
Arsenic	7440-38-2	LA-505-412	B		2.84		mg/kg	1	0.40	4.0	03/01/11
Selenium	7782-49-2	LA-505-412	B		1.25		mg/kg	1	0.30	3.0	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
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B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627002
SAF# F11-068
Sample ID B2C127

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4210		mg/kg	1	1.5	7.7	03/10/11
Potassium	7440-09-7	LA-505-411			2020		mg/kg	1	8.0	40	03/10/11
Sodium	7440-23-5	LA-505-411	C		200		mg/kg	1	1.2	6.0	03/10/11
Calcium	7440-70-2	LA-505-411			3660		mg/kg	1	3.1	15	03/10/11
Boron	7440-42-8	LA-505-411	BEX		4.62		mg/kg	1	4.5	23	03/10/11
Phosphorus	7723-14-0	LA-505-411			627		mg/kg	1	7.9	40	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	365		mg/kg	1	0.10	1.0	03/01/11
Nickel	7440-02-0	LA-505-412	N	J+	13.0		mg/kg	1	0.20	2.0	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	03/01/11
Antimony	7440-36-0	LA-505-412		R	6.20		mg/kg	1	0.31	3.1	03/01/11
Barium	7440-39-3	LA-505-412			93.5		mg/kg	1	0.20	2.0	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.302		mg/kg	1	0.10	0.51	03/01/11
Cadmium	7440-43-9	LA-505-412	B		0.125		mg/kg	1	0.10	1.0	03/01/11
Chromium	7440-47-3	LA-505-412	N	J+	13.9		mg/kg	1	0.51	5.1	03/01/11
Cobalt	7440-48-4	LA-505-412			7.49		mg/kg	1	0.10	0.51	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
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C - Analyte was found in the Associated Blank. (Inorganic)
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627002
SAF# F11-068
Sample ID B2C127

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412			16.4		mg/kg	1	0.10	1.0	03/01/11
Vanadium	7440-62-2	LA-505-412			45.8		mg/kg	1	0.20	2.0	03/01/11
Zinc	7440-66-6	LA-505-412			47.5		mg/kg	1	0.82	5.1	03/01/11
Lead	7439-92-1	LA-505-412			13.6		mg/kg	1	0.10	1.0	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.051		mg/kg	1	0.051	0.20	03/01/11
Molybdenum	7439-98-7	LA-505-412	BC	1.0U	0.369		mg/kg	1	0.10	1.0	03/01/11
Thallium	7440-28-0	LA-505-412	B		0.116		mg/kg	1	0.10	0.51	03/01/11
Tin	7440-31-5	LA-505-412	B		0.423		mg/kg	1	0.10	0.51	03/01/11
Uranium	7440-61-1	LA-505-412			0.996		mg/kg	1	0.10	0.51	03/01/11
Arsenic	7440-38-2	LA-505-412	B		4.06		mg/kg	1	0.41	4.1	03/01/11
Selenium	7782-49-2	LA-505-412	B		1.25		mg/kg	1	0.31	3.1	03/01/11

MDL = Minimum Detection
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TP Err = Total Propagated
DF = Dilution Factor
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627003
SAF# F11-068
Sample ID B2C128

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4630		mg/kg	1	1.5	7.7	03/10/11
Potassium	7440-09-7	LA-505-411			2230		mg/kg	1	8.0	40	03/10/11
Sodium	7440-23-5	LA-505-411	C		223		mg/kg	1	1.2	6.0	03/10/11
Calcium	7440-70-2	LA-505-411			3440		mg/kg	1	3.1	15	03/10/11
Boron	7440-42-8	LA-505-411	BEX		5.26		mg/kg	1	4.5	22	03/10/11
Phosphorus	7723-14-0	LA-505-411			621		mg/kg	1	7.9	39	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	351		mg/kg	1	0.11	1.1	03/01/11
Nickel	7440-02-0	LA-505-412	N	J+	11.7		mg/kg	1	0.21	2.1	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.11		mg/kg	1	0.11	1.1	03/01/11
Antimony	7440-36-0	LA-505-412		R	10.1		mg/kg	1	0.32	3.2	03/01/11
Barium	7440-39-3	LA-505-412			88.1		mg/kg	1	0.21	2.1	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.442		mg/kg	1	0.11	0.53	03/01/11
Cadmium	7440-43-9	LA-505-412	U		<0.11		mg/kg	1	0.11	1.1	03/01/11
Chromium	7440-47-3	LA-505-412	N	J+	13.3		mg/kg	1	0.53	5.3	03/01/11
Cobalt	7440-48-4	LA-505-412			7.03		mg/kg	1	0.11	0.53	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627003
SAF# F11-068
Sample ID B2C128

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412			19.4		mg/kg	1	0.11	1.1	03/01/11
Vanadium	7440-62-2	LA-505-412			38.7		mg/kg	1	0.21	2.1	03/01/11
Zinc	7440-66-6	LA-505-412			42.7		mg/kg	1	0.85	5.3	03/01/11
Lead	7439-92-1	LA-505-412			8.64		mg/kg	1	0.11	1.1	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.053		mg/kg	1	0.053	0.21	03/01/11
Molybdenum	7439-98-7	LA-505-412	BC	1.0U	0.268		mg/kg	1	0.11	1.1	03/01/11
Thallium	7440-28-0	LA-505-412	U		<0.11		mg/kg	1	0.11	0.53	03/01/11
Tin	7440-31-5	LA-505-412	B		0.356		mg/kg	1	0.11	0.53	03/01/11
Uranium	7440-61-1	LA-505-412			0.719		mg/kg	1	0.11	0.53	03/01/11
Arsenic	7440-38-2	LA-505-412	B		3.38		mg/kg	1	0.42	4.2	03/01/11
Selenium	7782-49-2	LA-505-412	B		0.979		mg/kg	1	0.32	3.2	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627004
SAF# F11-068
Sample ID B2C129

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4310		mg/kg	1	1.5	7.6	03/10/11
Potassium	7440-09-7	LA-505-411			2060		mg/kg	1	7.9	39	03/10/11
Sodium	7440-23-5	LA-505-411	C		201		mg/kg	1	1.2	5.9	03/10/11
Calcium	7440-70-2	LA-505-411			3580		mg/kg	1	3.0	15	03/10/11
Boron	7440-42-8	LA-505-411	BEX		4.43		mg/kg	1	4.4	22	03/10/11
Phosphorus	7723-14-0	LA-505-411			658		mg/kg	1	7.8	39	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	363		mg/kg	1	0.096	0.96	03/01/11
Nickel	7440-02-0	LA-505-412	N	J+	11.9		mg/kg	1	0.19	1.9	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.096		mg/kg	1	0.096	0.96	03/01/11
Antimony	7440-36-0	LA-505-412		R	14.3		mg/kg	1	0.29	2.9	03/01/11
Barium	7440-39-3	LA-505-412			93.4		mg/kg	1	0.19	1.9	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.333		mg/kg	1	0.096	0.48	03/01/11
Cadmium	7440-43-9	LA-505-412	B		0.109		mg/kg	1	0.096	0.96	03/01/11
Chromium	7440-47-3	LA-505-412	N	J+	13.0		mg/kg	1	0.48	4.8	03/01/11
Cobalt	7440-48-4	LA-505-412			7.39		mg/kg	1	0.096	0.48	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627004
SAF# F11-068
Sample ID B2C129

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412			18.3		mg/kg	1	0.096	0.96	03/01/11
Vanadium	7440-62-2	LA-505-412			46.1		mg/kg	1	0.19	1.9	03/01/11
Zinc	7440-66-6	LA-505-412			48.3		mg/kg	1	0.77	4.8	03/01/11
Lead	7439-92-1	LA-505-412			6.79		mg/kg	1	0.096	0.96	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.048		mg/kg	1	0.048	0.19	03/01/11
Molybdenum	7439-98-7	LA-505-412	BC	1.0U	0.330		mg/kg	1	0.096	0.96	03/01/11
Thallium	7440-28-0	LA-505-412	B		0.107		mg/kg	1	0.096	0.48	03/01/11
Tin	7440-31-5	LA-505-412	B		0.418		mg/kg	1	0.096	0.48	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.454		mg/kg	1	0.096	0.48	03/01/11
Arsenic	7440-38-2	LA-505-412	B		3.29		mg/kg	1	0.38	3.8	03/01/11
Selenium	7782-49-2	LA-505-412	B		1.42		mg/kg	1	0.29	2.9	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627005
SAF# F11-068
Sample ID B2C130

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4620		mg/kg	1	1.5	7.6	03/10/11
Potassium	7440-09-7	LA-505-411			2210		mg/kg	1	7.9	40	03/10/11
Sodium	7440-23-5	LA-505-411	C		207		mg/kg	1	1.2	6.0	03/10/11
Calcium	7440-70-2	LA-505-411			3490		mg/kg	1	3.0	15	03/10/11
Boron	7440-42-8	LA-505-411	BEX		5.10		mg/kg	1	4.4	22	03/10/11
Phosphorus	7723-14-0	LA-505-411			612		mg/kg	1	7.8	39	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	346		mg/kg	1	0.094	0.94	03/01/11
Nickel	7440-02-0	LA-505-412	N	J+	11.1		mg/kg	1	0.19	1.9	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.094		mg/kg	1	0.094	0.94	03/01/11
Antimony	7440-36-0	LA-505-412		R	4.51		mg/kg	1	0.28	2.8	03/01/11
Barium	7440-39-3	LA-505-412			88.3		mg/kg	1	0.19	1.9	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.269		mg/kg	1	0.094	0.47	03/01/11
Cadmium	7440-43-9	LA-505-412	U		<0.094		mg/kg	1	0.094	0.94	03/01/11
Chromium	7440-47-3	LA-505-412	N	J+	12.9		mg/kg	1	0.47	4.7	03/01/11
Cobalt	7440-48-4	LA-505-412			7.32		mg/kg	1	0.094	0.47	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627005
SAF# F11-068
Sample ID B2C130

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412			13.2		mg/kg	1	0.094	0.94	03/01/11
Vanadium	7440-62-2	LA-505-412			44.4		mg/kg	1	0.19	1.9	03/01/11
Zinc	7440-66-6	LA-505-412			42.6		mg/kg	1	0.75	4.7	03/01/11
Lead	7439-92-1	LA-505-412			6.01		mg/kg	1	0.094	0.94	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.047		mg/kg	1	0.047	0.19	03/01/11
Molybdenum	7439-98-7	LA-505-412	BC	1.0U	0.362		mg/kg	1	0.094	0.94	03/01/11
Thallium	7440-28-0	LA-505-412	B		0.106		mg/kg	1	0.094	0.47	03/01/11
Tin	7440-31-5	LA-505-412	B		0.404		mg/kg	1	0.094	0.47	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.458		mg/kg	1	0.094	0.47	03/01/11
Arsenic	7440-38-2	LA-505-412	B		2.94		mg/kg	1	0.38	3.8	03/01/11
Selenium	7782-49-2	LA-505-412	B		0.939		mg/kg	1	0.28	2.8	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
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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.
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627006
SAF# F11-068
Sample ID B2C131

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4690		mg/kg	1	1.5	7.4	03/10/11
Potassium	7440-09-7	LA-505-411			2220		mg/kg	1	7.7	39	03/10/11
Sodium	7440-23-5	LA-505-411	C		206		mg/kg	1	1.2	5.8	03/10/11
Calcium	7440-70-2	LA-505-411			3110		mg/kg	1	3.0	15	03/10/11
Boron	7440-42-8	LA-505-411	BEX		5.17		mg/kg	1	4.3	22	03/10/11
Phosphorus	7723-14-0	LA-505-411			605		mg/kg	1	7.6	38	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	298		mg/kg	1	0.098	0.98	03/01/11
Nickel	7440-02-0	LA-505-412	N	J+	12.5		mg/kg	1	0.20	2.0	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.098		mg/kg	1	0.098	0.98	03/01/11
Antimony	7440-36-0	LA-505-412	B	R	0.448		mg/kg	1	0.29	2.9	03/01/11
Barium	7440-39-3	LA-505-412			63.7		mg/kg	1	0.20	2.0	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.190		mg/kg	1	0.098	0.49	03/01/11
Cadmium	7440-43-9	LA-505-412	B		0.129		mg/kg	1	0.098	0.98	03/01/11
Chromium	7440-47-3	LA-505-412	N	J+	14.6		mg/kg	1	0.49	4.9	03/01/11
Cobalt	7440-48-4	LA-505-412			6.30		mg/kg	1	0.098	0.49	03/01/11

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

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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627006
SAF# F11-068
Sample ID B2C131

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412			17.1		mg/kg	1	0.098	0.98	03/01/11
Vanadium	7440-62-2	LA-505-412			40.6		mg/kg	1	0.20	2.0	03/01/11
Zinc	7440-66-6	LA-505-412			71.6		mg/kg	1	0.78	4.9	03/01/11
Lead	7439-92-1	LA-505-412			25.8		mg/kg	1	0.098	0.98	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.049		mg/kg	1	0.049	0.20	03/01/11
Molybdenum	7439-98-7	LA-505-412	BC	1.0U	0.290		mg/kg	1	0.098	0.98	03/01/11
Thallium	7440-28-0	LA-505-412	U		<0.098		mg/kg	1	0.098	0.49	03/01/11
Tin	7440-31-5	LA-505-412	B		0.309		mg/kg	1	0.098	0.49	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.486		mg/kg	1	0.098	0.49	03/01/11
Arsenic	7440-38-2	LA-505-412	B		3.45		mg/kg	1	0.39	3.9	03/01/11
Selenium	7782-49-2	LA-505-412	B		1.27		mg/kg	1	0.29	2.9	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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C - Analyte was found in the Associated Blank. (Inorganic)
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627007
SAF# F11-068
Sample ID B2C132

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4310		mg/kg	1	1.5	7.4	03/10/11
Potassium	7440-09-7	LA-505-411			1510		mg/kg	1	7.7	38	03/10/11
Sodium	7440-23-5	LA-505-411	C		168		mg/kg	1	1.2	5.8	03/10/11
Calcium	7440-70-2	LA-505-411			4690		mg/kg	1	3.0	15	03/10/11
Boron	7440-42-8	LA-505-411	BEX		5.59		mg/kg	1	4.3	22	03/10/11
Phosphorus	7723-14-0	LA-505-411			636		mg/kg	1	7.6	38	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	354		mg/kg	1	0.094	0.94	03/01/11
Nickel	7440-02-0	LA-505-412	N	J+	50.5		mg/kg	1	0.19	1.9	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.094		mg/kg	1	0.094	0.94	03/01/11
Antimony	7440-36-0	LA-505-412	B	R	1.26		mg/kg	1	0.28	2.8	03/01/11
Barium	7440-39-3	LA-505-412			70.7		mg/kg	1	0.19	1.9	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.172		mg/kg	1	0.094	0.47	03/01/11
Cadmium	7440-43-9	LA-505-412	B		0.218		mg/kg	1	0.094	0.94	03/01/11
Chromium	7440-47-3	LA-505-412	N	J+	28.7		mg/kg	1	0.47	4.7	03/01/11
Cobalt	7440-48-4	LA-505-412			7.82		mg/kg	1	0.094	0.47	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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+ - 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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627007
SAF# F11-068
Sample ID B2C132

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412		49.0		mg/kg	1	0.094	0.94	03/01/11
Vanadium	7440-62-2	LA-505-412		38.4		mg/kg	1	0.19	1.9	03/01/11
Zinc	7440-66-6	LA-505-412		129		mg/kg	1	0.75	4.7	03/01/11
Lead	7439-92-1	LA-505-412		81.3		mg/kg	1	0.094	0.94	03/01/11
Mercury	7439-97-6	LA-505-412	U	<0.047		mg/kg	1	0.047	0.19	03/01/11
Molybdenum	7439-98-7	LA-505-412	C	10.5		mg/kg	1	0.094	0.94	03/01/11
Thallium	7440-28-0	LA-505-412	U	<0.094		mg/kg	1	0.094	0.47	03/01/11
Tin	7440-31-5	LA-505-412		2.02		mg/kg	1	0.094	0.47	03/01/11
Uranium	7440-61-1	LA-505-412	B	0.435		mg/kg	1	0.094	0.47	03/01/11
Arsenic	7440-38-2	LA-505-412		4.79		mg/kg	1	0.37	3.7	03/01/11
Selenium	7782-49-2	LA-505-412	B	0.780		mg/kg	1	0.28	2.8	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627008
SAF# F11-068
Sample ID B2C133

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4310		mg/kg	1	1.5	7.3	03/10/11
Potassium	7440-09-7	LA-505-411			1600		mg/kg	1	7.6	38	03/10/11
Sodium	7440-23-5	LA-505-411	C		169		mg/kg	1	1.2	5.8	03/10/11
Calcium	7440-70-2	LA-505-411			3480		mg/kg	1	2.9	15	03/10/11
Boron	7440-42-8	LA-505-411	U		<4.3		mg/kg	1	4.3	21	03/10/11
Phosphorus	7723-14-0	LA-505-411			571		mg/kg	1	7.5	38	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	297		mg/kg	1	0.097	0.97	03/01/11
Nickel	7440-02-0	LA-505-412	N	J+	12.1		mg/kg	1	0.19	1.9	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.097		mg/kg	1	0.097	0.97	03/01/11
Antimony	7440-36-0	LA-505-412	B	R	0.668		mg/kg	1	0.29	2.9	03/01/11
Barium	7440-39-3	LA-505-412			70.9		mg/kg	1	0.19	1.9	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.278		mg/kg	1	0.097	0.49	03/01/11
Cadmium	7440-43-9	LA-505-412	B		0.143		mg/kg	1	0.097	0.97	03/01/11
Chromium	7440-47-3	LA-505-412	N	J+	14.1		mg/kg	1	0.49	4.9	03/01/11
Cobalt	7440-48-4	LA-505-412			6.11		mg/kg	1	0.097	0.49	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627008
SAF# F11-068
Sample ID B2C133

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412			66.8		mg/kg	1	0.097	0.97	03/01/11
Vanadium	7440-62-2	LA-505-412			33.8		mg/kg	1	0.19	1.9	03/01/11
Zinc	7440-66-6	LA-505-412			61.4		mg/kg	1	0.78	4.9	03/01/11
Lead	7439-92-1	LA-505-412			20.7		mg/kg	1	0.097	0.97	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.049		mg/kg	1	0.049	0.19	03/01/11
Molybdenum	7439-98-7	LA-505-412	BC	1.0U	0.392		mg/kg	1	0.097	0.97	03/01/11
Thallium	7440-28-0	LA-505-412	U		<0.097		mg/kg	1	0.097	0.49	03/01/11
Tin	7440-31-5	LA-505-412	B		0.390		mg/kg	1	0.097	0.49	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.424		mg/kg	1	0.097	0.49	03/01/11
Arsenic	7440-38-2	LA-505-412			4.25		mg/kg	1	0.39	3.9	03/01/11
Selenium	7782-49-2	LA-505-412	B		1.46		mg/kg	1	0.29	2.9	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627009
SAF# F11-068
Sample ID B2C134

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4550		mg/kg	1	1.5	7.5	03/10/11
Potassium	7440-09-7	LA-505-411			1940		mg/kg	1	7.9	39	03/10/11
Sodium	7440-23-5	LA-505-411	C		246		mg/kg	1	1.2	5.9	03/10/11
Calcium	7440-70-2	LA-505-411			4160		mg/kg	1	3.0	15	03/10/11
Boron	7440-42-8	LA-505-411	EX		23.6		mg/kg	1	4.4	22	03/10/11
Phosphorus	7723-14-0	LA-505-411			569		mg/kg	1	7.8	39	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	310		mg/kg	1	0.11	1.1	03/01/11
Nickel	7440-02-0	LA-505-412			12.1		mg/kg	1	0.22	2.2	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.11		mg/kg	1	0.11	1.1	03/01/11
Antimony	7440-36-0	LA-505-412		R	3.75		mg/kg	1	0.33	3.3	03/01/11
Barium	7440-39-3	LA-505-412	N	J+	79.1		mg/kg	1	0.22	2.2	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.323		mg/kg	1	0.11	0.54	03/01/11
Cadmium	7440-43-9	LA-505-412	B		0.151		mg/kg	1	0.11	1.1	03/01/11
Chromium	7440-47-3	LA-505-412			16.3		mg/kg	1	0.54	5.4	03/01/11
Cobalt	7440-48-4	LA-505-412			6.47		mg/kg	1	0.11	0.54	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627009
SAF# F11-068
Sample ID B2C134

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412	N	J-	225		mg/kg	1	0.11	1.1	03/01/11
Vanadium	7440-62-2	LA-505-412			33.4		mg/kg	1	0.22	2.2	03/01/11
Zinc	7440-66-6	LA-505-412	N	J-	109		mg/kg	1	0.87	5.4	03/01/11
Lead	7439-92-1	LA-505-412			77.4		mg/kg	1	0.11	1.1	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.054		mg/kg	1	0.054	0.22	03/01/11
Molybdenum	7439-98-7	LA-505-412	B		0.390		mg/kg	1	0.11	1.1	03/01/11
Thallium	7440-28-0	LA-505-412	U		<0.11		mg/kg	1	0.11	0.54	03/01/11
Tin	7440-31-5	LA-505-412			1.53		mg/kg	1	0.11	0.54	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.410		mg/kg	1	0.11	0.54	03/01/11
Arsenic	7440-38-2	LA-505-412	B		2.88		mg/kg	1	0.44	4.4	03/01/11
Selenium	7782-49-2	LA-505-412	B		0.697		mg/kg	1	0.33	3.3	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627010
SAF# F11-068
Sample ID B2C135

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4200		mg/kg	1	1.5	7.4	03/10/11
Potassium	7440-09-7	LA-505-411			1600		mg/kg	1	7.7	39	03/10/11
Sodium	7440-23-5	LA-505-411	C		168		mg/kg	1	1.2	5.8	03/10/11
Calcium	7440-70-2	LA-505-411			3910		mg/kg	1	3.0	15	03/10/11
Boron	7440-42-8	LA-505-411	BEX		4.75		mg/kg	1	4.3	22	03/10/11
Phosphorus	7723-14-0	LA-505-411			537		mg/kg	1	7.6	38	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	260		mg/kg	1	0.10	1.0	03/01/11
Nickel	7440-02-0	LA-505-412			11.1		mg/kg	1	0.21	2.1	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	03/01/11
Antimony	7440-36-0	LA-505-412		R	25.4		mg/kg	1	0.31	3.1	03/01/11
Barium	7440-39-3	LA-505-412	N	J+	68.5		mg/kg	1	0.21	2.1	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.306		mg/kg	1	0.10	0.52	03/01/11
Cadmium	7440-43-9	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	03/01/11
Chromium	7440-47-3	LA-505-412			12.6		mg/kg	1	0.52	5.2	03/01/11
Cobalt	7440-48-4	LA-505-412			5.48		mg/kg	1	0.10	0.52	03/01/11

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

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C - Analyte was found in the Associated Blank. (Inorganic)
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E - Analyte is an estimate, see comment section.
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627010
SAF# F11-068
Sample ID B2C135

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412	N	J-	212		mg/kg	1	0.10	1.0	03/01/11
Vanadium	7440-62-2	LA-505-412			29.3		mg/kg	1	0.21	2.1	03/01/11
Zinc	7440-66-6	LA-505-412	N	J-	58.2		mg/kg	1	0.84	5.2	03/01/11
Lead	7439-92-1	LA-505-412			22.8		mg/kg	1	0.10	1.0	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.052		mg/kg	1	0.052	0.21	03/01/11
Molybdenum	7439-98-7	LA-505-412	B		0.411		mg/kg	1	0.10	1.0	03/01/11
Thallium	7440-28-0	LA-505-412	U		<0.10		mg/kg	1	0.10	0.52	03/01/11
Tin	7440-31-5	LA-505-412			0.612		mg/kg	1	0.10	0.52	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.360		mg/kg	1	0.10	0.52	03/01/11
Arsenic	7440-38-2	LA-505-412	B		3.57		mg/kg	1	0.42	4.2	03/01/11
Selenium	7782-49-2	LA-505-412	B		1.14		mg/kg	1	0.31	3.1	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
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C - Analyte was found in the Associated Blank. (Inorganic)
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627011
SAF# F11-068
Sample ID B2C136

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4100		mg/kg	1	1.5	7.3	03/10/11
Potassium	7440-09-7	LA-505-411			1690		mg/kg	1	7.6	38	03/10/11
Sodium	7440-23-5	LA-505-411	C		180		mg/kg	1	1.1	5.7	03/10/11
Calcium	7440-70-2	LA-505-411			3660		mg/kg	1	2.9	15	03/10/11
Boron	7440-42-8	LA-505-411	BEX		10.2		mg/kg	1	4.3	21	03/10/11
Phosphorus	7723-14-0	LA-505-411			546		mg/kg	1	7.5	37	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	346		mg/kg	1	0.10	1.0	03/01/11
Nickel	7440-02-0	LA-505-412			10.1		mg/kg	1	0.21	2.1	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	03/01/11
Antimony	7440-36-0	LA-505-412	B	R	0.446		mg/kg	1	0.31	3.1	03/01/11
Barium	7440-39-3	LA-505-412	N	J+	68.1		mg/kg	1	0.21	2.1	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.238		mg/kg	1	0.10	0.52	03/01/11
Cadmium	7440-43-9	LA-505-412	B		0.109		mg/kg	1	0.10	1.0	03/01/11
Chromium	7440-47-3	LA-505-412			10.6		mg/kg	1	0.52	5.2	03/01/11
Cobalt	7440-48-4	LA-505-412			6.17		mg/kg	1	0.10	0.52	03/01/11

MDL = Minimum Detection
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+ - Indicates more than nine qualifier

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C - Analyte was found in the Associated Blank. (Inorganic)
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627011
SAF# F11-068
Sample ID B2C136

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412	N	J-	65.0		mg/kg	1	0.10	1.0	03/01/11
Vanadium	7440-62-2	LA-505-412			35.1		mg/kg	1	0.21	2.1	03/01/11
Zinc	7440-66-6	LA-505-412	N	J-	46.1		mg/kg	1	0.83	5.2	03/01/11
Lead	7439-92-1	LA-505-412			14.7		mg/kg	1	0.10	1.0	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.052		mg/kg	1	0.052	0.21	03/01/11
Molybdenum	7439-98-7	LA-505-412	B		0.253		mg/kg	1	0.10	1.0	03/01/11
Thallium	7440-28-0	LA-505-412	B		0.101		mg/kg	1	0.10	0.52	03/01/11
Tin	7440-31-5	LA-505-412	B		0.322		mg/kg	1	0.10	0.52	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.335		mg/kg	1	0.10	0.52	03/01/11
Arsenic	7440-38-2	LA-505-412	B		2.48		mg/kg	1	0.41	4.1	03/01/11
Selenium	7782-49-2	LA-505-412	B		0.708		mg/kg	1	0.31	3.1	03/01/11

MDL = Minimum Detection
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TP Err = Total Propagated
DF = Dilution Factor
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C - Analyte was found in the Associated Blank. (Inorganic)
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627012
SAF# F11-068
Sample ID B2C137

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4720		mg/kg	1	1.5	7.5	03/10/11
Potassium	7440-09-7	LA-505-411			2230		mg/kg	1	7.9	39	03/10/11
Sodium	7440-23-5	LA-505-411	C		144		mg/kg	1	1.2	5.9	03/10/11
Calcium	7440-70-2	LA-505-411			3180		mg/kg	1	3.0	15	03/10/11
Boron	7440-42-8	LA-505-411	U		<4.4		mg/kg	1	4.4	22	03/10/11
Phosphorus	7723-14-0	LA-505-411			573		mg/kg	1	7.7	39	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	355		mg/kg	1	0.10	1.0	03/01/11
Nickel	7440-02-0	LA-505-412			13.1		mg/kg	1	0.21	2.1	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	03/01/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.31		mg/kg	1	0.31	3.1	03/01/11
Barium	7440-39-3	LA-505-412	N	J+	87.4		mg/kg	1	0.21	2.1	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.298		mg/kg	1	0.10	0.52	03/01/11
Cadmium	7440-43-9	LA-505-412	B		0.119		mg/kg	1	0.10	1.0	03/01/11
Chromium	7440-47-3	LA-505-412			14.5		mg/kg	1	0.52	5.2	03/01/11
Cobalt	7440-48-4	LA-505-412			7.02		mg/kg	1	0.10	0.52	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627012
SAF# F11-068
Sample ID B2C137

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412	N	J-	12.4		mg/kg	1	0.10	1.0	03/01/11
Vanadium	7440-62-2	LA-505-412			35.2		mg/kg	1	0.21	2.1	03/01/11
Zinc	7440-66-6	LA-505-412	N	J-	46.6		mg/kg	1	0.83	5.2	03/01/11
Lead	7439-92-1	LA-505-412			7.38		mg/kg	1	0.10	1.0	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.052		mg/kg	1	0.052	0.21	03/01/11
Molybdenum	7439-98-7	LA-505-412	B		0.339		mg/kg	1	0.10	1.0	03/01/11
Thallium	7440-28-0	LA-505-412	B		0.127		mg/kg	1	0.10	0.52	03/01/11
Tin	7440-31-5	LA-505-412	B		0.420		mg/kg	1	0.10	0.52	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.426		mg/kg	1	0.10	0.52	03/01/11
Arsenic	7440-38-2	LA-505-412			4.21		mg/kg	1	0.41	4.1	03/01/11
Selenium	7782-49-2	LA-505-412	B		0.941		mg/kg	1	0.31	3.1	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627013
SAF# F11-068
Sample ID B2C138

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			5090		mg/kg	1	1.5	7.6	03/10/11
Potassium	7440-09-7	LA-505-411			2760		mg/kg	1	8.0	40	03/10/11
Sodium	7440-23-5	LA-505-411	C		186		mg/kg	1	1.2	6.0	03/10/11
Calcium	7440-70-2	LA-505-411			3770		mg/kg	1	3.1	15	03/10/11
Boron	7440-42-8	LA-505-411	BEX		5.01		mg/kg	1	4.5	22	03/10/11
Phosphorus	7723-14-0	LA-505-411			774		mg/kg	1	7.8	39	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	386		mg/kg	1	0.11	1.1	03/01/11
Nickel	7440-02-0	LA-505-412			13.3		mg/kg	1	0.22	2.2	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.11		mg/kg	1	0.11	1.1	03/01/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.33		mg/kg	1	0.33	3.3	03/01/11
Barium	7440-39-3	LA-505-412	N	J+	107		mg/kg	1	0.22	2.2	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.373		mg/kg	1	0.11	0.55	03/01/11
Cadmium	7440-43-9	LA-505-412	U		<0.11		mg/kg	1	0.11	1.1	03/01/11
Chromium	7440-47-3	LA-505-412			14.7		mg/kg	1	0.55	5.5	03/01/11
Cobalt	7440-48-4	LA-505-412			7.64		mg/kg	1	0.11	0.55	03/01/11

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

EH
12/28/11

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627013
SAF# F11-068
Sample ID B2C138

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412	N	J-	12.9		mg/kg	1	0.11	1.1	03/01/11
Vanadium	7440-62-2	LA-505-412			40.6		mg/kg	1	0.22	2.2	03/01/11
Zinc	7440-66-6	LA-505-412	N	J-	48.5		mg/kg	1	0.89	5.5	03/01/11
Lead	7439-92-1	LA-505-412			6.85		mg/kg	1	0.11	1.1	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.055		mg/kg	1	0.055	0.22	03/01/11
Molybdenum	7439-98-7	LA-505-412	B		0.304		mg/kg	1	0.11	1.1	03/01/11
Thallium	7440-28-0	LA-505-412	B		0.148		mg/kg	1	0.11	0.55	03/01/11
Tin	7440-31-5	LA-505-412	B		0.540		mg/kg	1	0.11	0.55	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.432		mg/kg	1	0.11	0.55	03/01/11
Arsenic	7440-38-2	LA-505-412	B		3.33		mg/kg	1	0.44	4.4	03/01/11
Selenium	7782-49-2	LA-505-412	B		1.21		mg/kg	1	0.33	3.3	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627014
SAF# F11-068
Sample ID B2C139

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4660		mg/kg	1	1.5	7.6	03/10/11
Potassium	7440-09-7	LA-505-411			2370		mg/kg	1	7.9	40	03/10/11
Sodium	7440-23-5	LA-505-411	C		187		mg/kg	1	1.2	6.0	03/10/11
Calcium	7440-70-2	LA-505-411			3950		mg/kg	1	3.0	15	03/10/11
Boron	7440-42-8	LA-505-411	U		<4.4		mg/kg	1	4.4	22	03/10/11
Phosphorus	7723-14-0	LA-505-411			628		mg/kg	1	7.8	39	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	376		mg/kg	1	0.11	1.1	03/01/11
Nickel	7440-02-0	LA-505-412			13.9		mg/kg	1	0.22	2.2	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.11		mg/kg	1	0.11	1.1	03/01/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.32		mg/kg	1	0.32	3.2	03/01/11
Barium	7440-39-3	LA-505-412	N	J+	96.0		mg/kg	1	0.22	2.2	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.379		mg/kg	1	0.11	0.54	03/01/11
Cadmium	7440-43-9	LA-505-412	B		0.139		mg/kg	1	0.11	1.1	03/01/11
Chromium	7440-47-3	LA-505-412			15.4		mg/kg	1	0.54	5.4	03/01/11
Cobalt	7440-48-4	LA-505-412			7.61		mg/kg	1	0.11	0.54	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627014
SAF# F11-068
Sample ID B2C139

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412	N	J-	13.4		mg/kg	1	0.11	1.1	03/01/11
Vanadium	7440-62-2	LA-505-412			39.5		mg/kg	1	0.22	2.2	03/01/11
Zinc	7440-66-6	LA-505-412	N	J-	49.3		mg/kg	1	0.87	5.4	03/01/11
Lead	7439-92-1	LA-505-412			7.75		mg/kg	1	0.11	1.1	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.054		mg/kg	1	0.054	0.22	03/01/11
Molybdenum	7439-98-7	LA-505-412	B		0.270		mg/kg	1	0.11	1.1	03/01/11
Thallium	7440-28-0	LA-505-412	B		0.125		mg/kg	1	0.11	0.54	03/01/11
Tin	7440-31-5	LA-505-412	B		0.388		mg/kg	1	0.11	0.54	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.461		mg/kg	1	0.11	0.54	03/01/11
Arsenic	7440-38-2	LA-505-412	B		3.61		mg/kg	1	0.43	4.3	03/01/11
Selenium	7782-49-2	LA-505-412	B		1.18		mg/kg	1	0.32	3.2	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627015
SAF# F11-068
Sample ID B2C140

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4620		mg/kg	1	1.5	7.4	03/10/11
Potassium	7440-09-7	LA-505-411			1970		mg/kg	1	7.8	39	03/10/11
Sodium	7440-23-5	LA-505-411	C		148		mg/kg	1	1.2	5.9	03/10/11
Calcium	7440-70-2	LA-505-411			3560		mg/kg	1	3.0	15	03/10/11
Boron	7440-42-8	LA-505-411	U		<4.4		mg/kg	1	4.4	22	03/10/11
Phosphorus	7723-14-0	LA-505-411			582		mg/kg	1	7.7	38	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	326		mg/kg	1	0.099	0.99	03/01/11
Nickel	7440-02-0	LA-505-412			11.5		mg/kg	1	0.20	2.0	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.099		mg/kg	1	0.099	0.99	03/01/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.30		mg/kg	1	0.30	3.0	03/01/11
Barium	7440-39-3	LA-505-412	N	J+	78.6		mg/kg	1	0.20	2.0	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.255		mg/kg	1	0.099	0.50	03/01/11
Cadmium	7440-43-9	LA-505-412	U		<0.099		mg/kg	1	0.099	0.99	03/01/11
Chromium	7440-47-3	LA-505-412			12.6		mg/kg	1	0.50	5.0	03/01/11
Cobalt	7440-48-4	LA-505-412			6.46		mg/kg	1	0.099	0.50	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627015
SAF# F11-068
Sample ID B2C140

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412	N	J-	11.9		mg/kg	1	0.099	0.99	03/01/11
Vanadium	7440-62-2	LA-505-412			32.1		mg/kg	1	0.20	2.0	03/01/11
Zinc	7440-66-6	LA-505-412	N	J-	41.7		mg/kg	1	0.79	5.0	03/01/11
Lead	7439-92-1	LA-505-412			5.56		mg/kg	1	0.099	0.99	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.050		mg/kg	1	0.050	0.20	03/01/11
Molybdenum	7439-98-7	LA-505-412	B		0.273		mg/kg	1	0.099	0.99	03/01/11
Thallium	7440-28-0	LA-505-412	B		0.105		mg/kg	1	0.099	0.50	03/01/11
Tin	7440-31-5	LA-505-412	B		0.309		mg/kg	1	0.099	0.50	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.420		mg/kg	1	0.099	0.50	03/01/11
Arsenic	7440-38-2	LA-505-412	B		2.80		mg/kg	1	0.40	4.0	03/01/11
Selenium	7782-49-2	LA-505-412	B		1.09		mg/kg	1	0.30	3.0	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627016
SAF# F11-068
Sample ID B2C141

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			5050		mg/kg	1	1.5	7.6	03/10/11
Potassium	7440-09-7	LA-505-411			2320		mg/kg	1	7.9	40	03/10/11
Sodium	7440-23-5	LA-505-411	C		151		mg/kg	1	1.2	6.0	03/10/11
Calcium	7440-70-2	LA-505-411			3160		mg/kg	1	3.0	15	03/10/11
Boron	7440-42-8	LA-505-411	U		<4.5		mg/kg	1	4.5	22	03/10/11
Phosphorus	7723-14-0	LA-505-411			578		mg/kg	1	7.8	39	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	344		mg/kg	1	0.11	1.1	03/01/11
Nickel	7440-02-0	LA-505-412			14.9		mg/kg	1	0.22	2.2	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.11		mg/kg	1	0.11	1.1	03/01/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.32		mg/kg	1	0.32	3.2	03/01/11
Barium	7440-39-3	LA-505-412	N	J+	86.9		mg/kg	1	0.22	2.2	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.284		mg/kg	1	0.11	0.54	03/01/11
Cadmium	7440-43-9	LA-505-412	U		<0.11		mg/kg	1	0.11	1.1	03/01/11
Chromium	7440-47-3	LA-505-412			16.1		mg/kg	1	0.54	5.4	03/01/11
Cobalt	7440-48-4	LA-505-412			6.91		mg/kg	1	0.11	0.54	03/01/11

MDL = Minimum Detection
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627016
SAF# F11-068
Sample ID B2C141

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412	N	J-	11.9		mg/kg	1	0.11	1.1	03/01/11
Vanadium	7440-62-2	LA-505-412			35.5		mg/kg	1	0.22	2.2	03/01/11
Zinc	7440-66-6	LA-505-412	N	J-	43.2		mg/kg	1	0.86	5.4	03/01/11
Lead	7439-92-1	LA-505-412			6.10		mg/kg	1	0.11	1.1	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.054		mg/kg	1	0.054	0.22	03/01/11
Molybdenum	7439-98-7	LA-505-412	B		0.210		mg/kg	1	0.11	1.1	03/01/11
Thallium	7440-28-0	LA-505-412	U		<0.11		mg/kg	1	0.11	0.54	03/01/11
Tin	7440-31-5	LA-505-412	B		0.358		mg/kg	1	0.11	0.54	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.449		mg/kg	1	0.11	0.54	03/01/11
Arsenic	7440-38-2	LA-505-412	B		2.98		mg/kg	1	0.43	4.3	03/01/11
Selenium	7782-49-2	LA-505-412	B		1.11		mg/kg	1	0.32	3.2	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
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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.
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PQL is equivalent to Estimated Quantitation Limit (EQL)

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627017
SAF# F11-068
Sample ID B2C142

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4470		mg/kg	1	1.5	7.4	03/10/11
Potassium	7440-09-7	LA-505-411			2260		mg/kg	1	7.7	39	03/10/11
Sodium	7440-23-5	LA-505-411	C		128		mg/kg	1	1.2	5.8	03/10/11
Calcium	7440-70-2	LA-505-411			2920		mg/kg	1	3.0	15	03/10/11
Boron	7440-42-8	LA-505-411	U		<4.3		mg/kg	1	4.3	22	03/10/11
Phosphorus	7723-14-0	LA-505-411			579		mg/kg	1	7.6	38	03/10/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	333		mg/kg	1	0.10	1.0	03/01/11
Nickel	7440-02-0	LA-505-412			12.6		mg/kg	1	0.21	2.1	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	03/01/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.31		mg/kg	1	0.31	3.1	03/01/11
Barium	7440-39-3	LA-505-412	N	J+	74.4		mg/kg	1	0.21	2.1	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.207		mg/kg	1	0.10	0.52	03/01/11
Cadmium	7440-43-9	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	03/01/11
Chromium	7440-47-3	LA-505-412			14.3		mg/kg	1	0.52	5.2	03/01/11
Cobalt	7440-48-4	LA-505-412			6.99		mg/kg	1	0.10	0.52	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
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B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627017
SAF# F11-068
Sample ID B2C142

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412	N	J-	11.9		mg/kg	1	0.10	1.0	03/01/11
Vanadium	7440-62-2	LA-505-412			36.0		mg/kg	1	0.21	2.1	03/01/11
Zinc	7440-66-6	LA-505-412	N	J-	39.9		mg/kg	1	0.83	5.2	03/01/11
Lead	7439-92-1	LA-505-412			5.77		mg/kg	1	0.10	1.0	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.052		mg/kg	1	0.052	0.21	03/01/11
Molybdenum	7439-98-7	LA-505-412	B		0.245		mg/kg	1	0.10	1.0	03/01/11
Thallium	7440-28-0	LA-505-412	U		<0.10		mg/kg	1	0.10	0.52	03/01/11
Tin	7440-31-5	LA-505-412	B		0.339		mg/kg	1	0.10	0.52	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.507		mg/kg	1	0.10	0.52	03/01/11
Arsenic	7440-38-2	LA-505-412	B		3.31		mg/kg	1	0.41	4.1	03/01/11
Selenium	7782-49-2	LA-505-412	B		0.683		mg/kg	1	0.31	3.1	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
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B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627018
SAF# F11-068
Sample ID B2C143

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4740		mg/kg	1	1.5	7.4	03/14/11
Potassium	7440-09-7	LA-505-411			2430		mg/kg	1	7.7	38	03/14/11
Sodium	7440-23-5	LA-505-411	CN	J+	181		mg/kg	1	1.2	5.8	03/14/11
Calcium	7440-70-2	LA-505-411			3060		mg/kg	1	2.9	15	03/14/11
Boron	7440-42-8	LA-505-411	BEX		6.21		mg/kg	1	4.3	22	03/14/11
Phosphorus	7723-14-0	LA-505-411			640		mg/kg	1	7.6	38	03/14/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	281		mg/kg	1	0.099	0.99	03/01/11
Nickel	7440-02-0	LA-505-412			11.2		mg/kg	1	0.20	2.0	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.099		mg/kg	1	0.099	0.99	03/01/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.30		mg/kg	1	0.30	3.0	03/01/11
Barium	7440-39-3	LA-505-412	N	J+	67.4		mg/kg	1	0.20	2.0	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.416		mg/kg	1	0.099	0.50	03/01/11
Cadmium	7440-43-9	LA-505-412	U		<0.099		mg/kg	1	0.099	0.99	03/01/11
Chromium	7440-47-3	LA-505-412			16.1		mg/kg	1	0.50	5.0	03/01/11
Cobalt	7440-48-4	LA-505-412			5.87		mg/kg	1	0.099	0.50	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627018
SAF# F11-068
Sample ID B2C143

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412	N	J-	11.6		mg/kg	1	0.099	0.99	03/01/11
Vanadium	7440-62-2	LA-505-412			29.4		mg/kg	1	0.20	2.0	03/01/11
Zinc	7440-66-6	LA-505-412	N	J-	36.2		mg/kg	1	0.79	5.0	03/01/11
Lead	7439-92-1	LA-505-412			4.92		mg/kg	1	0.099	0.99	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.050		mg/kg	1	0.050	0.20	03/01/11
Molybdenum	7439-98-7	LA-505-412	B		0.212		mg/kg	1	0.099	0.99	03/01/11
Thallium	7440-28-0	LA-505-412	U		<0.099		mg/kg	1	0.099	0.50	03/01/11
Tin	7440-31-5	LA-505-412	B		0.300		mg/kg	1	0.099	0.50	03/01/11
Uranium	7440-61-1	LA-505-412			0.504		mg/kg	1	0.099	0.50	03/01/11
Arsenic	7440-38-2	LA-505-412	B		2.91		mg/kg	1	0.40	4.0	03/01/11
Selenium	7782-49-2	LA-505-412	B		1.52		mg/kg	1	0.30	3.0	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627019
SAF# F11-068
Sample ID B2C144

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			5040		mg/kg	1	1.5	7.4	03/14/11
Potassium	7440-09-7	LA-505-411			2030		mg/kg	1	7.7	39	03/14/11
Sodium	7440-23-5	LA-505-411	CN	J+	160		mg/kg	1	1.2	5.8	03/14/11
Calcium	7440-70-2	LA-505-411			3400		mg/kg	1	3.0	15	03/14/11
Boron	7440-42-8	LA-505-411	BEX		5.80		mg/kg	1	4.3	22	03/14/11
Phosphorus	7723-14-0	LA-505-411			585		mg/kg	1	7.6	38	03/14/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	360		mg/kg	1	0.10	1.0	03/01/11
Nickel	7440-02-0	LA-505-412			13.9		mg/kg	1	0.21	2.1	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	03/01/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.31		mg/kg	1	0.31	3.1	03/01/11
Barium	7440-39-3	LA-505-412	N	J+	85.5		mg/kg	1	0.21	2.1	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.258		mg/kg	1	0.10	0.52	03/01/11
Cadmium	7440-43-9	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	03/01/11
Chromium	7440-47-3	LA-505-412			18.6		mg/kg	1	0.52	5.2	03/01/11
Cobalt	7440-48-4	LA-505-412			7.34		mg/kg	1	0.10	0.52	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627019
SAF# F11-068
Sample ID B2C144

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412	N	J-	12.5		mg/kg	1	0.10	1.0	03/01/11
Vanadium	7440-62-2	LA-505-412			36.9		mg/kg	1	0.21	2.1	03/01/11
Zinc	7440-66-6	LA-505-412	N	J-	54.7		mg/kg	1	0.83	5.2	03/01/11
Lead	7439-92-1	LA-505-412			6.89		mg/kg	1	0.10	1.0	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.052		mg/kg	1	0.052	0.21	03/01/11
Molybdenum	7439-98-7	LA-505-412	B		0.239		mg/kg	1	0.10	1.0	03/01/11
Thallium	7440-28-0	LA-505-412	B		0.118		mg/kg	1	0.10	0.52	03/01/11
Tin	7440-31-5	LA-505-412	B		0.441		mg/kg	1	0.10	0.52	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.447		mg/kg	1	0.10	0.52	03/01/11
Arsenic	7440-38-2	LA-505-412	B		3.65		mg/kg	1	0.42	4.2	03/01/11
Selenium	7782-49-2	LA-505-412	B		0.813		mg/kg	1	0.31	3.1	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627020
SAF# F11-068
Sample ID B2C145

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4890		mg/kg	1	1.5	7.3	03/14/11
Potassium	7440-09-7	LA-505-411			2220		mg/kg	1	7.6	38	03/14/11
Sodium	7440-23-5	LA-505-411	CN	J+	157		mg/kg	1	1.1	5.7	03/14/11
Calcium	7440-70-2	LA-505-411			3150		mg/kg	1	2.9	15	03/14/11
Boron	7440-42-8	LA-505-411	BEX		5.85		mg/kg	1	4.3	21	03/14/11
Phosphorus	7723-14-0	LA-505-411			568		mg/kg	1	7.5	38	03/14/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	313		mg/kg	1	0.10	1.0	03/01/11
Nickel	7440-02-0	LA-505-412			12.3		mg/kg	1	0.21	2.1	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	03/01/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.31		mg/kg	1	0.31	3.1	03/01/11
Barium	7440-39-3	LA-505-412	N	J+	75.6		mg/kg	1	0.21	2.1	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.311		mg/kg	1	0.10	0.52	03/01/11
Cadmium	7440-43-9	LA-505-412	U		<0.10		mg/kg	1	0.10	1.0	03/01/11
Chromium	7440-47-3	LA-505-412			14.0		mg/kg	1	0.52	5.2	03/01/11
Cobalt	7440-48-4	LA-505-412			7.40		mg/kg	1	0.10	0.52	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
DF = Dilution Factor
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B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
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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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627020
SAF# F11-068
Sample ID B2C145

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412	N	J-	12.4		mg/kg	1	0.10	1.0	03/01/11
Vanadium	7440-62-2	LA-505-412			33.3		mg/kg	1	0.21	2.1	03/01/11
Zinc	7440-66-6	LA-505-412	N	J-	39.3		mg/kg	1	0.83	5.2	03/01/11
Lead	7439-92-1	LA-505-412			5.58		mg/kg	1	0.10	1.0	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.052		mg/kg	1	0.052	0.21	03/01/11
Molybdenum	7439-98-7	LA-505-412	B		0.326		mg/kg	1	0.10	1.0	03/01/11
Thallium	7440-28-0	LA-505-412	B		0.101		mg/kg	1	0.10	0.52	03/01/11
Tin	7440-31-5	LA-505-412	B		0.337		mg/kg	1	0.10	0.52	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.434		mg/kg	1	0.10	0.52	03/01/11
Arsenic	7440-38-2	LA-505-412	B		3.20		mg/kg	1	0.42	4.2	03/01/11
Selenium	7782-49-2	LA-505-412	B		1.21		mg/kg	1	0.31	3.1	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627021
SAF# F11-068
Sample ID B2C146

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep											**02/28/11**
ICP-AES											
Magnesium	7439-95-4	LA-505-411			4630		mg/kg	1	1.5	7.3	03/14/11
Potassium	7440-09-7	LA-505-411			1920		mg/kg	1	7.6	38	03/14/11
Sodium	7440-23-5	LA-505-411	CN	J+	164		mg/kg	1	1.1	5.7	03/14/11
Calcium	7440-70-2	LA-505-411			3440		mg/kg	1	2.9	15	03/14/11
Boron	7440-42-8	LA-505-411	BEX		5.91		mg/kg	1	4.3	21	03/14/11
Phosphorus	7723-14-0	LA-505-411			563		mg/kg	1	7.5	37	03/14/11
ICPMS Prep											**02/28/11**
ICP-MS											
Manganese	7439-96-5	LA-505-412	N	J+	311		mg/kg	1	0.099	0.99	03/01/11
Nickel	7440-02-0	LA-505-412			12.4		mg/kg	1	0.20	2.0	03/01/11
Silver	7440-22-4	LA-505-412	U		<0.099		mg/kg	1	0.099	0.99	03/01/11
Antimony	7440-36-0	LA-505-412	U	UR	<0.30		mg/kg	1	0.30	3.0	03/01/11
Barium	7440-39-3	LA-505-412	N	J+	76.1		mg/kg	1	0.20	2.0	03/01/11
Beryllium	7440-41-7	LA-505-412	B		0.306		mg/kg	1	0.099	0.49	03/01/11
Cadmium	7440-43-9	LA-505-412	U		<0.099		mg/kg	1	0.099	0.99	03/01/11
Chromium	7440-47-3	LA-505-412			15.0		mg/kg	1	0.49	4.9	03/01/11
Cobalt	7440-48-4	LA-505-412			6.77		mg/kg	1	0.099	0.49	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF111627

Sample # 111627021
SAF# F11-068
Sample ID B2C146

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ		Result	TP Err	Units	DF	MDL	PQL	Analyzed
Copper	7440-50-8	LA-505-412	N	J-	10.9		mg/kg	1	0.099	0.99	03/01/11
Vanadium	7440-62-2	LA-505-412			30.1		mg/kg	1	0.20	2.0	03/01/11
Zinc	7440-66-6	LA-505-412	N	J-	51.3		mg/kg	1	0.79	4.9	03/01/11
Lead	7439-92-1	LA-505-412			5.72		mg/kg	1	0.099	0.99	03/01/11
Mercury	7439-97-6	LA-505-412	U		<0.049		mg/kg	1	0.049	0.20	03/01/11
Molybdenum	7439-98-7	LA-505-412	B		0.221		mg/kg	1	0.099	0.99	03/01/11
Thallium	7440-28-0	LA-505-412	B		0.106		mg/kg	1	0.099	0.49	03/01/11
Tin	7440-31-5	LA-505-412	B		0.322		mg/kg	1	0.099	0.49	03/01/11
Uranium	7440-61-1	LA-505-412	B		0.402		mg/kg	1	0.099	0.49	03/01/11
Arsenic	7440-38-2	LA-505-412	B		3.26		mg/kg	1	0.40	4.0	03/01/11
Selenium	7782-49-2	LA-505-412	B		0.869		mg/kg	1	0.30	3.0	03/01/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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 Michael Neely
Department Inorganic

Group # WSCF112140

Sample # 112140001
SAF# F11-068
Sample ID B2BVN2

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep										**05/19/11**
ICP-MS										
Boron	7440-42-8	LA-505-412	B	1.61		mg/kg	1	0.49	4.9	05/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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)

REVISED112140 -

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112140

Sample # 112140002
SAF# F11-068
Sample ID B2BVN6

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep										**05/19/11**
ICP-MS										
Boron	7440-42-8	LA-505-412	B	2.34		mg/kg	1	0.51	5.1	05/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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)

REVISED112140 -

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112140

Sample # 112140003
SAF# F11-068
Sample ID B2BVN8

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep										**05/19/11**
ICP-MS										
Boron	7440-42-8	LA-505-412	B	1.78		mg/kg	1	0.51	5.1	05/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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)

REVISED112140 -

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112140

Sample # 112140004
SAF# F11-068
Sample ID B2BVM9

Matrix SOIL
Sampled 02/18/11
Received 02/18/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep										**05/19/11**
ICP-MS										
Boron	7440-42-8	LA-505-412	B	1.56		mg/kg	1	0.50	5.0	05/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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)

REVISED112140 -

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112140

Sample # 112140005
SAF# F11-068
Sample ID B2BVP2

Matrix SOIL
Sampled 02/23/11
Received 02/23/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep										**05/19/11**
ICP-MS										
Boron	7440-42-8	LA-505-412	B	2.57		mg/kg	1	0.50	5.0	05/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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)

REVISED112140 -

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112140

Sample # 112140006
SAF# F11-068
Sample ID B2BVP4

Matrix SOIL
Sampled 02/23/11
Received 02/23/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep										**05/19/11**
ICP-MS										
Boron	7440-42-8	LA-505-412	B	3.96		mg/kg	1	0.51	5.1	05/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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)

REVISED112140 -

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112140

Sample # 112140007
SAF# F11-068
Sample ID B2BVP5

Matrix SOIL
Sampled 02/23/11
Received 02/23/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep										**05/19/11**
ICP-MS										
Boron	7440-42-8	LA-505-412	B	2.20		mg/kg	1	0.51	5.1	05/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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)

REVISED112140 -

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112140

Sample # 112140008
SAF# F11-068
Sample ID B2BVP6

Matrix SOIL
Sampled 02/23/11
Received 02/23/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep										**05/19/11**
ICP-MS										
Boron	7440-42-8	LA-505-412	B	2.79		mg/kg	1	0.48	4.8	05/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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)

REVISED112140 -

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112140

Sample # 112140009
SAF# F11-068
Sample ID B2BVP7

Matrix SOIL
Sampled 02/23/11
Received 02/23/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep										**05/19/11**
ICP-MS										
Boron	7440-42-8	LA-505-412	B	1.94		mg/kg	1	0.51	5.1	05/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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)

REVISED112140 -

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF112140

Sample # 112140010
SAF# F11-068
Sample ID B2BVP9

Matrix SOIL
Sampled 02/23/11
Received 02/23/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep										**05/19/11**
ICP-MS										
Boron	7440-42-8	LA-505-412	B	2.01		mg/kg	1	0.54	5.4	05/23/11

MDL = Minimum Detection
RQ = Result Qualifier
TP Err = Total Propagated
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)

REVISED112140 -

Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

Attachment 2
Narrative
WSCF111547

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. Also attached is IRF 11-344 dealing with Phosphorous LCS out-of-limits. The limits were updated after the IRF was generated and recoveries are within limits. 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

ICP-AES 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):

Attachment 2
Narrative
WSCF111547

- Batch QC 177474
  - Magnesium, Potassium, Sodium, Phosphorus and Calcium – Exceeded spiking levels by a factor of 4. Spike recoveries and associated RPDs are not valid.
- Batch QC 177476
  - Sodium – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - Potassium – Detected in the Blank and evaluated. No sample results in this batch were affected. "C" Flags not required.
  - Magnesium and Calcium – 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.

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 – Detected in the Blank and evaluated. No sample results in this batch were affected. "C" Flags not required.
- Manganese – MS / MSD Relative Percent Difference (RPD) is outside established laboratory limits. The quality control report was flagged for RPD failure.
- All other applicable QC controls are within the established limits.

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

- All applicable QC controls are within the established limits.

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

Attachment 2
Narrative
WSCF111547

ISSUE RESOLUTION FORM

CHPRC TRACKING NUMBER: 11-344

Date: 03/03/2011 TEST: ICP-AES 6010 **DUE DATE: 3/4, 3/5, and 3/9/11**

SAF No(s): F11-068, F11-068, and F10-283

SDG (s): 111547, 111558, and 111579

LOGIN No(s): 111547006 through 111547008
111558001 through 111558013
111579002

Sample No(s): B2BVN7, B2BVN8, and B2BVN9
B2BV77, B2BV78, B2BV79, B2BV80, B2BV81, B2BV83, B2BV84, B2BV85, B2BV86, B2BV87, B2BVN0, B2BVN1, and B2BVM9
B28B63

Submitted By: H. Medley
Phone No.: 372-1488
Fax No.:

Submitted To: S. Champoux
Phone No.: 373-5290
Fax No.:

ISSUE	PROPOSED RESOLUTION
The Phosphorus LCS percent recovery was out of limits for this batch: Phosphorus LCS = 97% (limits– 102-139%)	Accept the data as-is and note in the narrative.

CHPRC/BHI/WMH/PNNL COMMENTS

Accept proposed resolution

Sara Champoux 3/3/2011

Signature and Date

3

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-375	PAGE 1 OF 2
COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND
SAMPLING LOCATION: Control 4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	15 Days / 15 Days
ICE CHEST NO.:	FIELD LOGBOOK NO.: HNF-N-507-16	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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)

111547

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - SM4 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B28VN2	SOIL	FEB 17 2011	1008	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: FEB 17 2011 1140	RECEIVED BY/STORED IN: K Brazel	DATE/TIME: FEB 17 2011 1140	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-375	PAGE 2 OF 2
COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: alx	FIELD LOGBOOK NO.: HNF-N-507-16	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-382	PAGE 1 OF 2
COLLECTOR: Scales	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 5	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: MX	FIELD LOGBOOK NO.: HNF-N-507-14	ACTUAL SAMPLE DEPTH: 0-1 ft	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2BVN3	2	SOIL	2-17-11	1030	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: J Scales 2-17-11	DATE/TIME: 1140	RECEIVED BY/STORED IN: K Breazeal 2-17-11	DATE/TIME: 1140
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-382	PAGE 2 OF 2
COLLECTOR Scale S	COMPANY CONTACT BAUER, R	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Control 5	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO. NA	FIELD LOGBOOK NO. HNF-N-507-16	ACTUAL SAMPLE DEPTH 0-2 ft	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-389	PAGE 1 OF 2
COLLECTOR: J SCALES	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 6	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: NA	FIELD LOGBOOK NO.: HNF-N-507-16	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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 Meterial at concentrations that may or may not be regulated for 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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2BVN4 3	SOIL	02/17/11	1040	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: J SCALES	DATE/TIME: 02/17/11 1140	RECEIVED BY/STORED IN: K Bennett K Bennett	DATE/TIME: 02/17/11 1140	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-389	PAGE 2 OF 2
COLLECTOR: J. SCALES	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 6	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: MA	FIELD LOGBOOK NO.: HNF-N-507-14	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-396	PAGE 1 OF 2
COLLECTOR: Scaby	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 7	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: NA	FIELD LOGBOOK NO.: 11Mi-2-5716	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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]: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for 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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - SO4 (pH Measurement);

SAMPLE NO.	MATRIX[a]	SAMPLE DATE	SAMPLE TIME		
B2BVN5 4	SOIL	2-17-11	1025	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: Scaby	DATE/TIME: 2-17-11 1025	RECEIVED BY/STORED IN: 1140 2-17-11 1025 K Brazal	DATE/TIME: 2-17-11 1140 2-17-11 1025	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-396	PAGE 2 OF 2
COLLECTOR Scale	COMPANY CONTACT BAUER, R	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE BC	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Control 7	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO. MA	FIELD LOGBOOK NO. HNF-N-507-16	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-403	PAGE 1 OF 2
COLLECTOR: JS Scales CHPRC	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 8	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: NA	FIELD LOGBOOK NO.: HNF-N-507-14	ACTUAL SAMPLE DEPTH: 0-1ft.	COA: 302427ES10	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*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	Cool~4C	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	28 Days	ASAP
		TYPE OF CONTAINER	G/P	G/P
		NO. OF CONTAINER(S)	1	1
		VOLUME	120mL	60mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2BVN6	5	SOIL	2/7/11	0345	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: JS Scales CHPRC	DATE/TIME: 02/7/11 1140	RECEIVED BY/STORED IN: V. Bracaed	DATE/TIME: 2/7/11 1140	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/8/2011

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-403	PAGE 2 OF 2
COLLECTOR JS Scale CHPRC	COMPANY CONTACT BAUER, R	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Control 8	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. NA	FIELD LOGBOOK NO. HNF-N-507-14	ACTUAL SAMPLE DEPTH 0-1 ft.	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-410	PAGE 1 OF 2
COLLECTOR: Scalez	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 9	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: NA	FIELD LOGBOOK NO.: HNF-N-507-16	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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, Dt=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for 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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2BVN7 6	SOIL	2-17-11	0850	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: Scalez	DATE/TIME: 1140 2-17-11	RECEIVED BY/STORED IN: Y Brazeal	DATE/TIME: 1140 2-17-11	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-410	PAGE 2 OF 2
COLLECTOR Scales	COMPANY CONTACT BAUER, R	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Control 9	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO. NA	FIELD LOGBOOK NO. HNF-N-507-16	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-419	PAGE 1 OF 2
COLLECTOR: Scale 3	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 9 DUP	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: NA	FIELD LOGBOOK NO.: HNF-N-507-2	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2BVN8 7	SOIL	2-17-11	0850	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: Scale 3	DATE/TIME: 2-17-11 1140	RECEIVED BY/STORED IN: V. Brewton	DATE/TIME: 2-17-11 1140	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

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A-5003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-419	PAGE 2 OF 2
COLLECTOR Scalag	COMPANY CONTACT BAUER, R	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Control 9 DUP	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO. NA	FIELD LOGBOOK NO. HNF-N-302-16	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-284	PAGE 1 OF 2
COLLECTOR: JS Scales CHPRC	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 10	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: NK	FIELD LOGBOOK NO.: HNF-N-507-16	ACTUAL SAMPLE DEPTH: 0-1 ft	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2BVN9 8	SOIL	02/17/11	0912	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: JS Scales CHPRC	DATE/TIME: 02/17/11 1140	RECEIVED BY/STORED IN: K Brazal K Brazal	DATE/TIME: 02/17/11 1140	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-284	PAGE 2 OF 2
COLLECTOR JS Scales CHPRC	COMPANY CONTACT BAUER, R	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Control 10	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO. MK	FIELD LOGBOOK NO. ~~HNF-N-507-16~~ HNF-N-507-16	ACTUAL SAMPLE DEPTH 0-1 ft	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Attachment 2
Narrative
WSCF111627

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, 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

ICP-AES 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 177969
    - Boron – Sample concentrations are estimated. "E"-Flags are applied to samples. Samples are also "X" flagged to indicate iron interference.

- Sodium contamination was detected in the Blank and was evaluated. Affected sample results in this batch were "C" Flagged.
- Calcium, Magnesium, Potassium, Phosphorus, and Sodium – exceeded spiking levels by a factor of 4. Spike recoveries and associated RPDs are not valid.

- Batch QC 177971
  - Boron – Sample concentrations are estimated. "E"-Flags are applied to samples. Samples are also "X" flagged to indicate iron interference.
  - Sodium – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - Sodium contamination was detected in the Blank and was evaluated. Affected sample results in this batch were "C" Flagged.
  - Calcium, Magnesium, and Potassium – 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.

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 177952
  - Manganese, Nickel, and Chromium – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged. Matrix Spike Relative Percent Differences (RPD) are also outside established laboratory limits.
  - Copper and Molybdenum – were detected in the Blank and were evaluated. Affected sample results in this batch were "C" Flagged.
- Batch QC 177956
  - Manganese, Barium, Copper and Zinc – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged. Manganese and Copper Matrix Spike Relative Percent Difference (RPD) are also outside established laboratory limits.
  - All other applicable QC controls are within the established limits.

Narrative

Attachment 2
Narrative
WSCF111627

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

- All applicable QC controls are within the established limits.

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

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1065	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND
SAMPLING LOCATION: 600-281 Target 7-1	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	15 Days / 15 Days
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-112-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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: 111627

PRESERVATION	Cool~4C	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C126	SOIL	FEB 25 2011	0900	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-106S	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-281 Target 7-1	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1072	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 7-2	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF -N-507- 16.48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME				28 Days	ASAP
TYPE OF CONTAINER				G/P	G/P
NO. OF CONTAINER(S)				1	1
VOLUME				120mL	60mL
SAMPLE ANALYSIS				SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C127 002	SOIL	FEB 25 2011	0925	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
FM Hall CHPRC	FEB 25 2011 1415	M. Nelson	FEB 25 2011 1415	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-1072	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 7-2	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF -N-507- 116-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-068-1079	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C / DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 7-3	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16.48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	[redacted]	
B2C128 003	SOIL	FEB 25 2011	0945	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 415	RECEIVED BY/STORED IN: McNelson	DATE/TIME: FEB 25 2011 415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-1079	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 7-3	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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

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(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1086	PAGE 1 OF 2
COLLECTOR: KB Hulse, CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 7-4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-116-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C129 004	SOIL	FEB 25 2011	0955	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: KB Hulse CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/15/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1086	PAGE 2 OF 2
COLLECTOR KB Hulse CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-281 Target 7-4	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-14-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1093	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 7-5	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C130 05	SOIL	FEB 25 2011	1000	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M.Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-1093	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 7-5	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF -N-507- 16.48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1100	PAGE 1 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target B-1	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-162-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C131 006	SOIL	FEB 25 2011	1100	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
FM Hall CHPRC	FEB 25 2011 1415	M. Nelson M. Nelson	FEB 25 2011 1415	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
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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

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1100	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-281 Target 8-1	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11 068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO.	FIELD LOGBOOK NO. HNF -N-507-16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1110	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 8-1 DUP	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C132 007	SOIL	FEB 25 2011	1100	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 1415 FEB 25 2011	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: 1415 FEB 25 2011	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-1110	PAGE 2 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 8-1 DUP	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-112.48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1114	PAGE 1 OF 2
COLLECTOR: KB Huise CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 8-2	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C133 008	SOIL	FEB 25 2011	1135	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: KB Huise CHPRC	DATE/TIME: 1415 FEB 25 2011	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: 1415 FEB 25 2011	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1114	PAGE 2 OF 2
COLLECTOR ~~KB Hulse~~ CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 8-2	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	ORIGINAL
ICE CHEST NO.	FIELD LOGBOOK NO. HNF -N-507- 16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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

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(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1121	PAGE 1 OF 2
COLLECTOR: KB Huise, CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 8-3	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C134 009	SOIL	FEB 25 2011	1140	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: KB Huise CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-1121	PAGE 2 OF 2
COLLECTOR KB Hulse CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 8-3	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-19-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1128	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 8-4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16.48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 30242/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, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for 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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C135 010	SOIL	FEB 25 2011	1145	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-1128	PAGE 2 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 8-4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF -N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company — **CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST** — F11-068-1135 — PAGE 1 OF 2

COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG
SAMPLING LOCATION: 600-281 Target 8-5	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16.48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
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**

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

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for 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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C136 011	SOIL	FEB 25 2011	1150	X	X

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES** — **SPECIAL INSTRUCTIONS**: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	FEB 25 2011 1415	M. Neison M. Nelson	FEB 25 2011/1415
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

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			F11-068-1135	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-281 Target 8-5	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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

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(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1142	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 9-1	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF -N-507- 16.48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	Cool-4C	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	28 Days	ASAP
		TYPE OF CONTAINER	G/P	G/P
		NO. OF CONTAINER(S)	1	1
		VOLUME	120mL	60mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C137 012	SOIL	FEB 25 2011	1245	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson M Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/14/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1142	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 9-1	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1149	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 9-2	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16.48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C138 013	SOIL	FEB 25 2011	1250	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1450	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1149	PAGE 2 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 9-2	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-116-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1156	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: BC	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 9-3	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-116-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C139	G4	SOIL	FEB 25 2011	1259	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/14/2011

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1156	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 9-3	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. INF -N-507- 16.48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1163	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 9-4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: ~~HNF-N-507-~~ 16.48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C140 015	SOIL	FEB 25 2011	1300	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/14/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1163	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3331	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 9-4	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1170	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: BC	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 9-5	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil)-9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C141 016	SOIL	FEB 25 2011	1305	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-1170	PAGE 2 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 9-5	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-116-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1030	PAGE 1 OF 2
COLLECTOR: KB Huise CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 10-1	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAP NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-1648	ACTUAL SAMPLE DEPTH: 0-12"	COA: 30Z427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C142 017	SOIL	FEB 25 2011	1040	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: KB Huise CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/15/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1030	PAGE 2 OF 2
COLLECTOR KB Huise CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-201 Target 10-1	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910FS20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKT applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

PRINTED ON 2/15/2011 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1037	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 10-2	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-116-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C143 018	SOIL	FEB 25 2011	1045	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/15/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1037	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 10-2	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF -N-507-16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

PRINTED ON 2/15/2011 A-6003-518 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1044	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 10-3	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-162 48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C144 019	SOIL	FEB 25 2011	1050	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson M. Nelson	DATE/TIME: FEB 25 2011/415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/15/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1044	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 10-3	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-14-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-068-1051	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C; AIR QUALITY: ☐	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 10-4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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; Dr=Drum Liquids; DS=Drum Solids; L=Liquid; O=Oil; S=Soil; SE=Sediment; T=Tissue; V=Vegetation; W=Water; WI=Wipe; X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for 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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C145 020	SOIL	FEB 25 2011	1100	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/15/2011 A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1051	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE BC	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 10-4	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-16.48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

PRINTED ON 2/15/2011 A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1058	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 10-5	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C146 02/	SOIL	FEB 25 2011	1105	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/15/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1058	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 10-5	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-112-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Attachment 2
Narrative Rev1
WSCF112140

Rev1 – Sample B2BVN2 was requested to be rechecked since the boron result by 200.8 was much different than 6010 result. No issues were found; therefore the sample was reanalyzed. The reanalyzed result is reported in this revision. Case Narrative Replaces the Prior Submittal in its Entirety

Introduction RDR R7148

Samples were selected for reanalysis at the WSCF Laboratory. The samples were selected from WSCF111547001, WSCF111547005, WSCF111547007, WSCF111558013, WSCF111589003, WSCF111589005, WSCF111589006, WSCF111589007, WSCF111589008 and WSCF111589010 (B2BVN2, B2BVN6, B2BVN8, B2BVM9, B2BVP2, B2BVP4, B2BVP5, B2BVP6, B2BVP7 and B2BVP9 in 110425WSCF-R7418). The samples were analyzed for the analytes indicated on the attached copy of the RDR 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 RDR 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.

Attachment 2
Narrative Rev1
WSCF112140

Inorganic Comments

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):

- Boron – 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.

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
WSCF112140

RECHECK, RECOUNT, OR REANALYSIS ORDER
04/25/2011

Order Number: 110425WSCF-R7148
Waste Sampling & Characterization
600 AREA Hanford, MSIN S3-28
Richland, WA 99352

Sample Delivery Group: WSCF111547

Sample(s):
Method Name: 200.8_METALS_ICPMS

Sample #: B2BVN2 Sample Date: 2/17/11 10:08 am SAF #: F11-068
Lab Sample ID RDR Action Start Date Constituent Action TAT (Hardcopy/EDD)
111547001 4/25/2011 2:30 pm Barium REANALYZE 15 Days / 15 Days
Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.

Sample #: B2BVN6 Sample Date: 2/17/11 8:45 am SAF #: F11-068
Lab Sample ID RDR Action Start Date Constituent Action TAT (Hardcopy/EDD)
111547005 4/25/2011 2:30 pm Barium REANALYZE 15 Days / 15 Days
Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.

Sample #: B2BVN8 Sample Date: 2/17/11 8:50 am SAF #: F11-068
Lab Sample ID RDR Action Start Date Constituent Action TAT (Hardcopy/EDD)
111547007 4/25/2011 2:30 pm Barium REANALYZE 15 Days / 15 Days
Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.

Sample #: B2BVM9 Sample Date: 2/18/11 11:54 am SAF #: F11-068
Lab Sample ID RDR Action Start Date Constituent Action TAT (Hardcopy/EDD)

Narrative

Attachment 2
Narrative Rev1
WSCF112140

111558013 4/25/2011 2:30 pm Barium REANALYZE 15 Days / 15 Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.

Sample #: B2BVP2 Sample Date: 2/23/11 9:08 am SAF #: F11-068

Lab Sample ID RDR Action Start Date Constituent Action TAT (Hardcopy/EDD)

111589003 4/25/2011 2:30 pm Barium REANALYZE 15 Days / 15 Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.

Sample #: B2BVP4 Sample Date: 2/23/11 9:30 am SAF #: F11-068

Lab Sample ID RDR Action Start Date Constituent Action TAT (Hardcopy/EDD)

111589005 4/25/2011 2:30 pm Barium REANALYZE 15 Days / 15 Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.

Sample #: B2BVP5 Sample Date: 2/23/11 9:38 am SAF #: F11-068

Lab Sample ID RDR Action Start Date Constituent Action TAT (Hardcopy/EDD)

111589006 4/25/2011 2:30 pm Barium REANALYZE 15 Days / 15 Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.

Sample #: B2BVP6 Sample Date: 2/23/11 10:00 am SAF #: F11-068

Lab Sample ID RDR Action Start Date Constituent Action TAT (Hardcopy/EDD)

111589007 4/25/2011 2:30 pm Barium REANALYZE 15 Days / 15 Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.

Sample #: B2BVP7 Sample Date: 2/23/11 10:05 am SAF #: F11-068

Lab Sample ID RDR Action Start Date Constituent Action TAT (Hardcopy/EDD)

111589008 4/25/2011 2:30 pm Barium REANALYZE 15 Days / 15

Narrative

Attachment 2
Narrative Rev1
WSCF112140

Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.

Sample #:	B2BVP9	Sample Date:	2/23/11 10:45 am	SAF #:
F11-068				
Lab Sample ID		RDR Action Start Date		Constituent
Action	TAT (Hardcopy/EDD)			
111589010	4/25/2011 2:30 pm	Barium	REANALYZE	15 Days / 15

Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.

Sample Receipt

RECHECK, RECOUNT, OR REANALYSIS ORDER

04/25/2011

Rerun
112140
tab

Order Number: 110425WSCF-R7148
Waste Sampling & Characterization
600 AREA Hanford, MSIN S3-28
Richland, WA 99352

Sample Delivery Group: WSCF111547

Sample(s):

Method Name: 200.8_METALS_ICPMS

Sample #: B2BVN2 Sample Date: 2/17/11 10:08 am SAF #: F11-068

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
111547001	4/25/2011 2:30 pm	Barium	REANALYZE	15 Days / 15 Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.
L112140001

Sample #: B2BVN6 Sample Date: 2/17/11 8:45 am SAF #: F11-068

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
111547005	4/25/2011 2:30 pm	Barium	REANALYZE	15 Days / 15 Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.
L112140002

Sample #: B2BVN8 Sample Date: 2/17/11 8:50 am SAF #: F11-068

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
111547007	4/25/2011 2:30 pm	Barium	REANALYZE	15 Days / 15 Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.
L112140003

Sample Delivery Group: WSCF111558

Sample(s):

Method Name: 200.8_METALS_ICPMS

Sample #: B2BVM9 Sample Date: 2/18/11 11:54 am SAF #: F11-068

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
111558013	4/25/2011 2:30 pm	Barium	REANALYZE	15 Days / 15 Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.
L112140004

Sample Delivery Group: WSCF111589

Sample(s):

Method Name: 200.8_METALS_ICPMS

Deliver Report Results to: CH2M Hill Plateau Remediation Company
P.O. Box 1600
Richland, WA 99352-1234
C/O Mr. Mike Neely

Sample Receipt

Chain of Custody

RECHECK, RECOUNT, OR REANALYSIS ORDER

04/25/2011

Sample #: B2BVP2 Sample Date: 2/23/11 9:08 am SAF #: F11-068

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
111589003	4/25/2011 2:30 pm	Barium	REANALYZE	15 Days / 15 Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.
L 112140005

Sample #: B2BVP4 Sample Date: 2/23/11 9:30 am SAF #: F11-068

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
111589005	4/25/2011 2:30 pm	Barium	REANALYZE	15 Days / 15 Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.
L 112140006

Sample #: B2BVP5 Sample Date: 2/23/11 9:38 am SAF #: F11-068

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
111589006	4/25/2011 2:30 pm	Barium	REANALYZE	15 Days / 15 Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.
L 112140007

Sample #: B2BVP6 Sample Date: 2/23/11 10:00 am SAF #: F11-068

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
111589007	4/25/2011 2:30 pm	Barium	REANALYZE	15 Days / 15 Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.
L 112140008

Sample #: B2BVP7 Sample Date: 2/23/11 10:05 am SAF #: F11-068

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
111589008	4/25/2011 2:30 pm	Barium	REANALYZE	15 Days / 15 Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.
L 112140009

Sample #: B2BVP9 Sample Date: 2/23/11 10:45 am SAF #: F11-068

Lab Sample ID	RDR Action Start Date	Constituent	Action	TAT (Hardcopy/EDD)
111589010	4/25/2011 2:30 pm	Barium	REANALYZE	15 Days / 15 Days

Special Instructions: Please re-run for Boron (not the requested Barium) as these samples were originally analyzed prior to Boron certification.
L 112140010

Deliver Report Results to: CH2M Hill Plateau Remediation Company
P.O. Box 1600
Richland, WA 99352-1234
C/O Mr. Mike Neely

Appendix 5

Data Validation Supporting Documentation

VALIDATION LEVEL:	A	B	C	D	E
PROJECT: Ecological Baseline Risk Assessment			DATA PACKAGE: VSR12-006		
VALIDATOR: Eyda Hergenreder		LAB: WSCF		DATE: 12-28-2011	
			SDG:WSCF111547, WSCF111627, WSCF112140		
ANALYSES PERFORMED					
SW-846/ICP X	SW-846/GFAA	SW-846/Hg		EPA 200.8 X	

SAMPLES/MATRIX Soil samples

SDG WSCF111547: B2BVN2, B2BVN3, B2BVN4, B2BVN5, B2BVN6, B2BVN7, B2BVN8, B2BVN9

SDG WSCF111627: B2C126, B2C127, B2C128, B2C129, B2C130, B2C131, B2C132, B2C133, B2C134, B2C135, B2C136, B2C137, B2C138, B2C139, B2C140, B2C141, B2C142, B2C143, B2C144, B2C145, B2C146

SDG WSCF112140: B2BVN2, B2BVN6, B2BVN8, B2BVM9, B2BVP2, B2BVP4, B2BVP5, B2BVP6, B2BVP7, B2BVP9

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present?.....(Yes) No N/A

Comments:
Samples chain of custody were not included in SDG WSCF112140. Recheck, recount or reanalysis order form were included.

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:
WSCF111547: MBs batch 117476: K 12.8 mg/kg, Mn 0.247 mg/kg
WSCF111627: MBs batch 177969: Na 2.3 mg/kg, batch 177971: Na 3.2 mg/kg
batch 177952: Cu 0.127 mg/kg, Mo 0.521 mg/kg
EB sample B2BW63 (SDG WSCF111588): Na 20mg/kg, Mn 0.330 mg/kg, Cu 5.18 mg/kg, Zn 16.1 mg/kg, Pb 4.75 mg/kg
FB sample B2BW64 (SDG WSCF111588): Cu 0.360 mg/kg
FB sample B2C1K4 (SDG WSCF111614): Mn 0.655 mg/kg, Cu 1.22 mg/kg, Zn 2.10 mg/kg
EB sample B2C1K5 (SDG WSCF111626): Na 14 mg/kg

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:

MS/MSD

WSCF111547: batch 177476: Na MS/MSD 156%/176%

WSCF111627: batch 177952: Mn MSD 142%; Ni MSD 309%; Cr MSD 528%
batch 177956: Mn MS 155%; Ba MS 134%; Cu MS 47%; Zn MS/MSD 62%/62%
batch 177971: Na MS/MSD 152%/144%

LCS:

WSCF111547: batch 177457: Sb 177%

WSCF111627: batch 177952: Sb 173%; batch 177956: Sb 175%

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:

MS/MSD RPDs:
WSCF111627: batch 177952: Mn 58%; Ni 112%; Cr 144%
batch 177956: Mn 59%; Cu 60%

Field duplicate RPD:
WSCF111627: Samples B2C131/B2C132: K 38%; Ca 41%; Ni 121%; Sb 95%; Cr 65%; Cu 96%; Zn 57%; Pb 104%; Mo >2X CRDL; Sn >2X CRDL; As 32%

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:

MDLs >CRDLs
SDGs WSCF111547 and WSCF111627: B for all samples

Comments (attach additional sheets as necessary):

None

Appendix 6

Additional Documentation Requested By Client

Batch QC List

Attention Michael Neely
Department Inorganic

Group # WSCF111547

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
177457	177458	4	BLANK	49463	BLANK		ICP-2008 MS All possible metal
177457	177458	5	LCS	49464	LCS		ICP-2008 MS All possible metal
177457	177458	6	MS	49465	B2BVN2(111547001MS)	111547001	ICP-2008 MS All possible metal
177457	177458	7	MSD	49466	B2BVN2(111547001MSD)	111547001	ICP-2008 MS All possible metal
177457	177458	8	SAMPLE	111547001	B2BVN2		ICP-2008 MS All possible metal
177457	177458	9	SAMPLE	111547002	B2BVN3		ICP-2008 MS All possible metal
177457	177458	10	SAMPLE	111547003	B2BVN4		ICP-2008 MS All possible metal
177457	177458	11	SAMPLE	111547004	B2BVN5		ICP-2008 MS All possible metal
177457	177458	12	SAMPLE	111547005	B2BVN6		ICP-2008 MS All possible metal
177457	177458	13	SAMPLE	111547006	B2BVN7		ICP-2008 MS All possible metal
177457	177458	16	SAMPLE	111547007	B2BVN8		ICP-2008 MS All possible metal
177457	177458	17	SAMPLE	111547008	B2BVN9		ICP-2008 MS All possible metal
177474	177966	1	BLANK	49502	BLANK		ICP-6010 - All possible metals
177474	177966	2	LCS	49503	LCS		ICP-6010 - All possible metals
177474	177966	3	MS	49504	B2BXT3(111524001MS)	111524001	ICP-6010 - All possible metals
177474	177966	4	MSD	49505	B2BXT3(111524001MSD)	111524001	ICP-6010 - All possible metals
177474	177966	20	SAMPLE	111547001	B2BVN2		ICP-6010 - All possible metals
177474	177966	21	SAMPLE	111547002	B2BVN3		ICP-6010 - All possible metals
177474	177966	22	SAMPLE	111547003	B2BVN4		ICP-6010 - All possible metals
177474	177966	23	SAMPLE	111547004	B2BVN5		ICP-6010 - All possible metals
177474	177966	24	SAMPLE	111547005	B2BVN6		ICP-6010 - All possible metals
177476	178186	1	BLANK	49513	BLANK		ICP-6010 - All possible metals
177476	178186	2	LCS	49514	LCS		ICP-6010 - All possible metals

Batch QC List

Attention Michael Neely
Department Inorganic

Group # WSCF111547

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
177476	178186	3	MS	49515	B2BVN7(111547006MS)	111547006	ICP-6010 - All possible metals
177476	178186	4	MSD	49516	B2BVN7(111547006MSD)	111547006	ICP-6010 - All possible metals
177476	178186	5	SAMPLE	111547006	B2BVN7		ICP-6010 - All possible metals
177476	178186	6	SAMPLE	111547007	B2BVN8		ICP-6010 - All possible metals
177476	178186	7	SAMPLE	111547008	B2BVN9		ICP-6010 - All possible metals

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111547

QC Batch 177457 **Test** ICP-2008 MS All possible metal
Associated Samples 111547001, 111547002, 111547003, 111547004, 111547005, 111547006, 111547007, 111547008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #49464**							
Manganese	7439-96-5		435	mg/kg	99.6	75 - 121				02/23/11
Nickel	7440-02-0		53.1	mg/kg	99.1	74 - 122				02/23/11
Silver	7440-22-4		101	mg/kg	103.3	83 - 127				02/23/11
Antimony	7440-36-0		154	mg/kg	176.8	62 - 205				02/23/11
Barium	7440-39-3		317	mg/kg	103.1	78 - 118				02/23/11
Beryllium	7440-41-7		87.1	mg/kg	100.8	77 - 120				02/23/11
Cadmium	7440-43-9		63.4	mg/kg	98.8	76 - 129				02/23/11
Chromium	7440-47-3		69.0	mg/kg	98.1	68 - 119				02/23/11
Cobalt	7440-48-4		70.4	mg/kg	99.8	77 - 122				02/23/11
Copper	7440-50-8		63.5	mg/kg	96.1	67 - 120				02/23/11
Vanadium	7440-62-2		83.8	mg/kg	104.6	67 - 122				02/23/11
Zinc	7440-66-6		166	mg/kg	97.3	73 - 131				02/23/11
Lead	7439-92-1		126	mg/kg	100.6	79 - 124				02/23/11
Mercury	7439-97-6		7.38	mg/kg	92.2	69 - 124				02/23/11
Molybdenum	7439-98-7		52.8	mg/kg	112.4	80 - 125				02/23/11
Thallium	7440-28-0		121	mg/kg	94.1	52 - 137				02/23/11
Tin	7440-31-5		181	mg/kg	108.6	84 - 130				02/23/11
Uranium	7440-61-1		377	mg/kg	97.8	86 - 113				02/23/11
Arsenic	7440-38-2		133	mg/kg	104.3	79 - 125				02/23/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111547

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Selenium	7782-49-2		162	mg/kg	104.2	82 - 133				02/23/11
MS			**QC Sample #49465**							
			Original 111547001							
Manganese	7439-96-5	361	72.6	mg/kg	77	70 - 130				02/23/11
Nickel	7440-02-0	10.5	90.4	mg/kg	95.8	70 - 130				02/23/11
Silver	7440-22-4	<0.10	94.6	mg/kg	100.3	70 - 130				02/23/11
Antimony	7440-36-0	<0.31	88.4	mg/kg	93.7	70 - 130				02/23/11
Barium	7440-39-3	83.0	98.0	mg/kg	103.9	70 - 130				02/23/11
Beryllium	7440-41-7	0.273	93.2	mg/kg	98.8	70 - 130				02/23/11
Cadmium	7440-43-9	<0.10	95.7	mg/kg	101.5	70 - 130				02/23/11
Chromium	7440-47-3	10.4	93.3	mg/kg	99	70 - 130				02/23/11
Cobalt	7440-48-4	7.80	92.2	mg/kg	97.7	70 - 130				02/23/11
Copper	7440-50-8	11.3	91.2	mg/kg	96.7	70 - 130				02/23/11
Vanadium	7440-62-2	52.6	88.2	mg/kg	93.5	70 - 130				02/23/11
Zinc	7440-66-6	41.6	86.9	mg/kg	92.2	70 - 130				02/23/11
Lead	7439-92-1	5.10	96.1	mg/kg	101.9	70 - 130				02/23/11
Mercury	7439-97-6	0.0651	1.90	mg/kg	100.8	70 - 130				02/23/11
Molybdenum	7439-98-7	0.371	95.9	mg/kg	101.7	70 - 130				02/23/11
Thallium	7440-28-0	0.120	94.8	mg/kg	100.6	70 - 130				02/23/11
Tin	7440-31-5	0.404	95.3	mg/kg	101.1	70 - 130				02/23/11
Uranium	7440-61-1	0.413	96.1	mg/kg	101.9	70 - 130				02/23/11
Arsenic	7440-38-2	3.46	96.7	mg/kg	102.6	70 - 130				02/23/11
Selenium	7782-49-2	0.618	92.0	mg/kg	97.5	70 - 130				02/23/11
MSD			**QC Sample #49466**							
			Original 111547001					**Paired**	**49465**	

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111547

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
Manganese	7439-96-5	361	98.1	mg/kg	115.3	70 - 130	39.80	30	*	X	02/23/11
Nickel	7440-02-0	10.5	83.3	mg/kg	98	70 - 130	2.30	30			02/23/11
Silver	7440-22-4	<0.10	85.0	mg/kg	100	70 - 130	0.30	30			02/23/11
Antimony	7440-36-0	<0.31	73.4	mg/kg	86.4	70 - 130	8.10	30			02/23/11
Barium	7440-39-3	83.0	91.0	mg/kg	107.1	70 - 130	3.00	30			02/23/11
Beryllium	7440-41-7	0.273	82.7	mg/kg	97.2	70 - 130	1.60	30			02/23/11
Cadmium	7440-43-9	<0.10	85.3	mg/kg	100.3	70 - 130	1.20	30			02/23/11
Chromium	7440-47-3	10.4	85.6	mg/kg	100.7	70 - 130	1.70	30			02/23/11
Cobalt	7440-48-4	7.80	84.5	mg/kg	99.4	70 - 130	1.70	30			02/23/11
Copper	7440-50-8	11.3	82.3	mg/kg	96.8	70 - 130	0.10	30			02/23/11
Vanadium	7440-62-2	52.6	81.9	mg/kg	96.3	70 - 130	3.00	30			02/23/11
Zinc	7440-66-6	41.6	81.3	mg/kg	95.6	70 - 130	3.60	30			02/23/11
Lead	7439-92-1	5.10	87.5	mg/kg	102.9	70 - 130	1.00	30			02/23/11
Mercury	7439-97-6	0.0651	1.72	mg/kg	101	70 - 130	0.20	30			02/23/11
Molybdenum	7439-98-7	0.371	85.2	mg/kg	100.2	70 - 130	1.50	30			02/23/11
Thallium	7440-28-0	0.120	85.3	mg/kg	100.3	70 - 130	0.30	30			02/23/11
Tin	7440-31-5	0.404	84.8	mg/kg	99.8	70 - 130	1.30	30			02/23/11
Uranium	7440-61-1	0.413	88.1	mg/kg	103.7	70 - 130	1.80	30			02/23/11
Arsenic	7440-38-2	3.46	86.3	mg/kg	101.4	70 - 130	1.20	30			02/23/11
Selenium	7782-49-2	0.618	83.0	mg/kg	97.6	70 - 130	0.10	30			02/23/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111547

QC Batch 177474
Associated Samples 111547001, 111547002, 111547003, 111547004, 111547005

Test ICP-6010 - All possible metals

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #49502**							
Magnesium	7439-95-4		<14	ug/L					U	02/28/11
Potassium	7440-09-7		<73	ug/L					U	02/28/11
Sodium	7440-23-5		<11	ug/L					U	02/28/11
Calcium	7440-70-2		<28	ug/L					U	02/28/11
Boron	7440-42-8		<41	ug/L					U	02/28/11
Phosphorus	7723-14-0		<72	ug/L					U	02/28/11
LCS			**QC Sample #49503**							
Magnesium	7439-95-4		1860	mg/kg	111.2	83 - 122				02/28/11
Potassium	7440-09-7		2560	mg/kg	107.1	58 - 130				02/28/11
Sodium	7440-23-5		307	mg/kg	97.5	77 - 114				02/28/11
Calcium	7440-70-2		2930	mg/kg	102.4	89 - 120				02/28/11
Boron	7440-42-8		100	mg/kg	109.9	76 - 151				02/28/11
Phosphorus	7723-14-0		181	mg/kg	108.9	102 - 139				02/28/11
MS			**QC Sample #49504**							
			Original 111524001							
Magnesium	7439-95-4		209	mg/kg	105	75 - 125			X	02/28/11
Potassium	7440-09-7		313	mg/kg	157.5	75 - 125			X	02/28/11
Sodium	7440-23-5		270	mg/kg	136	75 - 125			X	02/28/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111547

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
Calcium	7440-70-2		298	mg/kg	150	75 - 125				X	02/28/11
Boron	7440-42-8		200	mg/kg	100.8	75 - 125					02/28/11
Phosphorus	7723-14-0		248	mg/kg	125	75 - 125				X	02/28/11
MSD			**QC Sample #49505**								
			Original	**111524001**					**Paired**	**49504**	
Magnesium	7439-95-4		481	mg/kg	240.9	75 - 125	78.60	30	*	X	02/28/11
Potassium	7440-09-7		299	mg/kg	149.7	75 - 125	5.10	30		X	02/28/11
Sodium	7440-23-5		236	mg/kg	118.3	75 - 125	13.90	30		X	02/28/11
Calcium	7440-70-2		868	mg/kg	434.9	75 - 125	97.40	30	*	X	02/28/11
Boron	7440-42-8		188	mg/kg	94.3	75 - 125	6.70	30			02/28/11
Phosphorus	7723-14-0		288	mg/kg	144.3	75 - 125	14.30	30		X	02/28/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111547

QC Batch 177476
Associated Samples 111547006, 111547007, 111547008

Test ICP-6010 - All possible metals

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #49513**							
Magnesium	7439-95-4		<14	ug/L					U	03/02/11
Potassium	7440-09-7		128	ug/L					B	03/02/11
Sodium	7440-23-5		<11	ug/L					U	03/02/11
Calcium	7440-70-2		<28	ug/L					U	03/02/11
Boron	7440-42-8		<41	ug/L					U	03/02/11
Phosphorus	7723-14-0		<72	ug/L					U	03/02/11
LCS			**QC Sample #49514**							
Magnesium	7439-95-4		1940	mg/kg	114.8	56 - 144				03/02/11
Potassium	7440-09-7		2490	mg/kg	103.3	60 - 139				03/02/11
Sodium	7440-23-5		311	mg/kg	97.8	40 - 160				03/02/11
Calcium	7440-70-2		2960	mg/kg	102.8	69 - 131				03/02/11
Boron	7440-42-8		107	mg/kg	116.4	56 - 145				03/02/11
Phosphorus	7723-14-0		163	mg/kg	97	70 - 130				03/02/11
MS			**QC Sample #49515**							
			Original	**111547006**						
Magnesium	7439-95-4	5150	253	mg/kg	126.2	75 - 125			X	03/02/11
Potassium	7440-09-7	1720	208	mg/kg	103.7	75 - 125				03/02/11
Sodium	7440-23-5	248	312	mg/kg	155.8	75 - 125			N	03/02/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111547

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Calcium	7440-70-2	7470	1080	mg/kg	537.9	75 - 125			X	03/02/11
Boron	7440-42-8	26.4	195	mg/kg	97.6	75 - 125				03/02/11
Phosphorus	7723-14-0	978	202	mg/kg	101	75 - 125				03/02/11
MSD			**QC Sample #49516**							
			Original	**111547006**				**Paired**	**49515**	
Magnesium	7439-95-4	5150	306	mg/kg	152.8	75 - 125	19.10	30	X	03/02/11
Potassium	7440-09-7	1720	215	mg/kg	107.6	75 - 125	3.70	30		03/02/11
Sodium	7440-23-5	248	351	mg/kg	175.6	75 - 125	11.90	30	N	03/02/11
Calcium	7440-70-2	7470	1220	mg/kg	608	75 - 125	12.20	30	X	03/02/11
Boron	7440-42-8	26.4	203	mg/kg	101.6	75 - 125	4.00	30		03/02/11
Phosphorus	7723-14-0	978	221	mg/kg	110.3	75 - 125	8.80	30		03/02/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111547

QC Batch 177457 **Test** ICP-2008 MS All possible metal
Associated Samples 111547001, 111547002, 111547003, 111547004, 111547005, 111547006, 111547007, 111547008

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #49463**						
Manganese	7439-96-5		0.247	ug/L				B	02/23/11
Nickel	7440-02-0		<0.20	ug/L				U	02/23/11
Silver	7440-22-4		<0.10	ug/L				U	02/23/11
Antimony	7440-36-0		<0.30	ug/L				U	02/23/11
Barium	7440-39-3		<0.20	ug/L				U	02/23/11
Beryllium	7440-41-7		<0.10	ug/L				U	02/23/11
Cadmium	7440-43-9		<0.10	ug/L				U	02/23/11
Chromium	7440-47-3		<0.50	ug/L				U	02/23/11
Cobalt	7440-48-4		<0.050	ug/L				U	02/23/11
Copper	7440-50-8		<0.10	ug/L				U	02/23/11
Vanadium	7440-62-2		<0.20	ug/L				U	02/23/11
Zinc	7440-66-6		<0.80	ug/L				U	02/23/11
Lead	7439-92-1		<0.10	ug/L				U	02/23/11
Mercury	7439-97-6		<0.050	ug/L				U	02/23/11
Molybdenum	7439-98-7		<0.050	ug/L				U	02/23/11
Thallium	7440-28-0		<0.050	ug/L				U	02/23/11
Tin	7440-31-5		<0.050	ug/L				U	02/23/11
Uranium	7440-61-1		<0.050	ug/L				U	02/23/11
Arsenic	7440-38-2		<0.40	ug/L				U	02/23/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111547

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Selenium	7782-49-2		<0.30	ug/L					U	02/23/11

Batch QC List

Attention Michael Neely
Department Inorganic

Group # WSCF111627

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
177952	177953	4	BLANK	49856	BLANK		ICP-2008 MS All possible metal
177952	177953	5	LCS	49857	LCS		ICP-2008 MS All possible metal
177952	177953	6	MS	49858	B2BFV0(111610001MS)	111610001	ICP-2008 MS All possible metal
177952	177953	7	MSD	49859	B2BFV0(111610001MSD)	111610001	ICP-2008 MS All possible metal
177952	177953	13	SAMPLE	111627001	B2C126		ICP-2008 MS All possible metal
177952	177953	16	SAMPLE	111627002	B2C127		ICP-2008 MS All possible metal
177952	177953	17	SAMPLE	111627003	B2C128		ICP-2008 MS All possible metal
177952	177953	18	SAMPLE	111627004	B2C129		ICP-2008 MS All possible metal
177952	177953	19	SAMPLE	111627005	B2C130		ICP-2008 MS All possible metal
177952	177953	20	SAMPLE	111627006	B2C131		ICP-2008 MS All possible metal
177952	177953	21	SAMPLE	111627007	B2C132		ICP-2008 MS All possible metal
177952	177953	22	SAMPLE	111627008	B2C133		ICP-2008 MS All possible metal
177956	177960	4	BLANK	49876	BLANK		ICP-2008 MS All possible metal
177956	177960	5	LCS	49877	LCS		ICP-2008 MS All possible metal
177956	177960	6	MS	49878	B2C134(111627009MS)	111627009	ICP-2008 MS All possible metal
177956	177960	7	MSD	49879	B2C134(111627009MSD)	111627009	ICP-2008 MS All possible metal
177956	177960	8	SAMPLE	111627009	B2C134		ICP-2008 MS All possible metal
177956	177960	9	SAMPLE	111627010	B2C135		ICP-2008 MS All possible metal
177956	177960	10	SAMPLE	111627011	B2C136		ICP-2008 MS All possible metal
177956	177960	11	SAMPLE	111627012	B2C137		ICP-2008 MS All possible metal
177956	177960	12	SAMPLE	111627013	B2C138		ICP-2008 MS All possible metal
177956	177960	13	SAMPLE	111627014	B2C139		ICP-2008 MS All possible metal
177956	177960	16	SAMPLE	111627015	B2C140		ICP-2008 MS All possible metal

Batch QC List

Attention Michael Neely
Department Inorganic

Group # WSCF111627

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
177956	177960	17	SAMPLE	111627016	B2C141		ICP-2008 MS All possible metal
177956	177960	18	SAMPLE	111627017	B2C142		ICP-2008 MS All possible metal
177956	177960	19	SAMPLE	111627018	B2C143		ICP-2008 MS All possible metal
177956	177960	20	SAMPLE	111627019	B2C144		ICP-2008 MS All possible metal
177956	177960	21	SAMPLE	111627020	B2C145		ICP-2008 MS All possible metal
177956	177960	22	SAMPLE	111627021	B2C146		ICP-2008 MS All possible metal
177969	178675	1	BLANK	49910	BLANK		ICP-6010 - All possible metals
177969	178675	2	LCS	49911	LCS		ICP-6010 - All possible metals
177969	178675	3	MS	49912	B28B34(111612003MS)	111612003	ICP-6010 - All possible metals
177969	178675	4	MSD	49913	B28B34(111612003MSD)	111612003	ICP-6010 - All possible metals
177969	178675	8	SAMPLE	111627001	B2C126		ICP-6010 - All possible metals
177969	178675	9	SAMPLE	111627002	B2C127		ICP-6010 - All possible metals
177969	178675	10	SAMPLE	111627003	B2C128		ICP-6010 - All possible metals
177969	178675	11	SAMPLE	111627004	B2C129		ICP-6010 - All possible metals
177969	178675	12	SAMPLE	111627005	B2C130		ICP-6010 - All possible metals
177969	178675	13	SAMPLE	111627006	B2C131		ICP-6010 - All possible metals
177969	178675	14	SAMPLE	111627007	B2C132		ICP-6010 - All possible metals
177969	178675	15	SAMPLE	111627008	B2C133		ICP-6010 - All possible metals
177969	178675	16	SAMPLE	111627009	B2C134		ICP-6010 - All possible metals
177969	178675	17	SAMPLE	111627010	B2C135		ICP-6010 - All possible metals
177969	178675	18	SAMPLE	111627011	B2C136		ICP-6010 - All possible metals
177969	178675	19	SAMPLE	111627012	B2C137		ICP-6010 - All possible metals
177969	178675	20	SAMPLE	111627013	B2C138		ICP-6010 - All possible metals

Batch QC List

Attention Michael Neely
Department Inorganic

Group # WSCF111627

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
177969	178675	21	SAMPLE	111627014	B2C139		ICP-6010 - All possible metals
177969	178675	22	SAMPLE	111627015	B2C140		ICP-6010 - All possible metals
177969	178675	23	SAMPLE	111627016	B2C141		ICP-6010 - All possible metals
177969	178675	24	SAMPLE	111627017	B2C142		ICP-6010 - All possible metals
177971	178885	1	BLANK	49918	BLANK		ICP-6010 - All possible metals
177971	178885	2	LCS	49919	LCS		ICP-6010 - All possible metals
177971	178885	3	MS	49920	B2C143(111627018MS)	111627018	ICP-6010 - All possible metals
177971	178885	4	MSD	49921	B2C143(111627018MSD)	111627018	ICP-6010 - All possible metals
177971	178885	5	SAMPLE	111627018	B2C143		ICP-6010 - All possible metals
177971	178885	6	SAMPLE	111627019	B2C144		ICP-6010 - All possible metals
177971	178885	7	SAMPLE	111627020	B2C145		ICP-6010 - All possible metals
177971	178885	8	SAMPLE	111627021	B2C146		ICP-6010 - All possible metals

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

QC Batch 177952 **Test** ICP-2008 MS All possible metal
Associated Samples 111627001, 111627002, 111627003, 111627004, 111627005, 111627006, 111627007, 111627008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #49857**							
Manganese	7439-96-5		424	mg/kg	95.8	75 - 121				03/01/11
Nickel	7440-02-0		52.3	mg/kg	96.2	74 - 122				03/01/11
Silver	7440-22-4		103	mg/kg	104.1	83 - 127				03/01/11
Antimony	7440-36-0		153	mg/kg	173.1	62 - 205				03/01/11
Barium	7440-39-3		317	mg/kg	101.7	78 - 118				03/01/11
Beryllium	7440-41-7		88.2	mg/kg	100.8	77 - 120				03/01/11
Cadmium	7440-43-9		66.7	mg/kg	102.6	76 - 129				03/01/11
Chromium	7440-47-3		69.6	mg/kg	97.6	68 - 119				03/01/11
Cobalt	7440-48-4		70.4	mg/kg	98.5	77 - 122				03/01/11
Copper	7440-50-8		62.1	mg/kg	92.7	67 - 120				03/01/11
Vanadium	7440-62-2		82.1	mg/kg	101.1	67 - 122				03/01/11
Zinc	7440-66-6		164	mg/kg	94.7	73 - 131				03/01/11
Lead	7439-92-1		131	mg/kg	103.3	79 - 124				03/01/11
Mercury	7439-97-6		7.70	mg/kg	94.8	69 - 124				03/01/11
Molybdenum	7439-98-7		53.1	mg/kg	111.5	80 - 125				03/01/11
Thallium	7440-28-0		130	mg/kg	99.6	52 - 137				03/01/11
Tin	7440-31-5		182	mg/kg	107.3	84 - 130				03/01/11
Uranium	7440-61-1		377	mg/kg	96.4	86 - 113				03/01/11
Arsenic	7440-38-2		134	mg/kg	103.7	79 - 125				03/01/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Selenium	7782-49-2		173	mg/kg	109.8	82 - 133				03/01/11
MS			**QC Sample #49858**							
			Original	**111610001**						
Manganese	7439-96-5		74.8	mg/kg	78.3	70 - 130				03/01/11
Nickel	7440-02-0		82.9	mg/kg	86.7	70 - 130				03/01/11
Silver	7440-22-4		88.9	mg/kg	93	70 - 130				03/01/11
Antimony	7440-36-0		84.7	mg/kg	88.6	70 - 130				03/01/11
Barium	7440-39-3		86.2	mg/kg	90.1	70 - 130				03/01/11
Beryllium	7440-41-7		89.1	mg/kg	93.2	70 - 130				03/01/11
Cadmium	7440-43-9		88.5	mg/kg	92.6	70 - 130				03/01/11
Chromium	7440-47-3		82.9	mg/kg	86.7	70 - 130				03/01/11
Cobalt	7440-48-4		86.2	mg/kg	90.1	70 - 130				03/01/11
Copper	7440-50-8		83.3	mg/kg	87.2	70 - 130				03/01/11
Vanadium	7440-62-2		85.7	mg/kg	89.7	70 - 130				03/01/11
Zinc	7440-66-6		83.5	mg/kg	87.4	70 - 130				03/01/11
Lead	7439-92-1		90.3	mg/kg	94.5	70 - 130				03/01/11
Mercury	7439-97-6		1.80	mg/kg	94	70 - 130				03/01/11
Molybdenum	7439-98-7		90.4	mg/kg	94.6	70 - 130				03/01/11
Thallium	7440-28-0		90.8	mg/kg	95	70 - 130				03/01/11
Tin	7440-31-5		89.6	mg/kg	93.8	70 - 130				03/01/11
Uranium	7440-61-1		89.2	mg/kg	93.3	70 - 130				03/01/11
Arsenic	7440-38-2		89.7	mg/kg	93.8	70 - 130				03/01/11
Selenium	7782-49-2		91.6	mg/kg	95.8	70 - 130				03/01/11
MSD			**QC Sample #49859**							
			Original	**111610001**				**Paired**	**49858**	

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
Manganese	7439-96-5		138	mg/kg	141.5	70 - 130	57.50	30	*	NX	03/01/11
Nickel	7440-02-0		302	mg/kg	308.9	70 - 130	112.30	30	*	NX	03/01/11
Silver	7440-22-4		95.4	mg/kg	97.7	70 - 130	4.90	30			03/01/11
Antimony	7440-36-0		92.0	mg/kg	94.2	70 - 130	6.10	30			03/01/11
Barium	7440-39-3		102	mg/kg	104.3	70 - 130	14.60	30			03/01/11
Beryllium	7440-41-7		96.2	mg/kg	98.5	70 - 130	5.50	30			03/01/11
Cadmium	7440-43-9		96.0	mg/kg	98.3	70 - 130	6.00	30			03/01/11
Chromium	7440-47-3		516	mg/kg	528	70 - 130	143.60	30	*	NX	03/01/11
Cobalt	7440-48-4		91.3	mg/kg	93.5	70 - 130	3.70	30			03/01/11
Copper	7440-50-8		93.7	mg/kg	96	70 - 130	9.60	30			03/01/11
Vanadium	7440-62-2		96.3	mg/kg	98.6	70 - 130	9.50	30			03/01/11
Zinc	7440-66-6		95.3	mg/kg	97.6	70 - 130	11.00	30			03/01/11
Lead	7439-92-1		97.6	mg/kg	100	70 - 130	5.70	30			03/01/11
Mercury	7439-97-6		2.00	mg/kg	102.5	70 - 130	8.70	30			03/01/11
Molybdenum	7439-98-7		103	mg/kg	105.6	70 - 130	11.00	30			03/01/11
Thallium	7440-28-0		97.8	mg/kg	100.1	70 - 130	5.20	30			03/01/11
Tin	7440-31-5		97.1	mg/kg	99.5	70 - 130	5.90	30			03/01/11
Uranium	7440-61-1		96.1	mg/kg	98.4	70 - 130	5.30	30			03/01/11
Arsenic	7440-38-2		105	mg/kg	107.8	70 - 130	13.90	30			03/01/11
Selenium	7782-49-2		97.9	mg/kg	100.2	70 - 130	4.50	30			03/01/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

QC Batch 177956 **Test** ICP-2008 MS All possible metal
Associated Samples 111627009, 111627010, 111627011, 111627012, 111627013, 111627014, 111627015, 111627016, 111627017, 111627018, 111627019, 111627020, 111627021

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #49877**							
Manganese	7439-96-5		386	mg/kg	85.2	75 - 121				03/01/11
Nickel	7440-02-0		48.1	mg/kg	86.6	74 - 122				03/01/11
Silver	7440-22-4		95.3	mg/kg	94.5	83 - 127				03/01/11
Antimony	7440-36-0		158	mg/kg	175.2	62 - 205				03/01/11
Barium	7440-39-3		287	mg/kg	89.9	78 - 118				03/01/11
Beryllium	7440-41-7		81.6	mg/kg	91.2	77 - 120				03/01/11
Cadmium	7440-43-9		61.0	mg/kg	91.7	76 - 129				03/01/11
Chromium	7440-47-3		63.3	mg/kg	86.9	68 - 119				03/01/11
Cobalt	7440-48-4		64.2	mg/kg	87.9	77 - 122				03/01/11
Copper	7440-50-8		56.6	mg/kg	82.7	67 - 120				03/01/11
Vanadium	7440-62-2		74.8	mg/kg	90.2	67 - 122				03/01/11
Zinc	7440-66-6		149	mg/kg	84.1	73 - 131				03/01/11
Lead	7439-92-1		119	mg/kg	91.5	79 - 124				03/01/11
Mercury	7439-97-6		7.40	mg/kg	89.3	69 - 124				03/01/11
Molybdenum	7439-98-7		49.9	mg/kg	102.5	80 - 125				03/01/11
Thallium	7440-28-0		121	mg/kg	91.3	52 - 137				03/01/11
Tin	7440-31-5		166	mg/kg	96.2	84 - 130				03/01/11
Uranium	7440-61-1		373	mg/kg	93.4	86 - 113				03/01/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Arsenic	7440-38-2		122	mg/kg	92.4	79 - 125				03/01/11
Selenium	7782-49-2		160	mg/kg	99.6	82 - 133				03/01/11
MS			**QC Sample #49878**							
			Original 111627009							
Manganese	7439-96-5	310	150	mg/kg	154.7	70 - 130			N	03/01/11
Nickel	7440-02-0	12.1	96.4	mg/kg	99.6	70 - 130				03/01/11
Silver	7440-22-4	<0.11	95.9	mg/kg	99.1	70 - 130				03/01/11
Antimony	7440-36-0	3.75	91.2	mg/kg	94.3	70 - 130				03/01/11
Barium	7440-39-3	79.1	130	mg/kg	134	70 - 130			N	03/01/11
Beryllium	7440-41-7	0.323	99.7	mg/kg	103.1	70 - 130				03/01/11
Cadmium	7440-43-9	0.151	97.1	mg/kg	100.4	70 - 130				03/01/11
Chromium	7440-47-3	16.3	95.6	mg/kg	98.8	70 - 130				03/01/11
Cobalt	7440-48-4	6.47	95.2	mg/kg	98.4	70 - 130				03/01/11
Copper	7440-50-8	225	45.4	mg/kg	46.9	70 - 130			N	03/01/11
Vanadium	7440-62-2	33.4	97.4	mg/kg	100.7	70 - 130				03/01/11
Zinc	7440-66-6	109	59.5	mg/kg	61.5	70 - 130			N	03/01/11
Lead	7439-92-1	77.4	80.7	mg/kg	83.4	70 - 130				03/01/11
Mercury	7439-97-6	<0.054	1.96	mg/kg	101.5	70 - 130				03/01/11
Molybdenum	7439-98-7	0.390	98.0	mg/kg	101.3	70 - 130				03/01/11
Thallium	7440-28-0	<0.11	98.5	mg/kg	101.8	70 - 130				03/01/11
Tin	7440-31-5	1.53	96.6	mg/kg	99.8	70 - 130				03/01/11
Uranium	7440-61-1	0.410	94.9	mg/kg	98.1	70 - 130				03/01/11
Arsenic	7440-38-2	2.88	97.8	mg/kg	101.1	70 - 130				03/01/11
Selenium	7782-49-2	0.697	103	mg/kg	106.2	70 - 130				03/01/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
MSD			**QC Sample #49879**								
			Original	**111627009**					**Paired**	**49878**	
Manganese	7439-96-5	310	84.9	mg/kg	84.1	70 - 130	59.10	30	*	X	03/01/11
Nickel	7440-02-0	12.1	102	mg/kg	100.8	70 - 130	1.20	30			03/01/11
Silver	7440-22-4	<0.11	106	mg/kg	105.1	70 - 130	5.90	30			03/01/11
Antimony	7440-36-0	3.75	101	mg/kg	100	70 - 130	5.90	30			03/01/11
Barium	7440-39-3	79.1	107	mg/kg	105.6	70 - 130	23.70	30			03/01/11
Beryllium	7440-41-7	0.323	105	mg/kg	104.5	70 - 130	1.30	30			03/01/11
Cadmium	7440-43-9	0.151	108	mg/kg	107	70 - 130	6.40	30			03/01/11
Chromium	7440-47-3	16.3	98.6	mg/kg	97.7	70 - 130	1.10	30			03/01/11
Cobalt	7440-48-4	6.47	99.7	mg/kg	98.9	70 - 130	0.50	30			03/01/11
Copper	7440-50-8	225	87.7	mg/kg	86.9	70 - 130	59.80	30	*	X	03/01/11
Vanadium	7440-62-2	33.4	102	mg/kg	100.6	70 - 130	0.10	30			03/01/11
Zinc	7440-66-6	109	62.3	mg/kg	61.8	70 - 130	0.50	30		N	03/01/11
Lead	7439-92-1	77.4	90.0	mg/kg	89.2	70 - 130	6.70	30			03/01/11
Mercury	7439-97-6	<0.054	2.16	mg/kg	107	70 - 130	5.30	30			03/01/11
Molybdenum	7439-98-7	0.390	109	mg/kg	107.8	70 - 130	6.20	30			03/01/11
Thallium	7440-28-0	<0.11	109	mg/kg	108.4	70 - 130	6.30	30			03/01/11
Tin	7440-31-5	1.53	108	mg/kg	107.1	70 - 130	7.10	30			03/01/11
Uranium	7440-61-1	0.410	107	mg/kg	105.8	70 - 130	7.60	30			03/01/11
Arsenic	7440-38-2	2.88	108	mg/kg	107.2	70 - 130	5.90	30			03/01/11
Selenium	7782-49-2	0.697	107	mg/kg	106	70 - 130	0.20	30			03/01/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

QC Batch 177969 **Test** ICP-6010 - All possible metals
Associated Samples 111627001, 111627002, 111627003, 111627004, 111627005, 111627006, 111627007, 111627008, 111627009, 111627010, 111627011, 111627012, 111627013, 111627014, 111627015, 111627016, 111627017

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #49910**							
Magnesium	7439-95-4		<14	ug/L					U	03/10/11
Potassium	7440-09-7		<73	ug/L					U	03/10/11
Sodium	7440-23-5		23.0	ug/L					B	03/10/11
Calcium	7440-70-2		<28	ug/L					U	03/10/11
Boron	7440-42-8		<41	ug/L					U	03/10/11
Phosphorus	7723-14-0		<72	ug/L					U	03/10/11
LCS			**QC Sample #49911**							
Magnesium	7439-95-4		1790	mg/kg	105.3	56 - 144				03/10/11
Potassium	7440-09-7		2570	mg/kg	106.2	60 - 139				03/10/11
Sodium	7440-23-5		318	mg/kg	99.7	40 - 160				03/10/11
Calcium	7440-70-2		2990	mg/kg	103.5	69 - 131				03/10/11
Boron	7440-42-8		96.6	mg/kg	104.8	56 - 145				03/10/11
Phosphorus	7723-14-0		172	mg/kg	101.8	70 - 130				03/10/11
MS			**QC Sample #49912**							
			Original 111612003							
Magnesium	7439-95-4		388	mg/kg	196	75 - 125			X	03/10/11
Potassium	7440-09-7		265	mg/kg	133.8	75 - 125			X	03/10/11
Sodium	7440-23-5		450	mg/kg	226.9	75 - 125			X	03/10/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
Calcium	7440-70-2		1050	mg/kg	528.4	75 - 125				X	03/10/11
Boron	7440-42-8		196	mg/kg	98.7	75 - 125					03/10/11
Phosphorus	7723-14-0		322	mg/kg	162.6	75 - 125				X	03/10/11
MSD			**QC Sample #49913**								
			Original	**111612003**					**Paired**	**49912**	
Magnesium	7439-95-4		349	mg/kg	173.5	75 - 125	12.20	30		X	03/10/11
Potassium	7440-09-7		175	mg/kg	86.8	75 - 125	42.60	30	*	X	03/10/11
Sodium	7440-23-5		435	mg/kg	216.2	75 - 125	4.80	30		X	03/10/11
Calcium	7440-70-2		611	mg/kg	303.7	75 - 125	54.00	30	*	X	03/10/11
Boron	7440-42-8		199	mg/kg	98.7	75 - 125	0.00	30			03/10/11
Phosphorus	7723-14-0		276	mg/kg	137.2	75 - 125	16.90	30		X	03/10/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

QC Batch 177971
Associated Samples 111627018, 111627019, 111627020, 111627021

Test ICP-6010 - All possible metals

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #49918**							
Magnesium	7439-95-4		<14	ug/L					U	03/14/11
Potassium	7440-09-7		<73	ug/L					U	03/14/11
Sodium	7440-23-5		32.0	ug/L					B	03/14/11
Calcium	7440-70-2		<28	ug/L					U	03/14/11
Boron	7440-42-8		<41	ug/L					U	03/14/11
Phosphorus	7723-14-0		<72	ug/L					U	03/14/11
LCS			**QC Sample #49919**							
Magnesium	7439-95-4		1630	mg/kg	95.9	56 - 144				03/14/11
Potassium	7440-09-7		2550	mg/kg	105	60 - 139				03/14/11
Sodium	7440-23-5		315	mg/kg	98.4	40 - 160				03/14/11
Calcium	7440-70-2		2880	mg/kg	99.3	69 - 131				03/14/11
Boron	7440-42-8		95.9	mg/kg	103.7	56 - 145				03/14/11
Phosphorus	7723-14-0		175	mg/kg	103.6	70 - 130				03/14/11
MS			**QC Sample #49920**							
			Original 111627018							
Magnesium	7439-95-4	4740	487	mg/kg	242.1	75 - 125			X	03/14/11
Potassium	7440-09-7	2430	199	mg/kg	98.8	75 - 125			X	03/14/11
Sodium	7440-23-5	181	306	mg/kg	152.2	75 - 125			N	03/14/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Calcium	7440-70-2	3060	706	mg/kg	351	75 - 125			X	03/14/11
Boron	7440-42-8	6.21	204	mg/kg	101.6	75 - 125				03/14/11
Phosphorus	7723-14-0	640	152	mg/kg	75.8	75 - 125				03/14/11
MSD			**QC Sample #49921**							
			Original	**111627018**				**Paired**	**49920**	
Magnesium	7439-95-4	4740	374	mg/kg	185.1	75 - 125	26.70	30	X	03/14/11
Potassium	7440-09-7	2430	177	mg/kg	87.9	75 - 125	11.70	30	X	03/14/11
Sodium	7440-23-5	181	291	mg/kg	144.5	75 - 125	5.20	30	N	03/14/11
Calcium	7440-70-2	3060	598	mg/kg	296.3	75 - 125	16.90	30	X	03/14/11
Boron	7440-42-8	6.21	204	mg/kg	101.1	75 - 125	0.50	30		03/14/11
Phosphorus	7723-14-0	640	169	mg/kg	83.9	75 - 125	10.10	30		03/14/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

QC Batch 177952 **Test** ICP-2008 MS All possible metal
Associated Samples 111627001, 111627002, 111627003, 111627004, 111627005, 111627006, 111627007, 111627008

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #49856**						
Manganese	7439-96-5		<0.10	ug/L				U	03/01/11
Nickel	7440-02-0		<0.20	ug/L				U	03/01/11
Silver	7440-22-4		<0.10	ug/L				U	03/01/11
Antimony	7440-36-0		<0.30	ug/L				U	03/01/11
Barium	7440-39-3		<0.20	ug/L				U	03/01/11
Beryllium	7440-41-7		<0.10	ug/L				U	03/01/11
Cadmium	7440-43-9		<0.10	ug/L				U	03/01/11
Chromium	7440-47-3		<0.50	ug/L				U	03/01/11
Cobalt	7440-48-4		<0.050	ug/L				U	03/01/11
Copper	7440-50-8		0.127	ug/L				B	03/01/11
Vanadium	7440-62-2		<0.20	ug/L				U	03/01/11
Zinc	7440-66-6		<0.80	ug/L				U	03/01/11
Lead	7439-92-1		<0.10	ug/L				U	03/01/11
Mercury	7439-97-6		<0.050	ug/L				U	03/01/11
Molybdenum	7439-98-7		0.521	ug/L					03/01/11
Thallium	7440-28-0		<0.050	ug/L				U	03/01/11
Tin	7440-31-5		<0.050	ug/L				U	03/01/11
Uranium	7440-61-1		<0.050	ug/L				U	03/01/11
Arsenic	7440-38-2		<0.40	ug/L				U	03/01/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Selenium	7782-49-2		<0.30	ug/L					U	03/01/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

QC Batch 177956 **Test** ICP-2008 MS All possible metal
Associated Samples 111627009, 111627010, 111627011, 111627012, 111627013, 111627014, 111627015, 111627016, 111627017, 111627018, 111627019, 111627020, 111627021

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #49876**						
Manganese	7439-96-5		<0.10	ug/L				U	03/01/11
Nickel	7440-02-0		<0.20	ug/L				U	03/01/11
Silver	7440-22-4		<0.10	ug/L				U	03/01/11
Antimony	7440-36-0		<0.30	ug/L				U	03/01/11
Barium	7440-39-3		<0.20	ug/L				U	03/01/11
Beryllium	7440-41-7		<0.10	ug/L				U	03/01/11
Cadmium	7440-43-9		<0.10	ug/L				U	03/01/11
Chromium	7440-47-3		<0.50	ug/L				U	03/01/11
Cobalt	7440-48-4		<0.050	ug/L				U	03/01/11
Copper	7440-50-8		<0.10	ug/L				U	03/01/11
Vanadium	7440-62-2		<0.20	ug/L				U	03/01/11
Zinc	7440-66-6		<0.80	ug/L				U	03/01/11
Lead	7439-92-1		<0.10	ug/L				U	03/01/11
Mercury	7439-97-6		<0.050	ug/L				U	03/01/11
Molybdenum	7439-98-7		<0.050	ug/L				U	03/01/11
Thallium	7440-28-0		<0.050	ug/L				U	03/01/11
Tin	7440-31-5		<0.050	ug/L				U	03/01/11
Uranium	7440-61-1		<0.050	ug/L				U	03/01/11

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF111627

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Arsenic	7440-38-2		<0.40	ug/L					U	03/01/11
Selenium	7782-49-2		<0.30	ug/L					U	03/01/11

Batch QC List

Attention Michael Neely
Department Inorganic

Group # WSCF112140

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
182263	182264	4	BLANK	55953	BLANK		ICP-2008 MS All possible metal
182263	182264	5	LCS	55954	LCS		ICP-2008 MS All possible metal
182263	182264	6	MS	55955	B2BVN2(112140001MS)	112140001	ICP-2008 MS All possible metal
182263	182264	7	MSD	55956	B2BVN2(112140001MSD)	112140001	ICP-2008 MS All possible metal
182263	182264	8	SAMPLE	112140001	B2BVN2		ICP-2008 MS All possible metal
182263	182264	9	SAMPLE	112140002	B2BVN6		ICP-2008 MS All possible metal
182263	182264	10	SAMPLE	112140003	B2BVN8		ICP-2008 MS All possible metal
182263	182264	11	SAMPLE	112140004	B2BVM9		ICP-2008 MS All possible metal
182263	182264	12	SAMPLE	112140005	B2BVP2		ICP-2008 MS All possible metal
182263	182264	13	SAMPLE	112140006	B2BVP4		ICP-2008 MS All possible metal
182263	182264	14	SAMPLE	112140007	B2BVP5		ICP-2008 MS All possible metal
182263	182264	17	SAMPLE	112140008	B2BVP6		ICP-2008 MS All possible metal
182263	182264	18	SAMPLE	112140009	B2BVP7		ICP-2008 MS All possible metal
182263	182264	19	SAMPLE	112140010	B2BVP9		ICP-2008 MS All possible metal

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF112140

QC Batch 182263 **Test** ICP-2008 MS All possible metal
Associated Samples 112140001, 112140002, 112140003, 112140004, 112140005, 112140006, 112140007, 112140008, 112140009, 112140010

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #55953**							
Boron	7440-42-8		<0.50	ug/L					U	05/23/11
LCS			**QC Sample #55954**							
Boron	7440-42-8		128	mg/kg	111.2	64 - 136				05/23/11
MS			**QC Sample #55955**							
			Original 112140001							
Boron	7440-42-8	1.61	108	mg/kg	106.2	70 - 130			X	05/23/11
MSD			**QC Sample #55956**							
			Original 112140001					**Paired**	**55955**	
Boron	7440-42-8	1.61	93.9	mg/kg	96.7	70 - 130	9.40	30	X	05/23/11

REVISED112140 -

Date: 28 December 2011
To: CH2M Hill (technical representative)
From: Analytical Quality Associates, Inc.
Project: Ecological Baseline Risk Assessment
Subject: General Chemistry - Sample Data Groups (SDGs) SL1043, WSCF111547 and WSCF111627

INTRODUCTION

This memorandum presents the results of data validation for SDG SL1043 prepared by TestAmerica and SDGs WSCF111547 and WSCF111627 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
B2BP15	02/14/11	Soil	C	TKN & TOC
B2BP16	02/14/11	Soil	C	TKN & TOC
B2BP17	02/14/11	Soil	C	TKN & TOC
B2BP18	02/14/11	Soil	C	TKN & TOC
B2BP14	02/14/11	Soil	C	TKN & TOC
B2BP20	02/10/11	Soil	C	TKN & TOC
B2BP21	02/10/11	Soil	C	TKN & TOC
B2BP22	02/10/11	Soil	C	TKN & TOC
B2BP23	02/10/11	Soil	C	TKN & TOC
B2BP24	02/10/11	Soil	C	TKN & TOC
B2BVN2	02/17/11	Soil	C	pH
B2BVN3	02/17/11	Soil	C	pH
B2BVN4	02/17/11	Soil	C	pH
B2BVN5	02/17/11	Soil	C	pH
B2BVN6	02/17/11	Soil	C	pH
B2BVN7	02/17/11	Soil	C	pH
B2BVN8	02/17/11	Soil	C	pH
B2BVN9	02/17/11	Soil	C	pH
B2C126	02/25/11	Soil	C	pH
B2C127	02/25/11	Soil	C	pH
B2C128	02/25/11	Soil	C	pH
B2C129	02/25/11	Soil	C	pH
B2C130	02/25/11	Soil	C	pH
B2C131	02/25/11	Soil	C	pH
B2C132	02/25/11	Soil	C	pH
B2C133	02/25/11	Soil	C	pH
B2C134	02/25/11	Soil	C	pH
B2C135	02/25/11	Soil	C	pH
B2C136	02/25/11	Soil	C	pH
B2C137	02/25/11	Soil	C	pH

B2C138	02/25/11	Soil	C	pH
B2C139	02/25/11	Soil	C	pH
B2C140	02/25/11	Soil	C	pH
B2C141	02/25/11	Soil	C	pH
B2C142	02/25/11	Soil	C	pH
B2C143	02/25/11	Soil	C	pH
B2C144	02/25/11	Soil	C	pH
B2C145	02/25/11	Soil	C	pH
B2C146	02/25/11	Soil	C	pH

Data validation was conducted in accordance with the CHPRC validation statement of work and the Sampling and Analysis Plan for Ex-Situ and Invertebrate Bioassays to Evaluate Terrestrial Environments across the Hanford Site, DOE/RL-2010-118, Draft A (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 TOC and TKN are analysis within 28 days of sample collection. The holding time requirement for pH is analysis as soon as possible. Sample preservation for TKN and TOC requires chilling to 4 degrees Celsius and no specific preservation were required for pH.

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

All field blank results were acceptable with the following exception. TOC was detected in field trip blank (FTB) sample B2BPF2 (SDG SL1044).

It should be noted that FTB sample B2BW64 was included in SDG WSCF111588 and FTB sample B2C1K4 was included in SDG WSCF111614.

Equipment Blanks

All equipment blank results were acceptable.

It should be noted that equipment blank (EB) sample B2BPF1 was included in SDG SL1044, EB sample B2BW63 was included in SDG WSCF111588 and EB sample B2C1K5 was included in SDG WSCF111626.

- **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.

Matrix Spike (MS) Samples

All MS recoveries were acceptable with the following exceptions.

For SDG SL1043, the MS recovery for TOC was < the lower acceptance limit. All associated sample results were detects and should be qualified as estimates and flagged "J." See the table in Appendix 2 for a listing of all affected sample results.

Laboratory Control Samples (LCSs)

All LCS recoveries were acceptable.

- **Precision**

Precision is evaluated by reviewing 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 relative percent difference (RPD) limits are ±30%. When duplicate RPDs exceed the limits and have associated results <5X the reporting limits with difference <2X the required detection limits no precision infraction occurred

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 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 SL1043, WSCF111547 and WSCF111627 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 TOC sample results as estimates were due to matrix spike infraction. 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-2010-118, Draft A, *Sampling and Analysis Plan for Ex-Situ and Invertebrate Bioassays to Evaluate Terrestrial Environments across the Hanford Site*, March 2011.

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: SL1043, WSCF111547, WSCF111627	Reviewer: AQA	Project: Ecological Baseline Risk Assessment	Page 1 of 1
Analyte(s)	**Qualifier**	**Samples Affected**	**Reason**
TOC	J	B2BP15, B2BP16, B2BP17, B2BP18, B2BP14, B2BP20, B2BP21, B2BP22, B2BP23, B2BP24	Low MS recovery

Comments: None

Appendix 3

Annotated Laboratory Reports

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP15

General Chemistry

Lot-Sample #...: F1B170522-001 Work Order #...: MEJ0P Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
% Moisture.....: 6.7

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	6.7	0.10	%	MCAWW 160.3 MOD	02/24-02/25/11	1055222
	Dilution Factor: 1			MDL.....:		
Total Kjeldahl Nitrogen	243 N,D	107	mg/kg	MCAWW 351.2	02/23-02/28/11	1054060
	Dilution Factor: 10			MDL.....: 22.2		
Total Organic Carbon J	3070 N	100	mg/kg	SW846 9060	03/07-03/08/11	1066187
	Dilution Factor: 1			MDL.....: 33.4		

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP16

General Chemistry

Lot-Sample #...: F1B170522-002 Work Order #...: MEJ04 Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
% Moisture.....: 5.8

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	5.8	0.10	%	MCAWW 160.3 MOD	02/24-02/25/11	1055222
		Dilution Factor: 1		MDL.....:		
Total Kjeldahl Nitrogen	252 N,D	212	mg/kg	MCAWW 351.2	02/23-02/28/11	1054060
		Dilution Factor: 20		MDL.....: 44.0		
Total Organic Carbon J	1850 N	100	mg/kg	SW846 9060	03/07-03/08/11	1066187
		Dilution Factor: 1		MDL.....: 33.4		

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP17

General Chemistry

Lot-Sample #...: F1B170522-003 Work Order #...: MEJ08 Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
% Moisture.....: 6.4

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	6.4	0.10	%	MCAWW 160.3 MOD	02/24-02/25/11	1055222
		Dilution Factor: 1		MDL.....:		
Total Kjeldahl Nitrogen	210 N,D	107	mg/kg	MCAWW 351.2	02/23-02/28/11	1054060
		Dilution Factor: 10		MDL.....: 22.1		
Total Organic Carbon J	1710 N	100	mg/kg	SW846 9060	03/07-03/08/11	1066187
		Dilution Factor: 1		MDL.....: 33.4		

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP18

General Chemistry

Lot-Sample #...: F1B170522-004 Work Order #...: MEJ1A Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
% Moisture.....: 6.6

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	6.6	0.10	%	MCAWW 160.3 MOD	02/24-02/25/11	1055222
		Dilution Factor: 1		MDL.....:		
Total Kjeldahl Nitrogen	195 N,D	85.7	mg/kg	MCAWW 351.2	02/23-02/28/11	1054060
		Dilution Factor: 8		MDL.....: 17.7		
Total Organic Carbon J	1450 N	100	mg/kg	SW846 9060	03/07-03/08/11	1066187
		Dilution Factor: 1		MDL.....: 33.4		

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP14

General Chemistry

Lot-Sample #...: F1B170522-005 Work Order #...: MEJ1D Matrix.....: SOLID
Date Sampled...: 02/14/11 Date Received..: 02/17/11
% Moisture.....: 5.7

PARAMETER		RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture		5.7	0.10	%	MCAWW 160.3 MOD	02/24-02/25/11	1055222
			Dilution Factor: 1		MDL.....:		
Total Kjeldahl Nitrogen		343 N,D	212	mg/kg	MCAWW 351.2	02/23-02/28/11	1054060
			Dilution Factor: 20		MDL.....: 43.9		
Total Organic Carbon	J	3530 N	100	mg/kg	SW846 9060	03/07-03/08/11	1066187
			Dilution Factor: 1		MDL.....: 33.4		

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP20

General Chemistry

Lot-Sample #...: F1B170522-006 Work Order #...: MEJ1G Matrix.....: SOLID
Date Sampled...: 02/10/11 Date Received..: 02/17/11
% Moisture.....: 5.9

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	5.9	0.10	%	MCAWW 160.3 MOD	02/24-02/25/11	1055222
	Dilution Factor: 1			MDL.....:		
Total Kjeldahl Nitrogen	318 N,D	213	mg/kg	MCAWW 351.2	02/23-02/28/11	1054060
	Dilution Factor: 20			MDL.....: 44.0		
Total Organic Carbon J	17300 N,D	200	mg/kg	SW846 9060	03/08/11	1066187
	Dilution Factor: 2			MDL.....: 66.8		

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP21

General Chemistry

Lot-Sample #...: F1B170522-007 Work Order #...: MEJ1J Matrix.....: SOLID
Date Sampled...: 02/10/11 Date Received..: 02/17/11
% Moisture.....: 5.8

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	5.8	0.10	%	MCAWW 160.3 MOD	02/24-02/25/11	1055222
		Dilution Factor: 1		MDL.....:		
Total Kjeldahl Nitrogen	213 N,D	106	mg/kg	MCAWW 351.2	02/23-02/28/11	1054060
		Dilution Factor: 10		MDL.....: 22.0		
Total Organic Carbon J	46600 N,D	1000	mg/kg	SW846 9060	03/08/11	1066187
		Dilution Factor: 10		MDL.....: 334		

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP22

General Chemistry

Lot-Sample #...: F1B170522-008 Work Order #...: MEJ1K Matrix.....: SOLID
Date Sampled...: 02/10/11 Date Received..: 02/17/11
% Moisture.....: 5.6

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	5.6	0.10	%	MCAWW 160.3 MOD	02/24-02/25/11	1055222
		Dilution Factor: 1		MDL.....:		
Total Kjeldahl Nitrogen	193 N,D	106	mg/kg	MCAWW 351.2	02/23-02/28/11	1054060
		Dilution Factor: 10		MDL.....: 21.9		
Total Organic Carbon J	6480 N	100	mg/kg	SW846 9060	03/07-03/08/11	1066187
		Dilution Factor: 1		MDL.....: 33.4		

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP23

General Chemistry

Lot-Sample #...: F1B170522-009 Work Order #...: MEJ1N Matrix.....: SOLID
Date Sampled...: 02/10/11 Date Received..: 02/17/11
% Moisture.....: 6.1

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	6.1	0.10	%	MCAWW 160.3 MOD	02/24-02/25/11	1055222
	Dilution Factor: 1			MDL.....:		
Total Kjeldahl Nitrogen	258 N,D	213	mg/kg	MCAWW 351.2	02/23-02/28/11	1054060
	Dilution Factor: 20			MDL.....: 44.1		
Total Organic Carbon J	7560 N,D	400	mg/kg	SW846 9060	03/08/11	1066187
	Dilution Factor: 4			MDL.....: 134		

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2BP24

General Chemistry

Lot-Sample #...: F1B170522-010 Work Order #...: MEJ1R Matrix.....: SOLID
Date Sampled...: 02/10/11 Date Received..: 02/17/11
% Moisture.....: 5.8

PARAMETER	RESULT	RL	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Percent Moisture	5.8	0.10	%	MCAWW 160.3 MOD	02/24-02/25/11	1055222
		Dilution Factor: 1		MDL.....:		
Total Kjeldahl Nitrogen	294 N,D	212	mg/kg	MCAWW 351.2	02/23-02/28/11	1054060
		Dilution Factor: 20		MDL.....: 44.0		
Total Organic Carbon J	9780 N	100	mg/kg	SW846 9060	03/07-03/08/11	1066187
		Dilution Factor: 1		MDL.....: 33.4		

NOTE(S):

RL Reporting Limit

Results and reporting limits have been adjusted for dry weight.

N Spiked analyte recovery is outside stated control limits.

D Result was obtained from the analysis of a dilution.

EH
12/28/11

WSCF Analytical Results Report

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111547

Sample # 111547001
SAF# F11-068
Sample ID B2BVN2

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/23/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		93		percent	1			02/23/11
pH on Solids										**02/22/11**
pH on Solids										
pH	PH	LA-212-411		8.56		unitless	1	0.010	0.50	02/22/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111547

Sample # 111547002
SAF# F11-068
Sample ID B2BVN3

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/23/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		82		percent	1			02/23/11
pH on Solids										**02/22/11**
pH on Solids										
pH	PH	LA-212-411		8.62		unitless	1	0.010	0.50	02/22/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111547

Sample # 111547003
SAF# F11-068
Sample ID B2BVN4

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/23/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		94		percent	1			02/23/11
pH on Solids										**02/22/11**
pH on Solids										
pH	PH	LA-212-411		8.60		unitless	1	0.010	0.50	02/22/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111547

Sample # 111547004
SAF# F11-068
Sample ID B2BVN5

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/23/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		94		percent	1			02/23/11
pH on Solids										**02/22/11**
pH on Solids										
pH	PH	LA-212-411		8.92		unitless	1	0.010	0.50	02/22/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111547

Sample # 111547005
SAF# F11-068
Sample ID B2BVN6

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/23/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		94		percent	1			02/23/11
pH on Solids										**02/22/11**
pH on Solids										
pH	PH	LA-212-411		7.38		unitless	1	0.010	0.50	02/22/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111547

Sample # 111547006
SAF# F11-068
Sample ID B2BVN7

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/23/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		94		percent	1			02/23/11
pH on Solids										**02/22/11**
pH on Solids										
pH	PH	LA-212-411		8.68		unitless	1	0.010	0.50	02/22/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111547

Sample # 111547007
SAF# F11-068
Sample ID B2BVN8

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/23/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		94		percent	1			02/23/11
pH on Solids										**02/22/11**
pH on Solids										
pH	PH	LA-212-411		8.74		unitless	1	0.010	0.50	02/22/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111547

Sample # 111547008
SAF# F11-068
Sample ID B2BVN9

Matrix SOIL
Sampled 02/17/11
Received 02/17/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/23/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		92		percent	1			02/23/11
pH on Solids										**02/22/11**
pH on Solids										
pH	PH	LA-212-411		7.58		unitless	1	0.010	0.50	02/22/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627001
SAF# F11-068
Sample ID B2C126

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		93		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.05		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627002
SAF# F11-068
Sample ID B2C127

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		92		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.35		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627003
SAF# F11-068
Sample ID B2C128

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		91		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.05		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627004
SAF# F11-068
Sample ID B2C129

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		93		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.21		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627005
SAF# F11-068
Sample ID B2C130

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		92		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.29		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627006
SAF# F11-068
Sample ID B2C131

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		95		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.36		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627007
SAF# F11-068
Sample ID B2C132

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		95		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.14		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627008
SAF# F11-068
Sample ID B2C133

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		95		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.02		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627009
SAF# F11-068
Sample ID B2C134

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		93		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.69		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627010
SAF# F11-068
Sample ID B2C135

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		95		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.40		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627011
SAF# F11-068
Sample ID B2C136

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		95		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.25		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627012
SAF# F11-068
Sample ID B2C137

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		93		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		6.94		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627013
SAF# F11-068
Sample ID B2C138

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		91		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		6.99		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627014
SAF# F11-068
Sample ID B2C139

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		92		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		6.86		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627015
SAF# F11-068
Sample ID B2C140

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		95		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		6.67		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627016
SAF# F11-068
Sample ID B2C141

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		92		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		6.89		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627017
SAF# F11-068
Sample ID B2C142

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		95		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.23		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627018
SAF# F11-068
Sample ID B2C143

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		95		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.10		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627019
SAF# F11-068
Sample ID B2C144

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		95		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.45		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627020
SAF# F11-068
Sample ID B2C145

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		95		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.14		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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 Michael Neely
Department Wet Chemistry

Group # WSCF111627

Sample # 111627021
SAF# F11-068
Sample ID B2C146

Matrix SOIL
Sampled 02/25/11
Received 02/25/11

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Total Residue										**02/28/11**
Total Residue										
Percent Solids	%SOLIDS	LA-519-412		96		percent	1			02/28/11
pH on Solids										**02/28/11**
pH on Solids										
pH	PH	LA-212-411		7.59		unitless	1	0.010	0.50	02/28/11

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

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary diltution factor.
N - MS and/or MSD sample recovery outside control limits.
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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CASE NARRATIVE

CH2MHill Plateau Remediation Company
P.O. Box 1600
MS B3-60
Richland, Washington 99352
March 9, 2011
Attention: Mike Neely

TestAmerica Laboratories, Inc.

SDG	: SL1043
Number of Samples	: 10 samples
Sample Matrix	: Solid
Data Deliverable	: Summary
Date SDG Closed	: February 17, 2011

II. Introduction

On February 17, 2011, 10 solid 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: F11-068

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.

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CH2M Hill Plateau Remediation Company
March 9, 2011
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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.

Semivolatiles

Batch: 1055089

Sample F1B170552-009 had a layer of water on top of the sample. The water layer was discarded and the extraction carried out according to the SOP.
Affected Samples:
F1B170522 (9): B2BP23

The Method Blank surrogate recoveries are outside acceptance limits. Samples, associated with this method blank, demonstrated acceptable surrogate recoveries indicating the surrogate excursion is isolated to the method blank and not indicative of the batch.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

The MSD recovery for Hexachlorobenzene is outside the upper QC limit, indicating a potential positive bias for this analyte. This analyte was not observed above the reporting limit in the associated samples; therefore the sample data was not adversely affected by this excursion. The MSD Surrogate Recovery for Terphenyl-d14 is outside the upper QC limit. Surrogate recovery for the original sample is within limits.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17

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F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

Pesticides

Batch: 1055092

The sample was analyzed at a dilution due to high concentrations of target analytes. The reporting limit has been adjusted only for those targets reported from the dilution run. As a result of the dilution, the surrogates were diluted out. The target analytes reported form the dilution are qualified with a "D" flag.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

There was insufficient sample provided for F1B170522-002 to perform the analysis at the method specified amount. A reduced sample amount of 21.7g was prepared. The reporting limit has been elevated accordingly. Due to software limitations, the dilution factor field was used to adjust the detection limits for the sample volume. No dilution was performed on the initial analysis.
Affected Samples:
F1B170522 (2): B2BP16

Sample surrogate recovery is outside established QC limits. This excursion is attributed to a matrix interference which is physically evident in the sample. The sample extract was a light yellowish color and also exhibited slight properties like soap was in the extract.
Affected Samples:
F1B170522 (5): B2BP14

The closing CCV recovery was outside the lower QC limit (greater than 20% RSD) for Toxaphene indicating a potential low bias for those analytes in the samples associated with this CCV. This was on the confirmation column only.
Affected Samples:

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F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

Herbicides

Batch: 1055090

The MS/MSD RPD for Dinoseb is not within method acceptance criteria. MS/MSD recoveries are within QC limits demonstrating good extraction performance in the sample matrix.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

TKN

Batch: 1054060

The samples were analyzed at a dilution due to high concentrations of target analytes. The reporting limit has been adjusted for the dilution. The analyte is qualified with a "D" flag.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

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When performing a sample dilution due to high concentrations of target analytes for, the matrix spike was diluted outside reliable detection, making QC recoveries unreliable. The analyte is qualified with an "N" flag.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

TOC

Batch: 1066187

The samples were reanalyzed at a dilution (with a lesser sample aliquot), based on high concentrations of TOC when the standard 100mg of sample was analyzed. The analyte is qualified with a "D" flag.
Affected Samples:
F1B170522 (6): B2BP20
F1B170522 (9): B2BP23

The matrix spike recovery was below the lower acceptable QC limit. This sample and its duplicate exhibited acceptable RPD (within 30%). The matrix spike recovery, when calculated against the duplicate result, is acceptable. The analyte is qualified with an "N" flag.
Affected Samples:
F1B170522 (1): B2BP15
F1B170522 (2): B2BP16
F1B170522 (3): B2BP17
F1B170522 (4): B2BP18
F1B170522 (5): B2BP14
F1B170522 (6): B2BP20
F1B170522 (7): B2BP21
F1B170522 (8): B2BP22
F1B170522 (9): B2BP23
F1B170522 (10): B2BP24

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CH2M Hill Plateau Remediation Company

March 9, 2011

SDG: SL1043

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:

Michael Franks
St. Louis Project Manager

12/20/2011

Problem and Discrepancy Report
TASL
SDG SL1043b

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1. **The data package has the following issues:**

   a) The matrix spike sample data report is missing for Herbicides.

Resolution: *Provide appropriate correction.*

Lab Response: Matrix spike data report included in revised report.

Please correct the issues and resubmit the electronic **and** hard copy data package.

COC 495

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-054

28 lbs

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8C	DATA TURNAROUND
D. Sparks	WIDRIG, DL	376-2858	BAUER, RG	AIR QUALITY ☐	15 Days / 15 Days
SAMPLING LOCATION	**PROJECT DESIGNATION**		**SAF NO.**		
600-220 Target 3-2	Ecological Baseline Risk Assessment - Soils		F11-068		
ICE CHEST NO.	**FIELD LOGBOOK NO.**	**ACTUAL SAMPLE DEPTH**	**COA**	**METHOD OF SHIPMENT**	
6WS-099	HNF-N-507-16-32	0-12"	302427ES10	FEDERAL EXPRESS	**ORIGINAL**
SHIPPED TO	**OFFSITE PROPERTY NO.**		**BILL OF LADING/AIR BILL NO.**		
TestAmerica St. Louis	SEE PTR		~~SEE PTR~~ 7967 6887 8445 DW. 2/16/11		

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV3

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP15	SOIL	FEB 14 2011	1010	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
D. Sparks	FEB 14 2011 1250	SSU- 1	FEB 14 2011 1250
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
SSU- 1	FEB 16 2011 0700	L.D. Wall	FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
L.D. Wall CHPRC	FEB 16 2011 1400	FEDEX	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FED EX		B-1 Brian Daniels	2/17/11 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
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 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-054	PAGE 2 OF 2
COLLECTOR D Sparks	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 3-2	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. 6WS-099	FIELD LOGBOOK NO. HNF-N-507-16-32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7967 6887 8445 2-16-11		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-055

COLLECTOR: J. Scales	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
SAMPLING LOCATION: 600-220 Target 3-3	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068
ICE CHEST NO.: GWS-099	FIELD LOGBOOK NO.: HNF-N-507-16.32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7967 6887 8445 LW. 2/16/11

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

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
RADIOACTIVE TIE TO: B2BNV4

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 {Total organic carbon};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP16	SOIL	FEB 14 2011	1026	✓	✓	✓

CHAIN OF POSSESSION	DATE/TIME	SIGN/ PRINT NAMES	DATE/TIME
RELINQUISHED BY/REMOVED FROM: J. Scales	FEB 14 2011 1250	RECEIVED BY/STORED IN: SSU-1	FEB 14 2011 1250
RELINQUISHED BY/REMOVED FROM: SSU-1	FEB 16 2011 0700	RECEIVED BY/STORED IN: L.D. Wall	FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM: L.D. Wall	FEB 16 2011 1400	RECEIVED BY/STORED IN: FEDEX	
RELINQUISHED BY/REMOVED FROM: FEDEX		RECEIVED BY/STORED IN: B-1 Brian Daniels	2/17/11 0930
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

PRINTED ON 2/8/2011

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-055	PAGE 2 OF 2
SL104B COLLECTOR J. Scales	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-220 Target 3-3	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-099	FIELD LOGBOOK NO. HNF-N-507-~~116-32~~	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7967 6887 8445		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

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SDG# SL1043

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-056	PAGE 1 OF 2
COLLECTOR: J. Scales	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-220 Target 3-3 DUP	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: GWS-099	FIELD LOGBOOK NO.: HNF-N-507-16 32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7967 6887 8445 RW. 2/16/11		

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV5

PRESERVATION				Cool~4C	Cool~4C	Cool~4C
HOLDING TIME				14/40 Days	28 Days	28 Days
TYPE OF CONTAINER				aG	G/P	aG
NO. OF CONTAINER(S)				1	1	1
VOLUME				120mL	120mL	120mL
SAMPLE ANALYSIS				SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP17	SOIL	FEB 14 2011	1026	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: J. Scales	DATE/TIME: FEB 14 2011 1250	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: FEB 14 2011 1250	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: FEB 16 2011 0700	RECEIVED BY/STORED IN: L.D. Wall CHPRC L.D. Wall	DATE/TIME: FEB 16 2011 0700	
RELINQUISHED BY/REMOVED FROM: L.D. Wall L.D. Wall	DATE/TIME: FEB 16 2011 1400	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:	
RELINQUISHED BY/REMOVED FROM: FED EX	DATE/TIME:	RECEIVED BY/STORED IN: Brian Daniels	DATE/TIME: 2/17/11 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 2/8/2011

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SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-056	PAGE 2 OF 2
COLLECTOR J. Scales	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-220 Target 3-3 DUP	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-099	FIELD LOGBOOK NO. HNF-N-507-16.32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7967 6887 8445 2-16-11		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

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A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-057

PAGE 1 OF 2

COLLECTOR: J. Scales	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
SAMPLING LOCATION: 600-220 Target 3-4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068
ICE CHEST NO.: GWS-099	FIELD LOGBOOK NO.: HNF-N-507-16.32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7967 6887 8445

PRICE CODE: 8C

AIR QUALITY: ☐

DATA TURNAROUND: 15 Days / 15 Days

METHOD OF SHIPMENT: FEDERAL EXPRESS

ORIGINAL

LW. 2/16/11

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV6

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP18	SOIL	FEB 14 2011	1040	X	X	X

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J. Scales	FEB 14 2011 1250	SSU-1	FEB 14 2011 1250
SSU-1	FEB 16 2011 0700	L.D. Wall (SUPPO) L.D. Wall	FEB 16 2011 0700
L.D. Wall (SUPPO) L.D. Wall	FEB 16 2011 1400	FEDEX	
FED EX		B-1 Brian Daniels	2/17/11 0930

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 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-057	PAGE 2 OF 2
COLLECTOR J. Scales	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 3-4	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. GWS-099	FIELD LOGBOOK NO. HNF-N-507-16.32	ACTUAL SAMPLE DEPTH 0-12ft	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 2-16-11 7967 6887 8445		

SPECIAL INSTRUCTIONS

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

(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SDG# SL1043

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-053

COLLECTOR	COMPANY CONTACT	TELEPHONE NO.	PROJECT COORDINATOR	PRICE CODE 8C	DATA TURNAROUND
D. Sparks	WIDRIG, DL	376-2858	BAUER, RG	AIR QUALITY ☐	15 Days / 15 Days

SAMPLING LOCATION	PROJECT DESIGNATION	SAF NO.
600-220 Target 3-1	Ecological Baseline Risk Assessment - Soils	F11-068

ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA	METHOD OF SHIPMENT
GWS-099	HNF-N-507-16-32	0-12"	302427ES10	FEDERAL EXPRESS

ORIGINAL

SHIPPED TO	OFFSITE PROPERTY NO.	BILL OF LADING/AIR BILL NO.
TestAmerica St. Louis	SEE PTR	~~SEE PTR~~ 7967 6887 8445

RW 2/16/11

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV2

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP14	SOIL	FEB 14 2011	0955	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
D. Sparks	FEB 14 2011 1250	SSU- 1	FEB 14 2011 1250
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
SSU- 1	FEB 16 2011 0700	L.D. Wall	FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
L.D. Wall	FEB 16 2011 1400	FEDEX	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FED EX		B-1	2/17/11 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
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 2/8/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-053	PAGE 2 OF 2
COLLECTOR D. Sparks	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-220 Target 3-1	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-099	FIELD LOGBOOK NO. HNF-N-507-16.32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7967 6887 8445 2-16-11		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

SDG# SL1043

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-059 | PAGE 1 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** WIDRIG, DL	**TELEPHONE NO.** 376-2858	**PROJECT COORDINATOR** BAUER, RG
SAMPLING LOCATION 600-220 Target 4-1	**PROJECT DESIGNATION** Ecological Baseline Risk Assessment - Soils		**SAF NO.** F11-068
ICE CHEST NO. 2/16/11 GWS-115 GWS-115	**FIELD LOGBOOK NO.** HNF-N-507-16-32	**ACTUAL SAMPLE DEPTH** 0-12"	**COA** 302427ES10
SHIPPED TO TestAmerica St. Louis	**OFFSITE PROPERTY NO.** SEE PTR		**BILL OF LADING/AIR BILL NO.** ~~SEE PTR~~ 7944 3167 1918 2-16-11

PRICE CODE 8C | **AIR QUALITY** ☐ | **DATA TURNAROUND** 15 Days / 15 Days | **METHOD OF SHIPMENT** FEDERAL EXPRESS | **ORIGINAL**

71.16

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNV8

PRESERVATION				Cool~4C	Cool~4C	Cool~4C
HOLDING TIME				14/40 Days	28 Days	28 Days
TYPE OF CONTAINER				aG	G/P	aG
NO. OF CONTAINER(S)				1	1	1
VOLUME				120mL	120mL	120mL
SAMPLE ANALYSIS				SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);
SAMPLE NO.	**MATRIX***	**SAMPLE DATE**	**SAMPLE TIME**			
B2BP20	SOIL	FEB 10 2011	1142	✓	✓	✓

CHAIN OF POSSESSION		**SIGN/ PRINT NAMES**	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	**DATE/TIME** FEB 10 2011 1500	**RECEIVED BY/STORED IN** SSU-1	**DATE/TIME** FEB 10 2011 1500
RELINQUISHED BY/REMOVED FROM SSU-1	**DATE/TIME** FEB 16 2011 0700	**RECEIVED BY/STORED IN** L.D. Wall CHPRC	**DATE/TIME** FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM L.D. Wall CHPRC	**DATE/TIME** FEB 16 2011 1400	**RECEIVED BY/STORED IN** FEDEX	**DATE/TIME**
RELINQUISHED BY/REMOVED FROM FED EX	**DATE/TIME**	**RECEIVED BY/STORED IN** Brian Daniels	**DATE/TIME** 2/17/11 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
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 2/8/2011

A-6003-618 (REV 2)

TestAmerica St. Louis

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-059	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 4-1	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. 6WS-115	FIELD LOGBOOK NO. HNF-N-507-~~110~~-32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7944 3167 1918 2-16-11		

SPECIAL INSTRUCTIONS

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

(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-060

PAGE 1 OF 2

COLLECTOR KC Patterson CHPRC	**COMPANY CONTACT** WIDRIG, DL	**TELEPHONE NO.** 376-2858	**PROJECT COORDINATOR** BAUER, RG
SAMPLING LOCATION 600-220 Target 4-2	**PROJECT DESIGNATION** Ecological Baseline Risk Assessment - Soils		**SAF NO.** F11-068
ICE CHEST NO. GWS-115	**FIELD LOGBOOK NO.** HNF-N-507-16.32	**ACTUAL SAMPLE DEPTH** 0-12"	**COA** 302427ES10
SHIPPED TO TestAmerica St. Louis	**OFFSITE PROPERTY NO.** SEE PTR		**BILL OF LADING/AIR BILL NO.** SEE PTR 7944 3167 1918

PRICE CODE 8C

AIR QUALITY ☐

DATA TURNAROUND 15 Days / 15 Days

METHOD OF SHIPMENT FEDERAL EXPRESS

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
RADIOACTIVE TIE TO: B2BNV9

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 {Total organic carbon};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP21	SOIL	FEB 10 2011	1220	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME FEB 10 2011 1500	RECEIVED BY/STORED IN SSU-1	DATE/TIME FEB 10 2011 1500
RELINQUISHED BY/REMOVED FROM SSU-1	DATE/TIME FEB 16 2011 0700	RECEIVED BY/STORED IN L.D. Wall	DATE/TIME FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM L.D. Wall	DATE/TIME FEB 16 2011 1400	RECEIVED BY/STORED IN FEDEX	DATE/TIME
RELINQUISHED BY/REMOVED FROM FED EX	DATE/TIME	RECEIVED BY/STORED IN Brian Daniels	DATE/TIME 2/17/11 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
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 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-060	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-220 Target 4-2	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. GWS-115	FIELD LOGBOOK NO. HNF-N-507-16.32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7944 3167 198 2-16-11		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-061

COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
PRICE CODE: 8C	AIR QUALITY: ☐	DATA TURNAROUND: 15 Days / 15 Days	
SAMPLING LOCATION: 600-220 Target 4-3	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils	SAF NO.: F11-068	
ICE CHEST NO.: 6WS-115	FIELD LOGBOOK NO.: HNF-N-507-16.32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL		
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR	BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7944 3167 1918 2-16-11	

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

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

SPECIAL HANDLING AND/OR STORAGE
RADIOACTIVE TIE TO: B2BNW0

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 {Total organic carbon};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP22	SOIL	FEB 10 2011	1230	✓	✓	✓

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KC Patterson CHPRC	FEB 10 2011 1500	SSU-1	FEB 10 2011 1500
SSU-1	FEB 16 2011 0700	L.D. Wall CHPRC	FEB 16 2011 0700
L.D. Wall CHPRC	FEB 16 2011 1400	FEDEX	
FED EX		Brian Daniel	2/17/11 0930

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 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-061	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 4-3	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. GWS-115	FIELD LOGBOOK NO. HNF-N-507-16.32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7944 3167 1918 2-1641		

SPECIAL INSTRUCTIONS

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

(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

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A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-062	PAGE 1 OF 2
COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-220 Target 4-4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: GWS-115	FIELD LOGBOOK NO.: HNF-N-507-16.32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR		BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7944 3167 1918 2-16-11		

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

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

SPECIAL HANDLING AND/OR STORAGE: RADIOACTIVE TIE TO: B2BNW1

PRESERVATION				Cool~4C	Cool~4C	Cool~4C
HOLDING TIME				14/40 Days	28 Days	28 Days
TYPE OF CONTAINER				aG	G/P	aG
NO. OF CONTAINER(S)				1	1	1
VOLUME				120mL	120mL	120mL
SAMPLE ANALYSIS				SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 (Total organic carbon);
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP23	SOIL	FEB 10 2011	1250	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: FEB 10 2011 1500	RECEIVED BY/STORED IN: SSU-1	DATE/TIME: FEB 10 2011 1500	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: SSU-1	DATE/TIME: FEB 16 2011 0700	RECEIVED BY/STORED IN: L.D. Wall K.D. Wall	DATE/TIME: FEB 16 2011 0700	
RELINQUISHED BY/REMOVED FROM: L.D. Wall CHPRC K.D. Wall	DATE/TIME: FEB 16 2011 1400	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:	
RELINQUISHED BY/REMOVED FROM: FED EX	DATE/TIME:	RECEIVED BY/STORED IN: B-1 Brian Daniels	DATE/TIME: 2/17/11 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 2/8/2011

A-6003-618 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-062	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 4-4	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. GWS-115	FIELD LOGBOOK NO. HNF-N-507-16-32	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7944 3167 1918 2-16-11		

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

SDG# SL1043

SL1043 CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-063

COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: WIDRIG, DL	TELEPHONE NO.: 376-2858	PROJECT COORDINATOR: BAUER, RG
PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days		
SAMPLING LOCATION: 600-220 Target 4-5	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils	SAF NO.: F11-068	AIR QUALITY ☐
ICE CHEST NO.: GWS-115	FIELD LOGBOOK NO.: HNF-N-507-16-32	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
METHOD OF SHIPMENT: FEDERAL EXPRESS	ORIGINAL		
SHIPPED TO: TestAmerica St. Louis	OFFSITE PROPERTY NO.: SEE PTR	BILL OF LADING/AIR BILL NO.: ~~SEE PTR~~ 7944 3167 1918 2-16-11	

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

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

SPECIAL HANDLING AND/OR STORAGE: RADIOACTIVE TIE TO: B2BNW2

PRESERVATION	Cool~4C	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	28 Days	28 Days
TYPE OF CONTAINER	aG	G/P	aG
NO. OF CONTAINER(S)	1	1	1
VOLUME	120mL	120mL	120mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	TOC - 9060 {Total organic carbon};

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B2BP24	SOIL	FEB 10 2011	1320	✓	✓	✓

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: FEB 10 2011 1420	RECEIVED BY/STORED IN: SSU #1	DATE/TIME: FEB 10 2011 1420
RELINQUISHED BY/REMOVED FROM: SSU #1	DATE/TIME: FEB 16 2011 0700	RECEIVED BY/STORED IN: L.D. Wall CHPRC	DATE/TIME: FEB 16 2011 0700
RELINQUISHED BY/REMOVED FROM: L.D. Wall CHPRC	DATE/TIME: FEB 16 2011 1400	RECEIVED BY/STORED IN: FEDEX	DATE/TIME:
RELINQUISHED BY/REMOVED FROM: FED EX	DATE/TIME:	RECEIVED BY/STORED IN: Brian Daniels	DATE/TIME: 2/17/11 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: 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 2/8/2011

A-6003-618 (REV 2)

SL1043 CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-063	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT WIDRIG, DL	TELEPHONE NO. 376-2858	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-220 Target 4-5	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. GWS-115	FIELD LOGBOOK NO. HNF-N-507-16-22	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. ~~SEE PTR~~ 7944 3167 1918 2-16-11		

SPECIAL INSTRUCTIONS

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

(1) Pesticides - 8081 {4,4'-DDD (Dichlorodiphenyldichloroethane), 4,4'-DDE (Dichlorodiphenyldichloroethylene), 4,4'-DDT (Dichlorodiphenyltrichloroethane), Alpha-BHC, Alpha-Chlordane, beta-1,2,3,4,5,6-Hexachlorocyclohexane (beta-BHC), Delta-BHC, Dieldrin, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin aldehyde, Endrin ketone, Gamma-BHC (Lindane), gamma-Chlordane, Heptachlor, Heptachlor epoxide, Methoxychlor, Toxaphene}; Chloro-Herbicides - EPA8151 {Dichloroprop, Dinoseb(2-secButyl-4,6-dinitrophenol)}; Semi-VOA - 8270 (TCL) {4,6-Dinitro-2-methylphenol, Hexachlorobenzene, Pentachlorophenol}; Semi-VOA - 8270 (Add-On) {Pentachloronitrobenzene (PCNB)};
(2) Total Nitrogen_Kjeldahl {Nitrogen, Kjeldahl total};

Attachment 2
Narrative
WSCF111547

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. Also attached is IRF 11-344 dealing with Phosphorous LCS out-of-limits. The limits were updated after the IRF was generated and recoveries are within limits. 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

ICP-AES 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):

Attachment 2
Narrative
WSCF111547

- Batch QC 177474
  - Magnesium, Potassium, Sodium, Phosphorus and Calcium – Exceeded spiking levels by a factor of 4. Spike recoveries and associated RPDs are not valid.
- Batch QC 177476
  - Sodium – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - Potassium – Detected in the Blank and evaluated. No sample results in this batch were affected. "C" Flags not required.
  - Magnesium and Calcium – 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.

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 – Detected in the Blank and evaluated. No sample results in this batch were affected. "C" Flags not required.
- Manganese – MS / MSD Relative Percent Difference (RPD) is outside established laboratory limits. The quality control report was flagged for RPD failure.
- All other applicable QC controls are within the established limits.

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

- All applicable QC controls are within the established limits.

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

Attachment 2
Narrative
WSCF111547

ISSUE RESOLUTION FORM

CHPRC TRACKING NUMBER: 11-344

Date: 03/03/2011 TEST: ICP-AES 6010 **DUE DATE: 3/4, 3/5, and 3/9/11**

SAF No(s): F11-068, F11-068, and F10-283

SDG (s): 111547, 111558, and 111579

LOGIN No(s): 111547006 through 111547008
111558001 through 111558013
111579002

Sample No(s): B2BVN7, B2BVN8, and B2BVN9
B2BV77, B2BV78, B2BV79, B2BV80, B2BV81, B2BV83, B2BV84, B2BV85, B2BV86, B2BV87, B2BVN0, B2BVN1, and B2BVM9
B28B63

Submitted By: H. Medley
Phone No.: 372-1488
Fax No.:

Submitted To: S. Champoux
Phone No.: 373-5290
Fax No.:

ISSUE	PROPOSED RESOLUTION
The Phosphorus LCS percent recovery was out of limits for this batch: Phosphorus LCS = 97% (limits– 102-139%)	Accept the data as-is and note in the narrative.

CHPRC/BHI/WMH/PNNL COMMENTS

Accept proposed resolution

Sara Champoux 3/3/2011

Signature and Date

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-375	PAGE 1 OF 2
COLLECTOR: KC Patterson CHPRC	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND
SAMPLING LOCATION: Control 4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	15 Days / 15 Days
ICE CHEST NO.:	FIELD LOGBOOK NO.: HNF-N-507-16	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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)

111547

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - SM5 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B28VN2	SOIL	FEB 17 2011	1008	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: KC Patterson CHPRC	DATE/TIME: FEB 17 2011 1140	RECEIVED BY/STORED IN: K Brazel K Brazel	DATE/TIME: FEB 17 2011 1140	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-375	PAGE 2 OF 2
COLLECTOR KC Patterson CHPRC	COMPANY CONTACT BAUER, R	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Control 4	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO. alx	FIELD LOGBOOK NO. HNF-N-507-16	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-382	PAGE 1 OF 2
COLLECTOR: Scales	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 5	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: MX	FIELD LOGBOOK NO.: HNF-N-507-14	ACTUAL SAMPLE DEPTH: 0-1 ft	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2BVN3	2	SOIL	2-17-11	1030	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: J Scales 2-17-11	DATE/TIME: 1140	RECEIVED BY/STORED IN: K Breazeal 2-17-11	DATE/TIME: 1140	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/8/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-382	PAGE 2 OF 2
COLLECTOR Scale S	COMPANY CONTACT BAUER, R	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Control 5	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO. NA	FIELD LOGBOOK NO. HNF-N-507-16	ACTUAL SAMPLE DEPTH 0-2 ft	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-389	PAGE 1 OF 2
COLLECTOR: J SCALES	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 6	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: NA	FIELD LOGBOOK NO.: HNF-N-507-16	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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 Meterial at concentrations that may or may not be regulated for 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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2BVN4	3	SOIL	02/17/11	1040	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM: J SCALES	DATE/TIME: 02/17/11 1140	RECEIVED BY/STORED IN: K Bergeal K Bergeal	DATE/TIME: 02/17/11 1140
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS: SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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			F11-068-389	PAGE 2 OF 2
COLLECTOR: J. SCALES	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 6	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: MA	FIELD LOGBOOK NO.: HNF-N-507-14	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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

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(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-396	PAGE 1 OF 2
COLLECTOR: Scaby	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 7	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: NA	FIELD LOGBOOK NO.: 11Mi-2-5716	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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]	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	Cool-4C	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	28 Days	ASAP
		TYPE OF CONTAINER	G/P	G/P
		NO. OF CONTAINER(S)	1	1
		VOLUME	120mL	60mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - SO4 (pH Measurement);

SAMPLE NO.		MATRIX[a]	SAMPLE DATE	SAMPLE TIME		
B2BVN5	4	SOIL	2-17-11	1025	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: Scaby	DATE/TIME: 2-17-11 1025	RECEIVED BY/STORED IN: 1140 2-17-11 1025 K Brazal	DATE/TIME: 2-17-11 1140 2-17-11 1025	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/8/2011

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-396	PAGE 2 OF 2
COLLECTOR Scale	COMPANY CONTACT BAUER, R	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE BC	DATA TURNAROUND
SAMPLING LOCATION Control 7	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. MA	FIELD LOGBOOK NO. HNF-N-507-16	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-403	PAGE 1 OF 2
COLLECTOR: JS Scales CHPRC	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 8	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: NA	FIELD LOGBOOK NO.: HNF-N-507-14	ACTUAL SAMPLE DEPTH: 0-1ft.	COA: 302427ES10	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*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	Cool~4C	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	28 Days	ASAP
		TYPE OF CONTAINER	G/P	G/P
		NO. OF CONTAINER(S)	1	1
		VOLUME	120mL	60mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2BVN6	5	SOIL	2/7/11	0345	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: JS Scales CHPRC	DATE/TIME: 02/7/11 1140	RECEIVED BY/STORED IN: V. Bracaed	DATE/TIME: 2/7/11 1140	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-403	PAGE 2 OF 2
COLLECTOR JS Scale CHPRC	COMPANY CONTACT BAUER, R	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION Control 8	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO. NA	FIELD LOGBOOK NO. HNF-N-507-14	ACTUAL SAMPLE DEPTH 0-1 ft.	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-410	PAGE 1 OF 2
COLLECTOR: Scalez	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 9	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: NA	FIELD LOGBOOK NO.: HNF-N-507-16	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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, Dt=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for 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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2BVN7 6	SOIL	2-17-11	0850	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: Scalez	DATE/TIME: 1140 2-17-11	RECEIVED BY/STORED IN: Y Brazal	DATE/TIME: 1140 2-17-11	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/8/2011

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-410	PAGE 2 OF 2
COLLECTOR Scales	COMPANY CONTACT BAUER, R	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Control 9	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO. NA	FIELD LOGBOOK NO. HNF-N-507-16	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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

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(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-068-419	PAGE 1 OF 2
COLLECTOR: Scale 3	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C; DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 9 DUP	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐
ICE CHEST NO.: NA	FIELD LOGBOOK NO.: HNF-N-507-2	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None	
HOLDING TIME	28 Days	ASAP	
TYPE OF CONTAINER	G/P	G/P	
NO. OF CONTAINER(S)	1	1	
VOLUME	120mL	60mL	
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) 9045 (pH Measurement);	

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2BVN8 7	SOIL	2-17-11	0850	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: Scale 3	DATE/TIME: 2-17-11 1140	RECEIVED BY/STORED IN: V. Brewton	DATE/TIME: 2-17-11 1140	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-419	PAGE 2 OF 2
COLLECTOR Scalag	COMPANY CONTACT BAUER, R	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Control 9 DUP	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO. NA	FIELD LOGBOOK NO. HNF-N-302-16	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-284	PAGE 1 OF 2
COLLECTOR: JS Scales CHPRC	COMPANY CONTACT: BAUER, R	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: Control 10	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.: NK	FIELD LOGBOOK NO.: HNF-N-507-16	ACTUAL SAMPLE DEPTH: 0-1 ft	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2BVN9 8	SOIL	02/17/11	0912	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: JS Scales CHPRC	DATE/TIME: 02/17/11 1140	RECEIVED BY/STORED IN: K Brazal K Brazal	DATE/TIME: 02/17/11 1140	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/8/2011

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-284	PAGE 2 OF 2
COLLECTOR JS Scales CHPRC	COMPANY CONTACT BAUER, R	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION Control 10	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO. MK	FIELD LOGBOOK NO. ~~HNF-N-507-16~~ HNF-N-507-16	ACTUAL SAMPLE DEPTH 0-1 ft	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Attachment 2
Narrative
WSCF111627

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, 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

ICP-AES 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 177969
    - Boron – Sample concentrations are estimated. "E"-Flags are applied to samples. Samples are also "X" flagged to indicate iron interference.

- Sodium contamination was detected in the Blank and was evaluated. Affected sample results in this batch were "C" Flagged.
- Calcium, Magnesium, Potassium, Phosphorus, and Sodium – exceeded spiking levels by a factor of 4. Spike recoveries and associated RPDs are not valid.

- Batch QC 177971
  - Boron – Sample concentrations are estimated. "E"-Flags are applied to samples. Samples are also "X" flagged to indicate iron interference.
  - Sodium – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
  - Sodium contamination was detected in the Blank and was evaluated. Affected sample results in this batch were "C" Flagged.
  - Calcium, Magnesium, and Potassium – 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.

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 177952
  - Manganese, Nickel, and Chromium – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged. Matrix Spike Relative Percent Differences (RPD) are also outside established laboratory limits.
  - Copper and Molybdenum – were detected in the Blank and were evaluated. Affected sample results in this batch were "C" Flagged.
- Batch QC 177956
  - Manganese, Barium, Copper and Zinc – Matrix Spike and/or Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged. Manganese and Copper Matrix Spike Relative Percent Difference (RPD) are also outside established laboratory limits.
  - All other applicable QC controls are within the established limits.

Attachment 2
Narrative
WSCF111627

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

- All applicable QC controls are within the established limits.

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

Sample Receipt

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1065	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND
SAMPLING LOCATION: 600-281 Target 7-1	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	15 Days / 15 Days
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-112-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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: 111627

PRESERVATION	Cool~4C	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C126	SOIL	FEB 25 2011	0900	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/15/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-106S	PAGE 2 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 7-1	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1072	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 7-2	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF -N-507- 16.48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME				28 Days	ASAP
TYPE OF CONTAINER				G/P	G/P
NO. OF CONTAINER(S)				1	1
VOLUME				120mL	60mL
SAMPLE ANALYSIS				SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C127 002	SOIL	FEB 25 2011	0925	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
FM Hall CHPRC	FEB 25 2011 1415	M. Nelson M. Nelson	FEB 25 2011 1415	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/15/2011

A-6003-518 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1072	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C AIR QUALITY ☐	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 7-2	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068		
ICE CHEST NO.	FIELD LOGBOOK NO. HNF -N-507- 116-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-068-1079	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C
SAMPLING LOCATION: 600-281 Target 7-3	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-116.48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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

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

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for 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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	[redacted]	
B2C128 003	SOIL	FEB 25 2011	0945	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011	RECEIVED BY/STORED IN: HB McNelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-1079	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 7-3	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-1086 PAGE 1 OF 2

COLLECTOR: KB Huise, CHPRC

COMPANY CONTACT: BAUER, RG

TELEPHONE NO.: 373-3931

PROJECT COORDINATOR: BAUER, RG

PRICE CODE: 8C

DATA TURNAROUND: 15 Days / 15 Days

AIR QUALITY: ☐

SAMPLING LOCATION: 600-281 Target 7-4

PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils

SAF NO.: F11-068

ICE CHEST NO.:

FIELD LOGBOOK NO.: HNF-N-507-116-48

ACTUAL SAMPLE DEPTH: 0-12"

COA: 302427ES10

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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) 9045 (pH Measurement);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C129	004	SOIL	FEB 25 2011	0955	X	X

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
KB Huise CHPRC	FEB 25 2011 1415	M. Nelson	FEB 25 2011 1415
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

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 2/15/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1086	PAGE 2 OF 2
COLLECTOR KB Hulse CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 7-4	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-14-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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

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(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1093	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 7-5	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C130 005	SOIL	FEB 25 2011	1000	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-1093	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 7-5	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-16.48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1100	PAGE 1 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target B-1	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-162-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C131 006	SOIL	FEB 25 2011	1100	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
FM Hall CHPRC	FEB 25 2011 1415	M. Nelson M. Nelson	FEB 25 2011 1415	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-1100	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-281 Target 8-1	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11 068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO.	FIELD LOGBOOK NO. HNF -N-507-16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1110	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 8-1 DUP	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C132	007	SOIL	FEB 25 2011	1100	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: 1415 FEB 25 2011	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: 1415 FEB 25 2011	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-1110	PAGE 2 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 8-1 DUP	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-112-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1114	PAGE 1 OF 2
COLLECTOR: KB Huise, CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 8-2	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C133 008	SOIL	FEB 25 2011	1135	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: KB Huise CHPRC	DATE/TIME: 1415 FEB 25 2011	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: 1415 FEB 25 2011	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-1114	PAGE 2 OF 2
COLLECTOR ~~KB Hulse~~ CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 8-2	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	ORIGINAL
ICE CHEST NO.	FIELD LOGBOOK NO. HNF -N-507- 16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1121	PAGE 1 OF 2
COLLECTOR: KB Huise, CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 8-3	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C134 009	SOIL	FEB 25 2011	1140	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: KB Huise CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1121	PAGE 2 OF 2
COLLECTOR KB Hulse CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 8-3	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-19-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-068-1128	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C
SAMPLING LOCATION: 600-281 Target 8-4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16.48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 30242/ES10	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

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

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for 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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C135 010	SOIL	FEB 25 2011	1145	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1128	PAGE 2 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 8-4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF -N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F11-068-1135

PAGE 1 OF 2

COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG
SAMPLING LOCATION: 600-281 Target 8-5	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16.48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10
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

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

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for 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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 99% (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C136 0/1	SOIL	FEB 25 2011	1150	X	X

CHAIN OF POSSESSION / SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
FM Hall CHPRC	FEB 25 2011 1415	M.Neison M.Nelson	FEB 25 2011/1415

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 2/14/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1135	PAGE 2 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 8-5	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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

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(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F11-068-1142	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C
SAMPLING LOCATION: 600-281 Target 9-1	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF -N-507- 16.48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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

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

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for 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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C137 012	SOIL	FEB 25 2011	1245	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson M Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/14/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1142	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 9-1	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1149	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 9-2	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16.48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C138 013	SOIL	FEB 25 2011	1250	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1450	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-1149	PAGE 2 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 9-2	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-116-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Moritoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-or) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1156	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 9-3	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-116-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME				28 Days	ASAP
TYPE OF CONTAINER				G/P	G/P
NO. OF CONTAINER(S)				1	1
VOLUME				120mL	60mL
SAMPLE ANALYSIS				SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C139 G14	SOIL	FEB 25 2011	1259	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/14/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1156	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND
SAMPLING LOCATION 600-281 Target 9-3	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	15 Days / 15 Days
ICE CHEST NO.	FIELD LOGBOOK NO. INF -N-507- 16.48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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

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(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1163	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 9-4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: ~~HNF-N-507-~~ 16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C140 015	SOIL	FEB 25 2011	1300	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/14/2011

A-6003-618 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1163	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3331	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 9-4	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-1648	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1170	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: BC	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 9-5	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil)-9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C141 016	SOIL	FEB 25 2011	1305	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/14/2011

A-6003-613 (REV 2)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1170	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 9-5	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1030	PAGE 1 OF 2
COLLECTOR: KB Huise CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 10-1	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAP NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16 48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 30Z427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C142 017	SOIL	FEB 25 2011	1040	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: KB Huise CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-1030	PAGE 2 OF 2
COLLECTOR KB Huise CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-201 Target 10-1	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910FS20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKT applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1037	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 10-2	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-116-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil - 9045 (pH Measurement));

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C143 018	SOIL	FEB 25 2011	1045	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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

PRINTED ON 2/15/2011

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1037	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 10-2	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF -N-507-16-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1044	PAGE 1 OF 2
COLLECTOR: FM Hall, CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 10-3	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-162 48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	Cool-4C	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	28 Days	ASAP
		TYPE OF CONTAINER	G/P	G/P
		NO. OF CONTAINER(S)	1	1
		VOLUME	120mL	60mL
	SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C144 019	SOIL	FEB 25 2011	1050	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall, CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson M. Nelson	DATE/TIME: FEB 25 2011/415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
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			F11-068-1044	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 10-3	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-14-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1051	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 10-4	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0 12"	COA: 302427ES10	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, Dr=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS: Contains Radioactive Material at concentrations that may or may not be regulated for 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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C145 020	SOIL	FEB 25 2011	1100	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson M Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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			F11-068-1051	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE BC	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 10-4	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-16.48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1058	PAGE 1 OF 2
COLLECTOR: FM Hall CHPRC	COMPANY CONTACT: BAUER, RG	TELEPHONE NO.: 373-3931	PROJECT COORDINATOR: BAUER, RG	PRICE CODE: 8C	DATA TURNAROUND: 15 Days / 15 Days
SAMPLING LOCATION: 600-281 Target 10-5	PROJECT DESIGNATION: Ecological Baseline Risk Assessment - Soils		SAF NO.: F11-068	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-507-16-48	ACTUAL SAMPLE DEPTH: 0-12"	COA: 302427ES10	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	None
HOLDING TIME	28 Days	ASAP
TYPE OF CONTAINER	G/P	G/P
NO. OF CONTAINER(S)	1	1
VOLUME	120mL	60mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	pH (Soil) - 9045 (pH Measurement);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C146 02/	SOIL	FEB 25 2011	1105	X	X

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: FM Hall CHPRC	DATE/TIME: FEB 25 2011 1415	RECEIVED BY/STORED IN: M. Nelson	DATE/TIME: FEB 25 2011 1415	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	

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)

Chain of Custody

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-068-1058	PAGE 2 OF 2
COLLECTOR FM Hall CHPRC	COMPANY CONTACT BAUER, RG	TELEPHONE NO. 373-3931	PROJECT COORDINATOR BAUER, RG	PRICE CODE 8C	DATA TURNAROUND 15 Days / 15 Days
SAMPLING LOCATION 600-281 Target 10-5	PROJECT DESIGNATION Ecological Baseline Risk Assessment - Soils		SAF NO. F11-068	AIR QUALITY ☐	
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-507-112-48	ACTUAL SAMPLE DEPTH 0-12"	COA 302427ES10	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 all analytical work at WSCF is 401910ES20.☐** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.☐** The laboratory shall report only the requested constituents of concern in all final data reports, and EDDs. QC results for non-requested constituents need not be reported, but samples chosen for matrix spike, and all spike compounds shall be identified in the final data report case narrative. No TICs shall be reported.
(1) 200.8_HG - ICPMS {Mercury}; ICP/MS - 200.8 (TAL) {Antimony, Barium, Cadmium, Chromium, Cobalt, Copper, Manganese, Nickel, Silver, Vanadium, Zinc}; ICP/MS - 200.8 (Add-on) {Arsenic, Beryllium, Lead, Molybdenum, Selenium, Thallium, Tin, Uranium}; ICP Metals - 6010 (TAL) {Calcium, Magnesium, Potassium, Sodium}; ICP Metals - 6010 (Add-On) {Boron, Phosphorus};

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Appendix 5

Data Validation Supporting Documentation

VALIDATION LEVEL:	A	B	C	D	E
PROJECT: Ecological Baseline Risk Assessment			DATA PACKAGE: VSR12-006		
VALIDATOR: Eyda Hergenreder		LAB: TestAmerica, WSCF		DATE: 12-28-2011	
			SDG: SL1043, WSCF111547, WSCF111627		
ANALYSES PERFORMED					
Anions/IC	TOC X	TOX	TPH-418.1	Oil and Grease	Alkalinity
Ammonia	BOD/COD	Chloride	Chromium-VI	pH X	NO_3/NO_2
Sulfate	TDS	TKN X	Phosphate	Cyanide	

SAMPLES/MATRIX Soil samples

SDG SL1043: B2BP15, B2BP16, B2BP17, B2BP18, B2BP14, B2BP20, B2BP21, B2BP22, B2BP23, B2BP24

SDG WSCF111547: B2BVN2, B2BVN3, B2BVN4, B2BVN5, B2BVN6, B2BVN7, B2BVN8, B2BVN9

SDG WSCF111627: B2C126, B2C127, B2C128, B2C129, B2C130, B2C131, B2C132, B2C133, B2C134, B2C135, B2C136, B2C137, B2C138, B2C139, B2C140, B2C141, B2C142, B2C143, B2C144, B2C145, B2C146

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:
Field trip blank sample B2BPF2 (SDG SL1044) TOC 0.29 mg/L

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:

SDG SL1043: MS%Rs: TOC 38%

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: None

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:

MDLs >CRDLs
SDG SL1043: TOC: all samples: TKN: B2BP16, B2BP14, B2BP20, B2BP23, B2BP24

Comments (attach additional sheets as necessary):

Appendix 6

Additional Documentation Requested By Client

METHOD BLANK REPORT

General Chemistry

Client Lot #...: F1B170522 **Matrix.....:** SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Kjeldahl Nitrogen		Work Order #: MEQE91AA		MB Lot-Sample #:	F1B230000-060	
	ND	10.0	mg/kg	MCAWW 351.2	02/23-02/28/11	1054060
		Dilution Factor: 1				
Total Organic Carbon		Work Order #: MFENQ1AA		MB Lot-Sample #:	F1C070000-187	
	ND	100	mg/kg	SW846 9060	03/07-03/08/11	1066187
		Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE DATA REPORT

General Chemistry

Client Lot #...: F1B170522 **Matrix.....:** SOLID

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCNT RECVRY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Kjeldahl Nitrogen			Work Order #: MEQE91AC		LCS Lot-Sample#: F1B230000-060		
	50.0	48.9	mg/kg	98	MCAWW 351.2	02/23-02/28/11	1054060
			Dilution Factor: 1				
Total Organic Carbon			Work Order #: MFENQ1AC		LCS Lot-Sample#: F1C070000-187		
	4110	2930	mg/kg	71	SW846 9060	03/07-03/08/11	1066187
			Dilution Factor: 1				

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE DATA REPORT

General Chemistry

Client Lot #...: F1B170522 **Matrix.....:** SOLID
Date Sampled...: 02/14/11 **Date Received..:** 02/17/11

Percnt Moisture: 5.9

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Kjeldahl Nitrogen			Work Order #...:		MEJ1A1AH		MS Lot-Sample #: F1B170522-004	
	195	53.6	265 N,D	mg/kg	130	MCAWW 351.2	02/23-02/28/11	1054060
			Dilution Factor: 10					
Total Organic Carbon			Work Order #...:		MEJ0P1AL		MS Lot-Sample #: F1B170522-001	
	3070	1000	3450 N	mg/kg	38	SW846 9060	03/07-03/08/11	1066187
			Dilution Factor: 1					

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F1B170522 **Work Order #...:** MEJ1A-SMP MEJ1A-DUP **Matrix.....:** SOLID

Date Sampled...: 02/14/11 **Date Received..:** 02/17/11

% Moisture.....: 6.6

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Kjeldahl Nitrogen						SD Lot-Sample #:	F1B170522-004	
	195 N,D	168 D	mg/kg	15	(0-30)	MCAWW 351.2	02/23-02/28/11	1054060

Dilution Factor: 8

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

D Result was obtained from the analysis of a dilution.

N Spiked analyte recovery is outside stated control limits.

SAMPLE DUPLICATE EVALUATION REPORT

General Chemistry

Client Lot #...: F1B170522 **Work Order #...:** MEJ0P-SMP MEJ0P-DUP **Matrix.....:** SOLID

Date Sampled...: 02/14/11 **Date Received..:** 02/17/11

% Moisture.....: 6.7

PARAM	RESULT	DUPLICATE RESULT	UNITS	RPD	RPD LIMIT	METHOD	PREPARATION-ANALYSIS DATE	PREP BATCH #
Total Organic Carbon						SD Lot-Sample #:	F1B170522-001	
	3070 N	2310 N	mg/kg	28	(0-30)	SW846 9060	03/07-03/08/11	1066187

Dilution Factor: 1

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

N Spiked analyte recovery is outside stated control limits.

Batch QC List

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111547

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
177571	177571	1	LCS	49594	LCS		Soil And Waste pH Measurement
177571	177571	2	DUP	49595	B2BVN2(111547001DUP)	111547001	Soil And Waste pH Measurement
177571	177571	3	SAMPLE	111547001	B2BVN2		Soil And Waste pH Measurement
177571	177571	4	SAMPLE	111547002	B2BVN3		Soil And Waste pH Measurement
177571	177571	5	SAMPLE	111547003	B2BVN4		Soil And Waste pH Measurement
177571	177571	6	SAMPLE	111547004	B2BVN5		Soil And Waste pH Measurement
177571	177571	7	SAMPLE	111547005	B2BVN6		Soil And Waste pH Measurement
177571	177571	8	SAMPLE	111547006	B2BVN7		Soil And Waste pH Measurement
177571	177571	9	SAMPLE	111547007	B2BVN8		Soil And Waste pH Measurement
177571	177571	10	SAMPLE	111547008	B2BVN9		Soil And Waste pH Measurement
177571	177571	11	LCS	49596	LCS		Soil And Waste pH Measurement
177749	177749	1	SAMPLE	111547001	B2BVN2		Dry Weight/Percent Moisture
177749	177749	2	SAMPLE	111547002	B2BVN3		Dry Weight/Percent Moisture
177749	177749	3	SAMPLE	111547003	B2BVN4		Dry Weight/Percent Moisture
177749	177749	4	SAMPLE	111547004	B2BVN5		Dry Weight/Percent Moisture
177749	177749	5	SAMPLE	111547005	B2BVN6		Dry Weight/Percent Moisture
177749	177749	6	SAMPLE	111547006	B2BVN7		Dry Weight/Percent Moisture
177749	177749	7	SAMPLE	111547007	B2BVN8		Dry Weight/Percent Moisture
177749	177749	8	SAMPLE	111547008	B2BVN9		Dry Weight/Percent Moisture

Quality Control Report

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111547

QC Batch 177571 **Test** Soil And Waste pH Measurement
Associated Samples 111547001, 111547002, 111547003, 111547004, 111547005, 111547006, 111547007, 111547008

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #49594**							
pH	PH		7.99	unitless	99.9	98.75 - 101.25				02/22/11
DUP			**QC Sample #49595**							
			Original 111547001							
pH	PH	8.56	8.52	unitless			0.50	30		02/22/11
LCS			**QC Sample #49596**							
pH	PH		7.97	unitless	99.6	98.75 - 101.25				02/22/11

Batch QC List

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111627

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
178183	178183	1	SAMPLE	111627001	B2C126		Dry Weight/Percent Moisture
178183	178183	2	SAMPLE	111627002	B2C127		Dry Weight/Percent Moisture
178183	178183	3	SAMPLE	111627003	B2C128		Dry Weight/Percent Moisture
178183	178183	4	SAMPLE	111627004	B2C129		Dry Weight/Percent Moisture
178183	178183	5	SAMPLE	111627005	B2C130		Dry Weight/Percent Moisture
178183	178183	6	SAMPLE	111627006	B2C131		Dry Weight/Percent Moisture
178183	178183	7	SAMPLE	111627007	B2C132		Dry Weight/Percent Moisture
178183	178183	8	SAMPLE	111627008	B2C133		Dry Weight/Percent Moisture
178183	178183	9	SAMPLE	111627009	B2C134		Dry Weight/Percent Moisture
178183	178183	10	SAMPLE	111627010	B2C135		Dry Weight/Percent Moisture
178183	178183	11	SAMPLE	111627011	B2C136		Dry Weight/Percent Moisture
178183	178183	12	SAMPLE	111627012	B2C137		Dry Weight/Percent Moisture
178183	178183	13	SAMPLE	111627013	B2C138		Dry Weight/Percent Moisture
178183	178183	14	SAMPLE	111627014	B2C139		Dry Weight/Percent Moisture
178183	178183	15	SAMPLE	111627015	B2C140		Dry Weight/Percent Moisture
178183	178183	16	SAMPLE	111627016	B2C141		Dry Weight/Percent Moisture
178183	178183	17	SAMPLE	111627017	B2C142		Dry Weight/Percent Moisture
178183	178183	18	SAMPLE	111627018	B2C143		Dry Weight/Percent Moisture
178183	178183	19	SAMPLE	111627019	B2C144		Dry Weight/Percent Moisture
178183	178183	20	SAMPLE	111627020	B2C145		Dry Weight/Percent Moisture
178196	178196	20	SAMPLE	111627021	B2C146		Dry Weight/Percent Moisture
178280	178280	1	LCS	50330	LCS		Soil And Waste pH Measurement
178280	178280	2	DUP	50331	B2C126(111627001DUP)	111627001	Soil And Waste pH Measurement

Batch QC List

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111627

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
178280	178280	3	SAMPLE	111627001	B2C126		Soil And Waste pH Measurement
178280	178280	4	SAMPLE	111627002	B2C127		Soil And Waste pH Measurement
178280	178280	5	SAMPLE	111627003	B2C128		Soil And Waste pH Measurement
178280	178280	6	SAMPLE	111627004	B2C129		Soil And Waste pH Measurement
178280	178280	7	SAMPLE	111627005	B2C130		Soil And Waste pH Measurement
178280	178280	8	SAMPLE	111627006	B2C131		Soil And Waste pH Measurement
178280	178280	9	SAMPLE	111627007	B2C132		Soil And Waste pH Measurement
178280	178280	10	SAMPLE	111627008	B2C133		Soil And Waste pH Measurement
178280	178280	11	SAMPLE	111627009	B2C134		Soil And Waste pH Measurement
178280	178280	12	SAMPLE	111627010	B2C135		Soil And Waste pH Measurement
178280	178280	13	LCS	50332	LCS		Soil And Waste pH Measurement
178280	178280	14	SAMPLE	111627011	B2C136		Soil And Waste pH Measurement
178280	178280	15	DUP	50333	B2C136(111627011DUP)	111627011	Soil And Waste pH Measurement
178280	178280	16	SAMPLE	111627012	B2C137		Soil And Waste pH Measurement
178280	178280	17	SAMPLE	111627013	B2C138		Soil And Waste pH Measurement
178280	178280	18	SAMPLE	111627014	B2C139		Soil And Waste pH Measurement
178280	178280	19	SAMPLE	111627015	B2C140		Soil And Waste pH Measurement
178280	178280	20	SAMPLE	111627016	B2C141		Soil And Waste pH Measurement
178280	178280	21	SAMPLE	111627017	B2C142		Soil And Waste pH Measurement
178280	178280	22	SAMPLE	111627018	B2C143		Soil And Waste pH Measurement
178280	178280	23	SAMPLE	111627019	B2C144		Soil And Waste pH Measurement
178280	178280	24	SAMPLE	111627020	B2C145		Soil And Waste pH Measurement
178280	178280	25	LCS	50334	LCS		Soil And Waste pH Measurement

Batch QC List

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111627

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
178281	178281	1	LCS	50335	LCS		Soil And Waste pH Measurement
178281	178281	2	DUP	50336	B2C146(111627021DUP)	111627021	Soil And Waste pH Measurement
178281	178281	3	SAMPLE	111627021	B2C146		Soil And Waste pH Measurement
178281	178281	4	LCS	50337	LCS		Soil And Waste pH Measurement

Quality Control Report

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111627

QC Batch 178280 **Test** Soil And Waste pH Measurement

Associated Samples 111627001, 111627002, 111627003, 111627004, 111627005, 111627006, 111627007, 111627008, 111627009, 111627010, 111627011, 111627012, 111627013, 111627014, 111627015, 111627016, 111627017, 111627018, 111627019, 111627020

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #50330**							
pH	PH		7.92	unitless	99	98.75 - 101.25				02/28/11
DUP			**QC Sample #50331**							
			Original 111627001							
pH	PH	7.05	7.07	unitless			0.30	30		02/28/11
LCS			**QC Sample #50332**							
pH	PH		7.92	unitless	99.1	98.75 - 101.25				02/28/11
DUP			**QC Sample #50333**							
			Original 111627011							
pH	PH	7.25	7.20	unitless			0.70	30		02/28/11
LCS			**QC Sample #50334**							
pH	PH		7.97	unitless	99.6	98.75 - 101.25				02/28/11

Quality Control Report

Attention Michael Neely
Department Wet Chemistry

Group # WSCF111627

QC Batch 178281
Associated Samples 111627021

Test Soil And Waste pH Measurement

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #50335**							
pH	PH		7.97	unitless	99.6	98.75 - 101.25				02/28/11
DUP			**QC Sample #50336**							
			Original 111627021							
pH	PH	7.59	7.48	unitless			1.50	30		02/28/11
LCS			**QC Sample #50337**							
pH	PH		7.99	unitless	99.9	98.75 - 101.25				02/28/11